



Lecture Duty Submission System In National University

Sahrul Rasyid¹, Ucuk Darusalam², dan Sari Ningsi³

Sistem Informasi,

Fakultas Teknologi Komunikasi dan Informatika, Universitas Nasional, Jl. Sawo Manila No.61, Pejaten, Pasar Minggu, Jakarta Selatan 12520

Email: sahrul.unas@gmail.com, ucuk.darusalam@gmail.com, sariningsih.lectures@yahoo.com

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ABSTRACT

The inefficient process of requesting lecturer workload at national universities tends to be ineffective because it still uses a manual system that makes lecturers feel slow. Due to the large number of other lecturer workload files that accumulate, making operators or HR forget to process when there are lecturers who submit workload sheets. The purpose of designing this system will produce a web-based lecturer workload program so that it makes it easy for lecturers to submit and process lecturer workload sheets. This software system development method uses the Waterfall Model. The results of making this application lecturers can easily make a report of the workload that is directly connected with the people concerned with the report of the workload itself so that the use of paper in making the report of the workload becomes reduced even almost not using the slightest paper.

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1. Introduction

Technological developments now many positive impacts for humans, for example in the case of particularly most companies or offices and the University where technology can facilitate human activities. One application that is widely used in companies that employee information system, where one application is the manufacture of sheet lecturer workload already online. The task load Lecturer (BTD) is the number of tasks that must be carried out by a professor as institutional tasks in the implementation of their duties and functions in education in the context of the three responsibilities of universities, namely education and teaching, research and development of science and community service.

Filing workload lecturer at the National University is still done manually where when lecturers have a request to submit a written request to the task load Suber human resources (HR) is only limited by the request directly or through the mail to be processed by the faculty itself. This causes not efiensinya time in the data validation letter when the request letter be stacked or not arriving sheet workload on the respective lecturers.

The purpose of making this application is to help faculty making process sheets faculty workload. To strengthen the making of this application, the author took some benchmark journal on the system workload of faculty and faculty workload. The author takes 5 reference journals. Journal first examine the initial process to obtain the data, searching for information related to the BTD, conducting interviews with faculty staff, and some officials in the FTKI. After the identification process and collection of data, then the next step is to design a database as a reference for the development of systems that will be used to input, process, and print data BTD professor [1]. In the second journal that discusses how to design a system for monitoring the performance of lecturers with the observation of problems and making of the proposed system data flow DFD, context diagram, ERD and interfaces. At the faculty performance load system that has been designed with the Messages report and display data from the burden of faculty performance [2]. In the third journal explains how where how to enrich the concept of human resource planning with human resource needs estimated by measuring the workload of this study can be used as a reference or benchmark for the next penelitianpenelitian related to human resource planning [3]. In the journal to four explain how the design on a faculty workload assessment system adopts a waterfall system





development methods and methods of design using UML. The results of this design is an information system that is used in managing the evaluation and assessment as well as faculty workload [4]. To improve the quality of its faculty, routinely Adiwangsa Edinburgh University conducted an evaluation of faculty performance conducted by the Internal Quality Assurance. Evaluations are still manual by using questionnaires filled out by students / i, then the results are evaluated using a spreadsheet application. Use of this application the results have not been up this is because the cost is quite large, the evaluation result is error-prone human error, processing and evaluation of results is relatively long. As a result, the information needed to improve the quality of the lecturers are always late, therefore contributes to the decision of party management. To solve the problem required an information system that is expected to help process all the existing data for the evaluation of faculty performance report that is by design a needs-based information system Adiwangsa University of Edinburgh and make the information system of faculty performance evaluation based WEB [5].

Thus the system pangajuan faculty workload necessary to encourage the creation of applications that can help lecturers to make reporting easier, reduce paper usage and the efficiency of the reporting process time workload lecturers. By using application workloads are problems such as the difficulty lecturer pangajuan reports that still use manual methods in its filing, the length of report generation that still use manual methods and still use paper in the filing of the report.

