TASK MANAGEMENT SYSTEM

A

PROJECT-2

SUBMITTED IN THE PARTIAL FULFILLMENT

FOR THE AWARD OF THE

DEGREE OF

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE & ENGINEERING

Submitted by

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Acknowledgement

Apart from the efforts of me and my partner, the success of my project depends on the encouragement and guidelines of many others. I take this opportunity to express my gratitude to the people who have been instrumental in the completion of the project.

I would like to show my greatest appreciation to my project in-change, Mr. Tajinder Kumar. I can't say thank you enough for their tremendous support and help. I feel motivated and encouraged every time I attended his classes. Without his encouragement and guidelines this project work would not have been materialized. His constant guidance and willingness to share his vast knowledge made me understand this project and it's manifestation in great depths which helped in completing the task assigned. I would also like to thank Department of Computer Science, Jai Prakash Mukand Lal Innvoative Engineering And Technology Institute for providing me with the best knowledge and helping me in every doubt I had.

Manisha

8518133

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Chapter-1

Details of Project Members

The members involved in this project are:

1. Name: Manisha

   Roll no: 8518133

2. Name: Mehak

   Roll No: 8518137

Chapter -2

Details of Individual Tasks Performed

Tasks performed by Mehak:

1. Created the login page of the project.
2. Created the Projects Page
3. Created the add new projects page, project list page and Task page
4. Created some of the CSS pages also

Tasks performed by Manisha:

1. Created the Dashboard page
2. Created the Reports page
3. Created the database
4. Created the Users page where you can add new users and also see the all users list.

Chapter -3

Introduction

3.1 Objective

A "**Task Management System"** is used by an individual, team, or organization to help complete projects more efficiently by organizing and prioritizing related tasks. The main objective of Task management are as follows:

1. Manage Everything from A Single Place

Either you are working on a single project or multiple projects, keeping everything essential about the project(s) is necessary. It provides a central integration platform using which you can save all the activities that your team performs while working so that they don't have to memorize things and it is easier for the whole team to stay on track. It keep you away from the risk of losing any sensitive information, important tasks, and deadlines. By using such system, you not only save time but also have a sustainable paperless environment so that your key data is easily accessible.

2. Make Task Prioritization Easier

Task prioritization is one of the key factors to meet the deadlines for important tasks, otherwise, it becomes quite difficult to manage them on time. Generally, while starting work, many people get stuck in the low priority tasks, that eat up most of the time for more important tasks. It can happen to you as well if you don't prioritize your tasks. It is because the focus is to finish the list of tasks that you have with you one by one. It is poor management of tasks and is a leading factor that contributes to deadlines being missed because your task is not prioritized on the basis of importance and deadlines. It helps you to overcome task prioritization issues so that you can get all the important tasks done on time.

3. Access Data from Anywhere Anytime

If you are handling a complex task and planned to work outside the office or on weekends, then it is important to have all the important data with you so that you don't have issues continuing the work. Task management apps give you access to get your hands on your database anywhere anytime using any device. What you need is an internet connection and that's it.

4. Improve Team Collaboration

If you work in a small team then it might not be that difficult to get in touch with everyone's progress, but as your team grows, it's not less than a bigger challenge to check how every member is performing. Task management system bridges this gap by developing the spirit of working together. Using this software, your entire team can see which tasks are assigned to whom so that they can collaborate together and complete their parts effectively in time.

5. Distribute Workload

As a project manager, one of the biggest challenges is to ensure that you have divided the workload equally among your team because poor workload distribution can create too many hurdles in achieving your goals and targets on time. The best way to manage this issue is to use a task manager. It does not only allow you to assign equal tasks but also makes sure that you can track their progress on tasks anytime.

6. Make your work more efficient

Inefficiencies often stem from disinterest. Task management principles greatly improve productivity by making sure the right resources are utilized at the right time. This includes giving team members tasks and responsibilities that match their abilities and interests.

7. Bring focus to your job

Whether you work as an individual or for an organization, all your tasks are done in order to achieve a particular goal. However, we often end up doing things that distract from or don't contribute to this. If there's a systematic way to approach all your work items, your work will be more focused on the end goal.

3.2 Problem

In bigger organizations where there are too many tasks to work at the same time, it is extremely necessary to view the status of all so that you can see how things are going. Tracking the progress of tasks manually kills a lot of time because project managers have to see the performance of every individual to identify the problematic area.

Is your organization a victim of inefficient task execution, deadlines being missed consistently and lack of team collaboration in your team?

If yes, then it’s high time to think about implementing a task management system to manage your tasks better. An effective task management system is important because it offers the best solution to overcome these challenges.

Task management systems are used to manage tasks, track time, and easily collaborate with the team. These are efficient for individuals, teams, and organizations to help them complete tasks efficiently without missing any deadlines.

Almost all successful organizations use task management system because they understand the benefits of managing tasks the right way. Productivity matters a lot for the success of any organization. If your team member spends a lot of time finding what needs to be done then, they would end up spending most of the time finding, whereas that time was meant to be spent on execution of tasks. To avoid this problem, a task management system is a perfect solution because it not only helps them locate their tasks easily but also enables them to view all the important tasks relating to any project with its due dates so that they can plan things accordingly.

Chapter-4

System Development Life Cycle

4.1 Introduction

The **Task Management System** can help a particular company manage its project task progress. The system has three system users: Admin, Project Manager, and the Regular Employee.

