ABSTRACT

BUILDING RUMANTARA STARTUP BY DESIGNING ROOM RENTALS WEB APPLICATION USING ITERATIVE AND INCREMENTAL METHODOLOGY

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Nowadays more and more the needs of travelers regarding a place to stay for a while when they doing the tour. But rarely travelers can find a place to live in accordance with the needs and budget of the travelers. In the end, travelers need to ask people around about a place to stay.

To overcome this, the researcher made an application that will help the traveler to find a place to stay during their tour. A traveler can also get information and cultural experience directly from the room owner. The application to be developed is called Rumantara. Rumantara is a startup that runs on the room rentals field. The main purpose of Rumantara is to help travelers find a place to stay easily and efficiently also help to increase the economy around the tourist attractions.

Systems that provide online room rental services are not new in Indonesia. There are several competitors that have similarities. Airbnb and Airyrooms are the examples of startups that runs on property rental field. Airbnb specializing for whole house rentals and Airyrooms specialize for hotel rentals. This is an opportunity for Rumantara to take the rental rooms that will be marketed in accordance with the needs and budget of travelers.

To get the best result on Rumantara website development, it is divided into several divisions. Rumantara's division consists of front-end, back-end API, back-end Admin, and Mobile Development (Android). In this study, the researcher will focus on the development of front-end on Rumantara website. The development concept that will

be used in this research is Single Page Application. This concept can improve the performance on the website by simply retrieving the data API from the server then the rendering process will fully in client side. To support this concept, the researcher uses ReactJS as Javascript library.

Software Development Life Cycle (SDLC) that used by researchers to support the development of Rumantara's website is iterative and incremental, which this method prioritize the needs of users. This methodology is matching with the current condition of Rumantara, which is a small team but need to get the best result from user requirements. In this study, research use 3 iterations to develop an application as the alpha version.

The result of this study is a website with online rental rooms feature equipped with online transaction and e-wallet on Rumantara. Front-end website that uses Single Page Application concept to improve performance on tested websites.

Keywords : room rental management, single page applicatioin, iterative incremental.