The above problem can be overcome by developing a system of web-based Expense Assignment lecturer so that charging data can be easily integrated. The stored data becomes easy to do the approval by the head of the study program, dean and vice chancellor. The results of making this application is an information system that can be used to perform data management and file a report workload faculty without having to make the data to excel and do print the report, so by using the application BTD the preparation and submission of Reports workload professors become more efficient as well can reduce paper use less paper, in other words.

2. Research Methods

A. Waterfall method

The use of the Waterfall method in application development has the following steps: Analysis, Design, Writing and Testing

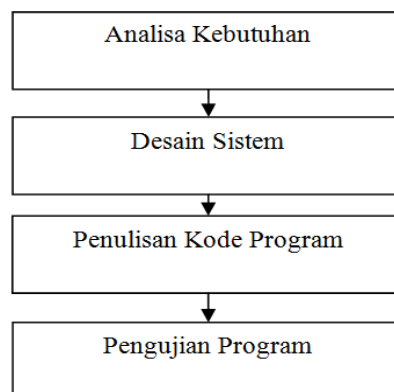


Fig 1. Stages of development of the system [1].

Stages Waterfall Method:

A. Needs analysis

Analysis software needs required in making a website leave application system at the national university, is:

a. User needs

The needs of users in the design of the website is divided into the needs of faculty, head of the study program, dean, vice chancellor and needs admin / secretarial FTKI website.

a) needs Lecturer

- 1) Lecturers can create reports faculty workloads and could see peroses approval at the National University.
- 2) Lecturers can filings faculty workload.
- 3) Lecturers can print reports lecturer workload.





- b) needs Kaprodi
 - 1) Head of the study program can create reports faculty workloads and could see peroses approval at the National University.
 - 2) Head of the study program can perform approval or reject the submission benban lecturer task.
 - 3) Head of the study program can print reports lecturer workload.
 - 4) can see the data load another faculty task in accordance with the name of each faculty.
 - 5) Changing the data BTD other lecturers.
- c) Dean needs
 - 1) Dean can make statements faculty workloads and could see peroses approval at the National University.
 - 2) Dean can do the approval or reject the submission benban lecturer task.
 - 3) Dean can print reports lecturer workload.
 - 4) Dean can see the data load another faculty task in accordance with the name of each faculty.
- d) Needs Vice-Chancellor
 - 1) Vice-Chancellor may make statements faculty workloads and could see peroses approval at the National University.
 - 2) Vice-Chancellor can reject the approval or filing benban lecturer task.
 - 3) Vice-Chancellor can print reports lecturer workload.
 - 4) Vice-Chancellor can view data workloads of other lecturers in accordance with the name of each faculty.
- e) Needs Admin / Secretariat FTKI
 - 1) Having all data access.
 - 2) Can view, modify and delete a lecturer of data.
 - 3) May make statements on behalf of the faculty workload lecturer concerned.
 - 4) Can view, edit and delete a task load data lecturers.
 - 5) Can view, modify and delete a head of data study program.
 - 6) Can view, modify and delete a head dean of data.
 - 7) Can view, modify and delete a vice chancellor of data.
 - 8) Can view, modify and delete a faculty workload report data.
 - 9) Can print report data workloads lecturers.
- f) System Requirements
 - 1) To enter into the system the user must log in first and then logout to exit the system.
 - 2) The system can store data subjects, the data of lecturers, the submitted data, the data of the school year or period and data workloads in a period.
 - 3) The system can classify the data according matakuaiah than half of odd or even.
 - 4) The system can classify the data according to the category workload and periods.
 - 5) The system can classify the data that is in the process of filing, approved and rejected.
 - 6) The system can print a report filings lecturer workload that has been approved.

B. System design

a. Use Case Diagram

This diagram illustrates the function of each of the user's workload filing website of the National University lecturer.