Admin users can only create the Task Management System users. The admin user or the Project Managers will create a new project first and some essential details and references of the users. When creating a project, the admin or project managers must list all the employees to handle the project's tasks. After completing the project, the regular employees are limited only to adding their work progress for the project they are assigned. They are also allowed to edit the data of the progress that they only submitted. Then, as the employees regularly update the system about their progress, the project managers will read or scan their activities. The project manager can check or decide if a particular task is done and need to update the system's task status. For the system's printable report, only the admin users and project managers have access to this function or feature of the system. The Admin user is those users who have access to all of the data stored in the system's database, especially on creating and managing system users. The Project Managers are those users that contain the project details and progress under her/his management. The Regular Employees will submit their work productivity in each task of the project.

4.2 Feasibility Study

The feasibility study is carried out to test whether the proposed system is worth being implemented. Feasibility study is a test of system proposed regarding its work ability, its impact on the organization ability to meet user needs and effective use of resources. It is usually carried out by a small number of people who are familiar with the information system techniques, understand the part of the business or organization that will be involved or effected by the project and are skilled in the system analysis and design process.

The key consideration involve in the feasibility study are:

1. Technical

2. Behavioral

3. Economic

4.2.1 Technical Feasibility

Technical feasibility centers on the existing computer system (hardware, software etc) and to what extent it can support the proposed system addition. For example, if the current system is operating at 70% capacity (an arbitrary value), then another application could overload the system or require additional hardware. If the budget is serious constrain then the project is judged not feasible.

The technologies and the environment which are used in this project are:

SOFTWARE

Front End

Language Used: HTML, CSS, JavaScript, Bootstrap

Back End

Language Used: PHP. PHP is a general-purpose scripting language geared towards web development. It is a server scripting language, and a powerful tool for making dynamic and interactive Web pages. It is a widely-used, free, and efficient alternative to competitors such as Microsoft's ASP.

Database Used: MySQL. MySQL is a widely used relational database management system (RDBMS). It is free and open-source. It is ideal for both small and large applications.

Browser

Platform: IE8, Google Chrome, Opera Mozilla.

HARDWARE

1.Intel based processor-run computer system, which have 10 MB RAM, 15 MB free hard disc space

2. SVGA Monitors / Laptops.

4.2.2 Behavioral Feasibility

An evaluation of the behavior of the end users, which may affect the envelopment of the system. People are inherently resistant to change and computers have to know to facilitate changes and computers have to know to facilitate changes. An estimate should be made of how strong a reaction the user staff is likely to have towards the development of a computerized system. It is a common knowledge that a computer installation has something to do with turnover, transfer, retraining and changes in employee job status, therefore the introduction of a candidate system requires special effort to educate, sell and train the staff on new ways of conducting business.

The personal of the user organization will be affected by the proposed system. As the aim of the system is only to satisfy the information needs, no employees will loose their position by the proposed system. In fact, the proposed system will help the organization in reducing the voluminous work involved. Also, the involvement of users in every stage of the project is going to increase the success factor.

The staff in not well educated for running a computerized system. They are adamant in perceiving a mechanical process of working as they have long been used to the manual entry system. This aspect needs considerable amount of attention.

Our system is also feasible for organization because it supports of the organization and its strategic plan.

4.2.3 Economic Feasibility

The procedure is to determine the benefits and savings that are expected from a candidate system and compare it with the costs. If a benefit outweighs costs, then the decision is made to design and implement the system. Otherwise further alterations are made in the proposed system

1. Manpower cost

2. Hardware and software cost

Chapter-5

Software Requirement Analysis & Specification

5.1 Introduction

The introduction of the Software Requirements Specification (SRS) provides an overview of the entire SRS with purpose, scope, definitions, acronyms, abbreviations, references and overview of the SRS. The aim of this document is to gather and analyse and give an in-depth insight of the complete **Task Management System** by defining the problem statement in detail.

5.2 Purpose Of SRS

The purpose of the document is to collect and analyse all assorted ideas that have come up to define the system, its requirements with respect to consumers. Also, we shall predict and sort out how we hope this product will be used in order to gain a better understanding of the project, outline concepts that may be developed later, and document ideas that are being considered, but may be discarded as the product develops.

In short, the purpose of this SRS document is to provide a detailed overview of our software product, its parameters and goals. This document describes the project's target audience and its user interface, hardware and software requirements.

5.3 Scope

Primarily, the scope pertains to the Python features for making Task Management System project live. It focuses on the Admin, Manager and employees and tasks assigned to them.

This SRS is also aimed at specifying requirements of software to be developed. The standard can be used to create software requirements specifications directly or can be used as a model for defining a organization or project specific standard. It does not identify any specific method, nomenclature or tool for preparing an SRS.

5.4 Software Requirements

Here we are including the software's and hardware's used for developing the project and implementing the project

A. Software

1. Xampp 7.1: XAMPP is a free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP and Perl programming languages.
2. Notepad++ or any other text editor: Notepad++ is a text and source code editor for use with Microsoft Windows. It supports tabbed editing, which allows working with multiple open files in a single window. The product's name comes from the C increment operator. Notepad++ is distributed as free software.
3. PHP Version 5.6 and Newer: PHP is a general-purpose scripting language geared towards web development. It is a server scripting language, and a powerful tool for making dynamic and interactive Web pages. It is a widely-used, free, and efficient alternative to competitors such as Microsoft's ASP.

B. Hardware

1. 2 GB RAM or above

2. Intel i3 Processor or above

3. 32 Bit System or above

Chapter-6

Details Of Software Tools Used

The system is developed using the following tools:

6.1 Language PHP

The PHP Hypertext Preprocessor (PHP) is a programming language that allows web developers to create dynamic content that interacts with databases. PHP is basically used for developing web-based software applications. This tutorial helps you to build your base with PHP.

