UNIVERSITI TEKNOLOGI MARA

SURVEY MANAGEMENT SYSTEM USING DATA VISUALIZATION METHOD

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Survey Management System Using Data Visualization Method

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This thesis was prepared under the supervision of the project supervisor, MR. CHEW CHIOU SHENG. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfilment of the requirements for the degree of Bachelor of Computer Science.

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JANUARY 31, 2017
STUDENT DECLARATION

I certify that this thesis and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

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ABSTRACT

Surveys are a reliable method to gather numerous data quickly and effectively but the manual evaluation of data collected from surveys take a long time and a lot of effort. Processing huge amounts of data is tiring and huge amounts of raw data acquired from surveys are hard to interpret. The prototype developed in this project aims to overcome the problems stated by automating the survey evaluation process thus reducing time and effort wasted and visualizes the data to facilitate the interpretation of huge data at first glance. The Likert scale was chosen as the data collection method as it is deemed convenient and reliable in gathering quantitative data, the Diversity Map was chosen as the visualization method due to the fact that it is efficient in displaying quantitative data and is very effective in showing diversity in data thus aiding first glance interpretation. The framework used for development is the agile method due to its versatility, it consists of four phases which are requirement analysis, design, development and testing. The prototype consists of two modules which are the researcher and respondent module. The researcher module requires registration before becoming available for use and has the functionality to login, create surveys and view the visualized survey results while the respondent module answers the survey given by the researchers. Testing was conducted on the prototype both in functionality and in its ability to handle actual data. The functionality testing shows that the prototype meets the expected outcomes and the actual data testing also gives positive results and proves that the Diversity Map visualization can aid in first glance interpretation of big data. This shows that the prototype can be used by researchers to reduce the troubles of manual questionnaire surveys and improves the interpretation of data by using data visualization.
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