Chapter 17
AcAd: An Interactive Android-based Mobile Application for Academic Advisors

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Abstract

Academic Advisor in Universiti Teknologi MARA plays an important role in guiding their students in academic education throughout the learning process in the university. The students need to seek for guidance from their Academic Advisor so they can be assisted to graduate within the prescribed period. There are problems in understanding Student Information Management System (SIMS) application since there are many features available to be used by academic advisors. There will be an ad hoc situation where academic advisors need to help their students to add or drop subjects or even allowing the students to take certain subjects. Academic Advisor Mobile Application (AcAd) is an android-based application which is inspired by ‘Manual Penasihat Akademik’ e-book provided by the Academic Affairs Department of Universiti Teknologi MARA (UiTM). It gives useful information for academic advisors to use SIMS. AcAd provides the mobility features for the academic advisors to learn on how to use SIMS anytime anywhere using their smartphones. This project took the innovative step for improvising the academic advisor manual by providing AcAd for academic advisors. Academic advisors can simply download AcAd to understand the manual for SIMS and read it from their smartphones. AcAd will ease academic advisors by providing more user-friendly interface for comprehending SIMS manual.

Introduction

Academic advisor plays an important role in guiding and monitoring the students in accomplishing their academic programme. To elaborate, academic advisors can assist the students in graduating within the prescribed period, obtain the level of achievement with appropriate academic ability as well as to bring out their potentials. In order to help the students in doing course-related procedures, Student Information Management System (SIMS)(UiTM, 2016) is used to help the advisors to do the procedures online. The use of existing ‘Manual Penasihat Akademik’ gives resources on how to use SIMS. However, there are some limitations in optimizing the sources. The limitation in existing ‘Manual Penasihat Akademik’(UiTM, 2011) e-book can be revealed in navigation point of view. By using the existing e-book, the book can only be flipped by using button or cursor. The AcAd project sees the opportunity in enhancing the e-book functionality since the existing e-book does not have ‘search by page’ support. By using AcAd, academic advisors are able to access on how to approve on course registration more easily. With AcAd implementation, the turnaround time will be reduced whereby it promotes efficiency and advisors will be more responsive to their students. Next section explains advantages of AcAd mobile application and also elaborates on software methodology chosen for developing AcAd.
Content

AcAd mobile application, which is inspired from ‘Manual Penasihat Akademik’ (UiTM, 2011) of Universiti Teknologi MARA (UiTM), is designed and developed by using Feature Driven Development (Gallardo, Bravo, & Redondo, 2012; Hunt, 2006). This software methodology is adopted in this project so that it can be developed incrementally and iteratively until the finished product is achieved. The incremental development is based on features that are needed to be highlighted to ensure that academic advisor can benefit the mobile application. Fig. 1 elaborates Feature-Driven Software Methodology which is used in developing AcAd.

![Feature-Driven Development Software Methodology for AcAd Mobile Application](image1)

The benefits of AcAd mobile application can be seen from certain aspects. First and foremost, AcAd provides mobility to the academic advisors whereby the can access the application anytime and anywhere with their smartphones. To enhance the the existing e-book, AcAd provides menu section to improve navigation. Secondly, AcAd provides search features by using table of contents. In addition, with add-on ‘search by keyword’ and hyperlink access, it allows academic advisors to key in any keywords regarding e-book contents. Overall, AcAd helps the academic advisors in supporting user friendly environment to help them navigating the e-book more easily and hence producing a usable product. Fig. 2 depicts an example of main page for initiating AcAd navigation.

![AcAd Development Platform](image2)
Conclusion

In order to optimize the benefits of ‘Manual Penasihat Akademik’ e-book, AcAd provides mobility support to ease academic advisors as well as navigating feature that e-book. AcAd also addresses the usability issue of existing ‘Manual Penasihat Akademik’ by improving learnability skills in searching information. The usage of AcAd can help academic advisors to clarify program requirements, policies and procedures related to SIMS, assist the student in identifying appropriate UiTM resources, facilitate relationships between the student and academic advisors. In the future, this project will develop and expand the optimization of e-book by adopting to other manual which are produced by UiTM.

References