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DEVELOPING DOCUMENTS ARCHIVING AND INDEXING SYSTEM FOR MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY (MUST) USING PHP AND MYSQL

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ABSTRACT

Document archiving is a very essential issue in most of the Universities and the companies as the point of referencing, Universities organization face the following challenges, spend a tremendous amount of time and money creating, updating and managing vital files and records. In reality, paper documents go missing regularly, in some cases, they are simply misfiled, other times, they are lost forever when they store document manually. Due to this there is a need to develop a system that archives and index documents as a web based application. This system will eliminate the current manual store and physically attending to project coordinators for the access of projects.

Developing this system will help easy administering and managing of students' projects and past papers. Also system can prevent loss of document or damage from the effects of disasters such as burn and will help students to save time in searching documents. In conclusion, besides providing benefit to students, the system will improve the quality of storage and availability of documents.

KEY WORDS

DAIS - Document Archiving and Indexing System. MUST - Mbeya University of Science and Technology. HTML - Hyper Text Mark-up Language. MySQL - Structured Query Language. PHP - Hypertext Preprocessor CSS - Cascade style Sheet. RAM - Random access memory. Facilitator- Anyone conducting modules can be project coordinator, lecturer, tutor etc.

1. INTRODUCCTION 1.1 PURPOSE

The purpose of this project is to provide mechanisms by which the University and its Departments conduct electronic record management. Records Management provides a rational basis for making decisions about recorded information, including what should be saved and what should be discarded. These decisions are necessary to support the allowed, monetary, administrative, and referencing for facilitators and students learning materials. All departments through project coordinators will upload the final year projects reports, and facilitators will upload the past papers of their modules and tests to the systems, so as students can access those materials for studding and referencing. After completion of the project, the system will have a number of significance to University, facilitators and students like: It saves a lot of space as this system ensures no manual storage of documents. Also it provides easy and safe storage of documents. Furthermore it will help students to access previous and current past papers and projects without attending physically to various offices. Moreover it enables easy management of projects and past papers throughout the Mbeya University. Last but not least No duplication of documents especially repetition of final year projects, Finally It saves time which is most important factor for university life.

1.2 PROBLEM STATEMENT

The documents archiving and indexing system is an existing challenge at most Tanzanian Universities, particularly Mbeya University of Science and Technology (MUST) where, they still use a manual storage of students projects and past papers. Where storage of students' projects are done by projects coordinators of a particular department and past papers are stored as well. The documents are accessed only by consulting the projects coordinator. Due to this method of storage, the problem of time consuming, lack of flexibility, unreliability, misplacing of documents and insecurity appears. In this situation there is a need to have such a solution which will help to solve those problems

1.3 SCOPE

The scope of the project is to design and develop the system for storage of students' projects and past papers for Mbeya University of science and technology.

2. OBJECTIVE

2.1 MAIN OBJECTIVE

To design and develop documents archiving and indexing system.

2.2 SPECIFIC OBJECTIVES

- (i) To create database that will store the documents.
- (ii) To create webpages this will be used as system interface for user interface.
- (iii) To perform middleware programming that will link the front end and the back end.

3. METHODOLOGY

3.1 EVOLUTIONARY DEVELOPMENT MODEL

Evolutionary prototyping model. With evolutionary prototyping, designing started and implemented the most prominent parts of the program in a prototype and then added to and refining the prototype until is done. The prototype becomes the software that eventually release.

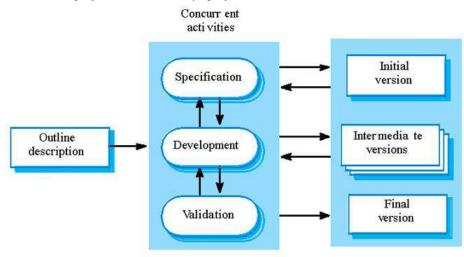


Figure 1: Evolutionary model diagram

3.2. REQUIREMENT GATHERING AND ANALYSIS

Requirements gathering is an essential part of any project. Requirements are set of functionalities and constraints that the end-user (who will be using the system) expects from the system. These requirements are analyzed for their validity and the possibility of incorporating the requirements in the system to be development is also studied. Analysis involved a detailed study of the current systems, leading to specifications of a new system. Analysis is a detailed study of various operations performed by a system and their relationships within and outside the system. This phase aims to identify the requirements progressively.

3.3.1 FUNCTIONAL REQUIREMENTS.

- The system must store student projects and past papers.
- The system must allow administrator to approve new user registration.
- The system must allow project coordinators to enter project details and upload.
- The system must allow facilitators to enter past paper details and upload.
- The system must allow administrator to publish uploaded projects and past papers.
- The system must send a message to the user who has registered through email showing that his/her account has been activated and now she/he can use the system.
- The system must allow only facilitators to download projects.
- The system must allow students to download past papers
- The system must allow users to register themselves.

