



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, Monitroing, 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

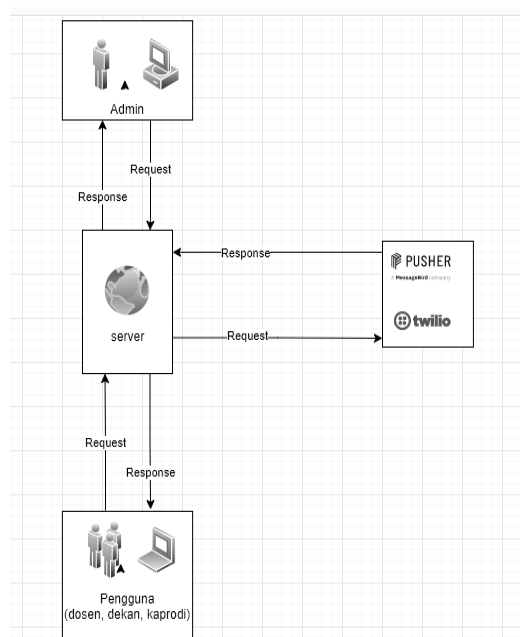


Figure 1 System Image

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:

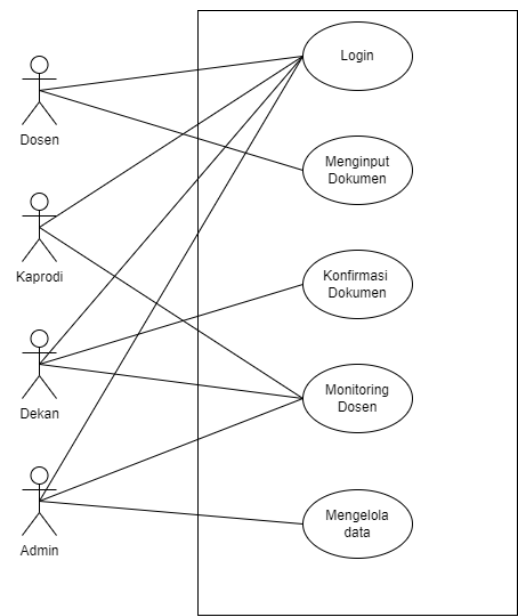


Figure 2 Use Case System Diagram

Table 1 Define Use Case

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

Activity Diagram
Activity Diagram Adding Tasks

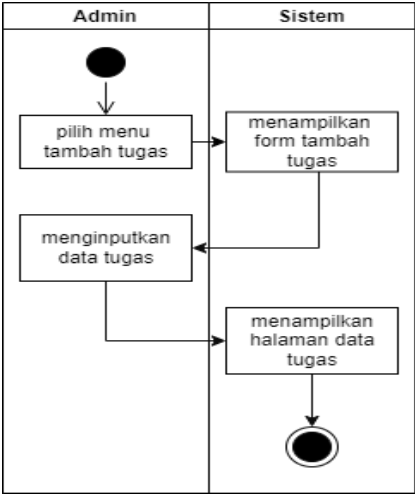


Figure 3 Activity Diagram Adding Tasks

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

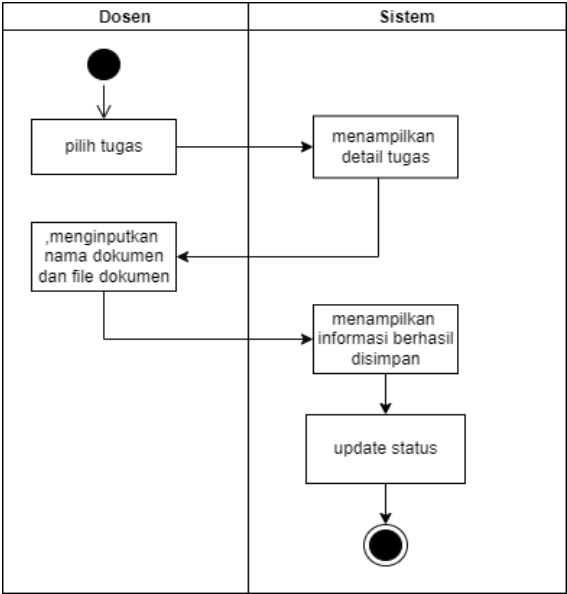


Figure 4 Add Document Activity Diagram

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

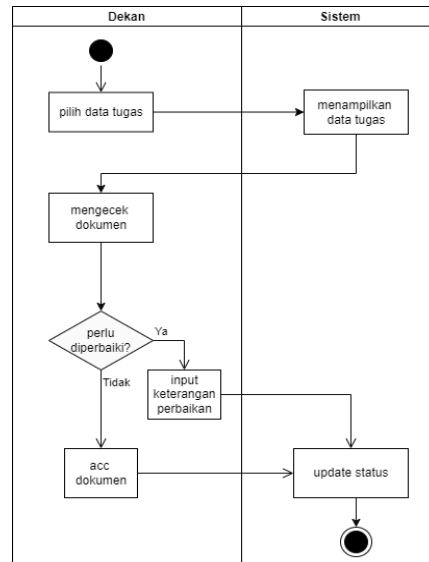
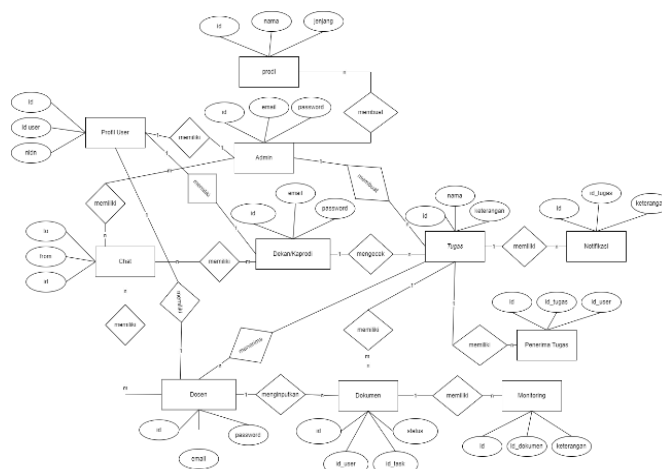


Figure 5 Document Confirmation Diagram Activity

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.



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.

```
$task = new Task;
$task->nama = $request->nama;
$task->keterangan = $request->keterangan;
$task->tanggal = date('d-m-Y',strtotime($request->tanggal));
$startDate = Carbon::now()->format('d-m-Y');
$startTimeStamp = strtotime($startDate);
