

BORANG PENGESAHAN STATUS TESIS*

JUDUL : DANCE SCHOOL MANAGEMENT

SESI PENGAJIAN : SEMESTER 1 SESI 2007/2008

Saya CHEONG LANG LEY

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Lang

(TANDATANGAN PENULIS)

Alamat tetap: _____

Tarikh: 7 NOVEMBER 2007

Ameliani

(TANDATANGAN PENYELIA)

CIK INTAN ERMAHANI

Nama Penyelia

Tarikh: 07/11/07

CATATAN: *Tesis dimaksudkan sebagai Laporan Akhir Projek Sarjana Muda (PSM)
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DANCE SCHOOL MANAGEMENT

CHEONG LANG LEY

This report is submitted in partial fulfillment of the requirements for the
Bachelor of Computer Science (Software Development)

**FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
2007**

DECLARATION

I hereby declare that this project report entitled
DANCE SCHOOL MANAGEMENT

is written by me and is my own effort and that no part has been plagiarized
without citations.

STUDENT : Lang Date: 7/11/07
(CHEONG LANG LEY)

SUPERVISOR : Intan Date: 07/11/07
(CIK INTAN ERMAHANI BINTI A. JALIL)

DEDICATION

I would like to say a million thank you to my beloved parents for being there the entire time when I needed them. Thank you so much for being there and I dedicate the completion of my bachelor degree to you as a big thank you for all the sacrifices and time.

ACKNOWLEDGEMENTS

Here, I would like to wish everyone “Thank you” to those who have helped and guided me throughout my completion of ‘Projek Sarjana Muda’ directly and indirectly.

Special thanks to my supervisor, Cik Intan Ermahani binti A. Jalil, for being there whenever I needed advice and help, giving me tremendous support throughout my completion of ‘Projek Sarjana Muda’. Thank you for her endless advice and mentoring.

Thank you also to both my beloved parents for their never ending support and guidance through out my studies in Universiti Teknikal Malaysia Melaka as an undergraduate.

Thank you all.

ABSTRACT

This report is created as the final deliverables in completion of 'Projek Sarjana Muda' in partial fulfillment for Bachelor of Computer Science (Software Development) at Universiti Teknikal Malaysia Melaka. A web based system that would suit most small business enterprise companies would be built. In this project, the dance industry would be the focus. The system is entitled 'Dance School Management'. KK Dance School in Sri Hartamas, Kuala Lumpur will be the end user. This system is to allow better viewing of information like the academy information, classes' information, teachers information, and schedule. It also serves to support administrative operations like updating students' information, the academy's classes schedule and fees paid by students. Plus, it is an Internet based system which would result in a better administrative management and more portable system as well as to provide capabilities for analyzing the progress of the business with reports generated. Chapter 1 gives a brief idea on the system. Chapter 2 describes the development methodology and the literature review of the system. Chapter 3 captures the analysis of the current and proposed system. The user and system requirements will also be describe thoroughly. Chapter 4 defines the architecture view, static view, user interface design as well as the conceptual and logical database design for the system. Navigation flow and the data involved are also described. Chapter 5 describes the implementation stage. Chapter 6 describes the testing phase and Chapter 7 concludes the whole report and system. This system would be beneficial to KK Dance Studio.

ABSTRAK

Laporan ini dihasilkan sebagai hasil akhir dalam penghabisan Projek Sarjana Muda dalam sebahagian syarat graduasi Sarjana Muda Komputer Sains (Pembangunan Perisian) di Universiti Teknikal Malaysia Melaka. Satu sistem laman web yang boleh memenuhi kehendak syarikat-syarikat kecil akan dibina. Dalam projek ini, industri tarian menjadi fokus. Sistem ini berjudul 'Dance School Management'. 'KK Dance School' di Sri Hartamas, Kuala Lumpur merupakan pengguna akhir sistem ini. Sistem ini mampu membantu pengguna mencari maklumat dengan lebih senang seperti maklumat akademi, guru tarian, kelas dan masa kelas. Ia juga berfungsi membantu kerja-kerja pejabat seperti mengemaskini maklumat pelajar, masa kelas akademi dan pembayaran pelajar. Tambahan pula, ia dibina dalam laman web yang mana membantu kerja pejabat dengan lebih senang dan mudah diguna di mana sahaja. Ia juga boleh menganalisa status syarikat dengan laporan yang dipapar secara automatik. Bab 1 memberi idea mengenai sistem yang dibina. Bab 2 mengolah pembangunan methodologi dan sastera. Bab 3 membincangkan analisis sistem semasa dan yang dibina. Kehendak pengguna dan sistem juga dibincangkan. Bab 4 mendefinisikan pembangunan sistem dari segi arkitek, statik dan paparan pengguna. Bab 5 menerangkan mengenai proses implementasi. Bab 6 membincangkan proses pengujian manakala Bab 7 menyimpulkan keseluruhan sistem dan laporan. Sistem ini akan bermanfaat kepada KK Dance Studio.

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LIST OF ABBREVIATION

DSH	Dance School Management System
PSM	Project Sarjana Muda.

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CHAPTER I

INTRODUCTION

1.1 Project Background

A web based system that will suit most small business enterprise companies will be built. In this project, the dance industry will be the focus. The system title is 'Dance School Management'.

This project will be beneficial to all small business companies. In this web based system, it would benefit dance academies specifically. The project focus will be the dance industry and could be used in any dance academies. In this project, KK Dance School in Sri Hartamas, Kuala Lumpur will be the target user.

Most dance academies including KK Dance School have their own website but their website only provide information retrieving by outsiders, giving information about the school like classes' information and time table. Furthermore, there is no current management system for dance academies as dance academies are all still using the manual system which keeping their data in physical files.

In this web based system, it will be able to present viewer all related information about the school as a normal website in the internet and at the same time allow management task such as updating students' information to be done on the system. Plus, the management of the school will be able to view the progress and status of the school using report functions generated.

The target users are viewer to the web page which will be the viewer to the dance academy and also the administrative management of dance academy.

In short, the system will not only provide a good marketing tool but also as a good management tool. It will also enable analysis on the progress of the school.

1.2 Problem Statement

Most dance academies have their own website which only allow information retrieving and do not allow any managerial work to be done.

Management tasks like updating students' information, editing the schedule information and payment received for fees will need to be done offline. The management tasks are done manually such as informing on the changes of schedule by pasting a notice on notice boards, keeping students record manually in hard cover files and reaching out to parents on the latest news by words of mouth or paper notices. This will cause inconsistency in the dance academies as the management is always on the move.

Furthermore, there is no current system or any way for the dance academies to view the status or progress of the school. It would be best if there is a system that could help view the progress of the academies like showing the difference or comparison by students, or payment. The reports could allow the management of the academy to plan for the future expansion and to avoid unwanted circumstances.

With a web based system with reporting and management function in it, it would be more effective for the management of a certain company. Plus, it would be more consistent too.

1.3 Objectives

The objectives of the 'Dance School Management' project are:

- To allow better viewing of information like the academy's information, teachers' information, classes' information, schedule, and announcement
- To support administrative operations like updating students' information, editing the academy's classes schedule and recording fees paid by students
- To allow an Internet based system which would result in a better administrative management and more portable system
- To provide capabilities for analyzing the progress of the business with reports generated

1.4 Scope

The system will cater all the requirements required by KK Dance School. There would be two main users to the system. One is the user or the viewer of the system and another is the administrator of the academy.

Viewer

- Viewers of the system who would like to get information about the school. They could be the parents of students of the academy who would like to read announcements or get information. Viewer could also be outsiders or anyone from the public who would like to enquire about the academy.
- Viewers are only allowed to navigate the system in pages like main menu, schedule, teachers' information, and announcement.

Administrator

- Administrator could be the manager or administrator of the dance academy.
- Administrator has the full authorization of the system
- Administrator can enter, edit, update student's information and other data
- Administrator has the basic management authorization like updating on students information, schedule, announcement and fees paid
- Administrator can generate reports to show the business status of the school. The reports are in table form to enable better comparison and visualization. These reports would be able to show the management on the progress or downfall of the school.

In short there will be three main modules.

- View information : by Users
- Management tools : by the administrator of the school to help in administrative management tasks
- Report tools : by the administrator of the school to show the school's progress and status

1.5 Project Significance

The management from the dance academy, KK Dance School, will benefit from the success of this web based system. The web based system is important as to enable a better and more organized way in keeping track of the dance academy's daily business and its student's data. It will also allow an easier and more manageable management. Management will no longer need to go through papers of work and documentation which is time consuming.

Viewers will have an easy accessibility to all information of the dance academies. All information will be easily found from the internet.

Management functions in the system could be used to help in administrative tasks to support the studio's daily operations. This will increase the efficiency and capabilities of the studio.

Plus, reports could be generated automatically every month with a single click to view the school's progress and status. Reports are important to show the progress of the

business and at the same time help the administrator to plan for future actions that need to be taken to upgrade the business or to maintain it at a better state.

1.6 Expected Output

The system that will be developed will be able to allow viewing of information by viewers. Viewers can read the basic information about the academy form the internet.

The management will be able to use the management tools to help in management tasks as to support administrative operations with increased efficiency and capabilities.

Furthermore, the management will be able to generate reports automatically to view the school's progress and status. This will provide the capabilities for analyzing the progress of the business.

Overall, the system will be able to deliver an internet based system and help in improving the current manual system.

1.7 Conclusion

The web based system built will suit most small business enterprise companies and dance industry will be the focus of this project, KK Dance Studio. The system is entitled 'Dance School Management'. The system would be able to present viewer all related information about the academy as a normal website and at the same time allow the management of the school to be done online. There would also be reports generated for analyzing the academy's progress.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

This chapter will explain the literature review of the system which would include the current manual system, a system developed and a journal. The three findings will be explained thoroughly in the sub chapter below.

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The project methodology used in the project is also explained in this chapter. The system and software development methodology will be explained.

2.2 Facts and finding

2.2.1 Domain

The industry focused for the project is the dance industry. Dance industry in Malaysia serves as one of the education centre to students as well as adult other than tuition or development centers. Dance academies provide dance classes and training as well as workshops to educate the public on dance. Dance is a form of art as well as a

form of healthy exercise which is rapidly gaining popular demand and interest from the public.

2.2.2 Existing system

2.2.2.1 Manual System

Most of the dance academies in Malaysia including KK Dance School are still using manual system to store information and keep track of students' attendance as well as the payments made. Data are in hardcopy and kept in big files. The administrator in a certain dance academies normally accept payments and issue a manual receipt. The payment would then be stated in a record book. When there is an announcement to be made, the dance academies will need to print out hardcopies of announcement and paste it onto the notice board. Furthermore, if the dance academy plans to organize an event, it would be difficult to spread the news manually as it would only be able to be done mouth to mouth.

With the manual system, the school faces inconsistency and messiness especially when the dance academies expands and becomes bigger. There will be more students and data kept manually in files will not be advisable as getting information from selected files would be difficult and time consuming. Plus, it will be difficult to track students' performances and well as the payment made by them monthly.

Dance academies will need to slowly adapt to having a computerized system in order to keep their data safe, accurate and consistent. With a web based system, it will be able to help manage the dance academies better and at the same time, help market the dance academies.

2.2.2.2 ‘Call Analysis’ System

A system named ‘Call Analysis’ will be used as a comparison and guideline in building the project. In this project, charts are displayed automatically with a single click with data taken from the database. The charts serve as reports and will represent the status of the company as well as the data in it. With the charts, the company will be able to identify the weaker and the stronger point at certain duration of time. It will then enable the company to take certain actions or precautions in making sure the business runs smoothly. Many unwanted circumstances will be prevented.

The objective of the project was to ease the workload of the employees in the department from creating and preparing the charts manually every month. Furthermore, the accuracy of the data is always an issue as there are enormous amount of data to be accumulated every month causing error in the charts with the current manual practice.

The project was developed using the Object-Oriented Approach to allow re-use and easier maintenance in the future. Waterfall Model and Prototype approach was used as the guideline in the project. ‘Zendcore’ was being used as the middleware with ‘PHP’ as the programming language and ‘DB2 Express C’ as the database. All these software are IBM products. There was a free off the shelf program being used; ‘Chart Director’.

2.2.2.3 “The Management of End User Computing” journal

From the journal, “The Management of End User Computing”, it is understood that users facing the computer system nowadays will always prefer a better and easy to use system. Different type of users would need a different approach of interface and design in a particular system to help them master the system. In this project, a web based system.

From recent interview and research with the user concerned, it is clearly seen that users will prefer an easy to navigate system where by having a few buttons on a page is more than enough. Plus, each section should have only one sub section and not more than that as it would be confusing for the users as users have limited or no computer knowledge. It is found that users in dance academies are mostly computer illiterate. Only a small number of users have some computer knowledge.

2.2.3 Technique

The website created should have a user friendly interface to allow easier and better navigation by users. There should also be minimal navigation button with lesser sub section on each button in the web based system.

The electronic notice board created in the web system should also resemble a real notice board and information listed should be compact and sufficient. The information or notice board should be clear enough in the web site to make sure it attracts attention.

The reports created in the web based project would resemble those in the 'Call Analysis' Project. In addition, an extra feature which was to have an accounts summary report. This report is to help the management to do simple accounts and enable them to know the current monetary status.

2.3 Project Methodology

In building the project, System Development Life Cycle; SDLC would be used to support the project. System Development Life Cycle is a framework for describing the

phases involved in developing and validation of the system. It will assist in project management of the system.

The model approach used in the project is spiral life cycle which is a predictive life cycle method. This model was chosen as various refinement and adjustments will be needed during the life of developing the system. The system would be developed in an iterative or spiral approach rather than a linear approach.

Both the System Development Life Cycle framework and spiral life cycle methodology will work side by side to help develop this project.

In the initiation process of System Development Life Cycle, the system objective would be defined. The scope and problem statement would be defined too. The stakeholder and current business process are also identified for the project.

In the planning phase, the research on information and users of the system would be executed. The whole plan for the project and its constraints which include time management would be identified. Gantt chart using Microsoft Project is used to assist in the project.

In the execution process, the system would be developed according to users' requirements, system requirements and the time constraints.

In the monitoring and controlling process, measures would be taken towards the system objective and taking corrective action to match the progress of the system.

Lastly, in the closing process, stakeholders' agreement and acceptance would be seen. It would then followed by report writing to document the whole system and project. Lastly, a presentation would be arranged to deliver the system to stakeholders and users.

Below is the representation of System Development Life Cycle in diagram.

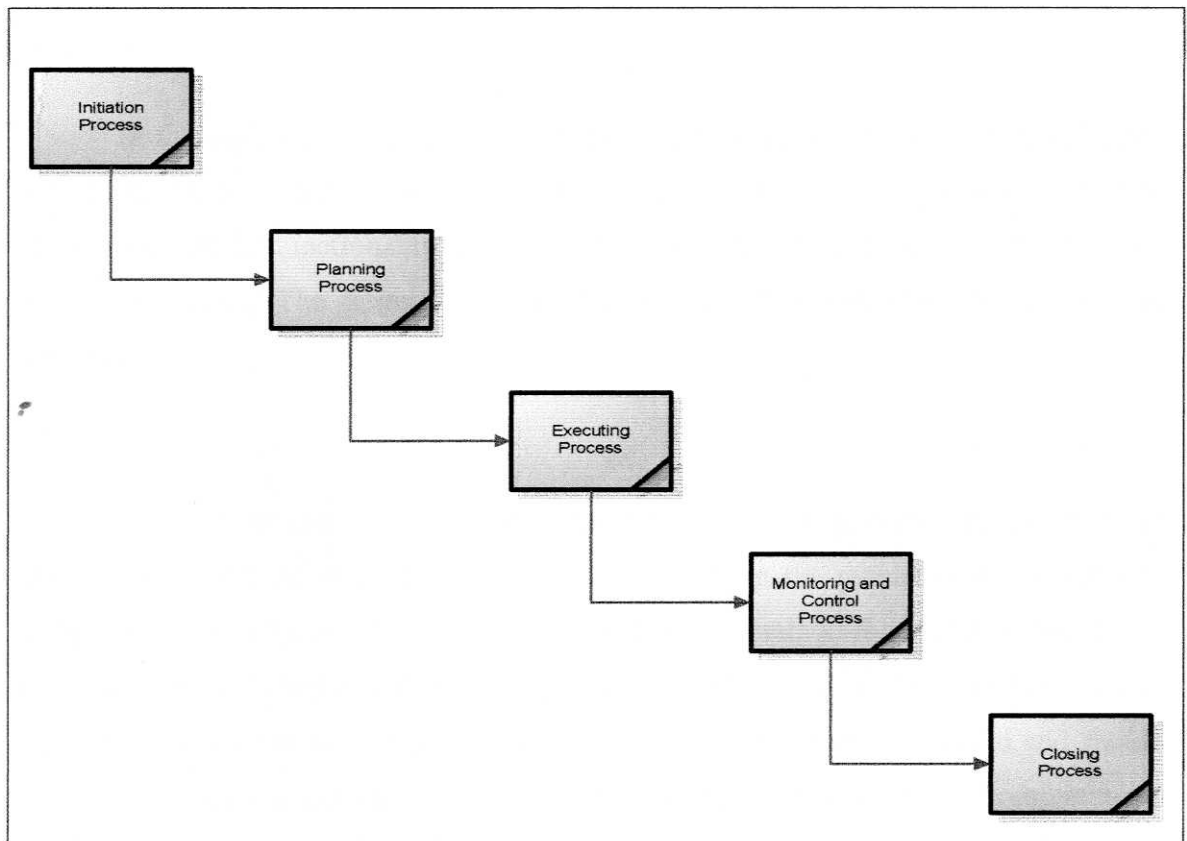


Figure 2.1: System Development Life Cycle

The approach methodology; spiral life cycle is chosen as the software process methodology. Spiral life cycle is to be presented as a spiral rather than as a sequence of linear activities.

Each loop in the spiral represents a phase of the software process. The innermost loop will represent requirements analysis and definition, the second loop will be interface design, the third loop would be system design and lastly the integration loop. Risk analysis would be done at each phase to prevent hazardous problem in the future.

As for the four sectors in the spiral life cycle, the first sector of the spiral model is objective settings phase, second sector is risk assessment and reduction phase, third sector is the development and validation phase and the last sector is planning phase.

In the beginning, the focus would be on planning and creating timeline in the project. Gantt chart is built to help coordinate with the time constraint. The content of the project and its functionality would be discussed as well as how the project would benefit the users. The targeted group of users and their behaviors would also be captured.

In the first sector of the spiral model which is objective settings, specific objectives for that phase of project would be defined in the requirement analysis and definition loop. Constraints, project risk and the system's functionality would be identified too. This is the analysis and specification phase. The focus is on the analysis of users' requirement and its specification which is what the system should and should not do. The current business process would also be examined and the requirements elucidated. Research would be done to support the findings. In the next three loops, the objective, constraints and specification will be redefined and refined.

In the second sector; risk assessment and reduction sector, a detailed analysis would be carried out for each risk identified and the measures to be taken. In all loops,

risk would be assessed and steps to be taken would be evaluated. A prototype might be developed.

The next sector is the development and validation phase. In the first loop, the requirements would be developed and validated. Each object and component would be defined too. The system would be made to meet the specification closely. In the second loop which is the interface design, interface would be developed as planned and later validated to make sure it meets the requirements criteria. The design of the software structure which would include the interface and its linking would be created first. For each sub-system, its interface with other sub-system will be designed and documented. It would then be implemented in the next loop which is system design. In this loop, the system specification would be converted into an executable system. The system would then be validated according to the user requirements and the design verified. The whole process would again be reviewed and the system tested. Unit testing, module testing and system testing would be used with test data to disclose errors. In the last loop, the whole system will be seen as a whole and testing will be done again. The design and implementation phase as well as validation and testing phase are interleaved. Both this phases would depend on each other. There are no fixed phases between these two.

