UNIVERSITI TEKNOLOGI MARA

DEVELOPMENT OF A MOBILE WORKFORCE SOLUTION FOR MAJLIS BANDARAYA PETALING JAYA (MBPJ) BUILDING DEPARTMENT USING RAPID APPLICATION DEVELOPMENT (RAD)

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ABSTRACT

This project shows how mobile communication and technology can be used on City Council domain. More specifically, the goal of this project is to design and develop a mobile workforce concept that gives field workers a better possibility to do the building inspection in real time, utilizing mobile devices such as mobile phones and tablets. At the beginning of this project, user study and information gathering was conducted at Majlis Bandaraya Petaling Jaya Building Department. According to the result of interview with both officer expert and field workers, a preliminary use case of the concept mobile workforce management was defined. This project is implemented using Rapid Application Development (RAD) methodology, with the usage of Mendix Business Modeler version 5.5.0. By using microflow in Mendix software the use case was continuously refined and rewritten and user interface was designed in from sketches to high-fidelity prototype. Finally a fully functional prototype which used as mobile workforce was implemented on iOS mobile platform and evaluated by both experts in MBPJ Building Department. The result on this project illustrates the current state of the art technologies on mobile device can be used in City Council to help field workers and architects with their daily work.

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