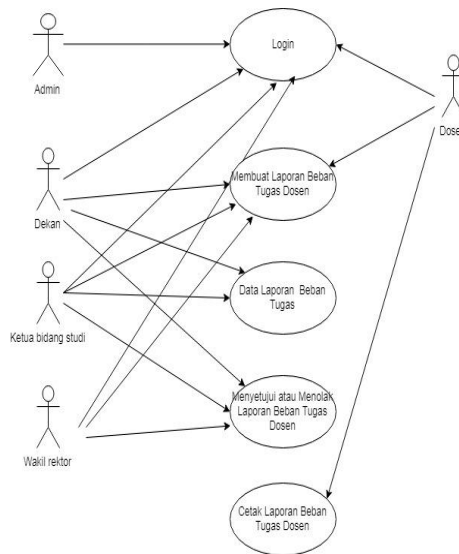


Fig 2. Diagram usecase

C. Code Writing Program

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1 <code></code>
```

Fig 3. Pemulisan Program Code

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2 <code></code>
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Fig 4. Code Writing Program

In this phase using the PHP programming language and MySQL as the database.

3. Results and Discussion

A. discussion Program

a. Flowchart Task Load System Lecturer

This system flowchart illustrates the business of making and approval workflow task load lecturer at the National University.



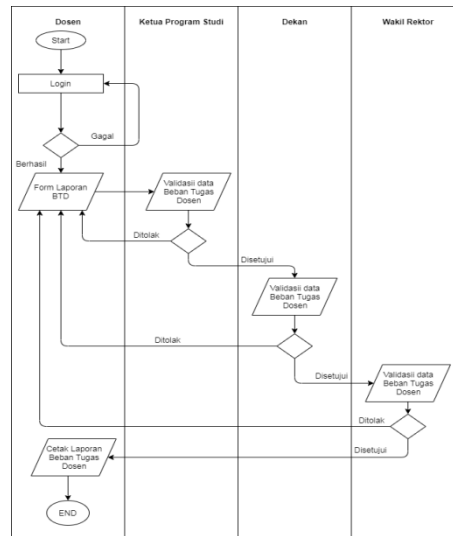


Fig 5.Reporting System Flowchart

In the picture above can be explained lecturers need to login to get access to web workloads successfully logged lecturer after lecturer then lecturer can make statements faculty workload. After lecturer selseai reporting workloads, the data will be entered into the chairman consent form to be given persetujuan courses. Once your program is approved by the chairman of the study, the data will go to the dean consent form to be given persetujuan. After disetujui by the dean, the data will be entered into the form persetujuan vice chancellor to be given approval. After the approval of the chairman of the study program, dean and vice chancellor of the data can be printed or saved in softcopy but if reports workloads rejected by one of the people who asked to approve the faculty assignment sheet can not be printed.

B. Discussion result

The initial process for obtaining the data is through observation to FTKI, searching for information related to the task Expenses Lecturer (BTD), conducting interviews with faculty staff, and some officials in the FTKI. After the identification process and collection of data, then the next step is to design a database as a reference for the development of systems that will be used to input, process, and print data BTD report. The tables were developed for this system can be seen in Table 1.

Table 1
Databases

No.	Table name
1	Admin
2	profile Lecturer
3	burden Task
4	Expense Assignment Process
5	Login
6	Courses

The explanation regarding the display interfaces can be seen in the pictures below:

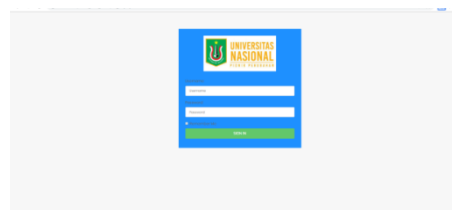


Fig 6.Login Form



In Figure 1 this is the login page for all users consisting of administrators, faculty, study program chairman, dean and vice chancellor in filing the application workload national university lecturer.



Fig 7. Display Home Admin.

In the picture is a display on the dashboard admin. Admin can add, edit and delete the user data, the data lecturers, the data period, a data submission and data matakuaiah.

