

## THESIS^ APPROVAL STATUS FORM

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**ONLINE QUESTIONNAIRE BUILDER**

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## **DEDICATION**

To my beloved parent, your moral support is my greatest divine inspiration.

To my friends, your encouragement and well support in completed project.

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## ABSTRACT

Online Questionnaire Builder (OQB) is a web-based survey application. This application simplifies the entire process of the survey. This application is built for the use of researchers, students or any individuals who want to conduct a survey using the questionnaires to collect information. It provided the tools for user to create the survey question, distributing the survey via email, and tools for viewing the results by using the chart and graph. User could view the completed survey questionnaires before sending out the survey questionnaires for the respondents to fill in. Respondents will need to follow the link address to redirect them to the application of filling up the survey. The survey filled up is submitted by the respondents. The results of survey will be generated by the system from the responses given by the respondents. Methodology that is used to develop this application is the Object Oriented Analysis and Design (OOAD). This methodology is chosen because it could transform a complicated system into a set of less complicated sub-systems. It also provides mechanism to supports reuse of program code, design and analysis models. The configuration environment setup carried out is to setup an environment to approach testing. Testing strategy used is the black box testing technique. This strategy is chosen because it concerns the output generated by the application in response to the input prepared in the test data and execution condition. The importance of this project is to reduce the time for conducting a survey. Besides that, it also enables survey to be conducted faster, easier and effective. This application brings convenience to the user whom intention to conduct a survey is to obtain information.



## ABSTRAK

*Online Questionnaire Builder (OQB)* merupakan sebuah aplikasi web yang dibangunkan khas untuk penyelidik, pelajar atau individu yang ingin menjalankan pertanyaan soal selidik bagi mendapatkan maklumat. Aplikasi OQB menyediakan ruang kepada pengguna untuk menjana borang soal selidik dengan soalan-soalan yang berkaitan, menghantar soal selidik kepada orang yang terlibat melalui e-mel, dan kemudahan untuk pengguna menganalisa keputusan soal selidik dalam bentuk graf dan carta. Pengguna boleh melihat borang soal selidik yang lengkap dijana sebelum dihantar kepada responden untuk dijawab. Responden hanya perlu mengklik alamat laman web yang tertera di dalam e-mel dan akan diarah ke laman web yang dihaskan untuk menjawab soal selidik yang dibangunkan oleh pengguna. Selepas selesai menjawab kesemua soalan yang disediakan, borang soal selidik yang lengkap diisi akan diserahkan oleh responden untuk diproses. Keputusan bagi soal selidik akan dijana oleh sistem mengikut tindak balas daripada responden. Metodologi analisa dan rekabentuk berorientasikan objek digunakan untuk membangunkan aplikasi ini kerana ia mampu memudahkan sistem yang berkomplikasi tinggi kepada set sub-sistem yang kurang menyukarkan. Ia juga menyediakan mekanisme yang menyokong penggunaan semula kod program, rekabentuk dan model-model analisa. Model persekitaran ala-sebenar disediakan bagi tujuan pengujian. Pelan pengujian yang digunakan untuk mengkaji kesahihan OQB adalah melalui kaedah pengujian kotak hitam. Kaedah pengujian ini dipilih kerana ia prihatin terhadap hasil yang diperolehi aplikasi dalam gerak balas terhadap data-data yang dimasukkan, dibandingkan dengan hasil yang dijangkakan dan keadaan perlaksanaan. Salah satu kelebihan yang dibawa melalui penghasilan OQB adalah ia dapat memendekkan jangka masa perjalanan proses soal-selidik. Selain itu, ia juga membolehkan soal-selidik dijalankan dengan mudah dan berkesan. Aplikasi OQB memudahkan pengguna yang hendak menjalankan soal-selidik untuk mendapatkan maklumat daripada responden-responden yang terlibat.

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**LIST OF ABBREVIATIONS**

<b>ABBREVIATION</b>	<b>DEFINITION</b>
ERD	Entity Relationships Diagram
GB	Giga Byte
G Hz	Giga Hertz
ID	Identity
IIS	Internet Information Service
LAN	Local Area Network
MS	Microsoft
OQB	Online Questionnaire Builder
PHP	PHP: Hypertext Preprocessor
RAM	Random Access Memory
SMTP	Simple Mail Transfer Protocol
SPSS	Statistical Package for the Social Sciences

## **CHAPTER I**

### **INTRODUCTION**

#### **1.1 Introduction**

Questionnaire is a type of statistical survey handed out in paper form usually to a specific demographic to gather information in order to provide better service or goods [1]. Online Questionnaire Builder or OQB is a web based survey system that allow user to streamline and simplify the entire survey process from questionnaire design to the presentation of the results. This online survey system consists of intuitional wizard interface for creating survey questions, tools for distributing survey via email, and tools for analyzing and viewing the results by using graphs. OQB is developed for the use of researchers, students, questioner or any individual who wants create questionnaires to collect information for various fields.