$endTimeStamp = strtotime($request->tanggal);if($endTimeStamp >=
$startTimeStamp){ $timeDiff = abs($endTimeStamp - $startTimeStamp);
    $numberDays = $timeDiff/86400;
    $numberDays = intval($numberDays);
    $task->aktif = '1';
    $task->sisa_hari = $numberDays;} else {
    $task->aktif = '0'; $task->sisa_hari = '0';}
if ($request->hasfile('file')){$file = round(microtime(true)* 1000).'-'.str_replace(' ','',$request->file('file'))->getClientOriginalName(); $request->file('file')->move(public_path('files/admin'),$file); $task->file = $file;}
$task->save();
```

Listing 1 Halaman Tambah Tugas

```
<h3 class="card-title">Tambah Data Tugas</h3>
</div>
<form action="{{route('task.store')}}" method="POST"
enctype="multipart/form-data">
....
</form>
</div>
</div>
```

Listing 2 Query Halaman Tambah Tugas

```
<div class="modal-content">
<div class="modal-header">
<h5 class="modal-title" id="exampleModalLabel">{{ $dok -> file }}</h5>
<form action="{{route('dktask.update', $dok -> id)}}" method="POST"
enctype="multipart/form-data">
@csrf
@method('PUT')
</form>
</div>
</div>
```

Listing 3 Query Halaman Konfirmasi 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