In the last sector; planning, the system will be reviewed and re-examined again and next phase of the spiral will be planned if there is a need. This will continue until the development has satisfied the requirements and accepted by stakeholders. In this project, after the first loop has completed, the second loop will be planned and this process goes on until the last loop has been completed.

Below is the representation of spiral life cycle methodology in diagram.

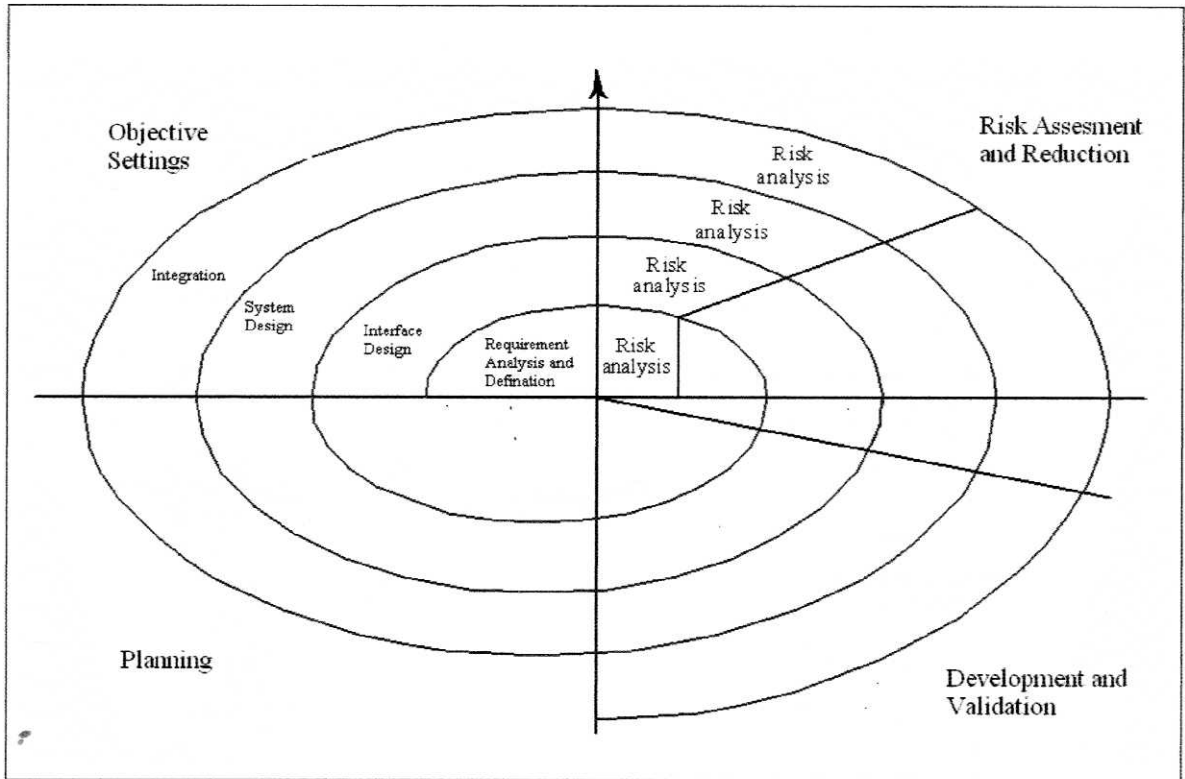


Figure 2.2: Spiral Life Cycle Methodology

Below is the representation of the overall project methodology in diagram.

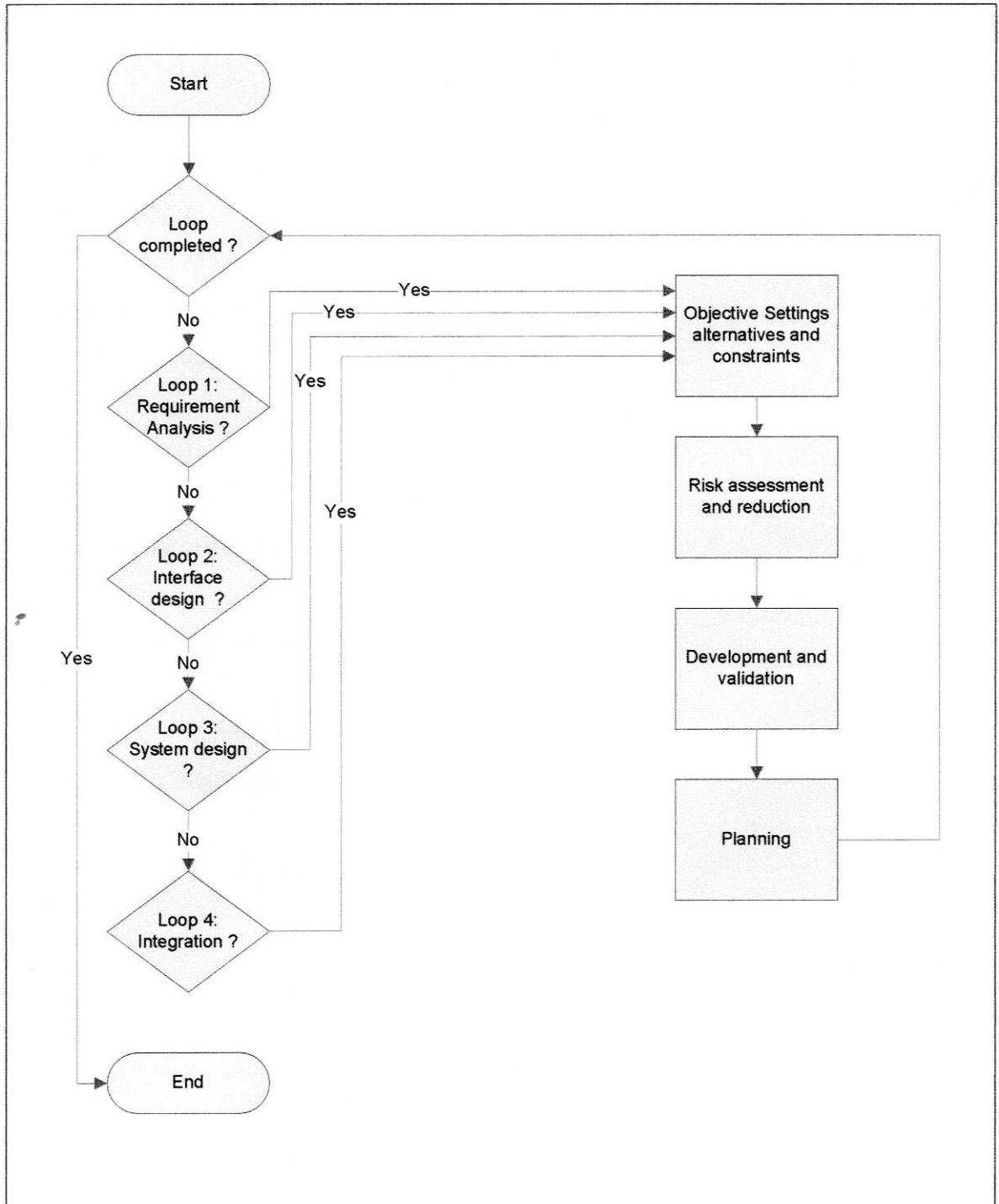


Figure 2.3: Flowchart of project methodology used

2.4 Project Requirements

2.4.1 Software Requirement

- Web servers : 'Apache HTTP Server'
- Web browsers : 'Mozilla Firefox'
- Programming Language : 'PHP'
- Database : 'MySQL'
- Project Management : 'Microsoft Project'
- Development Tool : 'Rational Rose'
- Reporting : 'Microsoft Words'
- Editing : 'Adobe Photoshop'

2.4.2 Hardware Requirement

- One personal computer

2.4.3 Other Requirements

- Internet Connection

2.5 Project Schedules and Milestone

2.5.1 Project Schedule

1.0 Pre-planning	8 days	Wed 5/9/07	Fri 5/18/07
1.1 Seminar on PSM 1	1 day	Wed 5/9/07	Wed 5/9/07
1.2 Submission of Proposal	2 days	Thu 5/10/07	Fri 5/11/07
1.3 Proposal Confirmation	5 days	Mon 5/14/07	Fri 5/18/07
2.0 Planning and Analysis	15 days	Mon 5/21/07	Fri 6/8/07
2.1 Project Plan and Methodology	10 days	Mon 5/21/07	Fri 6/1/07
2.2 User Requirement Analysis	2 days	Mon 6/4/07	Tue 6/5/07
2.3 Literature Review	2 days	Mon 6/4/07	Tue 6/5/07
2.4 System Requirement Analysis	2 days	Wed 6/6/07	Thu 6/7/07
2.5 Develop Project Requirements	2 days	Thu 6/7/07	Fri 6/8/07
3.0 Initial Design	4 days	Mon 6/11/07	Thu 6/14/07
3.1 Creating site map	1 day	Mon 6/11/07	Mon 6/11/07
3.2 High Level Design	3 days	Tue 6/12/07	Thu 6/14/07
3.3 Detailed Design	2 days	Wed 6/13/07	Thu 6/14/07
4.0 Final Reporting of PSM 1	5 days	Mon 6/18/07	Fri 6/22/07
4.1 Compilation of PSM 1 report	5 days	Mon 6/18/07	Fri 6/22/07
5.0 Closing of PSM1	5 days	Mon 6/25/07	Fri 6/29/07
5.1 Presentation	5 days	Mon 6/25/07	Fri 6/29/07
6.0 PSM 2 Planning	2 days	Mon 7/9/07	Tue 7/10/07
6.1 Planning of PSM2	2 days	Mon 7/9/07	Tue 7/10/07
7.0 Design	18 days	Wed 7/11/07	Fri 8/3/07
7.1 Creating database and detail design	18 days	Wed 7/11/07	Fri 8/3/07
8.0 Implementation	46 days	Mon 8/6/07	Mon 10/8/07
8.1 Creating Implementation report	25 days	Mon 8/6/07	Fri 9/7/07
8.2 Creation of system	46 days	Tue 8/7/07	Mon 10/8/07
9.0 Testing	23 days	Mon 9/10/07	Wed 10/10/07
9.1 Planning on testing	2 days	Mon 9/10/07	Tue 9/11/07
9.2 Creating testing design	4 days	Wed 9/12/07	Mon 9/17/07
9.3 Testing System	8 days	Mon 10/1/07	Wed 10/10/07
10.0 Final Reporting	8 days	Wed 10/10/07	Fri 10/19/07
10.1 Compilation of Final Report	8 days	Wed 10/10/07	Fri 10/19/07
11.0 Closing of PSM	16 days	Mon 10/22/07	Mon 11/12/07
11.1 Presentation	7 days	Mon 10/22/07	Tue 10/30/07
11.2 PSM Final Report Final Submission	9 days	Wed 10/31/07	Mon 11/12/07

Figure 2.4: Project Schedule of PSM

2.5.2 Milestone

Table 2.1: Milestone of PSM

Activity	Date Started	Date Ended	Deliverables
1. Seminar on PSM 1, lecturer selection and proposal writing.	7 th May 2007	11 th May 2007	Proposal
2. Writing the introduction and planning	14th May 2007	17th May 2007	Chapter 1
3. Research on literature review and deciding on the project methodology	21 st May 2007	31st May 2007	Chapter 2
4. Analyzing of user and system requirements. Research on the current and proposed system	1 st June 2007	8 th June 2007	Chapter 3
5. Creating the initial high-level design, and system architecture of the system	11th June 2007	15th June 2007	Chapter 4
6. Compilation and finalizing on PSM 1 report	18th June 2007	22nd June 2007	PSM 1 Final report

7. PSM 1 Final Presentation Preparation	25th June 2007	29th June 2007	PSM 1 Final presentation
8. Creating the high-level design, system architecture, database design and detailed design of the system	9th July 2007	3rd August 2007	Final copy of Chapter 4
9. Creating the implementation design and creating system	6th August 2007	7th September 2007	Chapter 5 and 20% of project
10. Creating the testing plan, design and continuing on system implementation	10 th September 2007	28th September 2007	Chapter 6 and 60% of project
11. Project Demonstration	1 st October 2007	12th October 2007	Completion of 80% of project
12. Creating the final report draft	15 th October 2007	19th October 2007	Final report draft
13. PSM presentation	22 nd October 2007	30th October 2007	PSM presentation
14. Correction on final report/ thesis	1 st November 2007	9th November 2007	Corrected final report/thesis
15. Final Report/ Thesis Submission	9th November 2007	12th November 2007	Final Report/ Thesis submission

2.6 Conclusion

This chapter has clearly explained the literature review as well as the project's methodology. It also shows the project schedule and milestone. The next activity is to analyze the current system and defined the functional and non-functional requirements of the project. The problem statement would also be defined.

CHAPTER III

ANALYSIS

3.1 Introduction

This chapter will describe and provide complete information on the analysis of the current manual and system developed.

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The user and system requirements will also be describe thoroughly. These are divided into different sections namely the data requirement, functional requirement, non-functional requirement and other requirements.

3.2 Problem Analysis

This section of the chapter will explain the current manual system as well as the system developed thoroughly. It would present the analysis view of both the current and system developed.

3.2.1 Current Manual System

In the current market, there is no electronic system in any dance academies. Most of the schools' administrative tasks are done manually by hand. Records are all recorded down on paper or thick note books and stores in big files.

When a new students register, the details of the particular student would be recoded manually on paper. The paper containing the student's information would be kept in the students' file and kept at the cupboard with plenty of paper files. This would make the process of finding students' information difficult. For example, if the administrator needs to call a student's parents, the administrator would need to go through stacks of paper to find the student's phone number. This process is time consuming and makes the administration unproductive. If during a time of emergency, it might cause unwanted result.

Every payment received from students is recorded in the payment book. Students would be given a manual receipt as acknowledgement to the payment received. Keeping the records on paper would make it difficult for the administrator to keep track on students whose fees are overdue. For example, if there are more than 400 students in the academy, it is difficult to keep track and trace unpaid fees. In short, this makes the academy inefficient and might cause money lost.

Class schedule is written on paper and kept in files for the administrator record. If students need to know of a particular schedule for class, she or he would need to ask at the counter. This would not be efficient.

Furthermore, if there is an announcement to be made, it would be difficult as the administrator might need to call students one by one which would be hazardous and almost impossible if the amount of students that need to be called exceed 100 students. Plus, calling through phone would be expensive. Some administrator would opt to inform on the announcement by putting up a notice on the notice board in the studio. The problem with this is that most parents do not stay or come into the dance academies frequently. Most of them would only send their children for class and drive off. They would only be back to pick their children up. This make it difficult for parents to be aware of any announcement made in the academy.

In addition, some viewers from the outside of the academy may want to know more about the academy's information but may be shy to walk into the academy to enquire. With a web based system viewers could easily acquire information about the school through the internet. There would not be any hassle to visit the academies of their choice.

There are some currently available management systems in the market but they do not cater appropriately for dance academies. Some functions in these systems would be too much or too little for dance academies.

The business process of the current manual system is shown with a diagram in Appendix 1.2.

3.2.2 Proposed System

With the problem raised by current manual system, the web based system created would ensure a user friendly, more manageable and helpful system. The web based system is to help ease the workload of the administrator and convert the current manual business process to a simple and understandable computerized web based system to enable easier navigation and upgrading.

In the system, the administrator would be able to use three main modules of the system which are 'View Information', 'Management Tool and 'Report Tool'. Viewers would only be able to use the 'View Information' module.

Below is the use case diagram of the system developed.

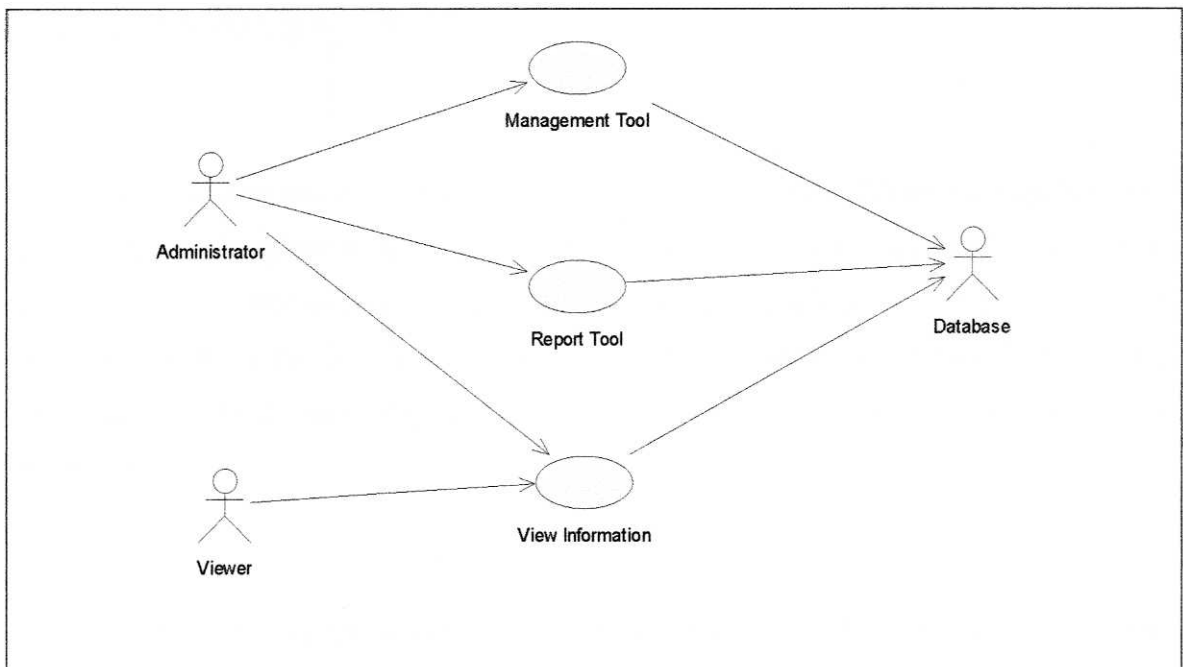


Figure 3.1: Use case Diagram of 'Dance School Management' System

'View Information' module would only allow non-confidential information of the academy to be view by the public to provide them with the dance academy information. Examples of information are the basic academy's details, the academy's instructors and principals, announcements board and schedules.

'Management Tool' module is to be used by the administrator of the school to help in administrative management tasks. For example, keeping students' information electronically and recording down students' payment electronically.

'Report Tool' module is used by the administrator of the school to show the school's progress and status. The reports are shown in charts to help in analyzing the school's progress.

The web based system on the outer look in the internet would provide information retrieving by outsiders.

The administrator has full authorization of the system. When entering the web based system, the administrator would need to sign in the web based system. This is to ensure correct authorization and maintaining the academy's confidentiality. If authorization is successful, there would be a main menu for selection which consists of 'Management Tool' and 'Report Tool'. If unsuccessful, the sign in page would be prompt again.

In the 'Management Tool' menu, there would be a few functions which are 'Student Data', 'Payment', 'Cash in', 'Cash Out', 'Schedule' and 'Announcement'. 'Student Data' function is to record, update and deletes student's information of the

academy. 'Payment' function is to record down payment received by students of the academy every monthly. 'Cash In' function is to record down any cash that comes in to the dance academy. 'Cash Out' function is to record down any cash that goes out from the dance academy like paying bills or buying stationeries. 'Schedule' function is to key in or edit the latest schedule of the academy. 'Announcement' function is to key in the latest information or announcement of the academy. Only the administrator is allowed to edit the schedule and announcement. Viewers could only read the schedule and announcement in the web.