Some benefits of using PHP are as follows:

1. PHP performs system functions, i.e. from files on a system it can create, open, read, write, and close them.
2. PHP can handle forms, i.e. gather data from files, save data to a file, through email you can send data, return data to the user.
3. You add, delete, modify elements within your database through PHP.
4. Access cookies variables and set cookies.
5. Using PHP, you can restrict users to access some pages of your website.
6. It can encrypt data.

6.2 Design Used

6.2.1 HTML

HTML stands for Hyper Text Markup Language, which is the most widely used language on Web to develop web pages.

Key advantages of learning HTML:

1. **Create Web site** - You can create a website or customize an existing web template if you know HTML well.
2. **Become a web designer** - If you want to start a career as a professional web designer, HTML and CSS designing is a must skill.
3. **Understand web** - If you want to optimize your website, to boost its speed and performance, it is good to know HTML to yield best results.

4. **Learn other languages** - Once you understand the basic of HTML then other related technologies like JavaScript, php, or angular are become easier to understand.

Applications of HTML are:

1. **Web pages development** - HTML is used to create pages which are rendered over the web. Almost every page of web is having html tags in it to render its details in browser.
2. **Internet Navigation** - HTML provides tags which are used to navigate from one page to another and is heavily used in internet navigation.
3. **Responsive UI -** HTML pages now-a-days works well on all platform, mobile, tabs, desktop or laptops owing to responsive design strategy.
4. **Offline support** - HTML pages once loaded can be made available offline on the machine without any need of internet.
5. **Game development**- HTML5 has native support for rich experience and is now useful in gaming development arena as well.

6.2.2 CSS

Cascading Style Sheets, fondly referred to as CSS, is a simple design language intended to simplify the process of making web pages presentable.

Key advantages of learning CSS:

1. **Create Stunning Web site -** CSS handles the look and feel part of a web page. Using CSS, you can control the color of the text, the style of fonts, the spacing between paragraphs, how columns are sized and laid out, what background images or colors are used, layout designs, variations in display for different devices and screen sizes as well as a variety of other effects.
2. **Become a web designer** - If you want to start a career as a professional web designer, HTML and CSS designing is a must skill.
3. **Control web** - CSS is easy to learn and understand but it provides powerful control over the presentation of an HTML document. Most commonly, CSS is combined with the markup languages HTML or XHTML.
4. **Learn other languages -** Once you understand the basic of HTML and CSS then other related technologies like JavaScript, php, or angular are become easier to understand.

Applications of CSS are:

1. **CSS saves time** - You can write CSS once and then reuse same sheet in multiple HTML pages. You can define a style for each HTML element and apply it to as many Web pages as you want.
2. **Pages load faster** - If you are using CSS, you do not need to write HTML tag attributes every time. Just write one CSS rule of a tag and apply it to all the occurrences of that tag. So less code means faster download times.
3. **Easy maintenance** - To make a global change, simply change the style, and all elements in all the web pages will be updated automatically.
4. **Superior styles to HTML** - CSS has a much wider array of attributes than HTML, so you can give a far better look to your HTML page in comparison to HTML attributes.
5. **Multiple Device Compatibility** - Style sheets allow content to be optimized for more than one type of device. By using the same HTML document, different versions of a website can be presented for handheld devices such as PDAs and cell phones or for printing.
6. **Global web standards** - Now HTML attributes are being deprecated and it is being recommended to use CSS. So, it's a good idea to start using CSS in all the HTML pages to make them compatible to future browsers.

6.2.3 JavaScript

JavaScript is a lightweight, interpreted programming language. It is designed for creating network-centric applications. It is complimentary to and integrated with Java. JavaScript is very easy to implement because it is integrated with HTML. It is open and cross-platform.

Key advantages of learning JavaScript:

1. JavaScript is the most popular **programming language** in the world and that makes it a programmer's great choice. Once you learnt JavaScript, it helps you developing great front-end as well as back-end software using different JavaScript based frameworks like jQuery, Node.JS etc.

2. JavaScript is everywhere, it comes installed on every modern web browser and so to learn JavaScript you really do not need any special environment setup. For example, Chrome, Mozilla Firefox, Safari and every browser you know as of today, supports JavaScript.

3. JavaScript helps you create really beautiful and crazy fast websites. You can develop your website with a console like look and feel and give your users the best Graphical User Experience.
4. JavaScript usage has now extended to mobile app development, desktop app development, and game development. This opens many opportunities for you as JavaScript Programmer.
5. Due to high demand, there is tons of job growth and high pay for those who know JavaScript. You can navigate over to different job sites to see what having JavaScript skills looks like in the job market.
6. Great thing about JavaScript is that you will find tons of frameworks and Libraries already developed which can be used directly in your software development to reduce your time to market.

6.2.4 Bootstrap

Bootstrap is a free and open-source tool collection for creating responsive websites and web applications. It is the most popular HTML, CSS, and JavaScript framework for developing responsive, mobile-first websites. Nowadays, the websites are perfect for all the browsers (IE, Firefox, and Chrome) and for all sizes of screens (Desktop, Tablets, Phablets, and Phones). All thanks to Bootstrap developers – Mark Otto and Jacob Thornton of Twitter, though it was later declared to be an open-source project.

It is beneficial to use bootstrap because:

1. It is Faster and Easier way for Web-Development.
2. It creates Platform-independent web-pages.
3. It creates Responsive Web-pages.
4. It designs the responsive web pages for mobile devices too.
5. It is Free and open-source framework available.

