SMART STUDENT SUBMISSION SYSTEM

WAI KAH KWAN

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This report is submitted in partial fulfilment of the requirements for the
Bachelor of Information and Communications Technology (Software Development)

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DECLARATION

I hereby declare that this project entitled

SMART STUDENT SUBMISSION SYSTEM

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

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(WAI KAH KWAN)

SUPERVISOR: _____ DATE:_____

(DR MOHD SANUSI BIN AZMI)

DEDICATION

To my parents who brought me here and my love ones.

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ABSTRACT

Nowadays, information is strongly related with human's life. Information provides knowledge about certain things in the world. Therefore, information should be documented, well-organized in order to convenient for future use. Document management system could assists human well in the management and organisation of the documents, to prevent the loss of information and to enable quick access to document when the document is needed. However, for UTeM students, the e-learning platform of UTeM doesn't offer the student with the functionality which can help the student to keep all their submitted work for future reference. Thus, Smart Student Submission System (4S) aimed to help the students in manage the submitted documents which belongs to them. This can be achieved by storing student's work in a well-organized way and enable student to access the document that they need as reference in a short period of time. Besides, the proposed system could minimize lecture's work in organizing all the documents submitted by their students as well.

In developing this project, Object Oriented Analysis and Design methodology is selected and will be used along the development process of project. The reason in which OOAD selected is due to its reusability of analysis, design and programming result. Reusability could be achieved through object-oriented approach as it enables inheritance, specialization and generalization of classes. This could save a lot of time as the necessary part of a class can be achieved through reusability without having to spend extra time to work for the particular pieces of works needed. Moreover, through OOAD, the communication among the stakeholders enhanced as the way of communication is simplified. Stakeholders are visualized idea though diagrams such as use case diagram, which makes the user requirement more clearly and understandable.

ABSTRAK

Projek ini dinamakan sebagai Smart Student Submission System (4S). Projek ini bertujuan untuk memastikan segala dokumen yang penting dapat diorganisasikan dengan terurus. Oleh disebabkan dalam era moden ini, informasi-informasi adalah sangat penting dalam kehidupan seharian kita tanpa kira golongan murid sekolah rendah ataupun golongan pekerja. Jadi, pengurusan informasi yang telah dikumpul dari semasa ke semasa ini adalah sangat penting dan ia merupakan tanggungjawab bagi semua untuk memastikan informasi tersebut daripada hilang. Namun ,bagi pelajar UTeM, aplikasi yang sedang digunakan oleh pelajar yang bernama Ulearn tidak mempunyai fungsi yang dapat memudahkan kerja pengurusan dokumen-dokumen yang telah dihantar oleh pelajar. Ini telah menyebabkan masalah apabila pelajar ingin merujuk kepada dokumen-dokumen yang telah dihantar sebelum ini sebagai rujukan. Jadi, Smart Student Submission System adalan bertujuan untuk menyimpan dokumen-dokumen yang telah dihantar tersebut dalam cara organisasi yang terurus, supaya pelajar-pelajar dapat medapatkan rujukan dalam masa yang terpendek. Akhir sekali, methodologi yang telah diplilih untuk membangunkan aplikasi ini adalah Object-Oriented Analysis and Design disebabkan kemudahan yang ia menyumbang kepada projek ini.

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

TABLE OF CONTENTS

DECLARATION I

DEDICATION II

ACKNOWLEDGEMENT III

ABSTRACT IV

ABSTRAK V

TABLE OF CONTENTS VI

LIST OF TABLE X

LIST OF FIGURE XI

INTRODUCTION 1

1.1 Project Background 1

1.2 Problem Statement 2

1.3 Objective 2

1.4 Scope 3

1.4.1 Student Management (Enrol student into system) 3

1.4.5 Subject Management (Create new subject in system) 5

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

1.4.6 Authenticaltion 5
1.4.7 Account Management 5

1.5 Project Significance 6

1.6 Expected Output 7

1.7 Conclusion 7

LITERATURE REVIEW AND PROJECT METHODOLOGY 8

2.1 Intoduction 8

2.2 Facts and Findings 9
2.2.1 Domain 9
2.2.2 Existing system 10
2.2.3 Comparison and Analysis 16
2.2.4 Techniques 17

2.3 Project Methodology 18

2.4 Project Requirements 20
2.4.1 Software requirement 20
2.4.2 Hardware requirement 20
2.4.3 Telecommunication requirement 21