In the 'Report Tool' menu, there would be functions like 'Payment Summary by Month', 'Schedule Summary by Day', 'Type of Dances Summary', 'Schedule Summary by Level', 'Age Group Summary' and 'Accounts Summary by Month'. All these functions would allow the administrator to view the progress of the academy according to students, schedule and payment. The reports would be delivered in charts to enable easier understanding and viewing.

The web based system would provide consistent interface throughout the whole web based system to ensure the administrator and viewers are not lost and that they are still in the web system at all times. In addition, the background color, font color and theme color will be synchronized. There will also be a site map which would be available for all users. With this site map, users will be able to see the system as one picture to allow navigation and better control of the system. Users will know where to search for information and functions needed.

The business process of the system developed is shown with a diagram in Appendix 1.3.

3.3 Requirements Analysis

3.3.1 Data Requirement

There are numerous data to be included in the system.

In the web page before signing in as an administrator, all the data on the web page are written onto it. It would be typed in during the web designing stage.

In order to be able to sign in as an administrator, a username and password would be necessary to validate the sign in. These data are kept in the 'admin' table.

After successful authorization by the administrator, there are a few functions which preserve data and are treated as critical. One of the functions is the 'Student' function as all students' related information is confidential and recorded down. Examples of information are names, telephone number, age, identification card number, address and level of study and guardian name. All these data are kept in the 'student' table.

In the 'Payment' function, the students' names with the amount of fees paid per month are recorded in the 'payment' table. This is to input and record down the payment received electronically. It is also to allow easy tracking of students with overdue fees. As a result, the administrator could easily check the overdue fees and remind the respective students.

In the 'Cash in' function, all cash in or debit of the academy will be recorded down to allow simple accounting to be calculated at the end of the month. Examples of cash in are 'cash from bank', 'cash from director' and so on. The administrator could easily check the total cash in or income of the academy and the balance of the month.

In the 'Cash out' function, all cash out or credit of the academy will be recorded down in the 'cashout' table to allow simple accounting to be calculated at the end of the month. Examples of cash out are 'bills payment', 'payment for stationeries' and so on. The administrator could easily check the total cash out or usage of the academy and the balance of the month.

In the 'Schedule' function, the time and type of dance classes of each day in the week are recorded down and displayed in a table manner. All these details are stored in the 'schedule' table. The days are Monday, Tuesday, Wednesday, Thursday, Friday, Saturday and Sunday.

The 'Announcement' function will save the announcement and date published in the 'announcement' table.

All the data recorded in would be stored in the database. Only certain particular information will be output on to the website. The information allowed to be displayed in the Internet for the public viewing is the schedule and announcement.

In the 'Report Tool', data would be extracted from the database and displayed in charts to be viewed by the administrator. The charts serve as the progress and status report of the academy.

Table 3.1: Data dictionary

TABLE NAME	ATTRIBUTE NAME	CONTENTS	TYPE	FORMAT	REQUI RED	PK / FK	FK REFERENCED TABLE
ADMIN	USERNAME	Username	VARCHAR(15)	Xxxxxxxxxxxx	Y		
	PASSWORD	Password	VARCHAR(10)	Xxxxxxxxxxxx	Y		
STUDENT	ID	Student Identification	DECIMAL(10)	Xxxxxxxxxxxx	Y	PK	
	NAME	Student's name	CHAR(35)	Xxxxxxxxxxxx	Y		
	IC	Birth	VARCHAR(12)	Xxxxxxxxxxxx	Y		
		Certification or Identification					
		Card Number					
		PHONE	Contact Number	DECIMAL(10)	Xxxxxxxxxxxx	Y	
		ADDRESS	Student's address	VARCHAR(50)	Xxxxxxxxxxxx	Y	

	GUARDIAN	Guardian's name	CHAR(35)	Xxxxxxxxxxxx	Y	
	LEVEL	Level	CHAR(15)	Xxxxxxxxxxxx	Y	
	AGE	Age	VARCHAR(30)	Xxxxxxxxxxxx	Y	
CASHIN	ID	Receipt Number	INTEGER(10)	Xxxxxxxxxxxx	Y	
	DAYCASHIN	Day of Cash in	INTEGER(2)	Xx	Y	
	MONTHCASHIN	Month of Cash in	VARCHAR(20)	Xxxxxxxxxxxx	Y	
	YEARCASHIN	Year of Cash in	INTERGER(4)	Xxxx	Y	
	DESCRIPTIONCASHIN	Description	VARCHAR(50)	Xxxxxxxxxxxx	Y	
	AMOUNTCASHIN	Amount	VARCHAR(10)	Xxxxxxxxxxxx	Y	
CASHOUT	ID	Receipt Number	INTEGER(10)	Xxxxxxxxxxxx	Y	
	DAYCASHOUT	Day of Cash out	INTEGER(2)	Xx	Y	
	MONTHCASHOUT	Month of Cash out	VARCHAR(20)	Xxxxxxxxxxxx	Y	

	YEARCASHOUT	Year of Cash out	INTERGER(4)	Xxxx	Y		
	DESCRIPTIONCASHO UT	Description	VARCHAR(50)	Xxxxxxxxxxxx	Y		
	AMOUNTCASHOUT	Amount	VARCHAR(20)	Xxxxxxxxxxxx	Y		
PAYMENT	ID	Payment Identification	INTEGER(10)	Xxxxxxxxxxxx	Y		
	DAY	Payment Day	INTEGER(2)	Xx	Y		
	MONTHPAYEE	Payment Month	VARCHAR(20)	Xxxxxxxxxxxx	Y		
	YEAR	Payment Year	INTEGER(4)	Xxxxxxxxxxxx	Y		
	NAME	Student's name	CHAR(35)	Xxxxxxxxxxxx	Y		
	MONTH	Payment for Month	CHAR(10)	Xxxxxxxxxxxx	Y		
	LEVEL	Level	CHAR(15)	Xxxxxxxxxxxx	Y		
	AMOUNT	Amount of pay	INTEGER(5)	Xxxx	Y		
SCHEDULE	ID	Schedule identification	INTEGER(10)	Xxxxxxxxxxxx	Y		

DAY	Day of the week	CHAR(10)	Xxxxxxxxxx	Y	
TIME	Time of the class	CHAR(20)	Xxxxxxxxxx	Y	
TYPEOFDANCES	Classes offered	VARCHAR(50)	Xxxxxxxxxx	Y	
LEVEL	Level of class	CHAR(15)	Xxxxxxxxxx	Y	
ANNOUNCEMENT	Announcement	INTEGER(10)	Xxxxxxxxxx	Y	
ID	Identification	CHAR(10)	Xxxxxxxxxx	Y	
DATE	Date published	VARCHAR(50)	Xxxxxxxxxx	Y	
ANNOUNCE-MENT	Announcement				

3.3.2 Functional Requirement

In the system, only the administrator has the authority to use the three main modules of the system which are 'View Information', 'Management Tool' and 'Report Tool'. Viewers would only be able to use the 'View Information' module.

The web based system before signing in would represent as a normal website giving basic information about the academy. This is the 'View Information' module. On the homepage, there would be some pictures and simple information on the academy. 'About Us' would be another page on the website. This page would explain and give information regarding the academy. There would also a 'The People' page where by it would present the information on the director, manager and teacher. 'Dances' page will give brief information on the type of dances offered in the academy. 'Schedule' page would show the latest schedule and 'Announcement' would show the latest announcement or events. 'Site Map' will show the site map of the web pages. There would also be a 'Contact Us' page where by viewers could send enquiries for the academy's administrator's attention.

The activity and sequence diagrams for 'View Information' module are shown in Appendix 1.4.

After successful sign in by administrator, there would be a main menu with two sub menu which are 'Management Tool' and 'Report Tool'.

In 'Management Tool' module which is the 'Management Tool' menu, there would be a few functions which are 'Student Data', 'Payment', 'Cash in', 'Cash out', 'Schedule' and 'Announcement'.

The administrator could enter students' information into the system's database. This is provided in the 'Student Data' function. There would be a list of text boxes with required information to be filled in. The administrator would need to key in all information of a particular student. By clicking 'Submit', the student's information would be saved. Each new student would be given an identification number; id.

The 'Payment' function would enable recording of information when students pay their fees. There would be a list of information for the administrator to key in for the payment details. Examples of data are date of payment, month of payment, year of payment, payment for the certain month and the amount paid. All the details would be kept in the system's database when 'Submit Payment' is clicked.

There would also be a 'Cash In' function. In this function, the administrator would be able to record down all cash in or debits particulars. This would enable the accounting process to be calculated and time saving, making the process more productive. All the details would be kept in the system's database when 'Submit Cash In' is clicked.

The 'Cash Out' function would enable the administrator to record down all cash out or credits particulars. This would enable the accounting process to be calculated and time saving, making the process more productive. The monetary balance of each month could be calculated.

The 'Schedule' function would enable the administrator to edit and key in the latest schedule. The schedule would then be made available to the public for viewers' information.

The 'Announcement' function would enable the administrator to edit and key in the latest announcement or events. The announcement board would be made available to the public and parents' information. The announcement board is a good place for viewers to know what the academy has to offer at the newest.

The activity diagram and the sequence diagrams for 'Management Tool' module is shown in Appendix 1.4.

In 'Report Tool' module which is the 'Report Tool' menu, there would a few functions namely 'Payment Summary by Month', 'Schedule Summary by Day', 'Type of Dances Summary', 'Schedule Summary by Level', 'Age Group Summary' and 'Accounts Summary by Month'. In these functions, the reports would be represented in charts. It would be divided into a few different segments according to the students, schedule and payment.

The activity diagram and the sequence diagrams for 'Report Tool' module is shown in Appendix 1.4.

3.3.3 Non-Functional Requirement

Operational requirement for the system is very critical as the system is a web based system and most of the administrative task would be dependent on the system. The system should be able to work on any web at any time and any where.

The performance requirement covers the speed, capacity and reliability of the system. When the administrator would like search for a student's information, the system

should give respond in less than 1 minute if the record is less than 100 records. This is to ensure the system runs smoothly and would not drag the whole system.

The security requirement in this web based system is very important to with hold some of the confidentiality data of the academy. Therefore, username and password are important to ensure correct authorization into the system. Only the allowed authorized personal should be allowed to use the system.

Usability requirement is to ensure the web based system is useable at any time without constraints. The system should be able to be used at anytime 24 hours a day to ensure the business process runs smoothly and enable the administrator to update or edit any details at anytime.

* The accuracy of the data when viewing the academy's progress through the report tool would be very accurate as raw data are taken directly from the database itself making sure the data are correct. With this, it could ensure a more efficient analysis of the academy's progress.

3.3.4 Other Requirement

Software requirement for the system is to have a web server 'Apache HTTP Server'. This web server is used as the communication tool for programming language, 'PHP' and the database, 'MySQL'. Both these software works well together for developing web system or application.

The hardware required is a personal computer to allow development for the web based system. This web based system need not a big workstation for building it as it is developed using light weight developing tool.

Other software needed in building of this project are 'Microsoft Project' for project management to help in creating Gantt Chart, 'Rational Rose' as the development tool to help in creating diagrams such as Use Case Diagrams, Sequence Diagrams and Activity Diagrams, 'Microsoft Words' for reporting, 'Adobe Photoshop' for editing pictures and graphics needed in the web based system and 'Microsoft Visio' for creating flowchart.

There would be a need for internet connection to test its availability through the web. Internet is also necessary to help confirm and test the effectiveness of the web based system.

3.4 Conclusion

This chapter has clearly explained the current manual system and system developed with a thorough analysis. The next activity is the design of the system developed. It would be described from its detailed design, high-level design, system architecture, user interface design and database design.

CHAPTER IV

DESIGN

4.1 Introduction

This chapter defines the architecture view, static view and the user interface design for the system. Each interfaces of the system will have a clear description on what it does. This chapter also describes the conceptual and logical database design. Navigation flow as well as the data involved is also described.

4.2 High-Level Design

This sub chapter describes and defines the system architecture view of the system, user interface design, navigation design and its related data.

4.2.1 System Architecture

The architecture of the system being built is structured into three layers or tiers namely the presentation layer, application processing layer and data management layer.

The presentation layer will act as the interface between the system and the user or client, in this case, the viewer and the administrator. The application processing layer will act as the processing manager whereby all processes will be processed and executed here. The data management layer will act as the database or storage manager for the system.

In this system, the presentation layer is the system interfaces where the viewer or the administrator uses to communicate with the system. The application processing layer consists of web server, 'Apache HTTP Servers' where by it connects with 'PHP' language. The data management layer acts as storage to keep data where by in this system would be 'MySQL'.

Below is the architecture view of the system in diagram.

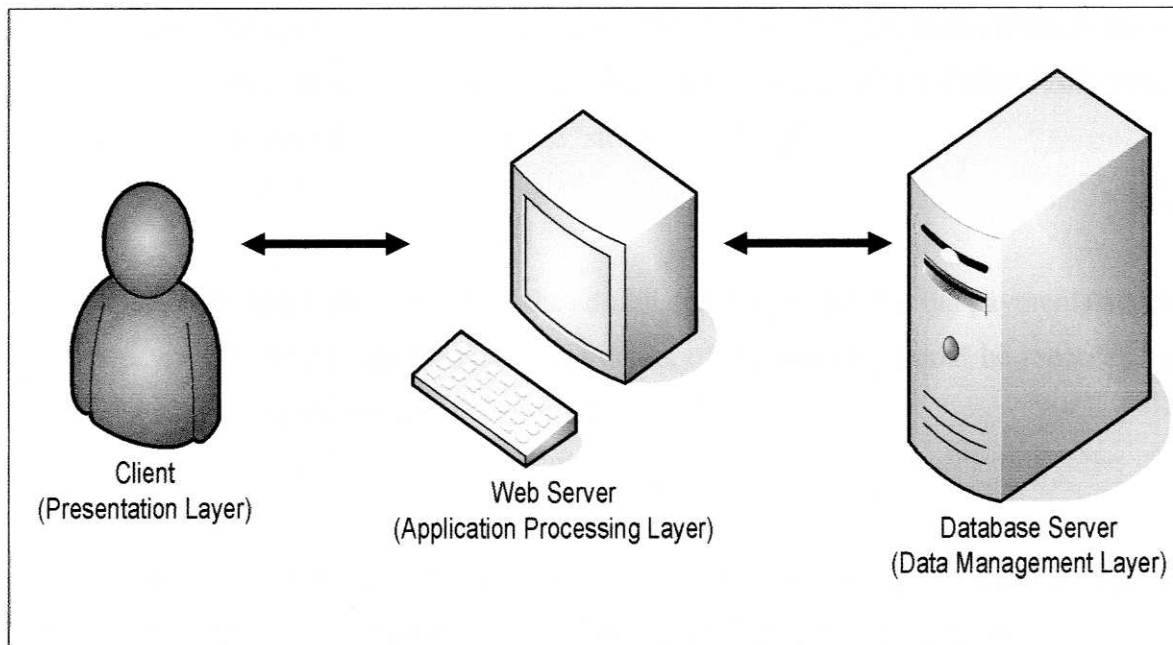


Figure 4.1: System Architecture Diagram

In the system, there are a few tables where by data are kept in it. The tables in the database are 'admin', 'cashin', 'cashout', 'student', 'schedule', 'payment' and 'announcement'.

When an administrator wants to enter the system, he or she will need to enter an authorized username and password on the main interface. These data are kept in the 'admin' table. These authorizations are to keep the system free from unauthorized personnel.

After successful authorization, the administrator can edit students' information, update the schedule as well as the announcement and record down payments made by students. Each of these functions could be selected from the 'Management Tool' menu.

In edit students' information, administrator will be able to edit, update or add students' information such as their centre identification number; id, name, identification number; ic, phone number, address, guardian name and level of dance. All these information are kept in the database in the 'student' table.

When students make payment, the administrator could record the payments made in the 'payment' table in the database. The debits of the academy could be recorded in 'cashin' while the credits in the 'cashout' table.

The administrator could also update the schedule as well as the announcement. The data are kept in the 'schedule' and 'announcement' table in the database.

In the 'Report Tool' menu, the administrator could select which view of reports he or she wishes to see. The data needed to generate these reports are taken from the database's tables.

The administrator as well as viewer could view the basic information from the internet. For example, viewer could view the latest announcement as updated by the administrator from the system. Another example is viewer to view the latest updated schedule.

The class diagram of the system is shown in Appendix 1.5.

4.2.2 User Interface Design

When the web page is displayed in the internet, viewers or the administrator would see a front page of the system which is the academy's logo. After clicking on the 'Enter' button, viewer or the administrator would be able to click on any of the main menu buttons on the web page to view the academy's basic information. The buttons are 'About Us', 'The People', 'Dances', 'Schedule', 'Announcement', 'Site Map', 'Contact Us' and 'Sign In'.

'About Us' will give a brief description of the academy. The 'The People' button will allow a sub menu being displayed below the main menu buttons. By clicking on any of the sub menu which is 'Director', 'Teacher' or 'Manager', it would then show another web page with the specific information selected.

'Dances' will show the basic information on the type of dances offered in the academy. 'Schedule' and 'Announcement' will display the current updated schedule and announcement. 'Site Map' will help users to navigate the web page.

The administrator would need to sign in on the main page in order to fully use the system by clicking on the 'Sign In' button on the web page. User name and password is needed for authorization. After keying in the user name and password, 'Sign In' button is clicked. With successful authorization, the administrator would then enter the main menu page and be able to edit students' data, update announcement or schedule and record payment.

In the administrator main menu, there are two main button; 'Management Tool' and 'Report Tool'. If the administrator clicks on the 'Management Tool' button, the administrator would come to the management menu page with a few buttons namely 'Student Data', 'Payment', 'Cash In', 'Cash Out', 'Schedule' and 'Announcement'.

If the administrator selects 'Student Data', the administrator would then be able to add new record, edit or delete a record. Each record would be saved to the 'student' table in the database after the administrator click the 'Submit' button. After that, a notification message would be displayed to notify the administrator of the changes in the record; 'student' table.

If the administrator selects 'Payment', the administrator would be able to add a new record of payment with details such as students' name, id, month of payment and the amount of payment. After that, a notification message will be displayed to notify the administrator of the changes in the record; 'payment' table.

If the administrator selects 'Cash In', the administrator would be able to record down the academy's debits and income other than monthly payments from students. It will be recorded in the 'cashin' table.

If the administrator selects 'Cash Out', the administrator would be able to record down the academy's credits and expenses. It will be recorded in the 'cashout' table.

If the administrator selects 'Schedule', the administrator would then be able to add a new schedule or edit a schedule with the date, day of changes or addition, time of class and the type of class. After that, a notification message will be displayed to notify the administrator of the changes in the record; 'schedule' table.

If the administrator selects 'Announcement', the administrator would be able to add a new announcement with the date and announcement. After that, a notification message will be displayed to notify the administrator of the changes in the record; 'announcement' table.

Appendix 1.6 shows the initial interface design of the system.

4.2.2.1 Navigation Design

The following page shows the structure chart of the system giving an overview of the system as a whole. It has three main modules which are the 'Management Tool', 'Report Tool' and 'View Information'. The administrator has full authorization to the three modules with successful sign in. The viewer would only be able to use the 'View Information' module which is to get the basic information about the academy.