6.3 Software XAMPP

It is an open-source package of web solutions that includes Apache distribution for many servers and command-line executables along with modules such as Apache server, MariaDB, PHP, and Perl.

XAMPP helps a local host or server to test its website and clients via computers and laptops before releasing it to the main server. It is a platform that furnishes a suitable environment to test and verify the working of projects based on Apache, Perl, MySQL database, and PHP through the system of the host itself. Among these technologies, Perl is a programming language used for web development, PHP is a backend scripting language, and MariaDB is the most vividly used database developed by MySQL.

Some components that are part of this collection of software are explained below:

1. **Cross-Platform:** Different local systems have different configurations of operating systems installed in it. The component of cross-platform has been included to increase the utility and audience for this package of Apache distributions. It supports various platforms such as packages of Windows, Linus, and MAC OS.
2. **Apache:** It is an HTTP a cross-platform web server. It is used worldwide for delivering web content. The server application has made free for installation and used for the community of developers under the aegis of Apache Software Foundation. The remote server of Apache delivers the requested files, images, and other documents to the user.
3. **MariaDB:** Originally, MySQL DBMS was a part of XAMPP, but now it has been replaced by MariaDB. It is one of the most widely used relational DBMS, developed by MySQL. It offers online services of data storage, manipulation, retrieval, arrangement, and deletion.
4. **PHP:** It is the backend scripting language primarily used for web development. PHP allows users to create dynamic websites and applications. It can be installed on every platform and supports a variety of database management systems. It was implemented using C language. PHP stands for **Hypertext Processor**. It is said to be derived from Personal Home Page tools, which explains its simplicity and functionality.
5. **Perl:** It is a combination of two high-level dynamic languages, namely Perl 5 and Perl 6. Perl can be applied for finding solutions for problems based on system administration, web development, and networking. Perl allows its users to program dynamic web applications. It is very flexible and robust.

6. **phpMyAdmin:** It is a tool used for dealing with MariaDB. Its version 4.0.4 is currently being used in XAMPP. Administration of DBMS is its main role.
7. **OpenSSL:** It is the open-source implementation of the Secure Socket Layer Protocol and Transport Layer Protocol. Presently version 0.9.8 is a part of XAMPP.
8. **XAMPP Control Panel:** It is a panel that helps to operate and regulate upon other components of the XAMPP. Version 3.2.1 is the most recent update. A detailed description of the control panel will be done in the next section of the tutorial.
9. **Webalizer:** It is a Web Analytics software solution used for User logs and provide details about the usage.
10. **Mercury:** It is a mail transport system, and its latest version is 4.62. It is a mail server, which helps to manage the mails across the web.
11. **Tomcat:** Version 7.0.42 is currently being used in XAMPP. It is a servlet based on JAVA to provide JAVA functionalities.
12. **Filezilla:** It is a File Transfer Protocol Server, which supports and eases the transfer operations performed on files. Its recently updated version is 0.9.41.

6.4 Database MySQL

MySQL is a Relational Database Management System (RDBMS) software that provides many things, which are as follows:

1. It allows us to implement database operations on tables, rows, columns, and indexes.
2. It defines the database relationship in the form of tables (collection of rows and columns), also known as relations.
3. It provides the Referential Integrity between rows or columns of various tables.
4. It allows us to updates the table indexes automatically.
5. It uses many SQL queries and combines useful information from multiple tables for the end-users.

MySQL is becoming so popular because of these following reasons:

1. MySQL is an open-source database, so you don't have to pay a single penny to use it.

2. MySQL is a very powerful program that can handle a large set of functionality of the most expensive and powerful database packages.
3. MySQL is customizable because it is an open-source database, and the open-source GPL license facilitates programmers to modify the SQL software according to their own specific environment.
4. MySQL is quicker than other databases, so it can work well even with the large data set.
5. MySQL supports many operating systems with many languages like PHP, PERL, C, C++, JAVA, etc.
6. MySQL uses a standard form of the well-known SQL data language.
7. MySQL is very friendly with PHP, the most popular language for web development.
8. MySQL supports large databases, up to 50 million rows or more in a table. The default file size limit for a table is 4GB, but you can increase this (if your operating system can handle it) to a theoretical limit of 8 million terabytes (TB).

6.5 Browser Google Chrome

Google Chrome is a cross-platform web browser developed by Google. It was first released in 2008 for Microsoft Windows, built with free software components from Apple WebKit and Mozilla Firefox. It was later ported to Linux, macOS, iOS, and Android, where it is the default browser.

Chapter-7

Design

7.1 Objective Of Project

The main objective of Task management system are as follows:

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If you are handling a complex task and planned to work outside the office or on weekends, then it is important to have all the important data with you so that you don't have issues continuing the work. Task management apps give you access to get your hands on your database anywhere anytime using any device. What you need is an internet connection and that's it.

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is performing. Task management system bridges this gap by developing the spirit of working together. Using this software, your entire team can see which tasks are assigned to whom so that they can collaborate together and complete their parts effectively in time.

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As a project manager, one of the biggest challenges is to ensure that you have divided the workload equally among your team because poor workload distribution can create too many hurdles in achieving your goals and targets on time. The best way to manage this issue is to use a task manager. It does not only allow you to assign equal tasks but also makes sure that you can track their progress on tasks anytime.

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Inefficiencies often stem from disinterest. Task management principles greatly improve productivity by making sure the right resources are utilized at the right time. This includes giving team members tasks and responsibilities that match their abilities and interests.