2.5 Project Schedule and Milestones 21
2.5.1 List of task according to stages 23

2.6 Conclusion 24

ANALYSIS 25

3.1 Introduction 25

3.2 Analysis of current system 25
3.2.1 Problem analysis 26

3.3 Requirement Analysis 26

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

3.3.1 Data requirement 27
3.3.2 Functional Requirement 30
32
3.3.3 Non Functional Requirement 41
3.3.4 Use case diagram 42
3.3.5 Sequence Diagram 43

3.4 Conclusion 50

DESIGN 51

4.1 Introduction 51

4.2 High level design 51
4.2.1 System Architecture 52
4.2.2 Interface Design 53
4.2.3 Database Design 60

4.3 Detailed Design 66
4.3.1 Physical Database Design 66

IMPLEMENTATION 72

5.1 Introduction 72

5.2 Software Development Environment Setup 73

5.3 Software Configuration Management 74
5.3.1 Configuration Environment Setup 74
5.3.2 Version Control Procedure 75

5.4 Implementation Status 77

5.5 Conclusion 79

TESTING 80

6.1 Introduction 80

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

6.2 Test Plan 81
6.2.1 Test organization 81
6.2.2 Test Environment 82
6.2.3 Test Schedule 82

6.3 Test Strategy 84
6.3.1 Test Classes 85

6.4 Test Design 86
6.4.1 Test Description 86
6.4.2 Test Data 87

6.5 Test Results and Analysis 87
6.5.1 Testing Result Analysis 87

6.6 Conclusion 93

CONCLUSION 94

7.1 Introduction 94

7.3 Propositions for Improvement 96

7.4 Project Contribution 96

7.5 Conclusion 97

REFERENCES 98

APPENDICE 99
Appendix A: Test case for unit testing of Smart Student Submission System 99
Appendix B: Gantt chart for Smart Student Submission System (4S) 131

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

LIST OF TABLE

TABLE 1: COMPARISON BETWEEN 4S AND ULEARN 16
TABLE 2: PHASE AND ACTIVITIES OF OOAD 19
TABLE 3: PROJECT MILESTONE OF 4S AND DELIVERABLES 21
TABLE 4:DATA OF FILE 27
TABLE 5: DATA OF LECTURER 28
TABLE 6: DATA OF STUDENT_SUBJECT 28
TABLE 7: DATA OF STUDENT 28
TABLE 8: DATA FOR TASK 29
TABLE 9: DATA FOR SUBJECT 29
TABLE 10: DATA DICTIONARY (FILE) 61
TABLE 11: DATA DICTIONARY (LECTURER) 62
TABLE 12: DATA DICTIONARY (STUDENT_SUBJECT) 62
TABLE 13: DATA DICTIONARY (STUDENT) 63
TABLE 14: DATA DICTIONARY (TASK) 64
TABLE 15: DATA DICTIONARY (SUBJECT) 65
TABLE 16: VERSION CONTROL PROCEDURE 75
TABLE 17: IMPLEMENTATION STATUS 77
TABLE 18: TEST SCHEDULE OF TESTING ACTIVITIES OF 4S 83
TABLE 19: CLASSES OF FUNCTIONAL TESTING 85
TABLE 20: CLASSES OF NON-FUNCTIONAL TESTING 86
TABLE 21: TEST RESULTS FOR LOGIN 88
TABLE 22: TEST RESULTS FOR SUBJECT MANAGEMENT 88
TABLE 23: TEST RESULTS FOR STUDENT MANAGEMENT 89
TABLE 24: TEST RESULT FOR LECTURER VIEW TASK DETAIL 89
TABLE 25: TEST RESULTS FOR ACCOUNT MANAGEMENT 90
TABLE 26: TEST RESULTS FOR HOMEWORK SUBMISSION 90
TABLE 27: TEST RESULTS FOR SYNCHRONIZATION 91
TABLE 28: STRENGTHS AND WEAKNESSES OF SMART STUDENT SUBMISSION SYSTEM 95

