

**Woldia University**

**Institute of Technology**

**School of Computing**

**Department of Computer Science**

**Project title: Multi Schools Management System for North Wollo Education Office**

**A Proposal**

**Group Members Id. No.**

1. **Solomon Shiferaw WDU1201864**
2. **Mulualem Ewunete WDU1201558**
3. **Balew Derseh WDU1200371**
4. **Eyassu Bishaw WDU120048**
5. **Tekleyohanis Dagne WDU12019354**

**Sub. Date: 01/05/2015 E.C**

**Advisor: Getachew Worku *(MSc)***

1. **Introduction**
   1. **Background of the organization/project**

North Wollo also called Semien Wollo is a zone in Amhara Region of Ethiopia. It is bordered on the south by South Wollo, on the west by South Gondar, on the north by Wag Hemra, on the northeast by Tigray Region, and on the east by Afar Region; part of its southern border is defined by the Mille River. Its highest point is Mount Abuna Yosef. Its towns include Lasta Lalibela (known for its rock-cut churches) and Weldiya (also spelled Woldia). North Wollo acquired its name from the former province of Wollo.

Education system forms the backbone of every nation. And hence it is important to provide a strong educational foundation to the young generation to ensure the development of open-minded global citizens securing the future for everyone. Advanced technology available today can play a crucial role in streamlining education-related processes to promote solidarity among students, teachers, parents and the school staff.

Education is central to development. It is one of the most powerful instruments for reducing poverty and inequality and lays a foundation for sustained economic growth. Student evaluation, submissions, teaching-learning process, education material distribution and availability, event and information communication across to students, teachers and parents, and make them easily accessible on the Internet. In order to facilitate and simplify these actions one of the major tool is to have multi-schools management system.

Generally, Multi Schools management system is essential in the world. That is why now a day in the world teaching of new generation progress increased in order to produce skilful and educated people. As we know the technology growth further in the behave of education. Automation is the utilization of technology to replace human with a machine that can perform more quickly and more continuously.

1. **Motivation**

Our team motivated to select and do this project since there is no comfortable platform that manages Multi schools for the education office. It is tedious and hard to do system for each high school and manage them. So we are interested to going to do Multi School Management.

1. **Statement of the problem**

North Wollo high schools apply manual way of recording student’s information, processing of tasks. The manual student information management system is time taking, unqualified, costly and not satisfactory. Due to this reason the existing manual processing has the following noticeable problems.

* Students cannot get information about their school from their home they should contact the school physically for to get information about school and see their result.
* Searching student file is difficult. One has to look through all file to get a single student file. It is very boring and may not be found.
* Time consuming: - most of the activities done take more time to be done.
* Student files can be lost or cancelled by someone because files are found on the shelf and on tables of the office, they have a chance to be lost or cancelled or modified.
* Shortage of the place to store student and teacher’s data manually using paper or card  
  system.
* Parent cannot follow up their student status from their home. They should go to school if wanted.
* File control mechanism is very tedious, complicated and not secured.
* Lose of data; the data in the school system can be lost through different reasons.

1. **Objective of the project**
   1. **General Objective**

The general objective of this project is to develop Multi High Schools Management System for North Wollo Education Office.

* 1. **Specific Objective**

The above mentioned are outcomes of our project or are solutions that our system is going to provide. In order to achieve the general objectives we have the following specific objectives.

* Understanding the current system
* Gathering data and requirements
* Analysing the system requirements
* Modelling or designing the solution
* Implementing the model
* Testing the model
* Training the staffs on how to use the system
* Deploying the system

1. **Scope and Limitation of the project**
   1. **Scope of the project**

Multi High Schools Management System has various tasks to be accomplished rather than academic. Most of these tasks are practiced using manual processing system. However, manual processing has its own problems, so our platform will be able to do the following functionalities:-

* Provide some basic information about the school like mission, vision and Contact information.
* Search the student file from the database.
* Students able to view transcript and report card online.
* Teacher can able to prepare student report card.
* Record officer can able to prepare student transcript.
* Give comment, read comment about student status.
* Updating students’ data such as deleting unnecessary student data.
  1. **Limitation of the project**

The Project does not include:

* Class schedule
* Student and Teacher attendance record
* Employee information such as employee salary pays rolling, detail information about employee.

1. **Methodology of the project**

Methodology States that how the requirements are gathered, the tools used for analysis and design, model, implement, test etc.

* 1. **Data collection methods**

To get a precise data, the team member will use the following data collection techniques those are: -

* **Interview**: - to get the basic information and background information about the existing system, the team will interview the officers that have a knowledge and high school Admin and other employees from those the team expected to gain information.
* **Document analysis:** - the team will use it to understand how the system is working. We will use this method to know all about the information flow and what requirements do they want to be fulfilled in our project.
  1. **Software development paradigm (Strategy)**

**A Software development paradigm**

* In this project, our team will use object oriented system development methodology (OOSD) for the design. This technique has several phases some of them are-:
* Object oriented analysis (OOA):-during this phase the team uses to models the function of the system (use case modelling), finding and identify the business objects, organize the objective and identify the relationship between them and finally model the behaviour of the objects in detail.
* Object oriented design (OOD):-During this phase our team uses Microsoft software to refine the use case model and rational rose for designing the sequence collaboration, activity diagrams and to model object interaction and behaviour that support the use case scenario.