7. Bring focus to your job

Whether you work as an individual or for an organization, all your tasks are done in order to achieve a particular goal. However, we often end up doing things that distract from or don't contribute to this. If there's a systematic way to approach all your work items, your work will be more focused on the end goal.

7.2 System And Detailed Design

Firstly, there is a Login Window in it. You can enter as employee login, admin or as a project manager in the system. You have to enter the correct email address and password to login in the system. Once, you login then you go into the dashboard interface which shows everything about the project progress and the total number of projects.

Admin

If you enter as an admin in the system you will be have access to the following:

1. **Dashboard:** You will see the project progress and all the tasks and projects assigned.

2. **Projects:** You can add new projects as well as you can view the list of already assigned projects.
3. **Task:** You will be able to view the project deadline as well as the progress of the tasks given in particular project.
4. **Report:** You can print this report and can keep it to maintain a record of the project.
5. **Users:** You can add new users to the system whether they are employees or project manager.

User

If you login as the employee in the system you will have access to the following:

1. **Dashboard:** You will see the project progress and all the tasks and projects assigned.
2. **Projects:** You can view the projects assigned to you.
3. **Task:** You will be able to view the project deadline as well as the progress of the tasks given in particular project.

Project Engineer

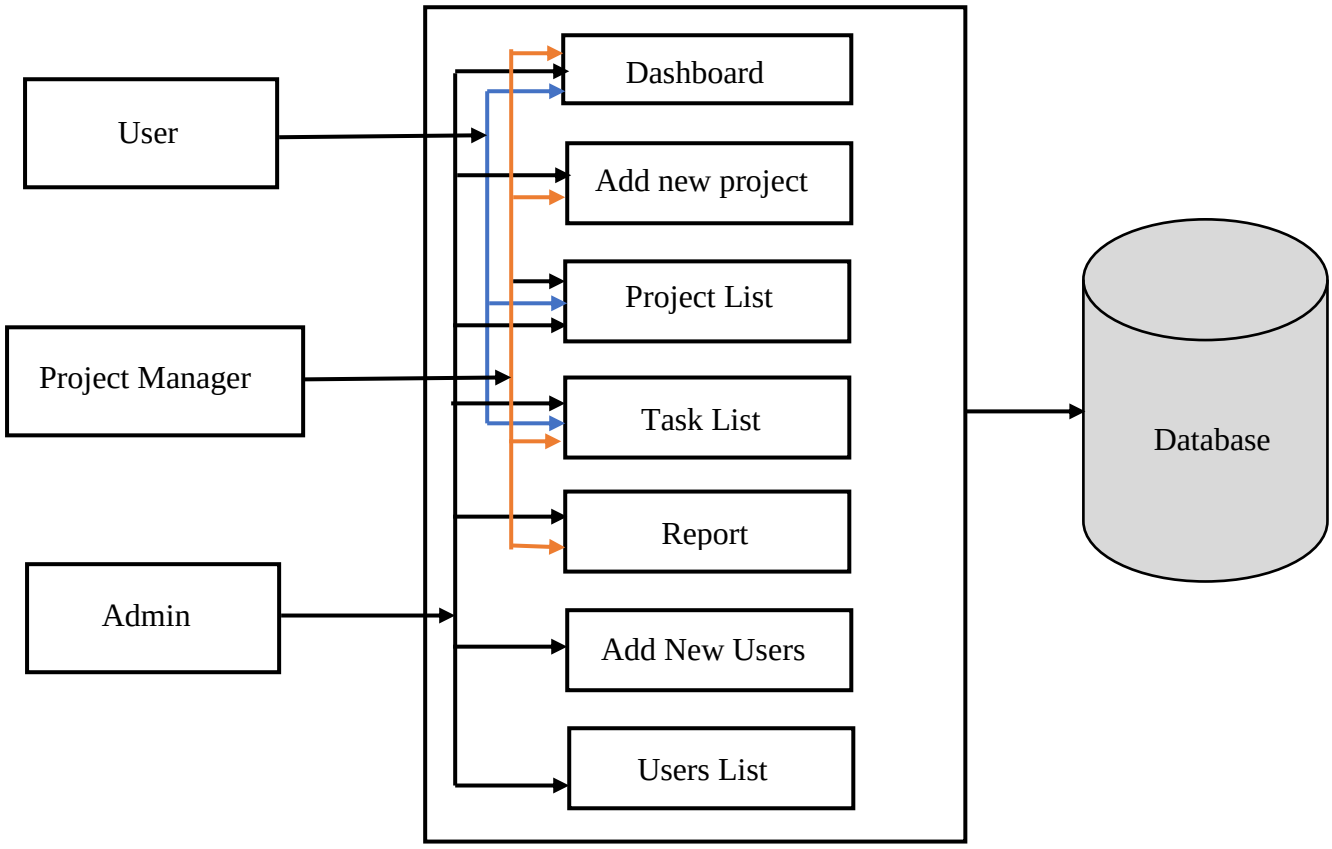
If you login in the system as the project manager you will have access to the following:

1. **Dashboard:** You will see the project progress and all the tasks and projects assigned.
2. **Projects:** You can add new projects as well as you can view the list of already assigned projects.
3. **Task:** You will be able to view the project deadline as well as the progress of the tasks given in particular project.
4. **Report:** You can print this report and can keep it to maintain a record of the project.

