

OSS GROUP 7: TASK MANAGEMENT SYSTEM

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1.0 INTRODUCTION

This document gives a description of the Task Management System, an Open Source Software designed for different individuals to register, create tasks and manage them. Details about the application's functionalities, database model, implementation, software tools and contributions would be discussed in various sections.

1.1 Scope of The System

The task management system serves as a foundation for project progression management, allowing for centralized progression tracking. The user could have an identical visual on research milestones and be allowed to have the progress updated on a regular basis. Potential performance delays or unprogressive working plans can be identified early on, testing and appropriate action can be deliberated on in order to meet the milestone on time. Finally, the task management system provides a dashboard that depicts an overview of the project development process and progress trending; the report is generated on the portal. The project uses boards to enlist the projects, the project boards can be edited and the backlog of the project can't also be viewed.

1.2 Existing System Functionalities

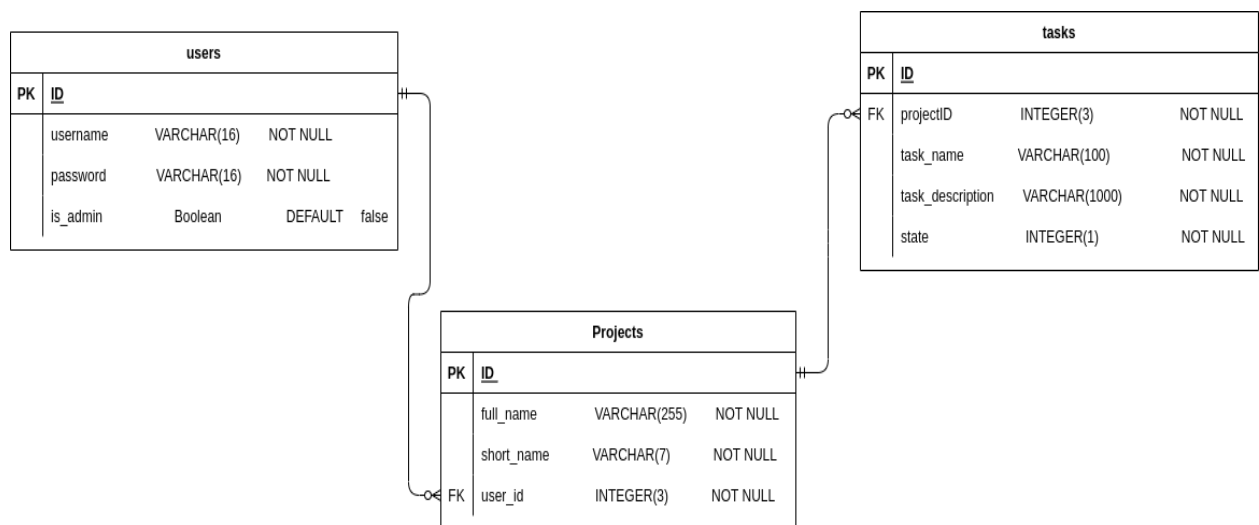
1. The system allows users to log in
2. The system allows users to create task boards.
3. System allows users to create tasks with brief descriptions
4. The system allows users to view created boards and tasks.
5. System allows users to manage tasks and their status.

2.0 SYSTEM DESIGN

This section shows a representation of the system's functionality and the database design, it is used in the capturing of the necessary components and ideas that will be used in the implementation of the system following the necessary software standards

2.1 Relational Model

This section shows the database entities, their attributes, constraints, and relationships.



2.2 Use Case Diagram



2.3 Data Dictionary

1. Users

Field	Data Type	Field Size	Default Value	Constraint
UserID	INT			Primary Key
Username	VARCHAR	16		Not Null
password	VARCHAR	16		Not Null
is_admin	Boolean		False	

2. Projects

Field	Data Type	Field Size	Default Value	Constraint
projectID	INT			Primary Key
fullname	VARCHAR	255		Not Null
shortname	VARCHAR	7		Not Null

user_id	INT			Foreign Key, Not Null
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3. Tasks

Field	Data Type	Field Size	Default Value	Constraint
taskID	INT			Primary Key, Not Null
projectID	INT	3		Foreign Key, Not Null
task_name	VARCHAR	100		Not Null
task_description	VARCHAR	1000		Not Null
state	INT	1		Not Null

3.0 SOFTWARE STACK

LAMP, is a free and open-source web server stack bundle that consists of the Linux Operating system, Apache HTTP Server, MariaDB database or MySQL, and interpreters for PHP scripts. The collection of these independent components works together to aid the smooth execution of this application.



