WEB-BASED PREDICTION SYSTEM OF RESTAURANT POPULARITY USING LINEAR REGRESSION

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Web-Based Prediction System of Restaurant Popularity using Linear Regression

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This thesis was prepared under the supervision of the project supervisor, Puan Nor Azida Mohamed Noh. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfillment of the requirement for the degree of Bachelor of Computer Science(Hons).

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JULY 24, 2017

STUDENT DECLARATION

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

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ABSTRACT

Web-Based Prediction system of Restaurant Popularity using linear regression is a system which can provide the user about the prediction of most favorite restaurant that available in the Melaka State. Currently the information about the most popular restaurant that available on the internet is too many. It is difficult for the user to locate the restaurant from the web because the access to information that available is increasing intensely and it is difficult to guide every Tourist who visits the Melaka. The primary purpose of this project is to develop Web-Based Prediction System of Restaurant Popularity using Linear Regression using the data which be an extract from the web. The Project was divided into five main phase which is Requirement Gathering Phase, Analysis Phase, Design Phase, Development Phase and lastly the Testing Phase. The Data for the Requirement Phase is obtained by using Foursquare APIs. The raw data which collects in the requirement phase will be processed through the analysis phase. The unnecessary data which is unneeded for the system will be filtered. To develop the system, the processed data will be used to calculate the Restaurant Popularity using probability in Design and Development Phase. The result from Restaurant Popularity will be used to calculate the prediction. The algorithm that is applied to calculate the prediction is Linear Regression. The result of the Linear Regression will be testing using Comparison Testing and the system will be tested by using the Functionality Testing. The result of the comparison shows that the similarity of the output is more than 50 percent and it can be concluded that the data that had process in this project is valid and can be used. From this project, it will benefit the tourist that come to Melaka. The tourist will be able to obtain more accurate information about the restaurant that available in Melaka. Future recommendation for this project is to enlarge the scope to include others state and be able to automate the process of retrieved data. It also wise use another platform to collect data such as ElasticSearch which be able to provide a broad range of data.