Lecturer Monitoring Information System in Providing Documents at the Faculty of Engineering University of Muhammadiyah Cirebon

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Abstract. The availability of document in an agency, both government and private, is important, because document contain information that can support all forms of activity in the agency. The availability of document at special higher education institutions of the faculty of engineering does not escape the role of lecturer, as people who play a role in preparing or preparing the necessary document for certain task. However, in its implementation, lecturer are sometimes often late in providing the necessary document, so that this can hinder ongoing activity. Therefore, in this study, the author created an information system to be able to monitor lecturers in providing documents. Users of this system are system administrators, deans, heads of study programs and lecturers. Based on the test results, the lecturer monitoring information system in providing documents can carry out assignment activities for lecturers, collection of assignment documents by lecturers and monitoring processes during the lecturer concerned in the assignment. With the lecturer monitoring application in providing document, the engineering faculty can monitor lecturer who have or have not collected document. The system also provides convenience for lecturer in monitoring the status of document that have been collected, whether they have been followed up or not by the faculty.

Keywords: Information System, Lecturer, Document, Monitoring, Task, Faculty of Engineering

INTRODUCTION

A document is an essential or valuable written letter that functions or can be used as evidence or information. The availability of documents in a university institution remains the role of lecturers. The presence of lecturers is necessary for implementing higher education Tridarma activities and is the lecturers' responsibility. Fast and accurate information services are needed today, especially with the support of very advanced information technology. The Faculty of Engineering of the University of Muhammadiyah Cirebon wants progress in providing documents by lecturers. Lecturers' delays in providing documents can hamper existing activities.

The lack of monitoring of lecturers in providing documents is the main factor that results in lecturers needing to arrive on time to provide the documents the Faculty of Engineering
needs. From the results that the author conveyed, the author considers it essential to put it in an S1 study entitled "Lecturer Monitoring System in Providing Documents at the Faculty of Engineering, University of Muhammadiyah Cirebon" in the hope that it can help the process of providing documents by lecturers at the Faculty of Engineering, University of Muhammadiyah Cirebon.

**Troubleshooting**

![Figure 1 System Image](image)

Figure 1 is a drawing of the system that will be made and aims to assist in providing documents at the Faculty of Engineering. In this system, there are 4 (four) actors; the first is the admin, the person who manages the data on the system. Furthermore, the second is the Dean, who plays a role in following up on the documents collected by the lecturer. The third is the Head of Study Program, which monitors lecturers assigned tasks by the Faculty according to their study programs. The fourth is a lecturer who acts as a recipient and executor of tasks given by the Faculty of Engineering.
System Planning

Use Case Diagram

Based on the activities of the actors above in this case are admins, deans, heads of study programs and lecturers, it can be illustrated using the following Use Case Diagram:

![Use Case System Diagram](image)

Figure 2 Use Case System Diagram

<table>
<thead>
<tr>
<th>No</th>
<th>Proses Bisnis</th>
<th>Aktor</th>
<th>Use Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Login, Menggunakan email dan password</td>
<td>Admin, Dekan, Kaprodi, Dosen</td>
<td>Login</td>
</tr>
<tr>
<td>2</td>
<td>Menambahkan dokumen tugas</td>
<td>Dosen</td>
<td>Menginput Dokumen</td>
</tr>
<tr>
<td>3</td>
<td>Menindaklanjuti dokumen</td>
<td>Dekan</td>
<td>Konfirmasi Dokumen</td>
</tr>
<tr>
<td>4</td>
<td>Memonitoring dosen</td>
<td>Dekan, Kaprodi, Admin</td>
<td>Monitoring Dosen</td>
</tr>
<tr>
<td>5</td>
<td>Mengelola seluruh data pada sistem</td>
<td>Admin</td>
<td>Mengelola data</td>
</tr>
</tbody>
</table>

Table 1 Define Use Case
Figure 3 is an activity diagram of making assignments by the admin, assignments that are successfully created will later be received by lecturers who receive assignments.

