SCHOOL MANAGEMENT SYSTEM –FUNCTIONALITY MODIFICATION

PROJECT PLAN PHASE 2

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1. SCOPE STATEMENT

We have identified a school management system (SMS) that manages school related data such as, information for teachers, students, results, subjects and the administration of these elements.

Our aim in this project plan is to modify an existing functionality to the school management system by placing ourselves in the shoes of the users. The key functionalities that we have discovered for modification are the following; 1. Password encryption, 2. Editing of user profile, 3. Editing of student dashboard for parents, 4. Modification of editing function for students' information. As an additional functionality, we intend on adding an audit trail for database alterations.

1.1. PROJECT JUSTIFICATION AND DEFINITION

The aim of the project is to improve an open source software by doing so we found an Open source School Management System which is a cross-platform web based system, design by W3LAYOUTS and developed by Ravi Khadka. The SMS is 100% Dynamic with core PHP and it uses mysql database as a data storage facility. SMS is an information system to manage school related data/information. Different users such as students, teachers, student's parents, and system administrator are among the intended market. The whole purpose of the SMS is to design a generalized solution for an education system that is applicable to a broad range of schools and has support for administrative staff by generating quick summaries for decision making. The improvements will facilitating user experience and will allow for communication to the database in an automated way. The team will use an agile software development approach, where short 10 minute daily meetings will be held to gauge the progress of the project.

GitHub repository for project: https://github.com/KephasT100/sms

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2. PROJECT CHARACTERISTICS, REQUIREMENTS AND USER ACCEPTANCE CRITERIA

2.1.1. CHARACTERISTICS

- Open source project
- Target audiences are students and educators
- Web based system
- Easily customizable

2.1.2. REQUIREMENTS

- Workstation or PC for each team member
- Code Editor (Visual Studio Code, Brackets, Notepad++)
- GitHub Version Control
- Project installed and running on each PC

2.1.3. USER ACCEPTANCE CRITERIA

- Users:
  - Students: Successfully login and view end of semester report
  - Teachers: Successfully login and view semester report for their subject(s)
- Acceptance on the Git and Github repository:
  - Individual and teamwork contributions committed to the cloud repository that help complement each group members work done as we strive to achieve one goal.
- Sign off by supervisor lecturer

3. ROLES AND RESPONSIBILITIES

Name	Roles and Responsibilities
Fikameni Petrus	Project Manager / Database Administrator
Kephas Shiweda	Documentation / User Interface Programming
Erich Godenschweig	Tester / Backend Database Programming
Dan Ntwari	UI Designer / Programming

4. TASK ASSIGNMENT, COLLABORATION AND DEVELOPMENT TOOLS

During the implementation of this project our team will use tools such as the ones mentioned in Table 1 - Roles and Responsibilities.

Name of Tool	Purpose	Benefit
Trello	Web-based list-making application for task assignments.	Improved collaboration and task assignment.
Google Drive	Documentation and file sharing tool.	Improved collaboration and documentation control.
Brackets	Integrated Development Environment	Programming and compilation tool to produce the necessary software additions.

Table 1 - Roles and Responsibilities

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5. PROJECT DELIVERABLES

Each phase of the project will include core outputs and key deliverables. These are outlined in   Table 2 - Deliverables and Outputs.

	Deliverable	**Output**
Progress 1	Project plan	Documentation report on what is to be done and expected from project group members. Report will outline Project overview, addition of functionality and roles and responsibilities.
Progress 2	Development progress and status. Prototype of the modified functionalities progress 2.	Teamwork as well individual capabilities and contribution thus far. Display progress on testable software. Diagramming and progress explanations.
Progress 3	Final Prototype and documentation of modified functionalities.	Final showing of the new functionality and the documentation of work done. Modified functionality should be tested and test scripts supplied.

Table 2 - Deliverables and Outputs

6. FUNCTIONALITIES TO BE MODIFIED

1. Password encryption,

st_id	st_fullname	st_username	st_password	st
1	Ravi Khadka	ravi2056	ravi	
2	Hari Thapa	hari2055	asdf	
5	Saugat Gautam	saugat2055	saugat2055	

Figure 1 - shows how the passwords are currently stored

The purpose of using encrypted column for the students and the admin is to make it harder for attackers to exploit the system if they gain entry into the database. By using plain text the initial developers probably meant for the data to be easily readable and accessible, however as we are developing a system that can be used in the near future, modification of the columns are necessary to ensure confidentiality and integrity which should lead to prolonged availability.

2. Editing of user profile,
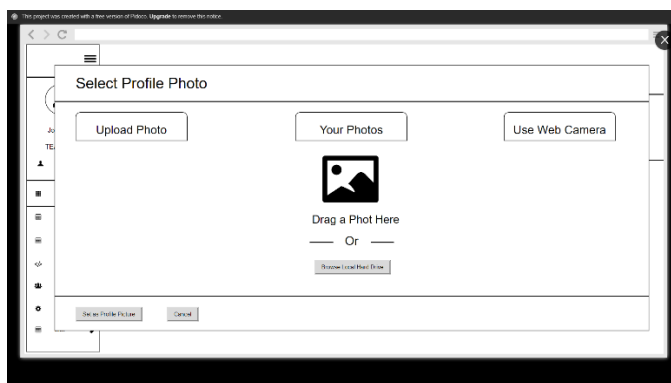
Figure 2 - wireframe of editing profile

The current system does not allow users to edit their profile e.g. their profile picture.

