Universiti Teknologi MARA

Android Mobile App: Image-based Form Filling

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ABSTRACT

Filling out forms distributed by hand can be cumbersome for some people especially when they have to fill out form with insufficient writing facilities which may result in illegible handwriting that cause longer time for form processing by the clerk. Therefore, this project is an approach to overcome the issue by make use of digitized paper-based form using the mobile phone's camera. Image of the form is captured and filled by annotating text onto the digitized image of the form and stored in database. This project is developed by using HTML5, JavaScript and JSON that enable annotation on image. The application has been tested for 4 sets of form and the result shows that it is functional for utilization in many field, such as image labelling in crime scene investigation, geology, archelogy and also for commissioning.

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CHAPTER 1

INTRODUCTION

This chapter will focus on the basic overview of the research background as well as the problem that triggered the researcher to conduct a research and study of the form filling application with annotated digitized image-based form.

1.1 Background of Study

About 80% of institutions still depend on paper-based records, as mentioned in survey conducted by Barrus and Schwartz (2014), even with the rapid implementation of electronic records. Paper is a primary method used by 10% of those institutions for documenting information.

In low-resource settings in developing countries, most registry are still documented and kept using paper forms. Paper forms endure as a trusted, inexpensive and omnipresent channel that will continue to be used in these communities for years to come, in defiance of a recent generation of digital data collection systems. Paper forms support flexibility and usually can be handed out efficiently and also, paper forms have more truth value secured to them as compared to online applications, where it is facile to recognize and verify the form filler (Shah, Shetty, Gaonkar & Shankarmani, 2016).

Filling out a form is a very typical work in usual task, yet could be a burdensome process and might disturbs the productivity in office. Form filling, as in making applications or in data collection, is a standard procedure in the majority of business and government entities. Present system of applying services in offices, either or private offices, obligates customers to fill up their information on paper-based application forms manually using handwriting. Haron et al. (2013) highlighted that this kind of system may cause mistakes and vulnerable to fraud due to the traditional practice of filling out forms manually by handwritten.