3.1 Benefits of using LAMP

1. It is free and easy to use and easily available.
2. It is a beginner's friendly solution package for full-stack web development.
3. It is an open-source software package that gives an easy installation experience.
4. It is effortless and lightweight to create a setup for development, testing, and deployment.

4.0 IMPLEMENTATION

4.1 Development Tools

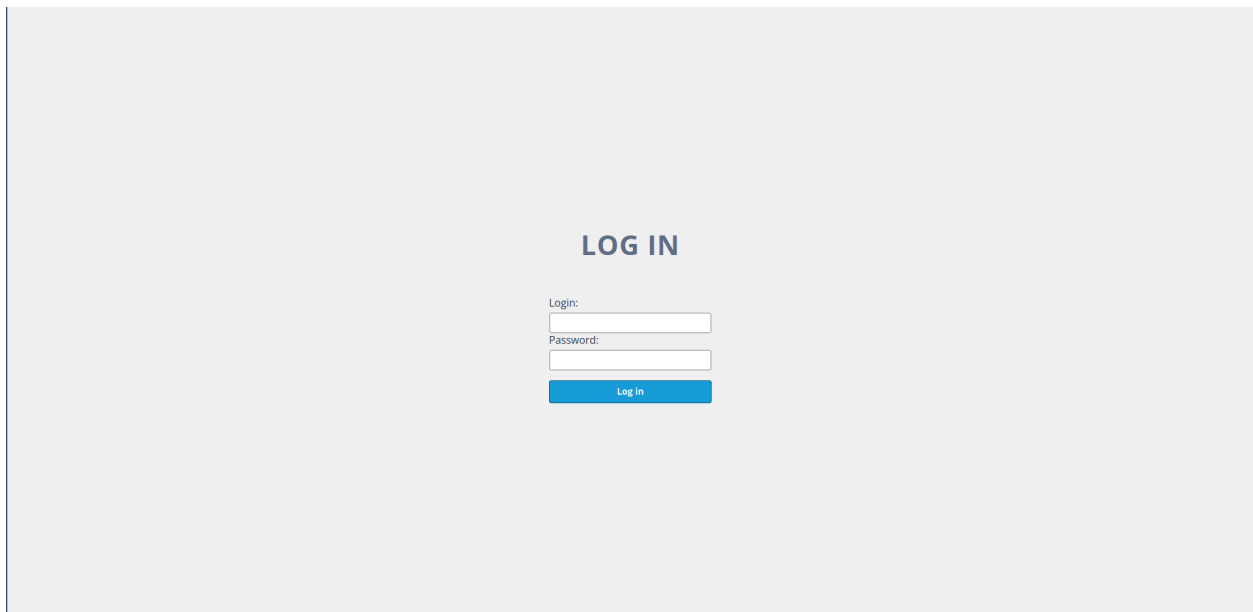
1. VS Code: Visual Studio Code is a source-code editor made by Microsoft with the Electron Framework, for Windows, Linux and macOS. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git. All implementation, testing and debugging of the project was done on visual studio code.
2. Git: Git is a distributed version control system that tracks changes in any set of files, usually used for coordinating work among programmers collaboratively developing source code during software development. Its goals include speed, data integrity, and support for distributed, non-linear workflows. Git was used for code synchronization in this project to allow concurrent improvement on the software.

4.2 Programming Languages Used

1. HTML: The HyperText Markup Language or HTML is the standard markup language for documents designed to be displayed in a web browser. This project used HTML for the design of the full structure of the webpage.
2. CSS: Cascading Style Sheets is a style sheet language used for describing the presentation of a document written in a markup language such as HTML or XML. CSS was used to style and layout the pages of the website.
3. PHP: PHP is a general-purpose scripting language geared toward web development. It is also an open-source server-side scripting language that is used for web development. This was used for the functionalities of the system.