3.3.2 NON- FUNCTIONAL REQUIREMENTS.

- The system can be accessed with only registered users. i.e. students, facilitators etc.
- The system will be accessible only with the present of internet connection.
- The system will be useful with electricity access.
- This system will be useful only to users who are of Mbeya University of Science and Technology.

To develop system with above functions need of some software and the environment for a complete system to operate, development can be done through any of developing platform / framework, in my case I used Bootstrap framework

3.3.3. SOFTWARE REQUIREMENT

- Window 7 and above
- Xampp server 5.1 with MYSQL Server

- PhP editor Notepad ++
- Conceptual drawing

3.3.4. YSTEM (ENVIRONMENT) REQUIREMENTS.

Will require a computer with following minimum specifications

- Hard Disk : 160GB
- System bus : 32 bits/ 64 bits.
- Processor : Intel Pentium IV 2.4GHZ and above.
 - RAM : 256MB of RAM and above

3.3.5 FRAMEWORK USED

Bootstrap 3.3.6

Bootstrap is the most popular HTML, CSS, and JS framework for developing responsive, mobile first projects on the web. Bootstrap makes front-end web development faster and easier with HTML, CSS and JavaScript technologies.

Full of features

With Bootstrap, you get extensive and beautiful documentation for common HTML elements, dozens of custom HTML and CSS components, and awesome JQuery plugins.

Preprocessors

Bootstrap ship with vanilla CSS, but its source code utilizes the two most popular CSS pre-processors, less and Sass. Quickly get started with precompiled CSS or build on the source.

One framework, every device.

Bootstrap easily and efficiently scales your websites and applications with a single code base, from phones to tablets to desktops with CSS media queries.

4. SAMPLING DESIGN 4.1 DESIGNING PHASE.

Based on the user requirements and the detailed analysis of a new system, System designing phase is a most crucial phase in the development of a system. Designing process under gone through two stages:

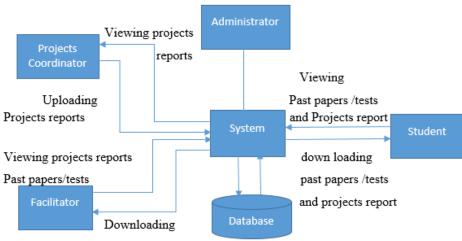
- Preliminary or General Design
- Structure or Detailed Design

Preliminary design stage is also known as **conceptual design** or **architectural design**. During this phase, the high level design concept is created, which will implement the requirements of the system. The design concept can be expressed as a functional block diagram description, design and architecture sketches.

Detailed design is the phase where the design is refined and plans, specifications and estimates are created. In this phase is where the full cost of the project is identified.

Conceptual design is done through different sketch for both OOP and UML like block diagram,

DFD diagram, user case diagram, ERD diagram sequential diagram RDB diagram, class diagram etc. below are some of the diagrams.



Projects report, past papers / tests

Figure 2. Block diagram.

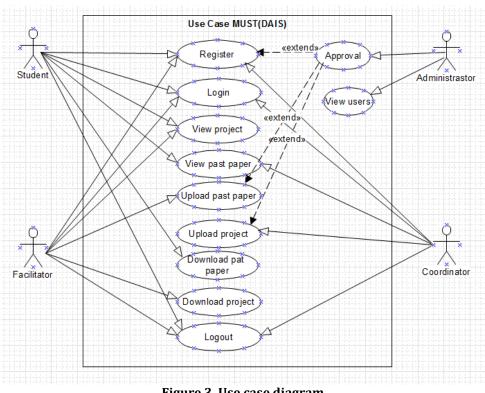


Figure 3. Use case diagram

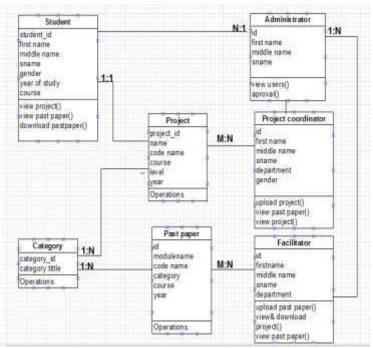


Figure 3.3: Class diagram design

5. RESULTS

The program starts with home page with login and registration session, a user should log in if is already registered if not he/she first need to get registered. Administrator need to do verification for a user (coordinator, facilitator and student) so as can authorized by a system, and can interact with system. Project coordinator can upload and download final project reports and past papers. Facilitator can download both past papers and project reports, and can only upload past papers, and students can only viewing projects report and downloading past papers.

6. CONCLUSION

This project of Documents Archiving and Indexing System can play an important role in MUST by helping and ensuring the proper storing of the students projects and past papers. The final implemented system can perform these activities I.e. register the new user, Log in, Upload and download a projects, Upload and download a past papers, Viewing different projects, administrator can manage the users and projects and past papers. Therefore, the critical priority of the system is done where the system can archive students past papers and projects, I welcome anyone who interesting can improved and added more features such as students making a discussion through the system on problems concerning past papers, projects etc.

7. RECOMMANDATION

Initially system is developed purposely for MUST, but in future can be customized and be used on different Universities / Organizations according to their needs.

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