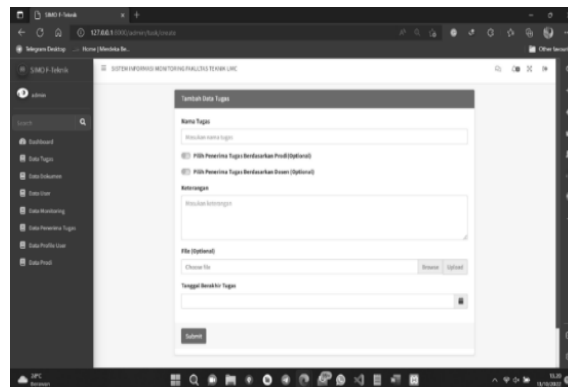


Figure 7 The Add Tasks page view in Admin

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

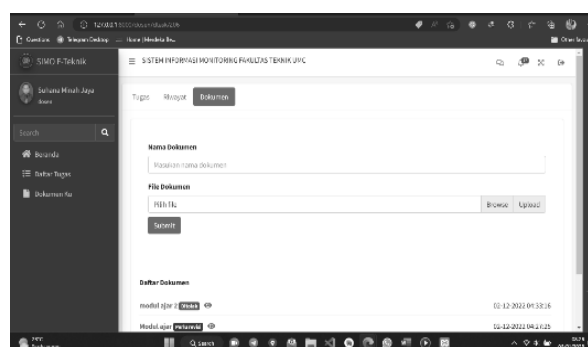


Figure 8 Page Send Document to Lecturer

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

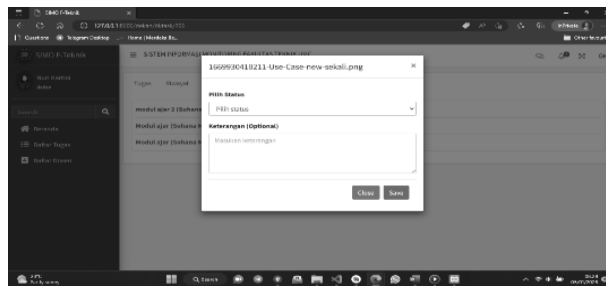


Figure 9 Document confirmation page on the Dean

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

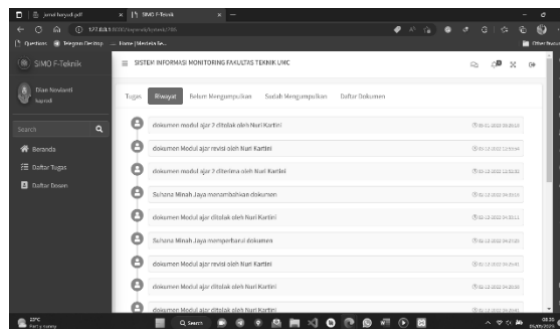


Figure 10 Monitoring Page at the Head of Study Program

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

Nama Butir Uji	Menambahkan data tugas baru		
Tujuan	Memeriksa apakah data akan tersimpan dalam <i>database</i>		
Kondisi Awal	• <i>Admin</i> sudah <i>login</i> kedalam aplikasi • <i>Admin</i> membuka halaman data tugas		
Skenario			
1) Memilih tombol tambah tugas			
2) Mengisi <i>form</i>			
3) Menekan tombol <i>submit</i>			
Hasil			
Data Yang Diberikan	Hasil Yang Diharapkan	Pengamatan	Kesimpulan
Nama Tugas: Mengampu Perkuliahan Penerima Tugas: Suhana Minah Jaya Keterangan: kumpulkan modul ajar File: Modul ajar Tanggal Berakhir Tugas: 20/10/2022	Data tugas tersimpan di <i>database</i>	Data tersimpan ke <i>database</i>	Sesuai dengan hasil yang diharapkan OK

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

Nama Butir Uji	Menambahkan data dokumen dengan data yang benar		
Tujuan	Memeriksa apakah data dokumen tersimpan pada <i>database</i>		
Kondisi Awal	• Dosen sudah <i>login</i> kedalam aplikasi • Dosen membuka halaman daftar tugas		
Skenario			
1) Memilih data tugas			
2) Memilih tab dokumen			
3) Mengisi nama dokumen dan menambahkan file dokumen			
4) Memilih tombol simpan			
Hasil			
Data Yang Diberikan	Hasil Yang Diharapkan	Pengamatan	Kesimpulan
Nama Dokumen: Modul ajar File: Modul ajar.pdf	Dokumen tersimpan di <i>database</i>	Dokumen berhasil ditambahkan	Sesuai dengan hasil yang diharapkan. OK

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

Nama Butir Uji	Merubah status dokumen		
Tujuan	Memeriksa apakah tersimpan dalam <i>database</i>		
Kondisi Awal	• Dekan sudah <i>login</i> kedalam aplikasi • Dekan membuka halaman daftar tugas		
Skenario			
1) Memilih data tugas 2) Memilih tab daftar dokumen 3) Memilih menu edit pada dokumen yang dipilih 4) Memilih status 5) memilih tombol <i>save</i>			
Hasil			
Data Yang Diberikan	Hasil Yang Diharapkan	Pengamatan	Kesimpulan
Pilih Status: diterima	Status pada data sebelumnya berubah dengan data yang baru	Status dokumen berhasil diperbarui.	Sesuai dengan hasil yang diharapkan. OK

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.

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