4. MySQL: MySQL is an open-source relational database management system. It is used to create and manage databases for web applications, mobile applications and also desktop applications. SQL stands for Structured Query Language.

4.3 Images of the Original System



LOG IN

Login:

Password:

LOGIN PAGE

PROJECTS LIST

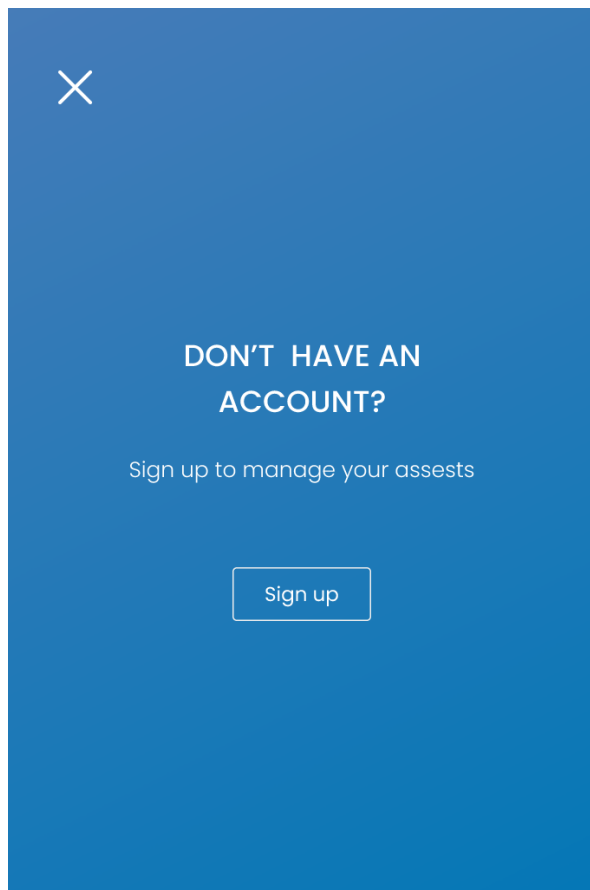
Logged in as **admin** [\[logout\]](#)

Create board

Full name	Short name	Tasks left	Action
Group 7	grp 7	0	Board
franji		0	Board
olamide	ola	0	Board

PROJECT LIST

4.4 Images of the Improved System




LOGIN PAGE



Hello Again!

Manage your tasks right away!

Log in







 T-manager

Home Page

Dashboard

Logout

Project List

S/N	Full name	Short name	Last checked	Date created	Task left		
1	Group 7	grp 7	4:00	07-09-2022	1	View	
2	Group 8	grp 8	5:00	23-12-2021	0	View	
3	Group 9	grp 9	9:00	17-02-2018	2	View	
4	Group 6	grp 6	10:00	07-09-2022	4	View	
5	Group 5	grp 5	18:00	23-12-2021	5	View	
6	Group 1	grp 1	19:00	17-02-2018	1	View	

PROJECT LIST

4.5 Usage Instructions

Step 1: Create an account for new users or login into the system as an existing user.

Step 2: Create a new board or view existing boards if there are any.

Step 3: Give your new board a name and a nickname for easy access.

Step 4: Create tasks under your board and add brief descriptions.

Step 5: Edit board if needed.

Step 6: Edit task information under your board if needed.

Step 7: Click on board to view board information and see task status.

Step 8: Delete board or task if needed.

5.0 CONTRIBUTIONS

This section summarizes the application updates performed by the contributing team to the open source project.

5.1 Bug Fixes

1. Adding constraints to form and backend to prevent invalid data entries and database errors
2. Fixed error retrieving tasks for the board that has been previously created
3. Fixed bug in task creation that prevented tasks from being saved

5.1 Improvements Made to the System

1. The improved system allows users to register.
2. The improved system allows users to delete a board.
3. The improved system allows users to delete a task on a board.
4. The improved system allows users to edit task information on a board.
5. The improved system allows users to edit a board.
6. The improved system allows users to see all information on a board when users click on it.
7. Improved the User Interface of the system