**Activity Diagram Add Document**

Figure 4 Add Document Activity Diagram
Figure 4 describes the document collection process carried out by lecturers. To collect documents, lecturers are required to input the name of the document and the document file on the document collection form.

**Document Confirmation Activity Diagram**

![Diagram showing document collection and confirmation process]

**Figure 5 Document Confirmation Diagram Activity**

Figure 5 describes the document confirmation process carried out by the dean. The Dean will review the documents that the lecturer collects whether they are accepted or need improvement.

**Entity Relationship Diagram**

ERD is used to structure and relationships between data.

![Diagram showing entity relationship diagram]

**Gambar 6 Entity Relationship Diagram**
Implementation

Making a Lecturer Monitoring Information System in the Provision of Documents can assist the Faculty of Engineering in monitoring lecturers in providing documents, facilitate assignments and facilitate lecturers in providing documents needed by the Faculty of Engineering. Assignment of lecturers is one of the features of the system, shown in the listing below.

```java
Susk = new Task;
Susk ->nama = request ->nama;
Susk ->keterangan = request ->keterangan;
Susk ->tanggal = datetostr(TM.request ->tanggal);
Sstart = Carbon::now()->format('d-m-Y');
Sstart = strtotime(Sstart);
Send = strtotime(TM.request ->tanggal)
if (Send.getTime() <= Sstart)
    Send = strtotime(TM.request ->tanggal);
Sstart = strtotime($start);
Send = strtotime($send);
$BODY = $send - $start;
$NumberDays = intval($NumberDays);
$akkif = $start - $send;
if ($akkif > 7 || $akkif < 3)
    $akkif = 'Y';
else
    $akkif = 'Y';

if (request ->hasilfile != '')
    $file = round(microtime(true)* 1000);
else
    $file = getClntOriginalFileName();
request ->file = $file;
request ->move(public_path('/files/admin'),$file);
request ->file = $file;
Susk ->save();

Listing 1 Halaman Tambah Tugas

```
The system can also confirm documents collected by lecturers on assignments, by changing the status of documents carried out by the dean, the following is a list of document confirmations.

**DISCUSSION**

**System Interface**

Add tasks page view on admin

![Add Tasks page view in Admin](image)

**Figure 7** The Add Tasks page view in Admin

Figure 7 is the page for adding tasks in the admin. This page is used to add and submit assignments to lecturers who are assigned assignments.

Display of the Send Documents to Lecturers page

![Send Document to Lecturer](image)

**Figure 8** Page Send Document to Lecturer

Figure 8 is the page used to send documents by lecturers. This page will appear when the lecturer clicks the assignment and selects the Document tab on the assignment details page.

Display of the document confirmation page on the dean
Figure 9 is the confirmation page of the document in the dean. This page is used by the dean to follow up on documents that have been collected by lecturers.

Display of Monitoring Page at Head of Study Program

Figure 10 is the monitoring page on the head of study program. This page contains data in the form of activities that occur on assignments, both when the lecturer collects documents on the assignment until the dean follows up on the documents that the lecturer collects.

System Testing

System testing is carried out to find errors or functions that are not in accordance with the objectives of the program development made, so that improvements can be made if there are errors in the lecturer monitoring information system in the provision of documents at the engineering faculty.
Add Task Testing
This test is done to verify that the task creation process can run as expected. The following are the results of the add task test shown in Table 2.