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

LIST OF FIGURE

FIGURE 1: MAIN PAGE OF ULEARN 10
FIGURE 2: LOGIN PAGE OF ULEARN 11
FIGURE 3: MAIN PAGE OF ULEARN 11
FIGURE 4: MAIN PAGE FOR SUBJECT WITH LISTS OF REFERENCE AND TASKS 12
FIGURE 5: STUDENT HOMEWORK SUBMISSION PAGE 12
FIGURE 6: DIFFERENT ARCHIVE FOR ULEARN SYSTEM OF DIFFERENT SEMESTER. 13
FIGURE 7: LOCATION OF DROPBOX FOLDER IN LOCAL DRIVE 14
FIGURE 8: THE DIRECTORIES OF DROPBOX SYNC FOLDER 15
FIGURE 9: OVERVIEW OF SMART STUDENT SUBMISSION SYSTEM 32
FIGURE 10: FLOWCHART OF SMART STUDENT SUBMISSION SYSTEM 33
FIGURE 11: ACTIVITY DIAGRAM OF AUTHENTICATION 34
FIGURE 12: ACTIVITY DIAGRAM OF STUDENT MANAGEMENT 35
FIGURE 13: ACTIVITY DIAGRAM OF ACCOUNT MANAGEMENT 36
FIGURE 14: ACTIVITY DIAGRAM OF SUBJECT MANAGEMENT 37
FIGURE 15: ACTIVITY DIAGRAM FOR HOMEWORK SUBMISSION 38
FIGURE 16: ACTIVITY DIAGRAM OF SYNCHRONIZATION 39
FIGURE 17: ACTIVITY DIAGRAM OF LECTURER VIEW TASK DETAIL 40
FIGURE 18: USE CASE DIAGRAM OF SMART STUDENT SUBMISSION SYSTEM 42
FIGURE 19: SEQUENCE DIAGRAM FOR USER IDENTITY AUTHENTICATION 43
FIGURE 20: SEQUENCE DIAGRAM OF MANAGE STUDENT 44
FIGURE 21: SEQUENCE DIAGRAM OF SYNCHRONIZATION OF FILES 45
FIGURE 22: SEQUENCE DIAGRAM OF MANAGE SUBJECT 46
FIGURE 23: SEQUENCE DIAGRAM OF ADD TASK TO SUBJECT 46
FIGURE 24: VIEW TASKS DETAIL 47
FIGURE 25: SEQUENCE DIAGRAM OF USER MANAGE ACCOUNT 48
FIGURE 26: SEQUENCE DIAGRAM OF WORKS SUBMISSION 49
FIGURE 27: CLASS DIAGRAM OF 4S 52
FIGURE 28: LOGIN PAGE OF 4S SYSTEM 53
FIGURE 29: LECTURER MAIN PAGE 54
FIGURE 30: ADD STUDENT INTO SYSTEM AND SUBJECT 55
FIGURE 31: SELECT FILE TO ENROL STUDENT 55