7.3 Data Flow Diagram

A data flow diagram is graphical representation that depicts the information flow and the transforms that r applied as date moves from input to output. It can be used to represent a software at any level of abstraction. In fact DFDs may be partitioned in to levels. That represents increasing information flow and functional details. DFDs are defined in levels with every level decreasing the level of abstraction as well as defining a greater detail of the functional organs of the system. A zero level DFD also known as context or fundamental system model represents the entire software

elements as a single bubble with input and output data entities which are indicated as incoming and outgoing arrows. Data Flow Diagram help understanding the basic flow of data from one process to another process. This 0 level DFD represents fundamental overview of the task management system.



7.4 Implementation And Conversion Plan

Login Page

In this Login Page, you have to enter correct username and password to login. The username and password given below will help you to login as admin. You can enter with your employee as well as project manager email address and password registered in the system. Username and password linked with this system for admin is as follows:

- Username – admin@admin.com
- Password - admin123

Clicking login with incorrect information will clear both username and password and show error.

Clicking login with correct information will open a new interface.

Admin Dashboard

Once you have registered as administrator, you are redirected to your homepage. Here you will see all the projects, tasks, users and reports. Here you can see the following info:

- Project Progress
- Total tasks
- Total Projects

Projects

The Projects feature allows you to add new project. With this feature, you can see what projects the team is working on. Not only does it help you discover the projects within your department, but you can also see what projects are dedicated to your team.

Tasks

With the Tasks feature, you are in the know how many tasks have been assigned, and when they need to be accomplished. Each task has a title or description, start/end date, and it can also include details such as task status, project status. Usually, the tasks are placed based on which activity needs to be completed before others can begin.

Report

With the Report feature, you can view project progress using a list view that clearly illustrates everything from project name, completed tasks to project status. In addition to that, you can view the working hours of the projects.

Users

With this feature, you can see all the information about the users within the task management system such as name, email, role in the company, and you can also add new users to the system.

User Dashboard

Once you have registered as user, you are redirected to your homepage. Here you will see all the projects, tasks, users and reports. Here you can see the following info:

- Project Progress
- Total tasks

- Total Projects

Projects

The Projects feature allows you to see the project list. With this feature, you can see what projects the team is working on. Not only does it help you discover the projects within your department, but you can also see what projects are dedicated to your team.

Tasks

With the Tasks feature, you are in the know how many tasks have been assigned, and when they need to be accomplished. Each task has a title or description, start/end date, and it can also include details such as task status, project status. Usually, the tasks are placed based on which activity needs to be completed before others can begin.

Project Manager Dashboard

Once you have registered as user, you are redirected to your homepage. Here you will see all the projects, tasks, users and reports. Here you can see the following info:

- Project Progress
- Total tasks
- Total Projects

Projects

The Projects feature allows you to add new project. With this feature, you can see what projects the team is working on. Not only does it help you discover the projects within your department, but you can also see what projects are dedicated to your team.

Tasks

With the Tasks feature, you are in the know how many tasks have been assigned, and when they need to be accomplished. Each task has a title or description, start/end date, and it can also include details such as task status, project status. Usually, the tasks are placed based on which activity needs to be completed before others can begin.

Report

With the Report feature, you can view project progress using a list view that clearly illustrates everything from project name, completed tasks to project status. In addition to that, you can view the working hours of the projects.

7.5 Database Description

Database Name – tms_db.sql

Database Table:

project_list table

In this section, we will design the project list Table to store the project activities assigned. Below mentioned is the description of all the columns of the project list Table.

Id	The unique id to identify the project.
Name	The name of the project.
Description	The description of the project given.
Status	The status of the project can be Pending, On-Hold, or Done.
Start Date	It stores the date at which the project is started.
End Date	It stores the date at which the project is to be finished.
Manager Id	The unique id to identify the manager.
User Id	The unique id to identify the user.

task_list table

In this section, we will design the Task Table to store the tasks. Below mentioned is the description of all the columns of the Task Table.

Id	The unique id to identify the task.
Project Id	The unique Id to identify the project.
Task	The name of the task.
Description	The description of the task given.
Status	The status of the task can be Pending, On-Hold, or Done.
Start Date	It stores the date at which the is started.

users table

In this section, we will design the User Table to store user information. Users can manage their own profiles. Also, the users can use the application to manage their own tasks and activities. Below mentioned is the description of all the columns of the User Table.

Id	The unique id to identify the user.
First Name	The first name of the user.
Last Name	The last name of the user.
Email	The email of the user. It can be used for login and registration purposes.
Password	The password generated by the user.
Type	This column can be used to identify the role of user.
Avatar	User image.

user_productivity table

Id	The unique id to identify the productivity.
Project Id	The unique id to identify the project.
Task Id	The unique id to identify the task.
Comment	The description of the project.
Subject	The name of the projects.
Date	The start date of the project.
User Id	The unique id to identify the user.