3. Editing of student dashboard for parents,
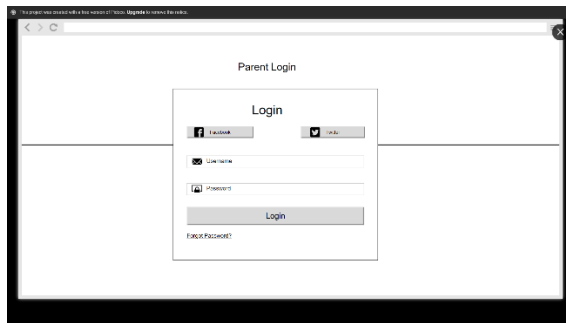

Figure 3 - wire frame of login dashboard for parents
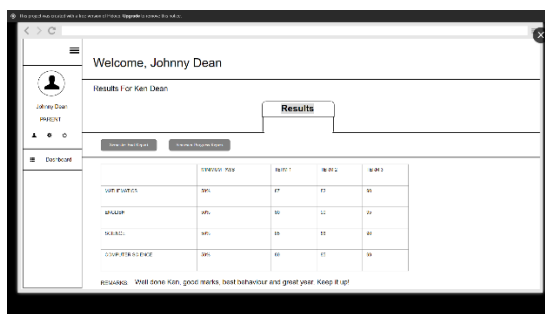
Figure 4 - wireframe of parent dashboard

4. Modification of editing function for students' information
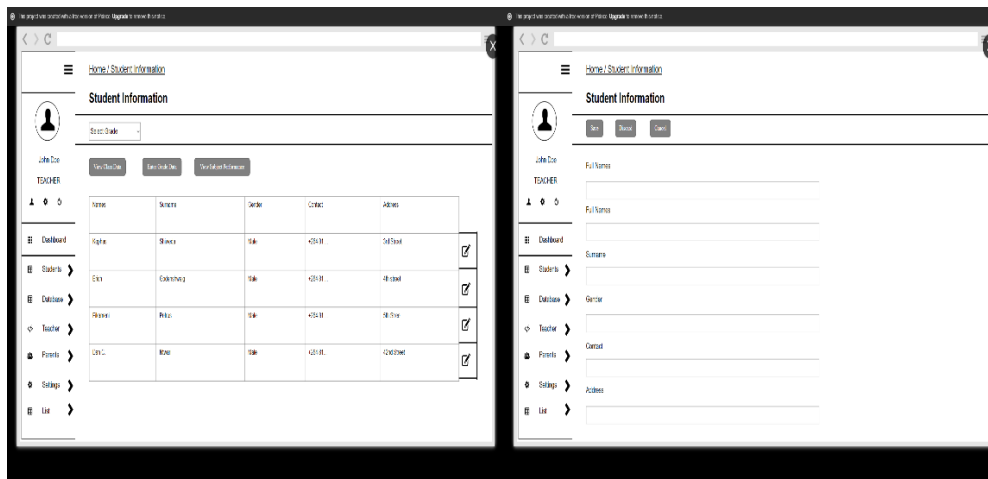
Figure 5 - wire frame of editing students' information

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5. Auditing of Database Alteration

Figure 6 - audit of data alterations

7. WORK BREAKDOWN STRUCTURE

Deliverables / Milestones	Dates	Responsible Person(s)	Revised date & reason
1. Start with Pre-initiation: NUST – Supervised Team meeting.	25 March 2019	Erich Godenschweig, Dan C. Ntwari, Kephas Shiweda , Fikameni Petrus, Mr Colin Stanley.	
2. Kick off Meeting with Project Team	25 March 2019	Erich Godenschweig, Dan C. Ntwari, Kephas Shiweda , Fikameni Petrus.	
3. Present project plan to the professor.	25 March 2019	Erich Godenschweig, Dan C. Ntwari, Kephas Shiweda , Fikameni Petrus, Mr Colin Stanley.	
4. Functionality design.	26-30 March	Erich Godenschweig, Dan C. Ntwari, Kephas Shiweda , Fikameni Petrus	

5. Speak to professor on progress. Provide wireframes and mock-ups.	1 April	Erich Godenschweig, Dan C. Ntwari, Kephas Shiweda , Fikameni Petrus, Mr Colin Stanley.	
6. Final functionality coding and documentation.	1-7 April	Erich Godenschweig, Dan C. Ntwari, Kephas Shiweda , Fikameni Petrus	
7. User Acceptance Testing (UAT).	8 April	Erich Godenschweig, Dan C. Ntwari, Kephas Shiweda , Fikameni Petrus	
8. Sign-off Project Charter by Professor and Team.	8 April	Mr Colin Stanley	

8. ACTIVITY LIST

Activity Identification or Number	Activity Name	Activity Description	Activity Attributes	Predecessors	Milestone?
1.	Start with Pre-initiation: NUST – Supervised Team meeting.	A pre-meeting with the NUST team members and the professor.			Yes
2.	Kick-off Meeting with Project Team	A meeting with the whole team			Yes
3.	Implement modification of Software Functionality.	Implement the modification of different functionalities that are mention in chapter 6			
4.	Functionality Documentation.	Document the newly modified functionality for			

		future reference			
5.	Implement Removal of Software Functionality.	Fulfill removal of functionality			
6.	Functionality Documentation.	Document and note the deletion functionality for future reference			
7.	User Acceptance Testing.	Demo the software for the user/professor			
8.	Sign-off Project Charter by Professor and Team.	Final sign-off			

Our project follows an agile project plan which is based on features. The plan estimates how long it will take for each feature to be delivered, without much detail on how it will be delivered. And because the project plan is focused on features, we group similar features into sprints.

Once the plan is developed, the project team needs to maintain it and update status and timelines accordingly.

Also known as an agile project schedule, this plan lets you add your tasks, who is responsible, start and end dates, and status. The duration for each task will be automatically calculated.

Annexure: SMS Project management Plan