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

FIGURE 32: MANAGE SUBJECT PAGE 56
FIGURE 33: ADD TASK INTO A SUBJECT 56
FIGURE 34: ADD SUBJECT INTO SYSTEM 57
FIGURE 35: MANAGE ACCOUNT BY CHANGING PASSWORD 57
FIGURE 36: STUDENT UPLOAD FILE PAGE 58
FIGURE 37: NAVIGATION DIAGRAM OF SMART STUDENT SUBMISSION SYSTEM 59
FIGURE 38: ENTITY RELATIONSHIP DIAGRAM OF 4S 60
FIGURE 39: TESTING RESULTS OF 1ST TESTING CYCLE. 92
FIGURE 40: TESTING RESULTS IN 2ND CYCLE 92

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

CHAPTER I

INTRODUCTION

1.1 Project Background

Nowadays, due to the rapid development in the sector of economic and technology, information acts as one of the important element which used to communicate with other member who interact in the same segment of market as well. It has become a routine for every member of the society to deal with the information every day. For instance, a businessman have to document all the transactions occurred for a day in order to prevent the loss of information which is about transactions occurred; even for a small kid, they have to organize all the knowledge learnt in the school well in order to ensure they can fully absorb the knowledge which have been taught by their teacher. Therefore a systematic way to manage and organize the documented information is very crucial to sustain the continuity of an information. A well-organized of information can ensure a person to obtain the needed pieces of information in a shortest time. Therefore, an effective yet efficient information management system is needed to guarantee that the information is well-organized and up-to-date from time to time.

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1.2 Problem Statement

There are few problems that directly influence the motives of the project.

i. The UTeM's e-learning platform is used by the student's for homework submission. However, there's no utitlities which enable the student to refer back all the submitted homework from the 1st semester until the current semester where he has been.

ii. Refer to the UTeM's e-learning platform, lecturers have to open the homework submitted by student one by one. Work that should be done by lecturer will become complicated if he/she teach for many subject. An application which can orgranize the homework submitted by student is needed in order to make the documents well-organized.

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1.3 Objective

This project embarks on the following objectives:

i. To make recommendations based on the e-learning platform of UTeM, with features which enable the student to manage all the submitted homework in a document management system systematically.

ii. To develop a system which can assist the lecturer in organizing their student's homework according to subject taught, in a document management system.

1.4 Scope

The core functionality of Smart Student Submission System (4S) is to enable the student to submit their homework and ensure that the submitted homework is always available whenever they need it. The project scope will explain about the boundaries of each module that have to be exists in 4S project. The following are the modules that exists in Smart Student Submission System.

i. Student management
ii. Homework submission
iii. Subject management
iv. Authentication
v. Acccount management
vi. Synchronization

1.4.1 Student Management (Enrol student into system)

Student enrollment into the system is done by the academic advisor of the system. The enrollment is done through the importation of .csv file which consists of student matric number,student name, courses as well as their faculty. After enroll the student into the system, student will become a member of the system. However,student has no right to enroll to a subject as this process will be done by their own subject's lecturer. A directories which named according to the student matric number will be created at the local drive of student.

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

1.4.2 Student Management (Enrol student into subject)

In order to add student into subject, lecturer need to have a list of student's matic no in .csv file , which later will be imported as the list of student who subscribe for the subject. Once, the subscription is done, student will have a subject folder that created under their own directories. The created folder will have the same interfaces as their lecturer's subject folder , which similar as the mirroring effect. However, students are restricted to view only their file while lecuturer has the right to view all his student files within the subject folder.

1.4.3 Homework Submission

Student can upload their homework file to the system as well. This could be done through the choose the file and upload into the right directories.A web service request will be called and upload the file to the server. If there's an update in server, the server will synchronize the updated file to lecturer's side once the lecturer log in into the system and the file will be available at the lecturer's side and lecturer can check for any updated file in their subject folder.

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1.4.4 Subject Management (Create tasks in subject)

Lecturer can create tasks inside the subject folder as well. The created tasks folder will available to student to subsribe to the subject. For instance, lecturer can create an task folder namely assignment under their subject folder. Inside the task folder, student can choose the right task folder to submit their work. After that, the server will check for any updates in student's file in every 5 seconds and these changes will be made to the lecturer's subject folder.