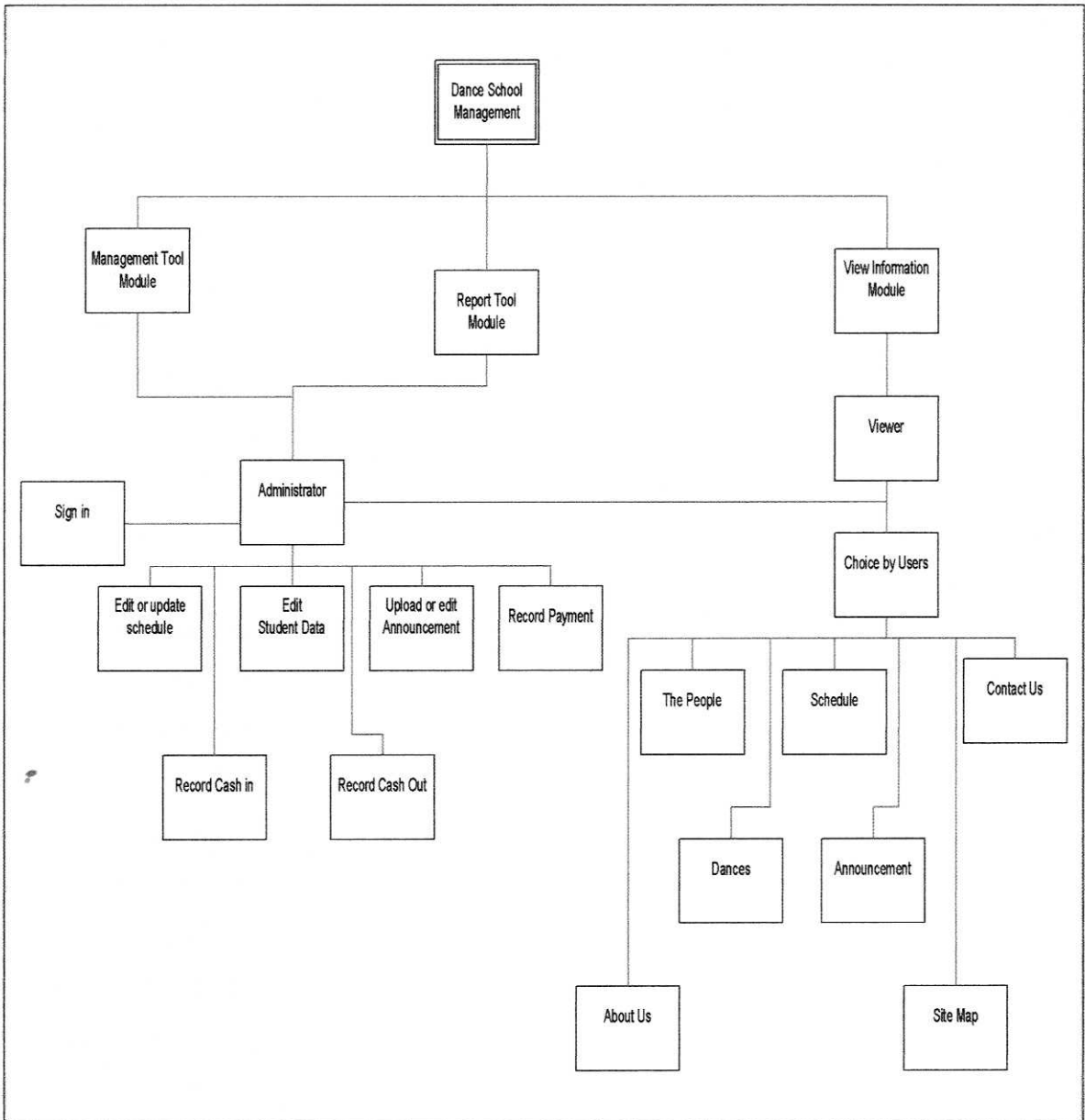


Figure 4.2: Structure Chart

Site map for the system is as below:

1.0 About Us
1.1 Aims and Aspiration
1.2 Targets
1.3 Objective
2.0 The People
2.1 Director
2.2 Manager
2.3 Teacher
3.0 Dances
4.0 Schedule
4.1 Monday
4.2 Tuesday
4.3 Wednesday
4.4 Thursday
4.5 Friday
4.6 Saturday
4.7 Sunday
5.0 Announcement
6.0 Site Map
7.0 Contact Us
8.0 Sign In

Figure 4.3: Site map

4.2.2.2 Input Design

Table 4.1: Input Design

User	Form/ Page Name	Data	Type of inputs	Form of input	Pre-form/page	Post-form/page
Viewer	Contact Us	Name	Text	Keyboard	Website main page	Notification message
		Address	Text	Keyboard		
		Phone Number	Number	Keyboard		
		Message Title	Text	Keyboard		
		Message	Text	Keyboard		
Administrator	Sign in	Username Password	Text Text	Keyboard Keyboard	Website main page Sign in	Administrator Main menu Management Menu
	Administrator Main menu	-	Selection button	Mouse		
	Management menu	-	Selection button	Mouse	Main menu	Student or Payment or Cash In or

	Month Year Name MonthPay Level Amount	Text Number Text Text Text Number	Keyboard Keyboard Keyboard Keyboard Keyboard Keyboard			
Schedule page	ID Day Time ClassType Level	Number Text Text Text Text	Keyboard Keyboard Keyboard Keyboard Keyboard	Management menu	Notification message	
Announcement page	ID Date Announcement	Number Text Text	Keyboard Keyboard Keyboard	Management menu	Notification message	
Payment Summary by Month Page	-	Acceptance button	Mouse	Report menu	Report chart	
Schedule Summary by Day Page	-	Acceptance button	Mouse	Report menu	Report chart	

	Type of Dances Summary Page	-		Acceptance button	Mouse	Report menu	Report chart
	Schedule Summary by Level Page	-		Acceptance button	Mouse	Report menu	Report chart
	Age Group Summary Page	-		Acceptance button	Mouse	Report menu	Report chart
	Accounts Summary by Month Page	-		Acceptance button	Mouse	Report menu	Report chart

4.2.2.3 Output Design

Table 4.2: Output Design

User	Form/ Page Name	Type of outputs	Form of output	Duration	Pre-form/ page
Viewer	All pages in the website	Diagrams and wordings of information	Text	Adhoc basis – whenever necessary	Website main page
Administrator	All forms in Management Menu	Notification message	Text	Adhoc basis – whenever necessary	Management Menu
	All function in Report menu	Charts	Charts	Adhoc basis – whenever necessary	Report menu

4.2.3 Database Design

This sub chapter describes and defines the conceptual and logical database design of the system. It would be shown through entity relationship diagram and data dictionary.

4.2.3.1 Conceptual and Logical Database Design

Below is the entity relation diagram; ERD for the system.

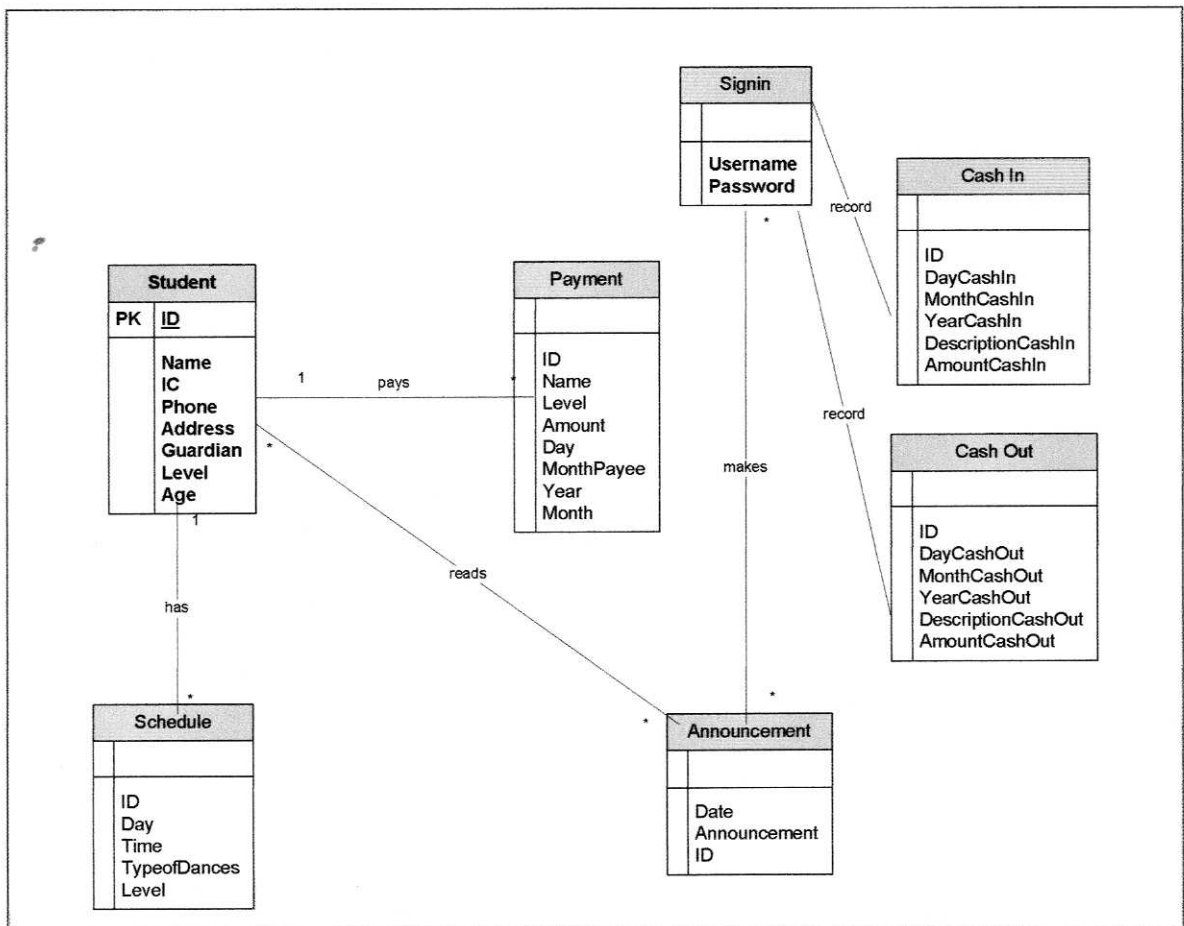


Figure 4.4: Entity Relationship Diagram

Business Rules:

- The administrator has full authorization of the whole system.
- Once a new student register, a new record would be saved.
- Once a payment has been received, a record would be saved.
- Once a schedule or announcement has been updated or added by the administrator, it will be displayed on the web page for the public to view; viewer.
- One or more administrators make one or more announcement.
- One or more students read many announcements.
- One student has one or many schedule.
- One student will pay fees for one or more months.

Table 4.3: Edited Data dictionary

TABLE NAME	ATTRIBUTE NAME	CONTENTS	TYPE	FORMAT	REQUI RED	PK / FK	FK REFERENCED TABLE	
ADMIN	USERNAME	Username	VARCHAR(15)	Xxxxxxxxxxxx	Y			
	PASSWORD	Password	VARCHAR(10)	Xxxxxxxxxxxx	Y			
STUDENT	ID	Student Identification	DECIMAL(10)	Xxxxxxxxxxxx	Y	PK		
	NAME	Student's name	CHAR(35)	Xxxxxxxxxxxx	Y			
	IC	Birth Certification or Identification	VARCHAR(12)	Xxxxxxxxxxxx	Y			
	PHONE	Contact Card Number	Card Number					
		Contact Number	Contact Number	DECIMAL(10)	Xxxxxxxxxxxx	Y		
	ADDRESS	Student's address	Student's address	VARCHAR(50)	Xxxxxxxxxxxx	Y		

	GUARDIAN	Guardian's name	CHAR(35)	Xxxxxxxxxxxx	Y		
	LEVEL	Level	CHAR(15)	Xxxxxxxxxxxx	Y		
	AGE	Age	VARCHAR(30)	Xxxxxxxxxxxx	Y		
CASHIN	ID	Receipt Number	INTEGER(10)	Xxxxxxxxxxxx	Y		
	DAYCASHIN	Day of Cash in	INTEGER(2)	Xx	Y		
	MONTHCASHIN	Month of Cash in	VARCHAR(20)	Xxxxxxxxxxxx	Y		
	YEARCASHIN	Year of Cash in	INTEGER(4)	Xxxx	Y		
	DESCRIPTIONCASHIN	Description	VARCHAR(50)	Xxxxxxxxxxxx	Y		
	AMOUNTCASHIN	Amount	VARCHAR(10)	Xxxxxxxxxxxx	Y		
CASHOUT	ID	Receipt Number	INTEGER(10)	Xxxxxxxxxxxx	Y		
	DAYCASHOUT	Day of Cash out	INTEGER(2)	Xx	Y		
	MONTHCASHOUT	Month of Cash out	VARCHAR(20)	Xxxxxxxxxxxx	Y		

	YEARCASHOUT	Year of Cash out	INTERGER(4)	Xxxx	Y		
	DESCRIPTIONCASHO UT	Description	VARCHAR(50)	XXXXXXXXXX	Y		
	AMOUNTCASHOUT	Amount	VARCHAR(20)	XXXXXXXXXX	Y		
PAYMENT	ID	Payment Identification	INTEGER(10)	XXXXXXXXXX	Y		
	DAY	Payment Day	INTEGER(2)	Xx	Y		
	MONTHPAYEE	Payment Month	VARCHAR(20)	XXXXXXXXXX	Y		
	YEAR	Payment Year	INTEGER(4)	XXXXXXXXXX	Y		
	NAME	Student's name	CHAR(35)	XXXXXXXXXX	Y		
	MONTH	Payment for Month	CHAR(10)	XXXXXXXXXX	Y		
	LEVEL	Level	CHAR(15)	XXXXXXXXXX	Y		
	AMOUNT	Amount of pay	INTEGER(5)	XXXXX	Y		
SCHEDULE	ID	Schedule identification	INTEGER(10)	XXXXXXXXXX	Y		

DAY	Day of the week	CHAR(10)	Xxxxxxxxxx	Y	
TIME	Time of the class	CHAR(20)	Xxxxxxxxxx	Y	
TYPEOFDANCES	Classes offered	VARCHAR(50)	Xxxxxxxxxx	Y	
LEVEL	Level of class	CHAR(15)	Xxxxxxxxxx	Y	
ANNOUNCEMENT					
ID	Announcement Identification	INTEGER(10)	Xxxxxxxxxx	Y	
DATE	Date published	CHAR(10)	Xxxxxxxxxx	Y	
ANNOUNCE-MENT	Announcement	VARCHAR(50)	Xxxxxxxxxx	Y	

4.3 Detailed Design

This sub chapter describes and defines the detailed design of the system. The logic of the design and the approach to satisfy the requirements is being described.

4.3.1 Software Specification

Table 4.4: Software Specification

Module	Brief Description	Characteristic of Activation	Pre-Condition(s)	Flow of Events	Post-Condition(s)	Constraints
Management Tool	This module is to be used by the administrator in administrative management tasks.	The module starts when the management tool menu is triggered.	Administrator to sign in into the system by clicking on the sign in button in the web page	<p><u>Basic Flow</u></p> <p>Administrator to select menu student, cash in, cash out, payment, schedule, announcement</p> <p><u>Alternative Flow</u></p> <ul style="list-style-type: none"> • ‘Student’ function to record, update and delete student’s information of the academy. • ‘Cash In’ function to 	Data updated.	Not Applicable

Report Tool	This module is used by the administrator of the school to show the school's progress and status.	The module starts when administrator triggers the report tool menu.	Administrator to sign in into the system by clicking on the sign in button in the web page	If invalid input accounted, the system should display an error message	Reports are being displayed	Not Applicable
				<p><u>Basic Flow</u> Administrator to select menu Payment Summary by Month, Schedule Summary by Day, Type of Dances Summary, Schedule Summary by Level, Age Group Summary and Accounts Summary by Month.</p> <p><u>Alternative Flow</u> Report generated according to the type of report selected</p> <p><u>Exception flow</u> If invalid input accounted, the system should display error</p>		

View Information	This module is to be used by students, parents or outsiders to get information of the academy.	The module starts when students, parents or outsiders trigger the button on the web page.	Not Applicable	message <u>Basic Flow</u> Outsiders or users to click on any button on the webpage to view information. <u>Alternative Flow</u> Information are like the basic academy's details, the academy's instructors and principals, the type of dance classes provided in the academy, announcements board and schedules. <u>Exception flow</u> If invalid input accounted, the system should display error message.	Information are being displayed	Not Applicable
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4.3.2 Physical Database Design

Table 4.5: Physical Database Design

Table Name	Physical Database Design
ADMIN	CREATE TABLE SIGNIN (USERNAME VARCHAR (15) PRIMARY KEY, PASSWORD VARCHAR (10) NOT NULL);
CASHIN	CREATE TABLE CASHIN (ID INTEGER(10) NOT NULL, DAYCASHIN INTEGER(2) NOT NULL, MONTHCASHIN VARCHAR(20) NOT NULL, YEARCASHIN INTEGER(4) NOT NULL, DESCRIPTIONCASHIN VARCHAR(50) NOT NULL, AMOUNTCASHIN VARCHAR(10) NOT NULL);
CASHOUT	CREATE TABLE CASHOUT (ID INTEGER(10) NOT NULL, DAYCASHOUT INTEGER(2) NOT NULL, MONTHCASHOUT VARCHAR(20) NOT NULL, YEARCASHOUT INTEGER(4) NOT NULL, DESCRIPTIONCASHOUT VARCHAR(50) NOT NULL, AMOUNTCASHOUT VARCHAR(20) NOT NULL);
STUDENT	CREATE TABLE STUDENT (ID DECIMAL(10) NOT NULL, NAME CHAR(35) NOT NULL, IC VARCHAR(12) NOT NULL, PHONE DECIMAL(10) NOT NULL, ADDRESS VARCHAR(50) NOT NULL, GUARDIAN CHAR(35) NOT NULL, LEVEL VARCHAR(15) NOT NULL, AGE VARCHAR(30) NOT NULL);

PAYMENT	CREATE TABLE PAYMENT (ID INTEGER(10) NOT NULL, DAY INTEGER(2) NOT NULL, MONTHPAYEE VARCHAR(20) NOT NULL, YEAR INTEGER(4) NOT NULL, NAME CHAR(35) NOT NULL, MONTH CHAR(10), LEVEL CHAR(15) NOT NULL, AMOUNT INTEGER(5) NOT NULL);
SCHEDULE	CREATE TABLE SCHEDULE (ID INTEGER(10) NOT NULL, DAY CHAR(10) NOT NULL, TIME CHAR(20) NOT NULL, TYPEOFDANCES VARCHAR(50) NOT NULL, LEVEL CHAR(15) NOT NULL);
ANNOUNCEMENT	CREATE TABLE SCHEDULE (ID INTEGER(10) NOT NULL, DATE CHAR(10) NOT NULL, ANNOUNCEMENT VARCHAR(50) NOT NULL);

4.4 Conclusion

This chapter has defined the architecture view, static view, interface design, the conceptual as well as logical database design and detailed design of the system. It has also described the navigation flow as well as the data involved.

CHAPTER V

IMPLEMENTATION

5.1 Introduction

System implementation is the process that makes the defined user requirements and design into a useable system. In this chapter, it will explain about the implementation phase after completing the analysis and design phase. It thoroughly explains the software development environment setup as well as the software configuration management. A table with the implementation progress status is also described.

5.2 Software Development Environment Setup

The system contains the main modules for 'View Information', 'Management Tool' and 'Report Tool'. It is necessary to integrate all these modules within the everyday functions performed by the users.

All data are kept in the same database and table name. Data are mostly recorded from the pages of sub menu from the 'Management Tool' menu. These data will be used

for reporting by the pages in the 'Report Menu'. Data are kept consistent throughout. An example is the details from 'Payment' page from the 'Management Tool' sub menu is recorded into the 'payment' table in the 'psm' database. These data will be extracted by the 'Payment Summary By Month' page from the 'Report Tool' sub menu and display in a table chart form to allow easier visualization and a more organized form of report.

