Mobile Web-Based Information System for thesis's Administration in University PGRI Yogyakarta

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Abstract. This research aims to develop an Information System thesis’s administration that efficient and effective supported by computerized administration system or on-line system. The subject of this research is Universitas PGRI Yogyakarta which have 13 study programs. Mobile web can use in the thesis’s administration system. It can facilitate the management of required letters and essay recap. This system can also browse the titles of the thesis that has been created so as to reduce duplicate titles of the thesis. This study concludes that the use of thesis administrative systems can facilitate and accelerate the management of the required letters. It also can sorting titles of the essay that has been taken so as to avoid duplication. Based on black box testing, it is found that the whole function has been run well, the functions tested include: (1) User Verification (2) Data Management (3) Information and reporting. 3) Based on the alpha test it can be seen that the system developed in usability is considered good, the assessment aspect includes: ease of use, ease of navigation, access speed, completeness of features and attractive appearance.

1. Introduction
Universitas PGRI Yogyakarta (UPY) is one of the Universities where located in Yogyakarta. One of the academic processes in the UPY is the thesis as the final task of a student. The thesis is a compulsory course that must be completed by each student to end his / her study period to obtain a bachelor's degree (S1). In the process of thesis's administering, there is a procedure that must be fulfilled by each student.

The thesis's administrative process of UPY is handled by the administrative staff of each Study Program and it always routinely done every semester. Now UPY has 13 (thirteen) study program, and each study program has similar systematics in thesis's administrative management. But data processing in each study program is still computerized in simple, where the thesis data is stored in the folders created by administrative staff in excel format (* xls) and word (* doc). It not yet managed using the information system integrated and online access to all users who are involved in the administration of the final assignment.

That conditions make administrative staff experienced, have some difficulties such as in preparing required letters in the thesis's administration, obtaining information from processing the thesis, recapitulation of thesis's data. This was felt inefficient for the administrative staff because it took a long time to prepare the thesis's administration. The administration system will be efficient and effective if it is exercised at the college level and uses a uniform format, and is supported by a computerized administration system or on-line system [2]. Web Mobile is a collection of HTML pages with browser-based. Which can be accessed with various operating system platforms, and multiple...
device sizes (PC, laptop, smartphone, and tablet) via internet or telecommunication networks such as 3G, 4G, or WiFi. [4].

Based on the above description it is necessary to build a Mobile Web-Based Information System for thesis’s Administration in University PGRI Yogyakarta. It can be used optimally and according to existing business processes so that can appropriately meet user needs associated with thesis’s administrative process.

2. Method

This research used the Research and Development (R & D) method, which is a strategy or research method of a series of processes or steps to develop a new product or refine existing products to be accountable. The new product that is produced in this research is the Mobile Web Based Information System for thesis’s Administration in University PGRI Yogyakarta. Design Model used in the Context Diagram. It describes 6 users in that system: Students, Administrative Staff, Head of Study Program, Supervisor, the Tester, and Dean. Identification of data (input) and information (output) can be seen in Figure 1.

![Figure 1. Context Diagram](image)

3. Results and Discussions

Some forms are used in the implementation of this Information System for thesis’s Administration in University PGRI Yogyakarta

3.1. Submission Form

Submission Form is designated to a student who will make the title submission. This page can be accessed through the keystrokes List on the Login form. On this page students enter data entry include: Name of Student, Sex, Place of Birth, Date of Birth, Origin of School, File Photo, Thesis Title, Photo Files, Email and Password. After filling in all data entry, the student can click the Save button to have the pre-filled data stored in the system database. The submission form can be seen in Figure 2.
3.2. Supervisor Information

Supervisor Information page is for students who have submitted the thesis’s title. The information presented includes Study Program, Academic Year, Semester, Date SK, No SK and intelligence of students who have received supervisor presented in tabulation form. The tabulation consists of: (1) NPM and Name; (2) Thesis Title; (3) Advisors I & II. The information on this page can also be printed by clicking the Print button. The page view of the Supervisor and Final Information can be seen in Figure 3.

![Figure 2. Submission Form](image)

![Figure 3. Supervisor Information](image)

3.3. Information Schedule

Page Information Schedule of the Proposal Exam is for students to know the exam schedule of their proposal along with other students who have the same plan. The information displayed includes: Date SK, No, SK, Day, Exam Date and Time (hours of execution of the exam). The list of examinees is
shown in tabulation with the following columns: (1) NPM and Name, (2) Thesis Title, (3) Supervisor I & II, (4) Examiner & Secretary. The information displayed can be printed by hardcopy or softcopy in pdf file by pressing the Print button. The Proposal Exam Schedule Information can be seen in Figure 4.

3.4. Thesis Supervisor
This page is used by staff and Chairman of the Study Program to manage data SK final coaching guidance. This page can be accessed through the menu: SK TA guides found on the left panel of the page. On this page, the operations that can be done is Add Data, Edit Data and Delete Data and Data Details. Information is presented in tabular form. The columns shown include Date, No. SK and Number of Titles. This page can be seen in Figure 5.
3.5. Supervisor Information
This page is for Supervisor known the students who become guidance. This page can be accessed through the Guidance List menu. The information displayed may be filtered by the Festive Year and Semester. Information is presented in tabulation with the following columns: NPM and Name, Thesis Title, 1st, and 2nd Counselor, Status, Number of Meetings. Supervisors can see in detail the record of appropriate student guidance by clicking the Print button. The page can be seen in Figure 6.

![Figure 6. Supervisor Information](image)

3.6. Exam Thesis Result
Exam Result page used by Staff and Chairman of the Study Program to input data of the final exam results based on a particular SK (schedule). The information shown includes: Date SK, No. SK, Exam and Test Date (exam time) as well as a list of thesis proposal exam results, including NPM and Name, Thesis Title, Revised Values, and Notes. The operations that can be done are Edit, Add and Print. Examination Result page can be seen in Figure 7.

![Figure 7. Exam Thesis Result](image)
4. Conclusion

Information System for thesis’s Administration in University PGRI Yogyakarta Has been successfully established. The stages used using the Waterfall approach include the following steps: (1) system analysis; (2) system design; (3) system implementation; (4) system testing; and (5) system installation. Each step is done carefully one by one so that the levels are done in linear.

Based on black box testing, it is found that the whole function has been run well, the tasks tested include (1) User Verification (2) Data Management (3) Information and reporting. 3) Based on the alpha test it can be seen that the system developed in usability is considered good, the assessment aspect includes: ease of use, ease of navigation, access speed, completeness of features and attractive appearance.

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