Chapter – 8

Snap Shots

8.1 Login Page

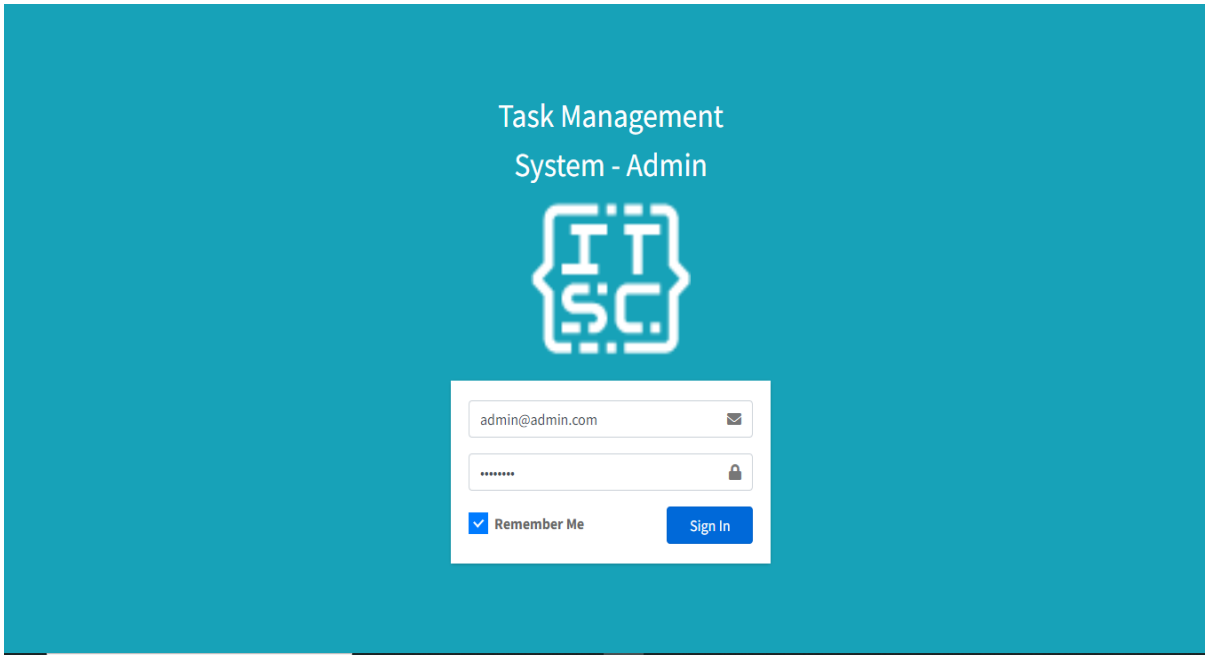


Fig 1: Login Page Of the Project

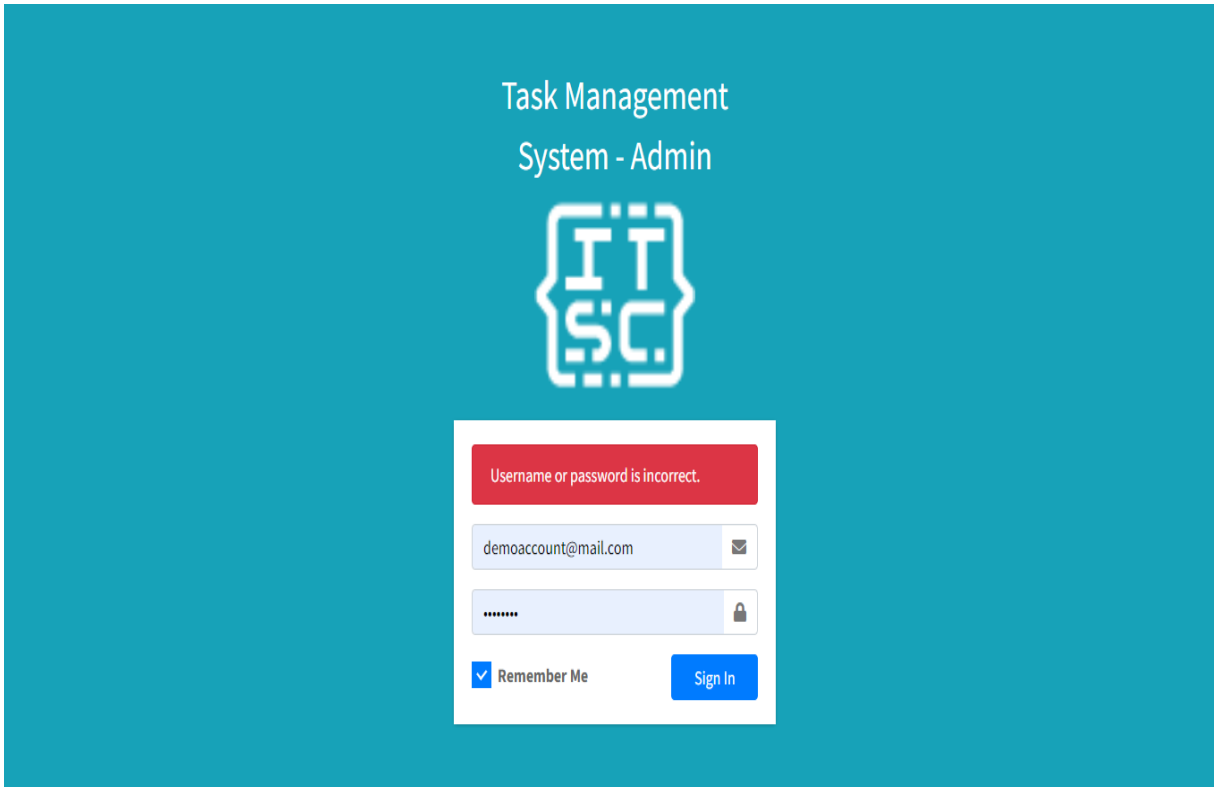


Fig 2 : Showing Error when entered wrong username or password