Other data like schedule and announcement would be keyed in by the administrator from the 'Management Tool' menu and the data are then kept in the 'schedule' and 'announcement' tables in 'psm' database. These data are then extracted and presented to the public in the web pages under the 'View Information' module.

The software environment architecture is as below:

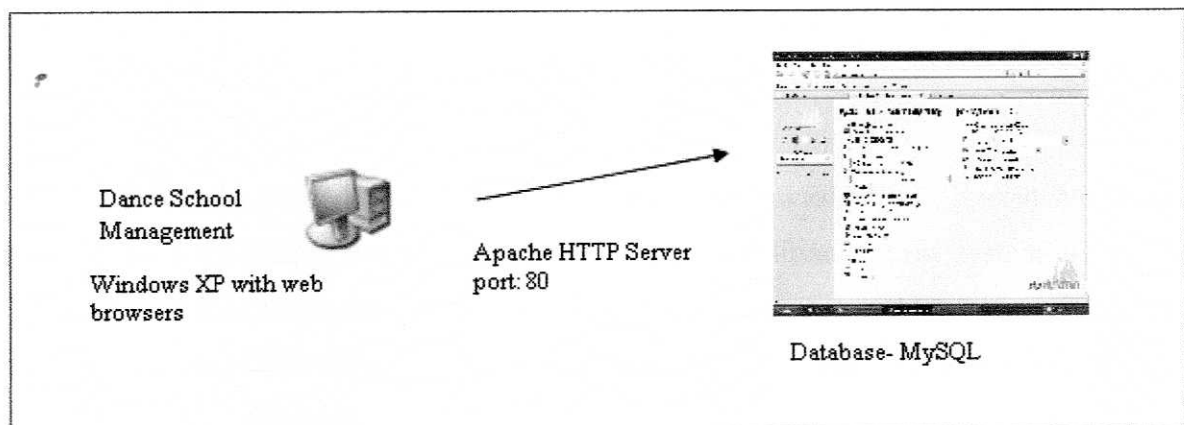


Figure 5.1: Software Architecture

The hardware being used is only a simple personal computer. This would be sufficient as the software is developed using light weight development tools. The network is not needed during the development stage as it is built using 'localhost'. However, internet connection could be used at the end of the development to test the performances of the system and making it available to real life environment.

5.3 Software Configuration Management

This section describes the configuration environment setup and the version control procedure in managing the source code of the system.

5.3.1 Configuration environment setup

The software used for development is configured at the beginning stage of installation.

'Apache HTTP Server' is installed and the port number is assigned to 80. As this system is developed using a web server, a port number of 80 would be taken as a default value. 'MySQL', the database being used in the system development is also installed after.

All codes created are saved in a directory folder named 'PSM'. Executable codes are saved in the 'PSM' sub directory named 'psm'. The library of the system is kept in the 'lib' sub directory under 'PSM'. All these codes are then saved in the 'www' folder of the 'Apache HTTP Server' directory while the database is kept in the 'MySQL' folder under the 'data' directory.

Web browser like 'Mozilla Firefox' is used to display the results of the codes created and act as the interface between the user and system.

5.3.2 Version Control Procedure

The version control procedures are as below:

- After the initial development work has been completed, it will be placed under version control procedures.
- Feedback from users will be collected.
- Area or modules that need changes are analyzed and necessary changes are updated.
- System will be evaluated to prevent negative impact or initialization of bugs.

These control procedures state will be conducted in cyclic. These can ensure no functions or modules are overlooked and will help in upgrading the quality of the system.

5.4 Implementation Status

The implementation progress status is as below:

Table 5.1: Implementation Status

Component/ Modules	Description	Duration to Complete	Date Completed
Web Pages Interface	Creation of overall picture of the system	10 days	17th August 2007
Database	Design the database for attributes and relationship between the tables.	2 days	21st August 2007

View Information Module	Design and keyed in all information on the system	10 days	4th September 2007
Management Tool Module	Develop the management tool module	12 days	20th September 2007
Report Tool Module	Develop the report tool module	12 days	8th October 2007
Evaluation	Evaluate on error discovered	4 days	12th October 2007
Refinement	Making corrections and refinement to the system	3 days	17th October 2007
Finalization	Finalize the system and reports	3 days	20th October 2007

5.5 Conclusion

The implementation phase delivers the requirements analysis and design into a real production system. With evaluation and refining component in this phase, the Dance School Management System could evolve to become a much useable and error free system.

CHAPTER VI

TESTING

6.1 Introduction

Testing is part of the development phase in a software development project. The testing is a formal testing process carried out by a test organization by running the system on a computer with approved test procedures and test cases.

The testing activities will include the test plan which is to identify the test organization, test environment and test schedule. The test strategy is also described in this chapter. Black box and white box testing is used as the testing approach. The test cases are also design and the results are analyzed and evaluated. Real data will also be used in the test.

6.2 Test Plan

The test plan is to develop a plan for the testing phase to be executed. The test personnel, environment and schedule will be described.

6.2.1 Test Organization

The personnel involved in the testing are the developer and one other programmer from the same course. The developer will be fully involved in all the testing while the other programmer will act as an independent test observer. The developer will test and record the results of the test cases. All these results will be documented. The independent test observer will observe and ensure that the developer executes the tests accordingly.

6.2.2 Test Environment

The test will be carried out in the computer lab in the university of study. The testing will be done using the personal computer with installed operating system which is the 'Microsoft Windows XP Home Edition', 'Apache HTTP Servers' as the web server, 'MySQL' as the database and 'Mozilla Firefox' as the web browser.

6.2.3 Test Schedule

Table 6.1: Test Schedule

Test ID	Activity/ Event	Number of Cycle
1	User to key in correct username and password in 'Sign in' page.	3
2	User inserts the wrong username or password	3
3	User to click on 'Clear' button in 'Student' page	3
4	User to click on 'Edit' button in 'Student' page	2
5	User to click on 'Edit' button in 'Announcement' page	2
6	User to click on 'Delete' button in 'Announcement'	2

	page	
7	Check on codes to make sure if and else are arranged systematically	3
8	Same group of function grouped together in one function	7
9	Reusability of functions, 'ListAnnouncement'	3
10	Indentation of codes arranged systematically	3
11	User navigation around the pages	7
12	User to submit student data in 'Student' page	3
13	User to search and edit student data in 'Student' page	5
14	User to search and edit announcement data in 'Announcement' page	3
15	User to key in new schedule in 'Schedule' page	3
16	User to key in new announcement in 'Announcement' page	3
17	User to key in value in 'Cash In' page for January	2
18	User to key in value for 'Cash Out' page in February	2
19	User to key in new payments in 'Payment' page made by one student in November	3
20	A new student signed up and details submitted from 'Student' page	3

6.3 Test Strategy

Black-box testing and white-box testing approaches have been chosen to conduct the testing. These techniques will assist in designing the test cases that validate and verify the correctness of the system.

Black-box testing is an approach which the testing is carried out based on the system specification and requirements. It is to test the functionality of the system and is concern on the outputs generated in response to inputs. Two main approach of the black box testing would be used in the test. It consists of the positive testing and negative testing. The positive testing is to determine whether the feature produces the expected results and whether it is consistent with the required specification. Negative testing is to determine whether the system will act reasonably when facing invalid or unexpected actions such as keying in wrong value for a certain text box.

White-box testing is an approach to test on the internal system or component. It examines the source code to ensure the codes work as it should be. It focuses on the structural function of the system.

6.3.1 Classes of tests

One of the classes of tests in black box testing would be the output correctness test. This class of test would define the test cases for producing a valid or invalid output. Documentation test is the other classes of test in black box testing. This test will ensure the system abides with the documented instructions. Stress test is to test whether the system could work under maximal operational load.

As for white box testing, the software qualification testing is carried out. This is to ensure the software is coded and documented according to standards and procedures. This is to make sure the system is easily maintained in the future and allow further development to be easy. The other class of test is the reusability test. This is to test the degree to which parts of the software can be reused for development of other application.

6.4 Test Design

The test will be divided into three main groups of tests namely the Unit Testing, Integration Testing and System Testing.

6.4.1 Test Description

Table 6.2: Test Cases and its description

Testing Phase	Test ID	Test Description	Expected Result
Unit Testing	1	User to key in correct username and password in 'Sign in' page.	Administrator menu displayed
	2	User inserts the wrong username or password	Error message displayed
	3	User to click on 'Clear' button in 'Student' page	All text boxes are cleared
	4	User to click on 'Edit' button in 'Student' page	A drop down list of students displayed
	5	User to click on 'Edit' button in 'Announcement' page	A drop down list of announcement id displayed for selection
	6	User to click on 'Delete' button in 'Announcement' page	A page will all announcement ready for deletion displayed
	7	Check on codes to make sure if and else are arranged systematically.	Codes should be arranged systematically.

	8	Codes with same group of function grouped together in one function.	Same function grouped together.
	9	Reusability of functions, 'ListAnnouncements'	Functions reusable.
	10	Indentation of codes arranged systematically.	Indentation arranged.
Integration Testing	11	User navigation around the pages	Web page wanted displayed
	12	User to submit student data in 'Student' page	'student' table in database updated
	13	User to search and edit student data in 'Student' page	A drop down list of student displayed and selected students' data updated in the 'student' table
	14	User to search and edit announcement data in 'Announcement' page	A drop down list of announcement id displayed and selected announcement data can be updated
System Testing	15	User to key in new schedule in 'Schedule' page	'schedule' table updated in database and schedule shown to public also being updated
	16	User to key in new announcement in 'Announcement' page	'announcement' table updated in database and announcement shown to public also being updated
	17	User to key in value in 'Cash In' page for January	'Accounts Summary' for January updated

	18	User to key in value for 'Cash Out' page in February	Accounts Summary for February updated
	19	User to key in new payments in 'Payment' page made by one student in November	'payment' table in database updated, 'Payment Summary by Month' for November updated, 'Accounts Summary' for November updated.
	20	A new student signed up and details submitted from 'Student' page	'student' table in database updated, 'Age Group Summary' updated.

6.4.2 Test Data

- Real data will be use to perform the entire test.

Table 6.3: Test Data

Test ID	Test Description	Test Data	Expected Result
1	User to key in correct username and password in 'Sign in' page.	Users enter username and password.	The user is granted access to the system if information is valid.
2	User inserts the wrong username or password	Users enter wrong username and password.	No access is granted
3	User to click on 'Clear' button in 'Student' page	-	All data keyed in are cleared
4	User to click on 'Edit' button in 'Student' page	-	A drop down list of students displayed

5	User to click on 'Edit' button in 'Announcement' page	-	A drop down list of announcement id displayed for selection
6	User to click on 'Delete' button in 'Announcement' page	-	A page will all announcement ready for deletion displayed
7	Check on codes to make sure if and else are arranged systematically.	-	Codes should be arranged systematically.
8	Codes with same group of function grouped together in one function.	-	Same function grouped together.
9	Reusability of functions, 'ListAnnouncements'	-	Functions reusable.
10	Indentation of codes arranged systematically.	-	Indentation arranged.
11	User navigation around the pages	-	Web page wanted displayed
12	User to submit student data in 'Student' page	Submit clicked	'student' table in database updated
13	User to search and edit student data in 'Student' page	User select a student data to edit	A drop down list of student displayed and selected students' data updated in the 'student' table
14	User to search and edit announcement data in 'Announcement' page	User select an announcement to edit	A drop down list of announcement id displayed and selected announcement data can

			be updated
15	User to key in new schedule in 'Schedule' page	User enter a new class time	'schedule' table updated in database and schedule shown to public also being updated
16	User to key in new announcement in 'Announcement' page	User enter a new announcement	'announcement' table updated in database and announcement shown to public also being updated
17	User to key in value in 'Cash In' page for January	User enter a value for cash debit	'Accounts Summary' for January updated
18	User to key in value for 'Cash Out' page in February	User enter a value for cash credit	Accounts Summary for February updated
19	User to key in new payments in 'Payment' page made by one student in November	User enter payment received by students	'payment' table in database updated, 'Payment Summary by Month' for November updated, 'Accounts Summary' for November updated.
20	A new student signed up and details submitted from 'Student' page	User enter new student data and click submit	'student' table in database updated, 'Age Group Summary' updated.

6.5 Test Result and Analysis

Table 6.4: Test Result

Test ID	Test Description	Test Condition	Comments
1	User to key in correct username and password in 'Sign in' page.	OK.	Access granted
2	User inserts the wrong username or password	OK	Access not granted
3	User to click on 'Clear' button in 'Student' page	OK	Form cleared
4	User to click on 'Edit' button in 'Student' page	OK	Students list to choose to edit displayed
5	User to click on 'Edit' button in 'Announcement' page	OK	Drop down list displayed
6	User to click on 'Delete' button in 'Announcement' page	OK	List to delete displayed
7	Check on codes to make sure if and else are arranged systematically.	OK	Codes arranged systematically.
8	Codes with same group of function grouped together in one function.	OK	Same function grouped together.
9	Reusability of functions, 'ListAnnouncements'	OK	Functions reusable.
10	Indentation of codes arranged systematically.	OK	Indentation arranged.

11	User navigation around the pages	OK	Pages displayed
12	User to submit student data in 'Student' page	OK	Students data updated
13	User to search and edit student data in 'Student' page	OK	Students list to choose to edit displayed
14	User to search and edit announcement data in 'Announcement' page	OK	Announcement list to choose to delete displayed
15	User to key in new schedule in 'Schedule' page	OK	Schedule for public viewing and schedule summary updated
16	User to key in new announcement in 'Announcement' page	OK	Announcement for public viewing updated
17	User to key in value in 'Cash In' page for January	OK	Cash in and accounts summary updated
18	User to key in value for 'Cash Out' page in February	OK	Cash out and accounts summary updated
19	User to key in new payments in 'Payment' page made by one student in November	OK	Payment and accounts summary updated
20	A new student signed up and details submitted from 'Student' page	OK	Student and age group summary updated

6.6 Conclusion

The testing phase has been executed successfully and all testing results have been documented systematically.

CHAPTER VII

CONCLUSION

7.1 Observation on Weaknesses and Strengths

This section describes about system weaknesses and strengths of the Dance School Management System.

Due to specific requirement, it is hard to find such software in the market that suites the academy's requirement. Thus the system is accurate and useable software for KK Dance Studio. The system allows the administrator to view the progress of the academy via reports generated, allowing better visualization and management.

The system weakness is that the Accounts Summary report does not share the amount of monetary balance from the month before to the following month. The monetary balance from previous month needed to be keyed in into the system every beginning of the month. For example, balance from January would not be carried forward to February.

7.2 Propositions for Improvement

The current system has not been completely optimized. For future improvement, the accounts summary should be developed whereby the monetary balance of each month could be carried forward to the following month.

Another function that could be enhanced is to have a simple accounting function which allows the administrator to key in not only payment voucher as the current developed system but also bank payment vouchers.

7.3 Contribution

The success of Dance School Management System will help ease the workload of the administrator of KK Dance Studio while at the same time organize the business process of the business.

7.4 Conclusion

This system is beneficial to all small business companies specifically to dance academies as the project focus is in the dance industry. The end user is KK Dance Studio. The system developed has met with the user requirement and design. It will have a great influence on the way KK Dance Studio run their daily business.

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Lang Ley C. (2007). "Call Analysis System For TSS". IBM Malaysia Sdn Bhd

Universiti Teknikal Malaysia Melaka (2007). "Buku Panduan Pelaksanaan Projek Sarjana Muda (PSM)"