Table 2 Testing Add Task

<table>
<thead>
<tr>
<th>Nama Bater Uji</th>
<th>Memasukkan data tugas baru</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tugas</td>
<td>Memeriksa apakah data tugas tersimpan dalam database</td>
</tr>
<tr>
<td>Kondisi Awal</td>
<td>l) Data sudah digunakan kembali untuk tugas lain</td>
</tr>
<tr>
<td></td>
<td>2) Data tidak ditemukan dalam database</td>
</tr>
</tbody>
</table>

Hasil

<table>
<thead>
<tr>
<th>Nama Tugas: Mengunggah File</th>
<th>Data tugas tersimpan dalam database</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perubahan Data</td>
<td>Data tersimpan dengan benar.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Data yang Dibekiri</th>
<th>Hasil yang Dibekiri</th>
<th>Pengamatan</th>
<th>Kesimpulan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Tugas: Mengunggah File</td>
<td>Data tugas tersimpan dalam database</td>
<td>Sesuai dengan hasil yang diharapkan OK</td>
<td></td>
</tr>
</tbody>
</table>

The data provided in this test is the task name, assignee, task description, task file and task end date. The result of this test is that the system stores task data, so hereby the test is declared successful as expected.

Test Send Documents On Assignment
This test is done to find out that the process of submitting documents on the task can run as expected. The following are the results of the submit documents test on the tasks shown in Table 3.

Table 3 Test Send Documents On Assignments

<table>
<thead>
<tr>
<th>Nama Bater Uji</th>
<th>Memasukkan data dokumen dengan data yang benar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tugas</td>
<td>Memeriksa apakah data dokumen tersimpan pada database</td>
</tr>
<tr>
<td>Kondisi Awal</td>
<td>l) Data sudah digunakan kembali untuk tugas lain</td>
</tr>
<tr>
<td></td>
<td>2) Data tidak ditemukan dalam database</td>
</tr>
</tbody>
</table>

Hasil

<table>
<thead>
<tr>
<th>Data yang Dibekiri</th>
<th>Hasil yang Dibekiri</th>
<th>Pengamatan</th>
<th>Kesimpulan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nama Dokumen: Modei ae. File: Modei ae pdf</td>
<td>Dokumen tersimpan dalam database</td>
<td>Sesuai dengan hasil yang diharapkan OK</td>
<td></td>
</tr>
</tbody>
</table>
The data provided in this test is the document name and the document file. The result of this test is that the document is sent, so hereby the test is declared successful as expected.

Document Confirmation Testing

This test is done to find out that the document confirmation process on the task can run as expected. The following are the results of the submit documents test on the tasks shown in Table 4.

Table 4 Document Confirmation Testing

<table>
<thead>
<tr>
<th>Nama Batu Uji</th>
<th>Metode status dokumen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task</td>
<td>Waktu dokumen terima dokumen dalam database</td>
</tr>
<tr>
<td>Kondisi Awal</td>
<td>Dibaca sudah beberapa kali aplikasi, dibaca belum dibaca, dibaca dua kali</td>
</tr>
</tbody>
</table>

Scenario

1. Membeli data tugas
2. Membeli tab data dokumen
3. Membeli meta data pada dokumen yang diperbarui
4. Membeli status
5. Membeli tambah status

<table>
<thead>
<tr>
<th>Data yang Diberikan</th>
<th>Hasil yang Diharapkan</th>
<th>Penambahan</th>
<th>Keterangan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilih Status: diterima</td>
<td>Status pada data sebelumnya diterima diterima dengan data yang baru</td>
<td>Status dokumen berhasil diperbarui</td>
<td>Sesuai dengan hasil yang diperbarui: OK</td>
</tr>
</tbody>
</table>

The data provided in this test is the status of the document. The result of this test is that the status of the document is changed, so hereby the test is declared successful as expected.

CONCLUSION

Based on the description above, the following conclusions can be drawn:

1. The system can monitor lecturers and documents in the system.
2. The system can send information to users via whatsapp when there is a new task or there is a change in data on the document sent by the lecturer.
3. The system has a chat feature that can be used by the dean to follow up lecturers who have not collected documents on assignments.
4. The system can provide historical information from the assignments that lecturers collect so that the documents collected can be followed for progress.
BIBLIOGRAPHY

