NAME: VICTOR NGULI JOSEPH

REGISTRATION NUMBER: EB1/21493/15

PROJECT TITLE: STUDENT'S PROJECT MANAGEMENT SYSTEM

INTRODUCTION

In Kenyan tertiary institutions, including Chuka University, students in their final year of their undergraduate study undertake a project in their field of study that is a requirement for the completion of their degree program. In the Computer Science department at Chuka University, this process begins at the first semester of the students final year.

This period stretches to the second semester where the proposed system is built from the gathered information and conceptual designs.

My goal is to develop a Web based student project management system that can provide a central electronic technology base system that smooths out communication between all involved either directly or indirectly in the project supervision process

BACKGROUND OF THE STUDY

For the case of students pursuing BSC(Computer Science) in Chuka University, the project coordinator matches-up the students with their respective supervising lectures who guide them through the process of topic selection, proposal writing, data collection system analysis and design.

The supervision methodology employed is face to face and paper based with several laid out deliverables from topic selection all the way to final project presentation.

An existing system in the country at work is the Web Based University Of Nairobi Student's project repository that allows an interested party to lookup past project titles, see information on which student undertook the project, who is/was the supervisor and the current status of the project stating whether it is completed or in progress.

PROBLEM STATEMENT

The supervising lecture's task to monitor manage and generate reports on each individual students progress on their project is very demanding. To manage these tasks a software system to manage student projects may be useful.

Face to face and paper supervision methods reduces the homogeneity of supervision, may bring forth assessment unfairness and make it difficult for data exchange and communication problems between the involved parties.

In addition, often there occurs conflicts in students topics where two or more of them choose a similar project title to tackle. These conflicts can take a long time to resolve since there lacks a centralized project management system.

Previous projects undertaken by students of Chuka University cannot be easily accessed due to their manner of archiving involving storage in paper form. There is a physical and geographical barrier to their access and reference.

PROPOSED SOLUTIONS

Aim

The aim of this project is to design and develop a web based student academic project management that serves as a platform which can ease project supervision and progress tracking.

# Objectives

* Create a system that reduces time taken within each deliverable time line within the project period like project topic approval, and help to detect and prevent student title clashes early to allow time for the students to change topics early enough.
* To smooth out communication loop between students and their supervisors during the project undertaking period. Both parties can schedule meetings, and exchange information and feedback concerning the project.
* Provide an effective and reliable reference repository for past projects with detailed information about the student who undertook the project, the project title and abstract and the supervising lecture. This information can provide a good service for interested parties.
* To provide a platform that can assist in project progress tracking and evaluation.
* To allow for flexibility in scheduling of student-supervisor meetings and set appointments from both parties but allowing only the supervising lecturer to approve such appointments.

LITERATURE REVIEW

A project is defined as a planned undertaking such as a definitely formulated piece of research or a task engaged in usually by a group of students to supplement and apply classroom studies.

A project is geared into producing a unique product, service or a result with a defined beginning and end undertaken to meet unique goals and objectives, in a Computer Science student’s case developing a real life software system.

According to The Webster dictionary, Project management is the practice of initiating, planning, executing, controlling and closing the work of an individual or a team and meet specific criteria at the specified time.

Student project management can therefore be seen as the combined process of overseeing an undergraduates or post-graduates project and providing necessary supervision from planning to closing of the project.

Current student project management practice at Chuka University involves the students undertaking the project liaising with supervising lecturers.

The supervisors are matched with the students, and meet up where the student pitches their topic and are approved to write a proposal. This is followed by System investigation, data collection and analysis ,system design and then system development and documentation phase later in the next semester.

This process is however limited by face to face meetings, paper based supervision and a lack of a centralized student project management system.

A solution implemented by University Of Nairobi in their student project repository only offers the services accessing past and current project information that is limited to who did the project, the supervisor, the year done , current status and the documentation(abstract in PDF form).

It however does not extend its usability towards managing current student projects.

Clement and Bounds (2013) shared similar goal as my system in facilitating the management of student projects. While, their focus was to better connect students with potential supervisors before the project allocation starts. Their system also included tools for assessment submission and collection which are normal functions in a course management system.

According to the Project Management Body Of Knowledge (PMBOK) [1], a project has five key phases (initiation, Planning, Execution, Control and Closing), consequently, it may be a suitable to educational programmes that are based on academic projects to apply a common framework that may improve success rates.

For a centralized framework it may save time in the initiation phases, and establish unified measures that are important in the control phase.

A web based student management system additionally implements that structure, facilitates the previously stated reasons while supporting real life execution.

METHODOLOGY

The study will involve first reviewing various types of constraints in project management and their characteristics.

System analysis will begin with investigating and reviewing current literature on student academic project management practices and researches then focus on what is implemented in Chuka University specifically under the Computer Science department. This approach will be tackled with research methods like interviews and literature review and observation.

The next phase involves analyzing the data collected to come up with functional and no-functional constraints for modeling my system.

For my system design I will employ several software engineering system modeling tools such as user diagrams and UML diagrams. For my database the model will be generated from Entity Relationship diagrams and normalized to reduce redundancy.

A conceptual model of the system will guide my system development phase and also serve as the basis of reference for the system documentation

During the system development I intend to use python proramming language to contruct a web based system.

**BUDGET**

|  |  |  |
| --- | --- | --- |
|  | **RESOURCE** | **ESTIMATED COST(KSH)** |
| 1. | PERSONAL COMPUTER | 30,000 |
| 2. | INTERNET CONNECTION | 5000 |
| 3. | MISCELLANEOUS | 5000 |

**SCHEDULE AND TIMETABLE**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **ACTIVITY** | **DURATION** | **TIMELINE** |
| 1. | LITERATURE REVIEW ON EXISTING PROJECT MANAGEMENT SYSTEMS | 1 WEEK | 8 h October 2018 – 12th October 2018 |
| 2. | SYSTEM INVESTIGATION DATA COLLECTION AND ANALYSIS | 2 WEEKS | 13th October 2018 – 26th October 2018 |
| 3. | SYSTEM DESIGN | 4 WEEKS | 27th October 2018- 23rd November 2018 |

REFERENCES

Unal, Z., and Unal, A. (2011). Evaluating and comparing the usability of web-based

course management systems. Journal of Information Technology Education, 10, 19-

38

R. Clement and P. Bounds (2013). Making Connections between Final Year Students

and Potential Project Supervisors, Proceedings of the HEA STEM Learning and

Teaching Conference.

University Of Nairobi academic project repository site, URL: http://sci.uonbi.ac.ke/student\_projects/