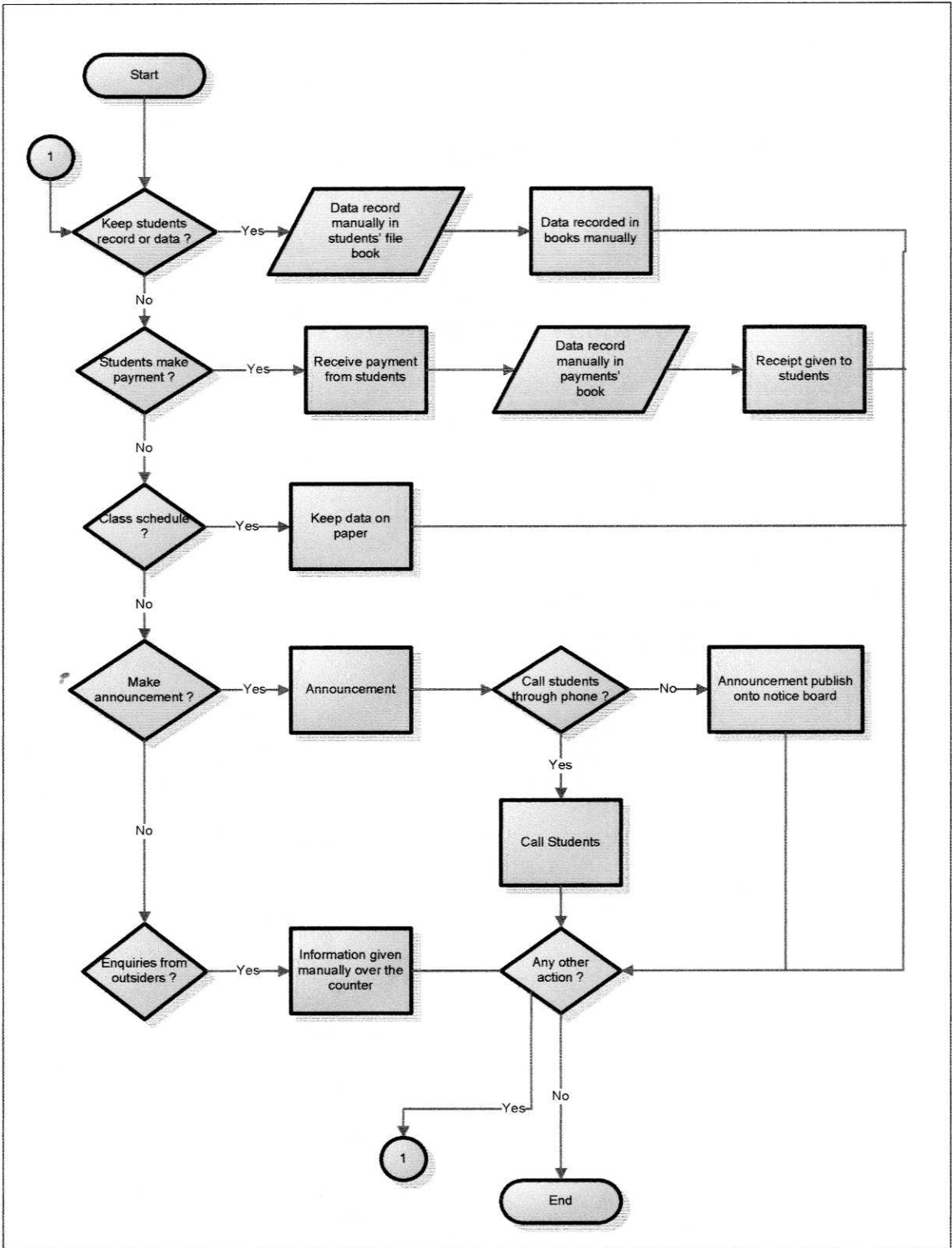
APPENDIX 1.1

**GANTT CHART FOR
'PROJEK SARJANA MUDA' PROJECT**

ID	Task Name	Duration	Start	Finish	May	June	July	August	September	October	November	December					
1	1.0 Pre-planning	8 days	Wed 5/9/07	Fri 5/18/07													
2	1.1 Seminar on PSM 1	1 day	Wed 5/9/07	Wed 5/9/07													
3	1.2 Submission of Proposal	2 days	Thu 5/10/07	Fri 5/11/07													
4	1.3 Proposal Confirmation	5 days	Mon 5/14/07	Fri 5/18/07													
5	2.0 Planning and Analysis	15 days	Mon 5/21/07	Fri 6/8/07													
6	2.1 Project Plan and Methodology	10 days	Mon 5/21/07	Fri 6/1/07													
7	2.2 User Requirement Analysis	2 days	Mon 6/4/07	Tue 6/5/07													
8	2.3 Literature Review	2 days	Mon 6/4/07	Tue 6/5/07													
9	2.4 System Requirement Analysis	2 days	Wed 6/6/07	Thu 6/7/07													
10	2.5 Develop Project Requirements	2 days	Thu 6/7/07	Fri 6/8/07													
11	3.0 Initial Design	4 days	Mon 6/11/07	Thu 6/14/07													
12	3.1 Creating site map	1 day	Mon 6/11/07	Mon 6/11/07													
13	3.2 High Level Design	3 days	Tue 6/12/07	Thu 6/14/07													
14	3.3 Detailed Design	2 days	Wed 6/13/07	Thu 6/14/07													
15	4.0 Final Reporting of PSM 1	5 days	Mon 6/18/07	Fri 6/22/07													
16	4.1 Compilation of PSM 1 report	5 days	Mon 6/18/07	Fri 6/22/07													
17	5.0 Closing of PSM1	5 days	Mon 6/25/07	Fri 6/29/07													
18	5.1 Presentation.	5 days	Mon 6/25/07	Fri 6/29/07													
19	6.0 PSM 2 Planning	2 days	Mon 7/8/07	Tue 7/10/07													
20	6.1 Planning of PSM2	2 days	Mon 7/8/07	Tue 7/10/07													
21	7.0 Design	18 days	Wed 7/11/07	Fri 8/3/07													
22	7.1 Creating database and detail design	18 days	Wed 7/11/07	Fri 8/3/07													
23	8.0 Implementation	46 days	Mon 8/6/07	Mon 10/8/07													
24	8.1 Creating Implementation report	25 days	Mon 8/6/07	Fri 9/7/07													
25	8.2 Creation of system	46 days	Tue 8/7/07	Mon 10/8/07													
26	9.0 Testing	23 days	Mon 9/10/07	Wed 10/10/07													
27	9.1 Planning on testing	2 days	Mon 9/10/07	Tue 9/11/07													
28	9.2 Creating testing design	4 days	Wed 9/12/07	Mon 9/17/07													
29	9.3 Testing System	8 days	Mon 10/1/07	Wed 10/10/07													
30	10.0 Final Reporting	8 days	Wed 10/10/07	Fri 10/19/07													
31	10.1 Compilation of Final Report	8 days	Wed 10/10/07	Fri 10/19/07													
32	11.0 Closing of PSM	16 days	Mon 10/22/07	Mon 11/12/07													
33	11.1 Presentation	7 days	Mon 10/22/07	Tue 10/30/07													
34	11.2 PSM Final Report Final Submissi	9 days	Wed 10/31/07	Mon 11/12/07													

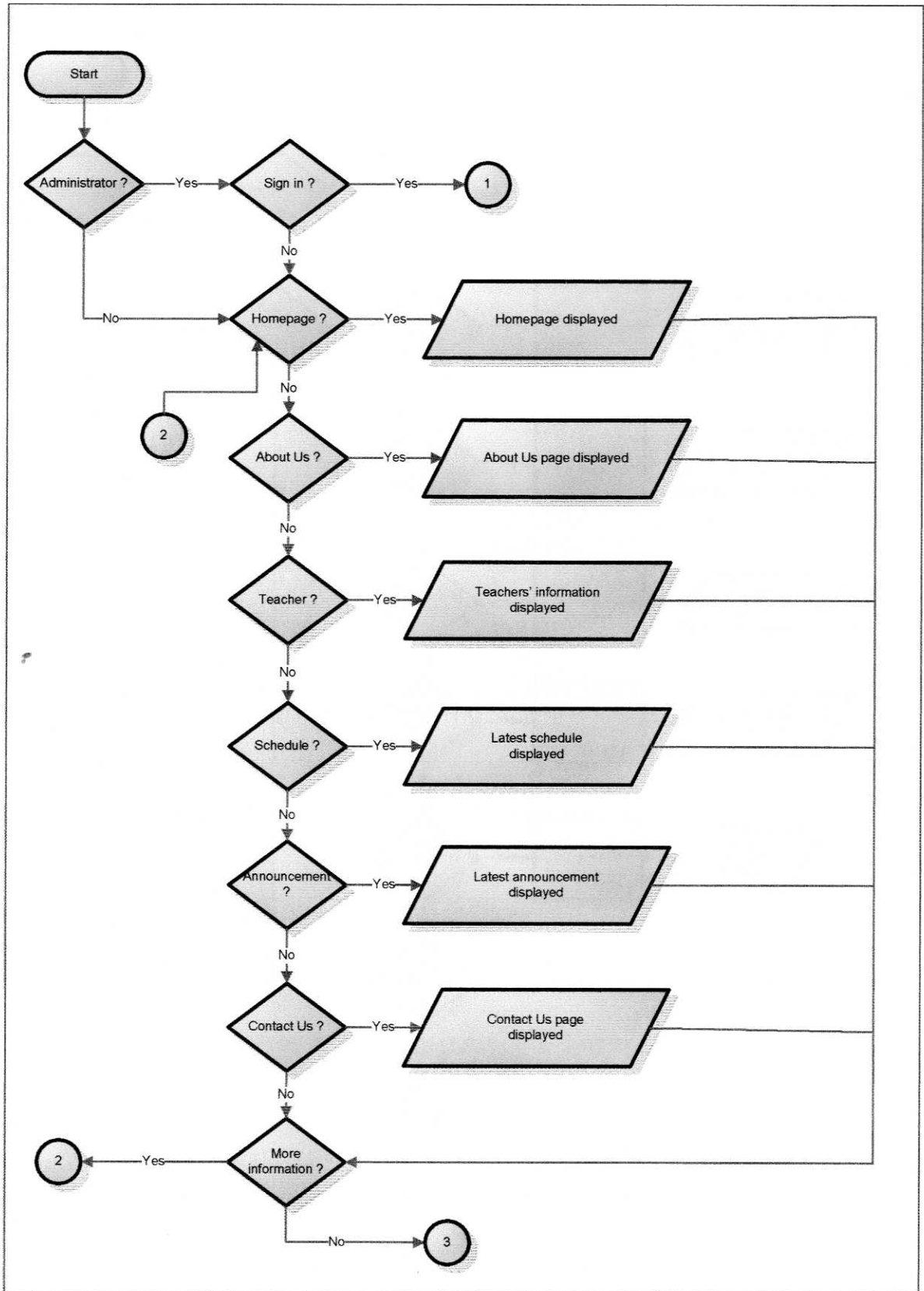
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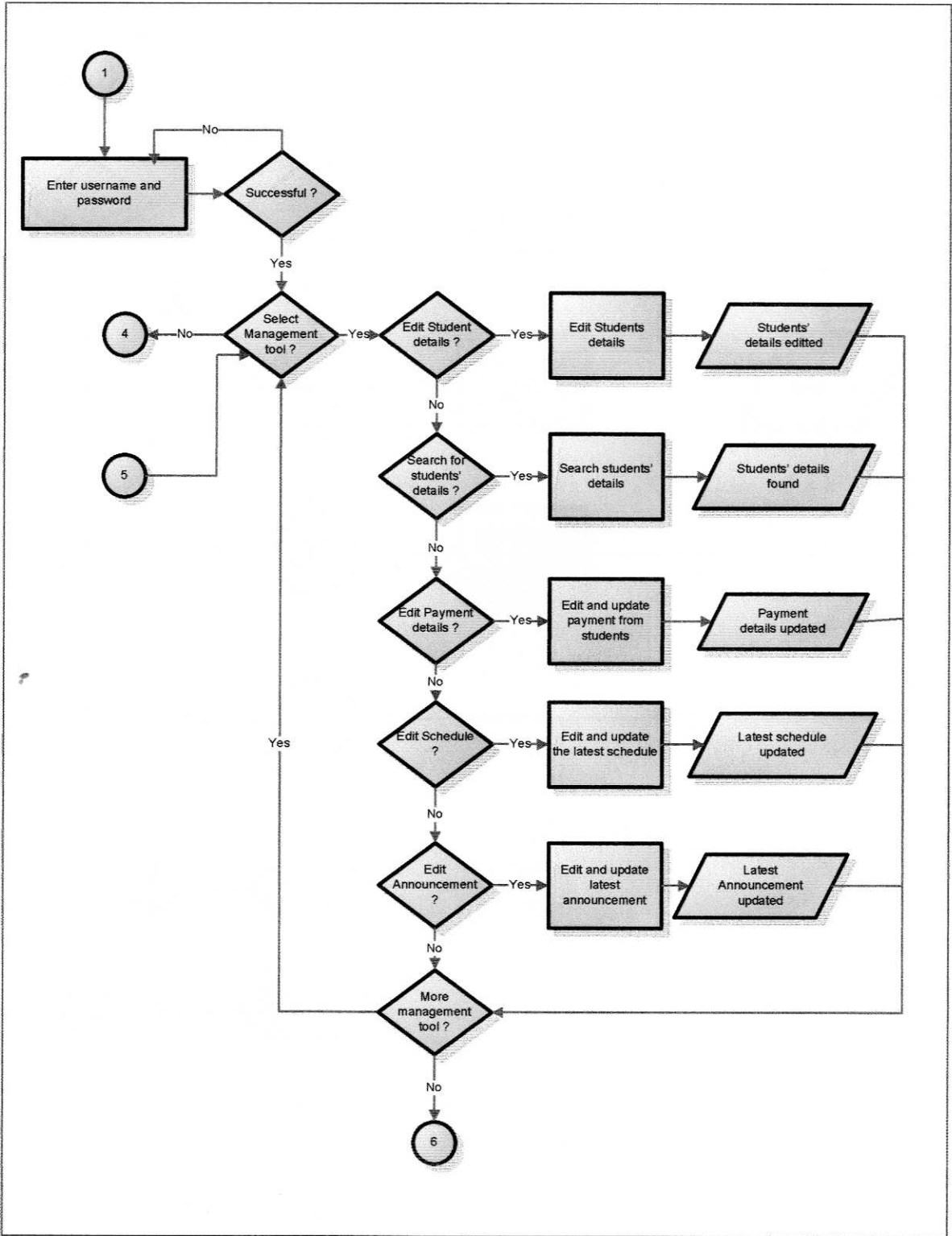
**BUSINESS PROCESS
OF THE MANUAL SYSTEM**