## 1.2 Problem Statements

The current way for conducting the survey met the following problems:

- i) Standard of questionnaire.

In the recent trend of the survey process, users create questionnaires manually by using any words processing editor such as Microsoft Word. The questionnaire built is normally not a standard questionnaire and according to user's preferences.

- ii) Time for conduct survey is long.

User need to duplicate, distribute the questionnaires, collecting feedback and reporting results manually. Therefore, it will be a time consuming process to conduct the questionnaire survey manually.

- iii) Questionnaire limitation

Another major obstacle in recent survey environment is that all respondents are required to follow the same sheet of standard questionnaire provided. There would be a situation where the respondent will simply answer or skip to ignore any inconsequence question provided. Thus, the results received will not be precise, thus affecting the questioner needs.

- iv) Analyze the survey

The questioner needs to analyze after receiving the responses from the respondents. There might be a problem in calculating the responses or miss calculating the result by using manual way.

### 1.3 Objectives

OQB is developed to reduce obstacles and ensuring a useful online survey system is built which will meet the following objectives:

- i) To allow users to create surveys

This OQB allow user to create questionnaires in which users can create, edit, test and perform administrative functions for their survey.

- ii) To conduct survey faster and less cost

The cost for conducting the questionnaire through OQB is less compare to paper-based questionnaire. The questionnaire created by OQB could deliver to any number of people simultaneously and the responses collect back in an electronic format.

- iii) To simplify the survey process

Once the responses filled by respondent are received, the application will do a simple analysis on the feedback and generate a simple pie chart and bar graph.

## **1.4 Scopes**

The scope of the project is about what is included in and excluded from a project. The scope of the project is divided into three categories which are data, user and functionality.

### **1.4.1 Data**

Data is needed to create a questionnaire. These data can be obtained from the internet. Find out the template of questionnaire that is suitable for the project by interviewing the user. Analysis need to be conducted to produce the analysis report of different type of interface design element like drop down, radio button, text area, combo box, and so on. The analysis of the elements is important to create the tools that bring convenience to the user.

### **1.4.2 User**

This project targets students, researchers, and individuals who want to conduct a survey. These targets come from various fields such, as business, education, marketing, and services. Each field requires different types of questionnaire. The questionnaire builder aims to enclose all the fields.

### **1.4.3 Functionality**

The online questionnaire builder includes a lot of functions which helps to improve the process of questionnaire in time manner. Creating the tools for user to create, edit, test questionnaire, and view the questionnaire. The questionnaire can be

preview and edit being sent out. The system can distribute the questionnaire via email and received feedback for the questionnaire. Thus, it will reduce the time factor for both distributing and collecting the questionnaires. Then, simple analysis can be done by the application from the feedback of the respondents, and displayed in graph format.

### **1.5 The Importance of Project**

This project is important because this online questionnaire builder will help the user to reduce the time for creating and distributing the questionnaires and collect the responses from the respondents.

This application is equipped with tools for user to create their own questionnaire or edit the questionnaire from the questionnaire template. After creating the questionnaire, it can be sent simultaneously to any number of people which is included inside the mailing list.

This application can receive the response in electronic format via online. After receiving the responses, the results will be generated automatically by the system using chart, graph or report. Therefore, it will reduce the time for analyzing the responses from the respondents.



## **1.6 Expected Output**

The expected output will be an online survey application which can allow the user to conduct the survey more efficiently besides providing a more precise result which is generated by the application.

This application provides a user-friendly interface for the user to create the questionnaire. User can either built a new questionnaire or edit the questionnaire from the questionnaire template provided. Users are allowed to view the questionnaire before sending them out.

The function for distributing the survey in this application reduces the time for distributing the survey. The responses of the survey could also be received for analysis purpose.

The application will auto generate the results from the responses of the survey distributed. The result will be display after the user interactive with the system.

## **1.7 Conclusion**

Online questionnaire builder is a better tool to replace the paper-based questionnaire. It reduces the time for the overall process from creating the questionnaire until the results analysis process. The online application hoped to reduce the work of the researcher, student and individual who wants to conduct a survey.



## CHAPTER II

### LITERATURE REVIEW AND PROJECT METHODOLOGY

#### 2.1 Introduction

Literature reviews are based on a systemic reading of existing academic writing on a particular topic and to survey and report on a reasonably large or complex field of work, in the process developing some themes to make the review distinctive. [2]. First, read and take the note from the existing system. The existing system information can be obtained from journals, web pages, articles or books. Secondly, analyze the note taken to carry out the valuable results. Theories and concept that are related to the project are discovered in this section to get an idea to develop the project.

Besides that, this chapter also discusses about the project methodology. The methodology describes the process flow of the software development in order to implement the project from the start of the project until the end of the project. With the methodology, the development of the project will be more systematic.