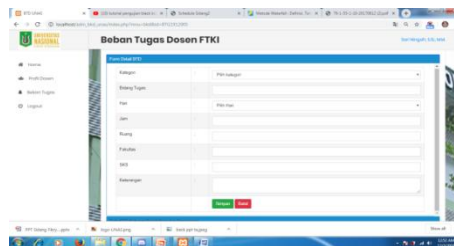


Fig 8. Form Add Reports

In the picture is a form page report generation is done by the lecturer.

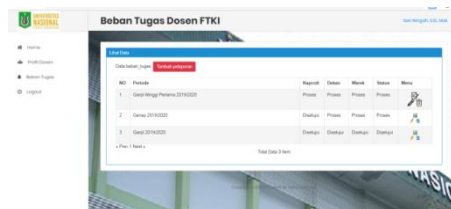


Fig 9. Add Display Period,

In the picture is the period page creation form will be undertaken by lecturers.



Fig 10. Add display Course.

In the picture is the page creation form courses conducted by admin.

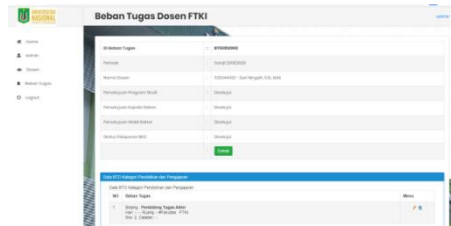


Fig 11. Expense Assignment Process Lecturer,

In the picture is a form page to be able to see the progress status reports.

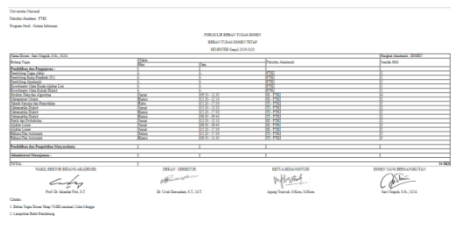


Fig 12. Print Display Task Load Lecturer

In the picture is a print form page where the report can be printed after to approval by the head of study program, dean and vice chancellor.

C. Program Testing Results

NO	MENU	AKTIVITAS	YANG DIRARAPKAN	HASIL TAMPIL	KESIMPULAN
1	Login	- Username dan Password benar - Username dan Password salah	- Masuk ke halaman beranda - Muncul Pembatalan	- Validasi login berhasil - Validasi login gagal	✓ Ditema ✓ Ditema
2	Dosen	- Melakukan Pengisian Periode Beban Tugas - Melakukan Pengisian Data Beban Tugas - Mencetak Laporan Beban Tugas Dosen	- Masuk ke halaman form Pengisian Periode Beban Tugas - Masuk ke halaman form Pengisian Data Beban tugas - Masuk ke halaman Status Laporan	- Form Pengisian Periode Beban Tugas - Form Pengisian Data Beban tugas - Form Cetak Data Beban tugas	✓ Ditema ✓ Ditema ✓ Ditema
3	Ketua Program Studi	- Melihat data Beban Tugas Dosen - Melakukan persetujuan Laporan Beban Tugas Dosen	- Masuk ke halaman persetujuan Ketua Program Studi	- Form persetujuan Kaprodi	✓ Ditema ✓ Ditema
4	Dekan	- Melihat data Beban Tugas Dosen - Melakukan persetujuan Laporan Beban Tugas Dosen	- Masuk ke halaman persetujuan Dekan	- Form Data Mahasiswa - Form persetujuan cuti orang tua	✓ Ditema ✓ Ditema
5	Wakil Rektor	- Melihat data Beban Tugas Dosen - Melakukan persetujuan Laporan Beban Tugas Dosen	- Masuk ke halaman persetujuan Wakil Rektor	- Form Data Dosen PA - Form Data Mahasiswa - Form persetujuan cuti orang tua	✓ Ditema ✓ Ditema

Fig 13. Black Box Testing Results

4. Conclusion

Based on the results of Task Load application pembautan Lecturer (BTD) has been done it can be summed up as follows:

- Application submission website faculty workload report can provide the ease of applying and processing reports lecturer workload.
- Expense report application submission website teachers can reduce paper usage because it is digital or in the web-based business processes.
- Expense report application submission website teachers can reduce the use of time because the business process is already terintegrasi with a database.

5. Reference

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