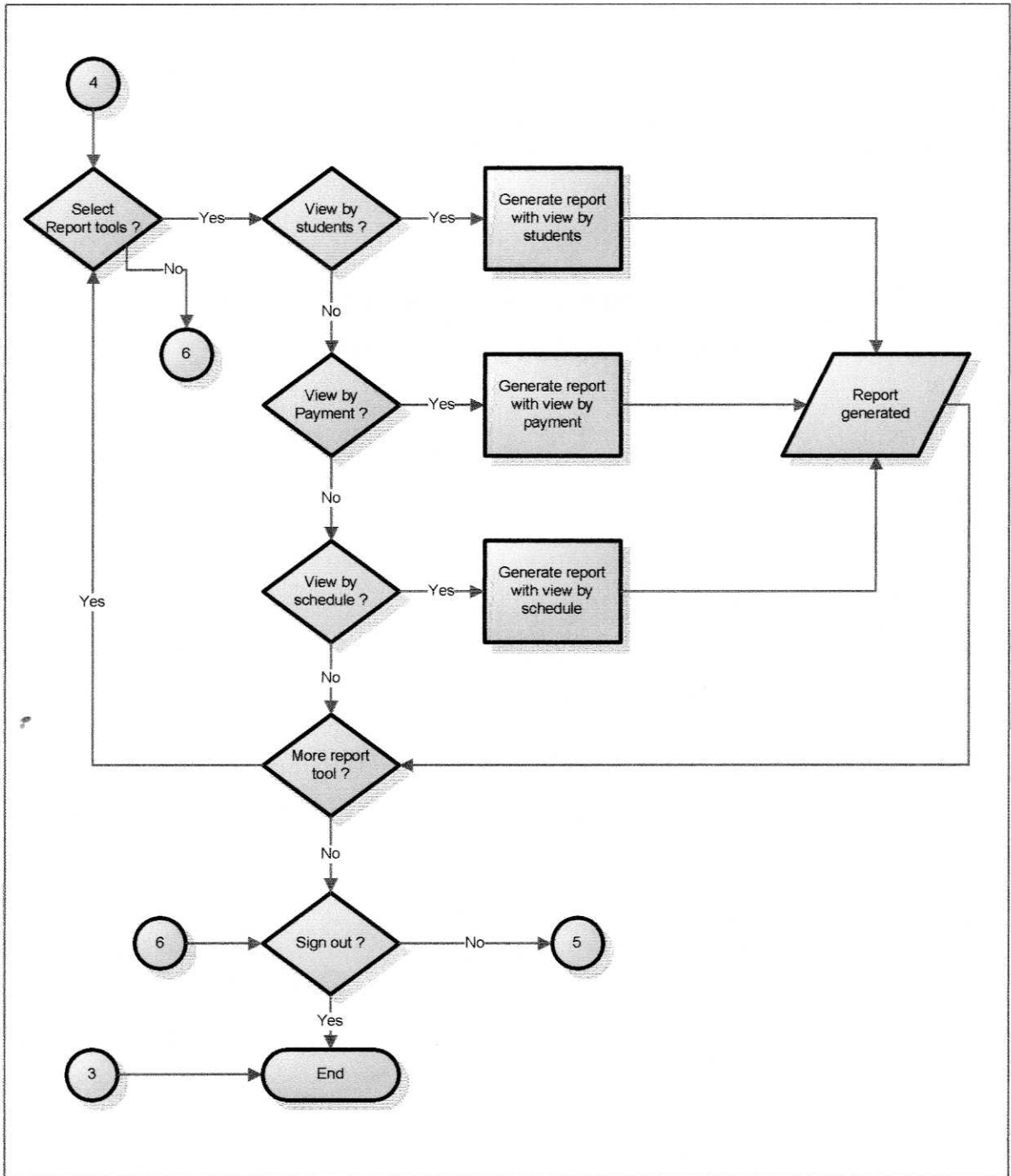


APPENDIX 1.3

**BUSINESS PROCESS
OF THE SYSTEM DEVELOPED**

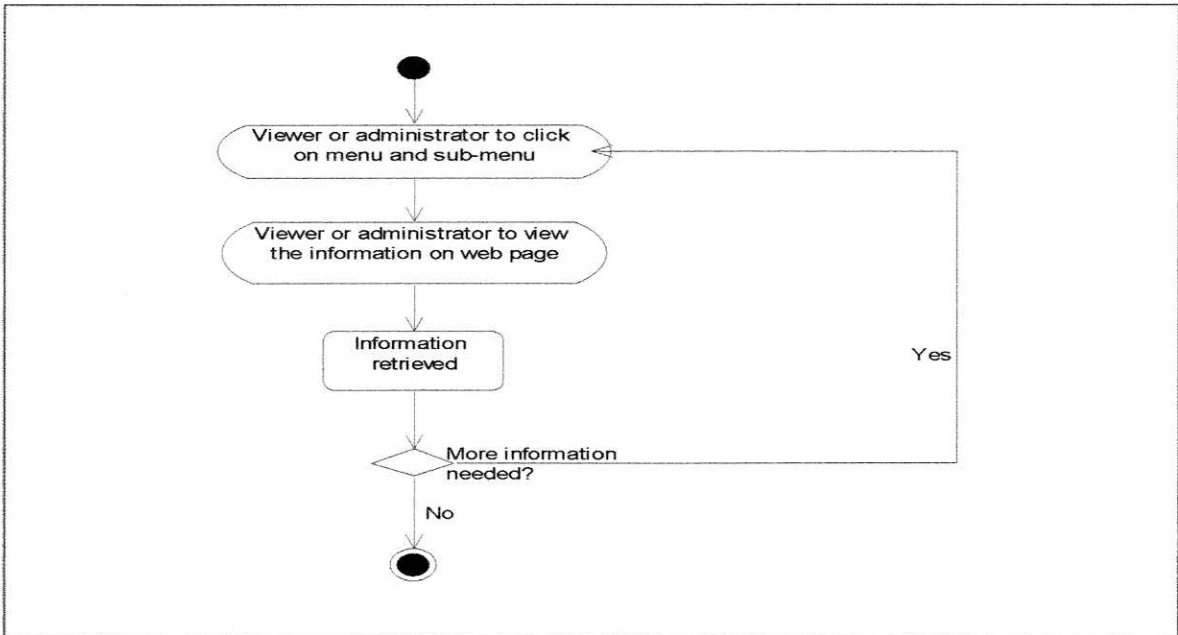




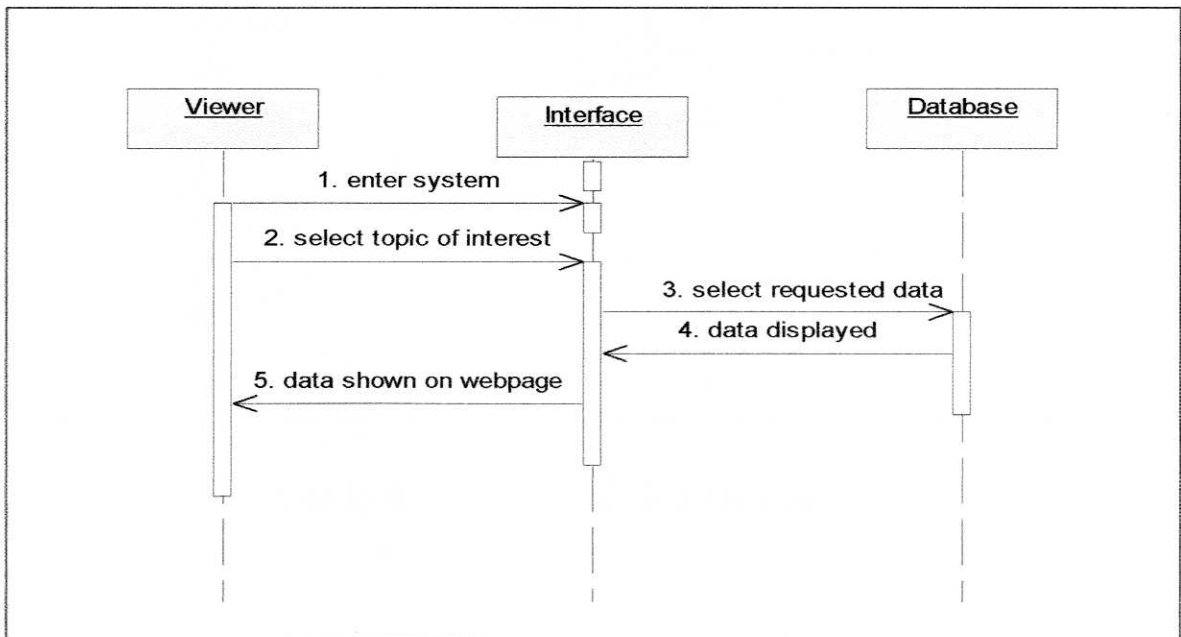


APPENDIX 1.4

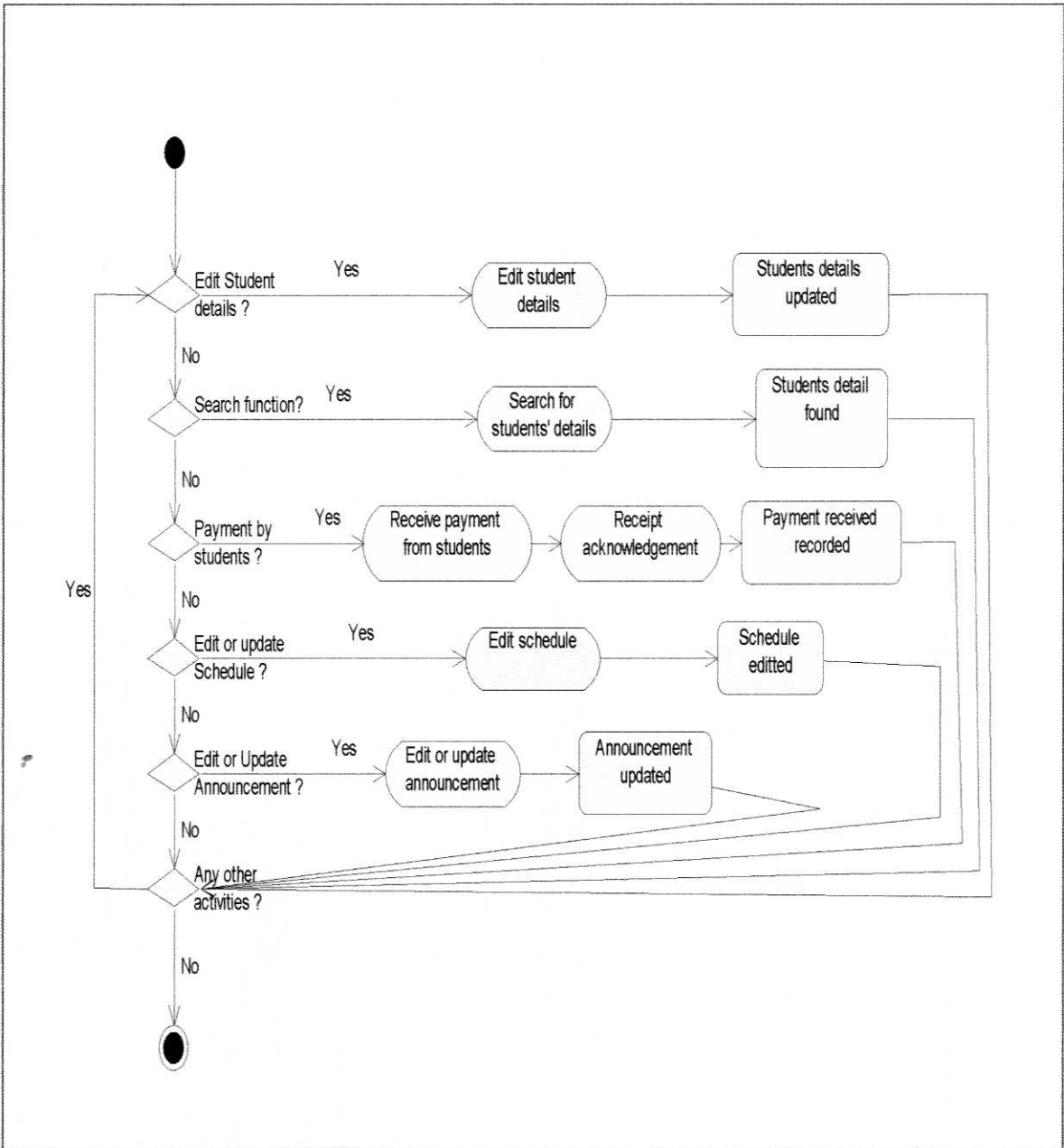
FUNCTIONAL REQUIREMENT ACTIVITY AND SEQUENCE DIAGRAMS



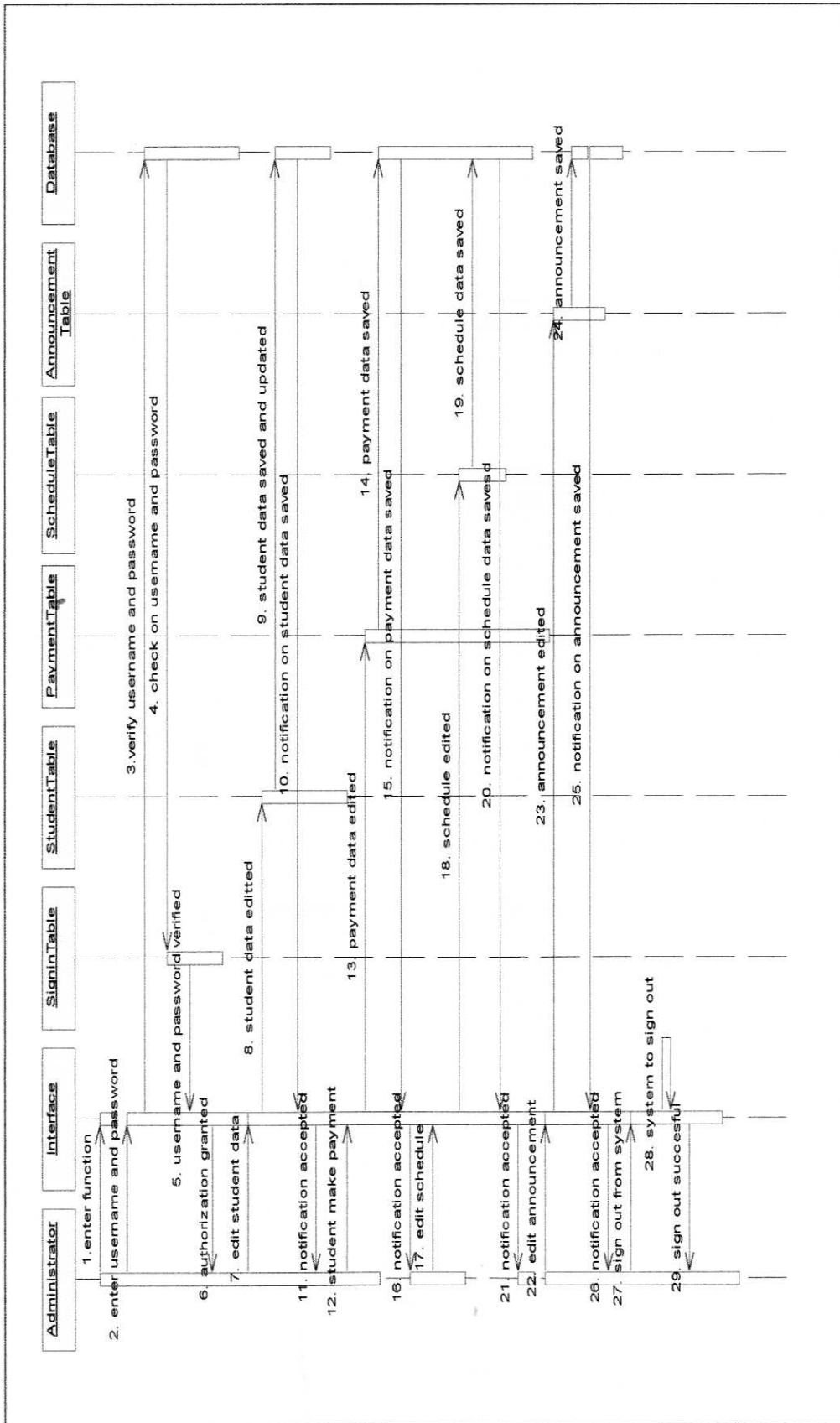
Activity Diagram for View information module



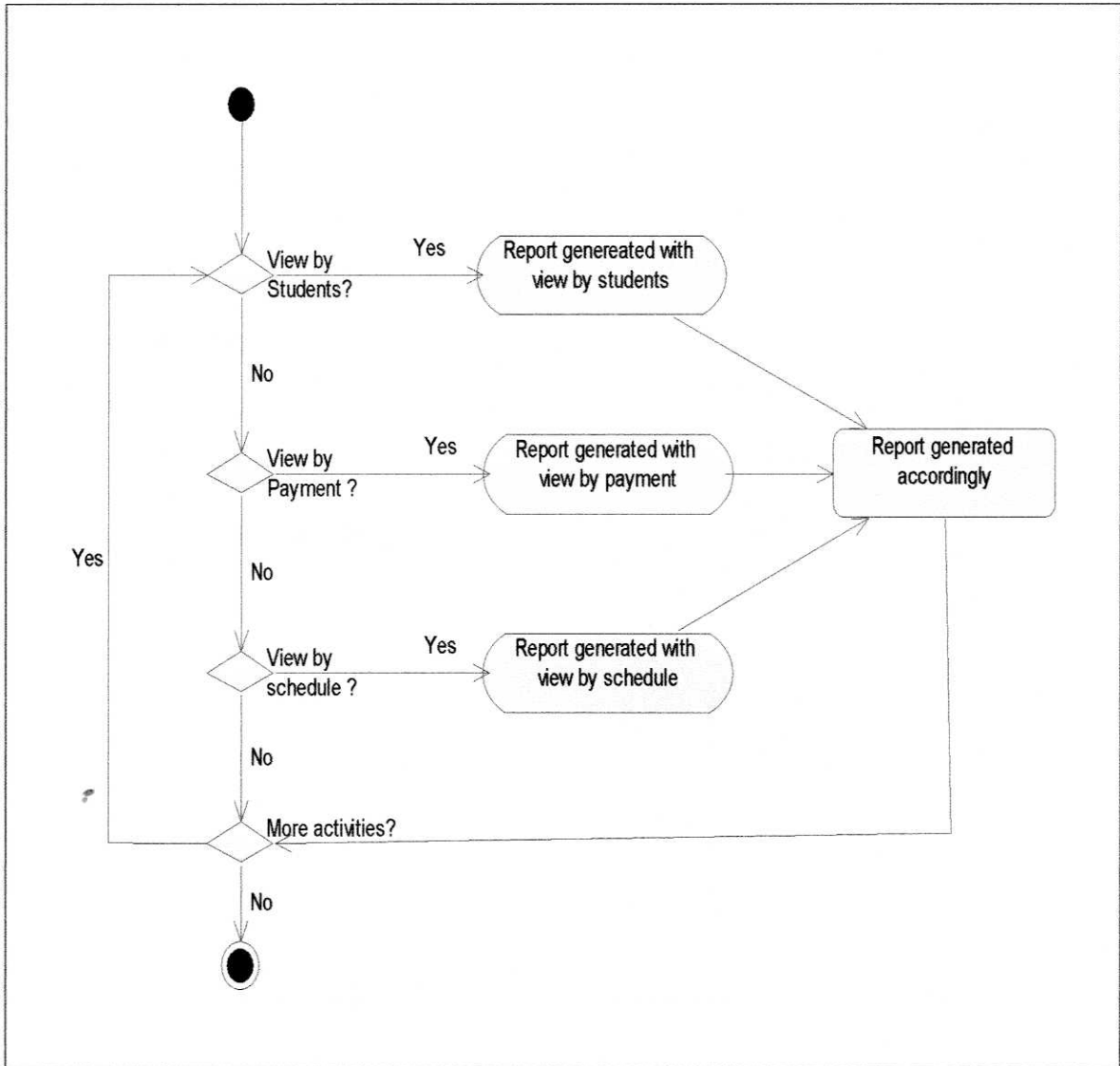
Sequence Diagram for View information module



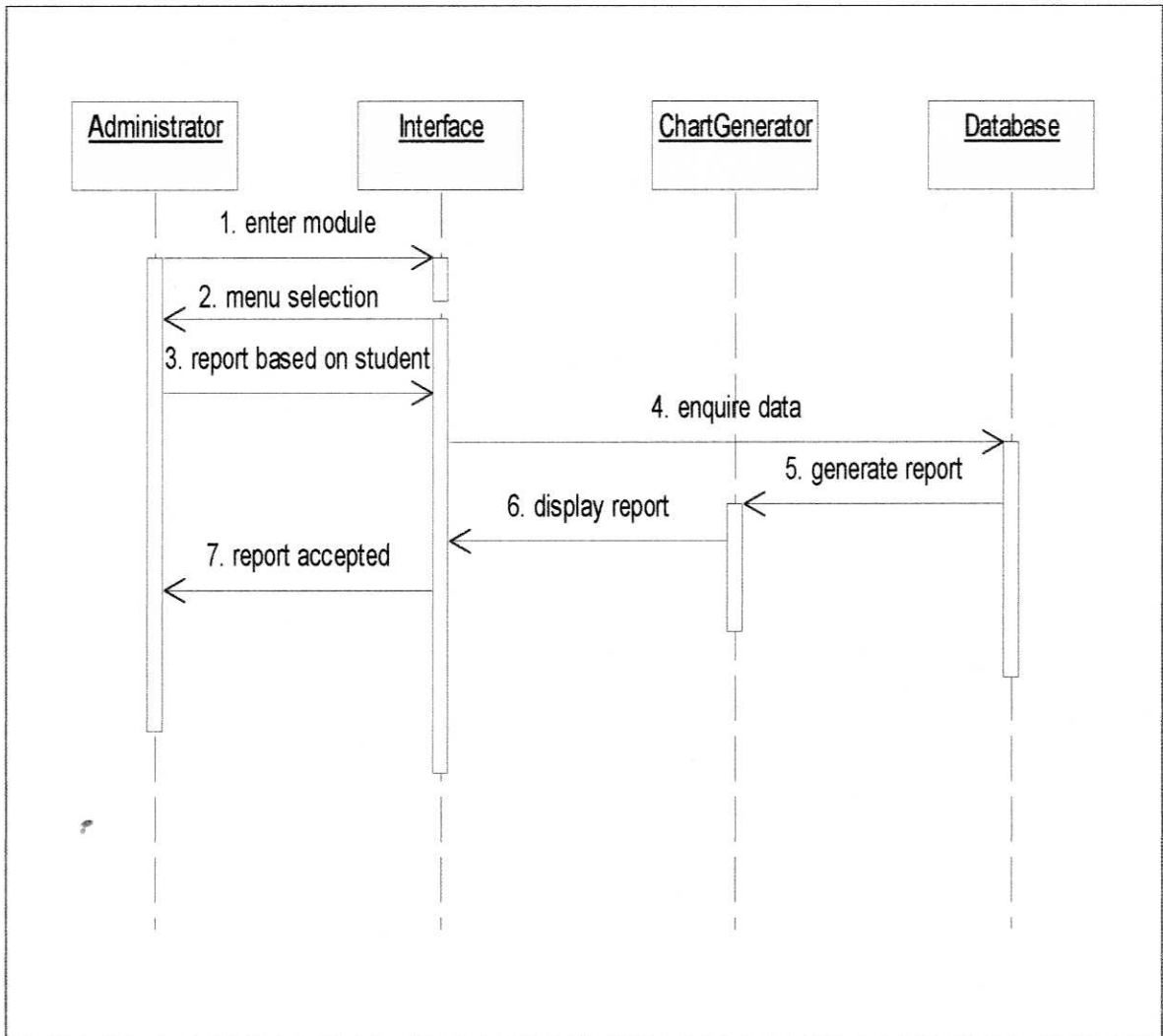
Activity Diagram for Management Tool module



