MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY

COLLEGE OF INFORMATION AND COMMUNICATION TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
BACHELOR OF COMPUTER SCIENCE UQF 8 SECOND YEAR

COURSE NAME: **SOFTWARE DEVELOPMENT AND MANAGEMENT**

COURSE CODE: **CS 8212**

NAME OF INSTRUCTOR: **MADAM NEEMA**

TASK: **GROUP ASSIGNMENT 1 (FEASIBILITY REPORT)**

GROUP NO: **5**

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GROUP MEMBERS

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MUST ONLINE VOTING SYSTEM (MOVS)

Executive Summary

We are aiming at developing online voting web system for Mbeya University of Science and Technology (MUST). We found out that there is no existing online voting system in MUST.

The current voting system at the university involves students physically going to a designated location to cast their votes. This system is time-consuming and inconvenient, especially for students who may have busy schedules or are located far from the voting location. It also presents security challenges such as vote rigging and impersonation, which can compromise the integrity of the voting process.

The proposed system will enable the university to conduct voting processes through a secure and efficient online platform which will save time and be convenient to the students who have busy schedules.

We have decided to name our online voting system to be "MUST online voting system". We performed analysis on finance and requirements. For analysis of finance, we found that a lot of the budget is allocated to election process i.e., Paying invigilators, security officials, purchasing equipment used for the election process e.g., Ballot boxes, papers and Electoral stain (ink applied to the left-hand finger). The analysis done on finance by using online voting system will lead to reduction of amount of budget that will be used in the election process. Requirement analysis finds out it is easy to gather or have all the requirements around the targeted area (MUST), e.g., Students information through their registration numbers, number of people who will be involved in the election process.

Mission and Vision Statement

Mission: Exceeding client expectations by going beyond software to provide solutions that transform data into knowledge.

Vision: To be a leading solution in the IT sector

Introduction

Overview of the project

MOVS is an online voting system which simplifies the voting process which includes casting votes, counting of the votes, releasing results. It is a web-oriented platform that provides an interface for students on the election process. Here, the registration number of the student will be required for the whole election process as a unique distinguishing factor.

Objectives of the project

- Creating a database for keeping record of the election process.
- Automate the process of counting votes.
- Providing all information about the election process.

Need for the Project

Manual management of voting system is a tiresome process when it comes to counting votes and arranging lines of voters (students) and it becomes difficult for students to attend who are far away from the voting area and generally, it is time consuming.

Project MOVS looks into this matter simplifies the process, other than voting process, MOVS is capable of managing time, reducing cost and makes an easy task for those who are far away. In the current manual system, there is an issue of discarded votes which can be solved by MOVS which prevents loss of votes.

Scope of MOVS

The system will focus on:

1. Electoral committee, which will deal with:

    - Registering contestants.
    - Releasing statistical results of election.

2. Student, who will be involved in:

    - Casting his/her vote to the desired contestants.

Deliverables

A web-based software system which contains a central database and different GUIs for different types of users (students and the admin).

Feasibility study

1. **Financial feasibility**

Since MOVS is a web application, it will have an associated hosting cost. The system will follow the freeware software standards. No cost will be charged from the potential customers. Bugs fixes and maintaining tasks will have an associated cost. From this, it's clear that the project MOVS is financially feasible.

2. **Technical feasibility**

Project MOVS is a complete web-based application. The main technologies and tools that are associated with MOVS are:

- HTML
- CSS
- MySQL
- PHP
- JS

Each of the technologies are freely available and the technical skills required are manageable. Initially the web site will be hosted in a free web hosting space, but for later implementation it will be hosted in a paid web hosting space with a sufficient bandwidth. Bandwidth required in this application is very low, since it doesn't incorporate any multimedia aspect. From this it's clear that the project MOVS is technically feasible.

3. **Resource and time feasibility**

Resource feasibility

Resources that are required for the MOVS project include:

- Programming device (laptop)
- Hosting space (initially freely available)
- Programming tools (freely available)
- Programming individuals

Time feasibility

This project is estimated to take almost four (4) weeks.

So, it’s clear that the project MOVS has the required resources and time feasibility.

4. **Risk feasibility**

Risk feasibility can be discussed under several contexts.

Risk associated with size.

Estimated size in number of line of codes.

MOVS will contain significant amount of code lines. As the system does not contain any multimedia aspect, the file sizes and the complete project size will not exceed 500MB.

Estimated size of product in number of programs.

Since MOVS supports two different types of users, it will be constructed as a single web application with a single login page rather than having many numbers of sites for different users. Depending on the access rights, the content will be shown or hidden.

Considerations

Performance

MOVS requires a very low bandwidth since the performance will not degrade with increasing number of potential users.

- Response time: less than 10 sec
- Processing time: less than 30 sec

Security

Security measures are provided by using user authentication. Users will have to authenticate using the registration number and a password.

Capacity and scalability.

MOVS system will be able to accommodate many simultaneous users. The system is designed to make it easy to integrate with an existing system like SIMS.

Availability

The system will be available to use throughout the election period.

Reference

- https://www.slideshare.net/PasinduTennage/sample-software-engineering-feasibility-study-report
- https://www.indeed.com/career-advice/career-development/feasibility-report