**B software process model**

We select waterfall software process model since it is easy to use and understand, Provides a reference to inexperienced staff.

* Provides a reference to inexperienced staff.
* Milestones are well understood by the team.
* Provides requirements stability.

**C. web technology frameworks**

The React.js framework is an open-source JavaScript framework and library developed by Facebook. It’s used for building interactive user interfaces and web applications quickly and efficiently with significantly less code than you would with vanilla JavaScript.

In React, you develop your applications by creating reusable components that you can think of as independent Lego blocks. These components are individual pieces of a final interface, which, when assembled, form the application’s entire user interface, so our group select this React frame work.

* 1. **Software development tools**
     1. **Hardware tools**
* Computer
* Flash disk :32GB
* Others like papers, pen…etc.
  + 1. **Software tools**
* Visual studio code
* Sublime text
* Microsoft word 2010
* Visual paradigm for UML diagram.
* Browsers (Microsoft Edge, Google chrome**)**
* Adobe Photoshop CS5
* Server

1. **Significance of the project**

After the development of this project and properly used, it will gives great benefits to education office of North Wollo, record officers, teachers, administrators, students and parents of the school. Some of the significant that the team has identified are listed out as follows:

* Reduce manual process and administrative cost to maintain existing system.
* Reduce time, cost and redundancy of information or data.
* Improving efficiency, control and security of existing system.
* Fasten and facilitate the strategy of processing student mark.
* Control the student’s information from risk.
* Get everything online.

1. **Budget and Time schedule**
   1. **Budget schedule**

### A Hardware cost

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Material** | **Amount** | **Price per unit** | **Total price** |
| 1 | A4 size paper | 1 Destin | 600 Birr | 600Birr |
| 2 | Pen | 7 | 20 Birr | 140 Birr |
| 3 | Flash disk | 2 | 400 Birr | 800 Birr |
| 4 | For Print | 100 sheet | 5 Birr | 500 Birr |
| 5 | Laptop | 1 | 42,000 Birr | 42,000 Birr |
| Total | 44,040.00 birr | | | |

Table 1 Hardware cost in the project

### B Software cost

|  |  |  |
| --- | --- | --- |
| **No** | **Material** | **Price per unit** |
| **1** | Microsoft office 2010 | Free |
| **2** | Visual Studio Code | Free |
| **3** | Node js | Free |
| **4** | Sublime text | Free |
| **Total** | **00.00 Birr** | |

Table 2 Software cost in the project

* 1. **Time schedule**

Time evaluation is the most important consideration in development of the project. So the concerned project should be completed within fixed scheduled time as far as system is concerned.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Activities** | **Time** | | | | | | | | | | | | | | | | | | | | | | |
| Dec 22-29  Nov 16 | | Jan 1-  Jan 21 | | | | Jan 22-  Feb 21 | | | | | Mar20-  May 3 | | | | | | May 4-  May 25 | | | |  | |
| Project Proposal |  |  |  |  |  |  | |  |  |  |  | |  |  |  |  |  |  |  |  |  | |  |
| Requirement Analysis |  |  |  |  |  |  | |  |  |  |  | |  |  |  |  |  |  |  |  |  | |  |
| System & Object Design |  |  |  |  |  |  | |  |  |  |  | |  |  |  |  |  |  |  |  |  | |  |
| Implementation & Coding |  |  |  |  |  |  | |  |  |  |  | |  |  |  |  |  |  |  |  |  | |  |
| Testing |  |  |  |  |  |  | |  |  |  |  | |  |  |  |  |  |  |  |  |  | |  |
| project Defense |  |  |  |  |  |  | |  |  |  |  | |  |  |  |  |  |  |  |  |  | |  |

Table 3 Time schedule

1. **Team Structure**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Woldia University High School Management System** | | | | |
| **No** | **Name** | **ID NO.** | **Email Address** | **Responsibilities** |
| 1. | Solomon Shiferaw | WDU1201864 | [solomonshiferawww@gmail.com](mailto:solomonshiferawww@gmail.com) | **-**V/group Coordinator  --Implementation |
| 2. | Mulualem Ewunete | WDU1201558 | [mulualemewnete@gmail.com](mailto:mulualemewnete@gmail.com) | -Data gathering  -Documentation |
| 3. | Balew Derseh | WDU1200371 | [balewderseh0@gmail.com](mailto:balewderseh0@gmail.com) | -Data gathering  --Implementation |
| 4. | Eyassu Bishaw | WDU1200488 | [bishaweyassu@gmail.com](mailto:bishaweyassu@gmail.com) | -Data gathering  -Designer |
| 5. | Tekleyohanis Dagne | WDU12019354 | [tekleyohansd@gmail.com](mailto:tekleyohansd@gmail.com) | -Data gathering  -Documentation |
| **Project Advisor:** Instructor GatachewWorku (M.Sc) | | | | |

Table 4 Project Team compositions

**Reference**

[*https://en.m.wikipedia.org/wiki/North\_Wollo\_Zone*](https://en.m.wikipedia.org/wiki/North_Wollo_Zone)*.*

<https://visme.co/blog/project-proposals>.

*Instructor Mola Kindie (Software Engineering lecturer).*