Sequence Diagram for Management Tool module



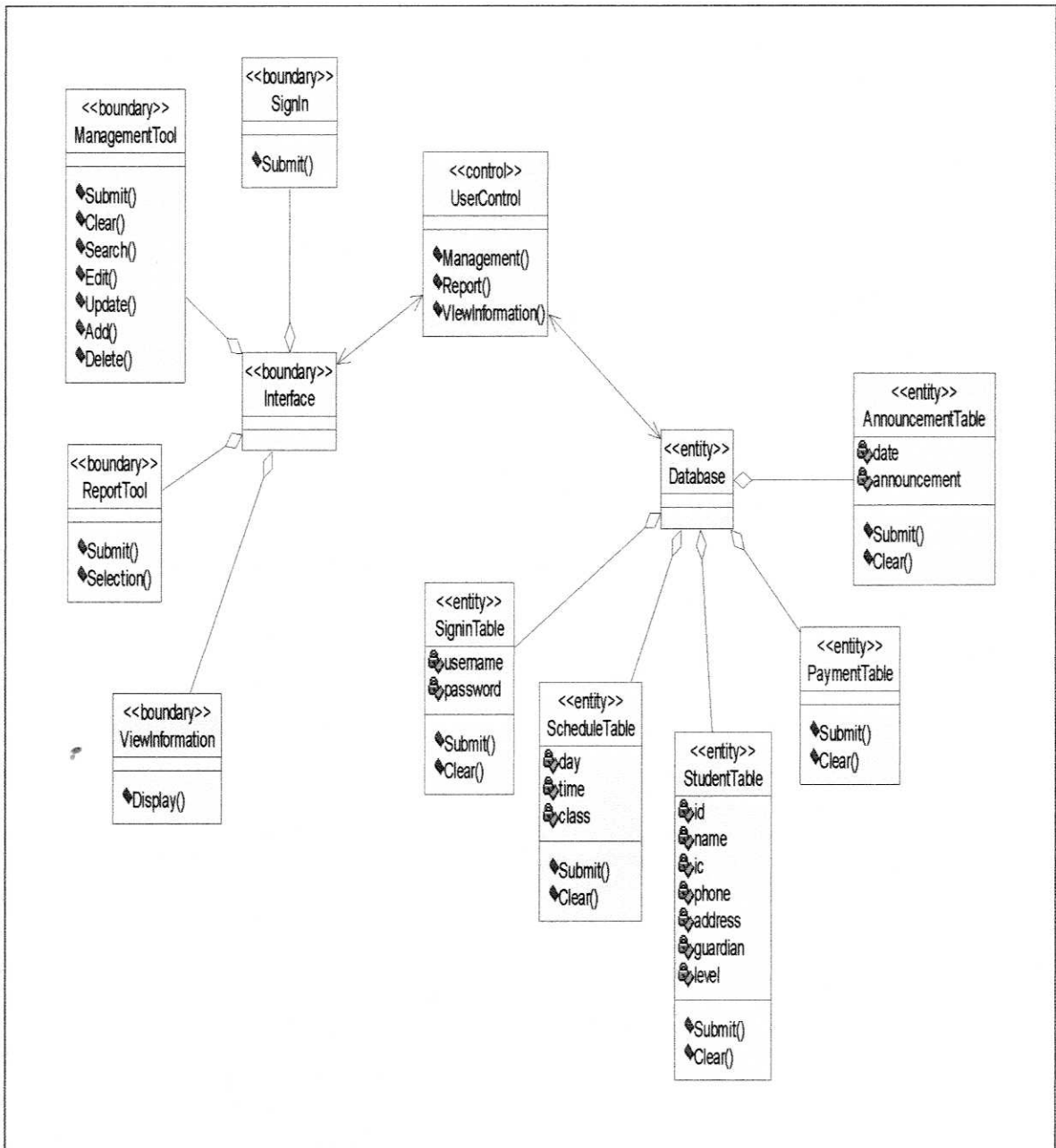
Activity Diagram of Report tool module



Sequence Diagram of Report tool module

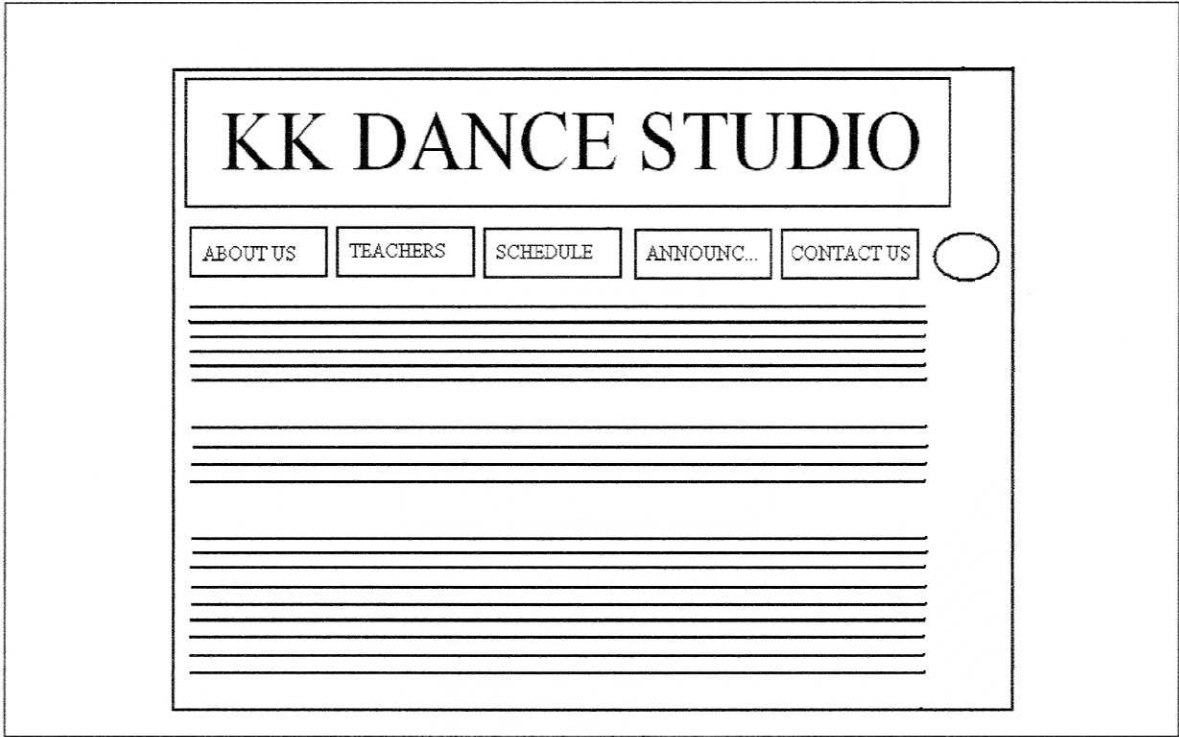
APPENDIX 1.5

CLASS DIAGRAM

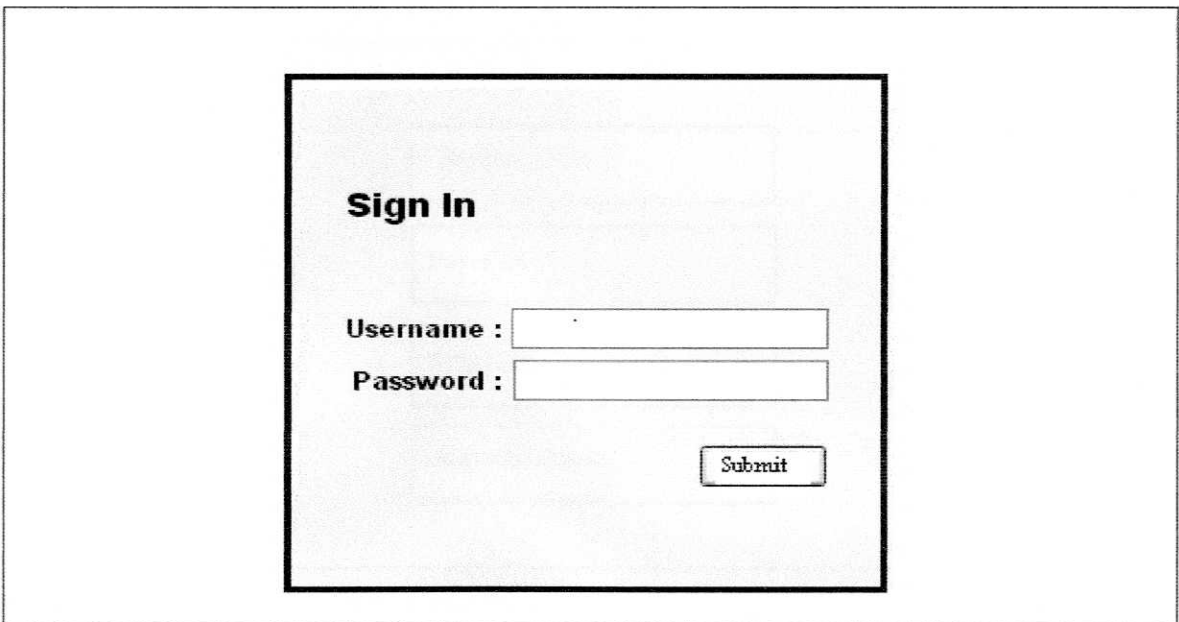


APPENDIX 1.6

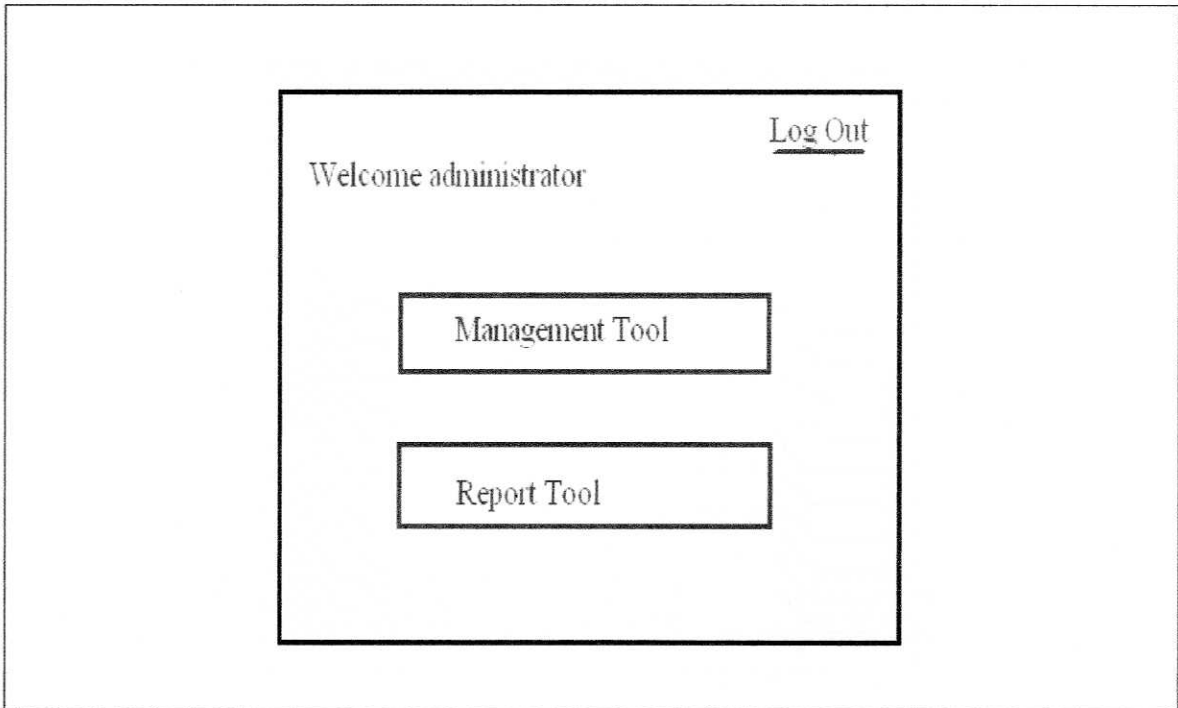
INITIAL DRAFT INTERFACE



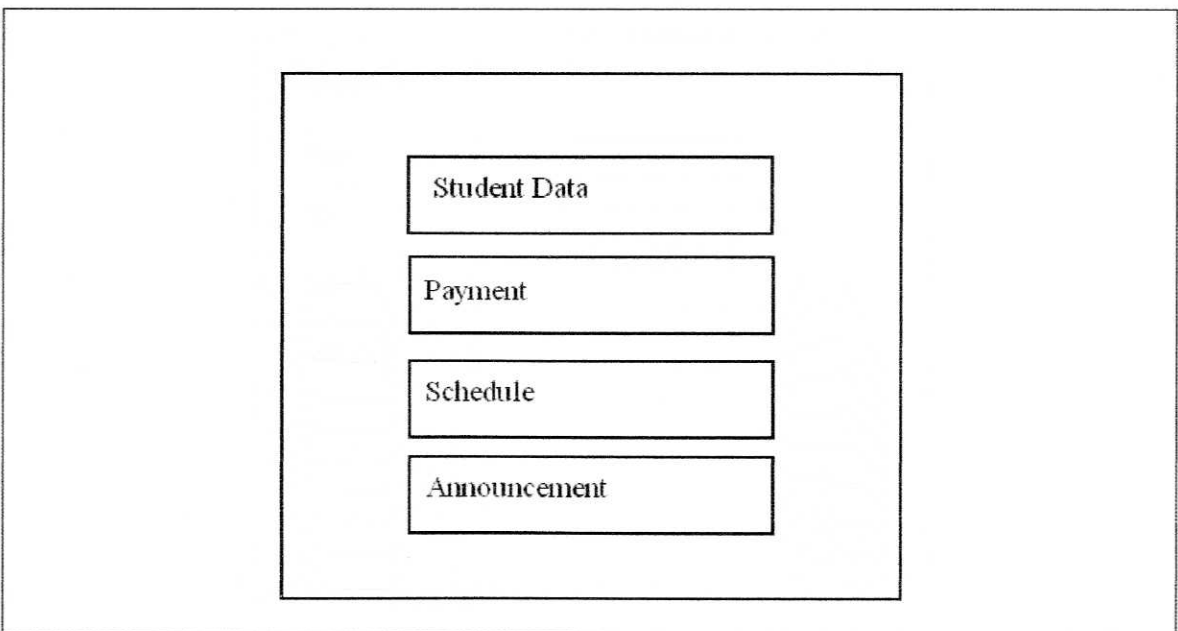
Interface Prototype of Front Page in the Internet



Interface Prototype of Sign in Page



Interface Prototype of Administrator Main Menu Page



Interface Prototype of Management Menu Page

Student Data

ID

Name

IC

Phone Number

Address

Guardian Name

Level

Interface Prototype of 'Student Data' menu page

Payment

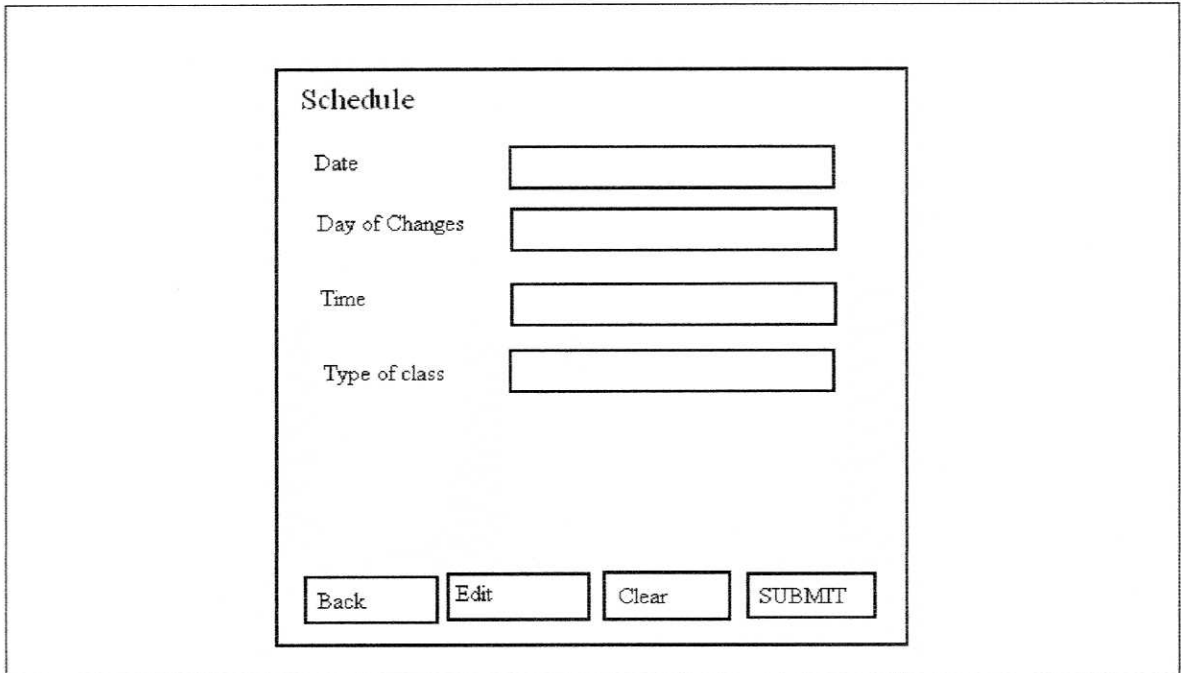
Name

ID

Month

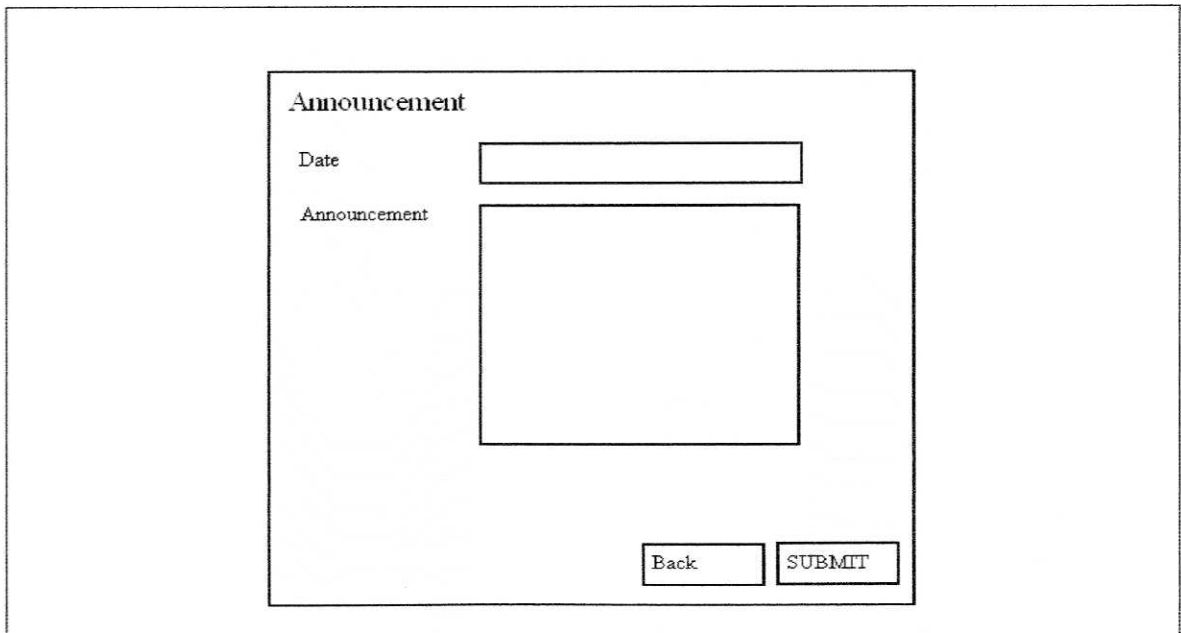
Amount

Interface Prototype of 'Payment' menu page



The image shows a rectangular window titled "Schedule". Inside the window, there are four labels on the left side, each followed by a horizontal input field: "Date", "Day of Changes", "Time", and "Type of class". At the bottom of the window, there are four buttons arranged horizontally: "Back", "Edit", "Clear", and "SUBMIT".

Interface Prototype of 'Schedule' menu page



The image shows a rectangular window titled "Announcement". Inside the window, there are two labels on the left side: "Date" followed by a horizontal input field, and "Announcement" followed by a large rectangular text area. At the bottom right of the window, there are two buttons arranged horizontally: "Back" and "SUBMIT".

Interface Prototype of 'Announcement' menu page

ATTACHMENT 1.1

PROJECT PROPOSAL

Borang Cadangan Tajuk



FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY

**BITU 3973
PROJEK SARJANA MUDA**

PROJECT PROPOSAL FORM

Student Name	Cheong Lang Ley		
Matric No.	B 030410126	Course	BITS
Session	2007	Tel. No.	012 377 0631
Email	langleych@gmail.com		
Supervisor Name	Cik Intan Ermahani binti A. Jalil		
Project Title	Dance School Management		
Keywords (5 keywords maximum)	1. information retrieving		
	2. management tool		
	3. reports		
	4. useful		
	5. dance industry		

Project Summary:

(Explain in briefly the project suggestion you wish to develop not more than 200 words.)

I would like to propose to build a web based system that would suit most small business enterprise companies. In this project, I would be focusing on the dance industry. The system entitled 'Dance School Management'. In this web based system, it would be able to present viewer all related information about the school as a normal website and at the same time allow

the management of the school to view the progress and status of the school using modules generated.

This project would be beneficial to all small business companies. In this web based system, it would benefit dance academies specifically as it would not only provide a good marketing tool but also as a good management tool. It would also enable analysis on the progress of the school.

The target users are viewer to the web page and also the management of dance schools.

Project Background:

(Please state the project background that wish to develop; Example: Industry types, what organization will be used, current system exist or not, also additional module to be proposed. Please use additional papers if necessary.)

The project focus is in dance industry and would be used in dance academies. Most dance academies have their own website but these website only provide information retrieving by outsiders. There is no current management system as dance academies are still using the manual system which is giving out receipts manually and keeping their data in physical files.

Project Objective:

(Please state the problems to make research and list of objectives to be achieved from suggestion project. Please use additional papers if necessary)

Most dance academies have their own website which only allow information retrieving and do not allow any managerial work to be done. These management tasks would need to be done offline. This might cause inconsistency in some companies if the management is always on the move.

With a web based system, it would be more effective for the management of a certain company. Plus, it would be more consistent too.

The objectives of the ‘Dance School Management’ project are:

- To allow better viewing of information
- To support administrative operations with increased efficiency and capabilities
- To allow a more mobile and better administrative management
- To provide capabilities for analyzing the progress of the business

Project Scope:

(State your project scope; Example: modules to be develop, target users, is it just for proof-of-concept and etc.)

The system being developed would suit most small business companies such as dance academies in the dance industry.

There would be two main users to the system. One of the users would be the viewer of the system who would like to get information about the school. The other would be the management of the studio whereby they could enter student's information, sending out emails and other basic management requirements. In addition, there would be reports generated to show the business status of the school. The reports are in charts form to enable better comparison and visualization. These reports would be able to show the management on the progress or downfall of the school.

This would help the school to prevent or solve a problem or issue.

In short there will be three main modules.

- View information : by Users
- Management tools : by the administrator of the school to help in management tasks
- Report tools : by the administrator of the school to show the school's progress and status

Project Requirements:

(State the project equipment requirements that will be use and state whether its new equipment or current or free)

1. Software requirements:

- a. Equipment/development tools (eg: IDE/Microsoft Project)
Zendcore, Rational Rose, PHP, Adobe Photoshop, Microsoft Words, Microsoft Project, Macromedia Dreamweaver
- b. Operating system/server (eg: OS/Web server/App Server)
Windows XP
- c. Database system (eg: Oracle/MS SQL Server/MySQL)
DB2 Express C

2. Hardware requirements:

(eg: special devices- biometric/PDA/handphone/PCs/server)
Normal computer

3. Network requirements:

Localhost

Verification:

Agreed by:

Approved by:

Penyelia

AJK Projek Sarjana Muda

Name :

Date :

Tel. No. :

Email :

Date :