1.4.5 Subject Management (Create new subject in system)

Lecturer can also add in new subject into the system. The new registered subject will be registered under the id of the lecturer who registered for the new subject. The details of a subject will be required to filled up which will be given by the system. After the successful registration for subject, lecturer are managed to add in tasks for the subject.

1.4.6 Authenticaltion

The authentication will be done to the user of 4S system in order to identify the identity of the user. In this module, the user can enter their username and password inside a blank space provided in the module's interface. The system will further verify the identity of the user; if their identity is valid, the user can proceed further in the system.

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1.4.7 Account Management

In 4S, users are allowed to manage their account. However, they are only permitted to change their password instead of editing other details of their account. User are required to enter the old password as well as new password in order to change their password. After the new password is verified by the system, the updated password will be saved into database and user can login using their new password.

1.4.8 Synchronization

This module plays an important roles in the system. It provide synchronization of files for both lecturer and student. This can ensure the users of the system from losing their file if there's any disaster happen. Even the user lose all their files, through this modules, it will check for the file which lost in user pc, send request to server and download the files, save them inside the directory that located in the local drive of user.

1.4.9 View Task Detail

This module allows lecturer to view detail of a task in a subject folder. The provided detail include the total number of student who submit the homework and the remaining student who doesn't submit their homework as well.

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1.5 Project Significance

The most significant benefit of this project is that of it allows student's work to organize in a neat manner. Student can refer to any of their works whenever they need it as the submitted files are located inside the student's directories. This can increase the accessibility and availability of file. Besides, lecturers can also need not to be online to view those file submitted by students as all the works are synchronized to lecturer's subject folder instead of log into the system and check every works did by students.

1.6 Expected Output

The user of 4S will be able to manage all their file in systematic way and access to any pieces of their works in shortest time when they need it. Besides it enables the student works to be uploaded to server which means there will be another copy of works available on the server. Therefore, students no need to worry if their file are lost in local drive as recovery can be performed. Lastly, lecturers is able to view student's works inside the directories created in local drive.

1.7 Conclusion

In conclusion, this chapters covers the background information of 4S system. This system is aimed to provide a platform for student to submit their works and keep all the submitted workds available all the time at lecturer and student side. It also helps to keep a second copy of student's work so that the works wouldn't loss if any disaster happen to student's local drive. Student can also refer back their work in a shortest time as the files are well-organized. This can increase the availability of works when they need it.

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CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

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2.1 Intoduction

This chapter focus on the literature review done in order to implement the project as well as the methodology used to develop the Smart Student Submission System (4S). In order to get a crystal clear and better understanding on the background of the project, there are a lot of research and knowledge had been discovered, which could contribute to the current working. The major activities in 4S are upload files, manage files and get all the files synchronized. Besides, this chapter also contains the related facts and findings, project requirement specification as well as the project schedule and milestone. Besides, the methodology used in the project will also be discussed as well in this chapter.

2.2 Facts and Findings

This subchapter discuss for the facts and findings related to Smart Student Submission System (4S) which include the domain of the project, existing system that contribute to the emerge of current project idea and their comparison as well as techniques used to gather requirement. Furthermore, in this section, the pros and cons of the existing system will be discovered and determined, and contribute to the ideas on this project that will be used as solution to overcome the drawback of the system.

2.2.1 Domain

The domain of this project is related to cloud storage and transfer of file by utilizing the internet technology. Cloud storage is a service where data is remotely maintained, managed and backed up. Cloud storage makes the data available to its user at anywhere and anytime. It refers to a virtual storage area that can span across many different physical storage device (Introduction to Cloud Storage, 2015). Therefore, this had become one of the characteristics to be embedded to the idea of 4S. Due to its data availability, 4S is going to be an application that can be access anytime and anywhere as long as there is an internet connection to enable the synchronization of files to the server and vice versa.

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