8.2 Admin Dashboard

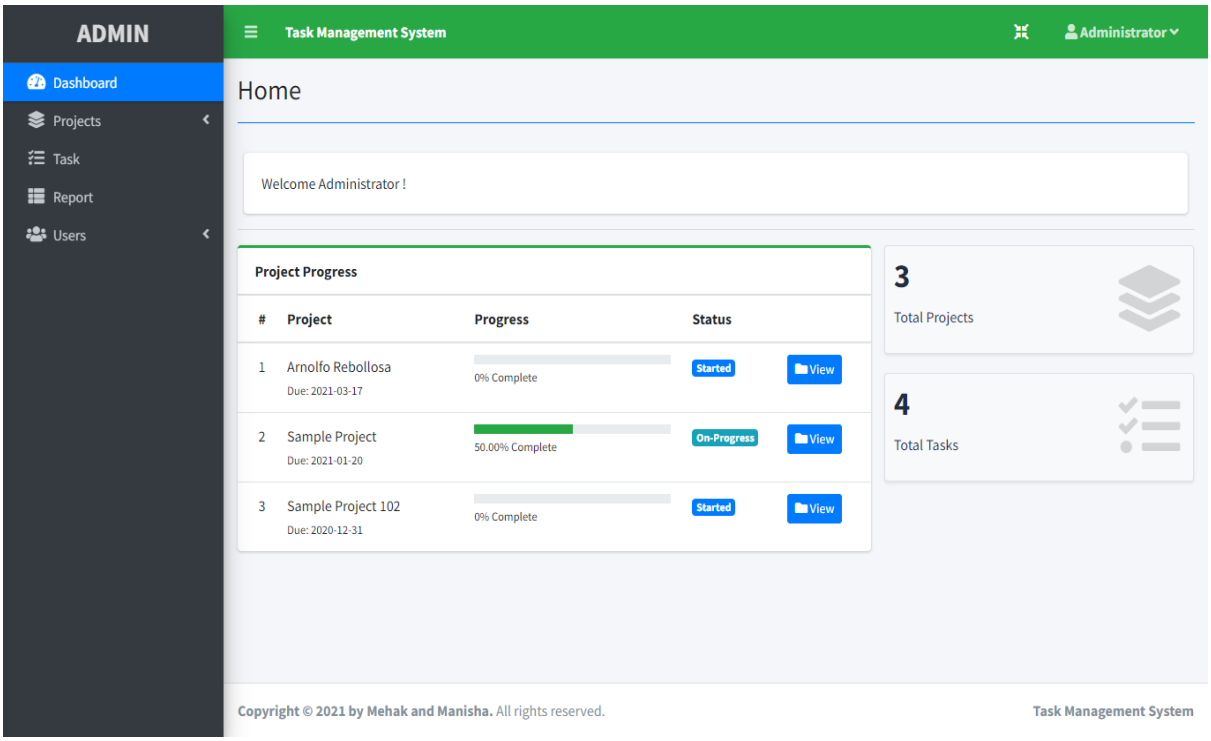


Fig 3 : Admin Dashboard

8.3 Projects

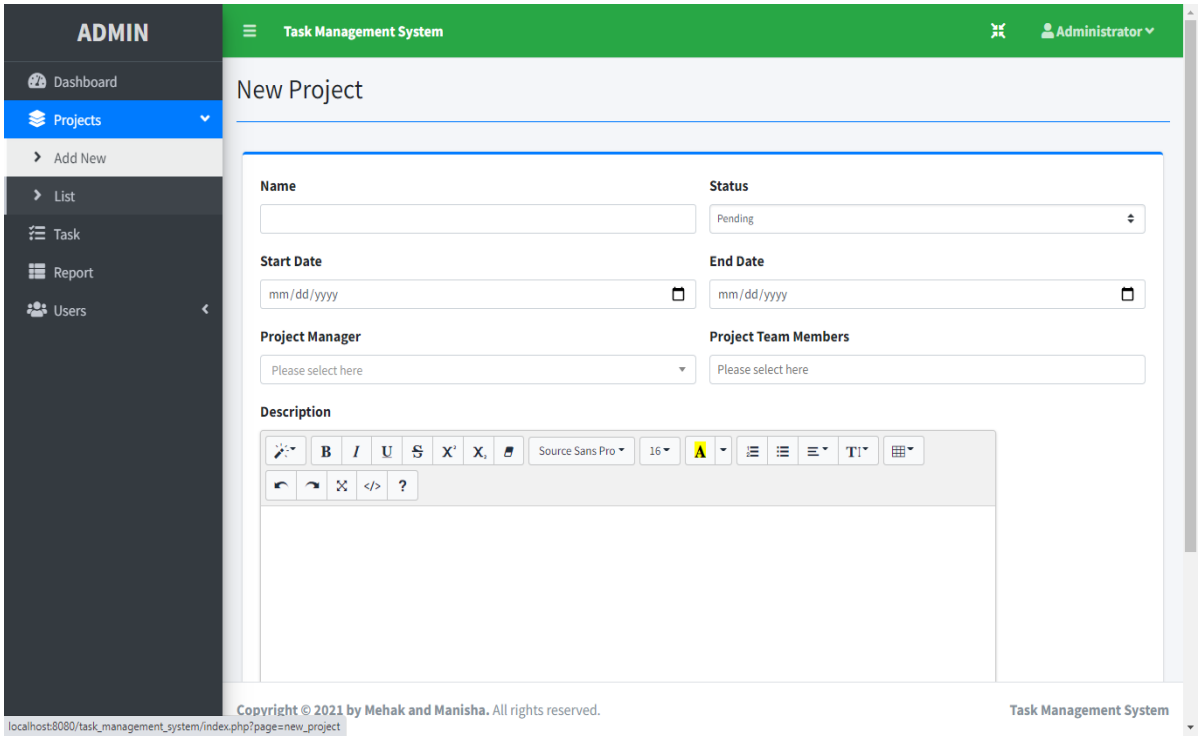


Fig 4 : Add New project Page

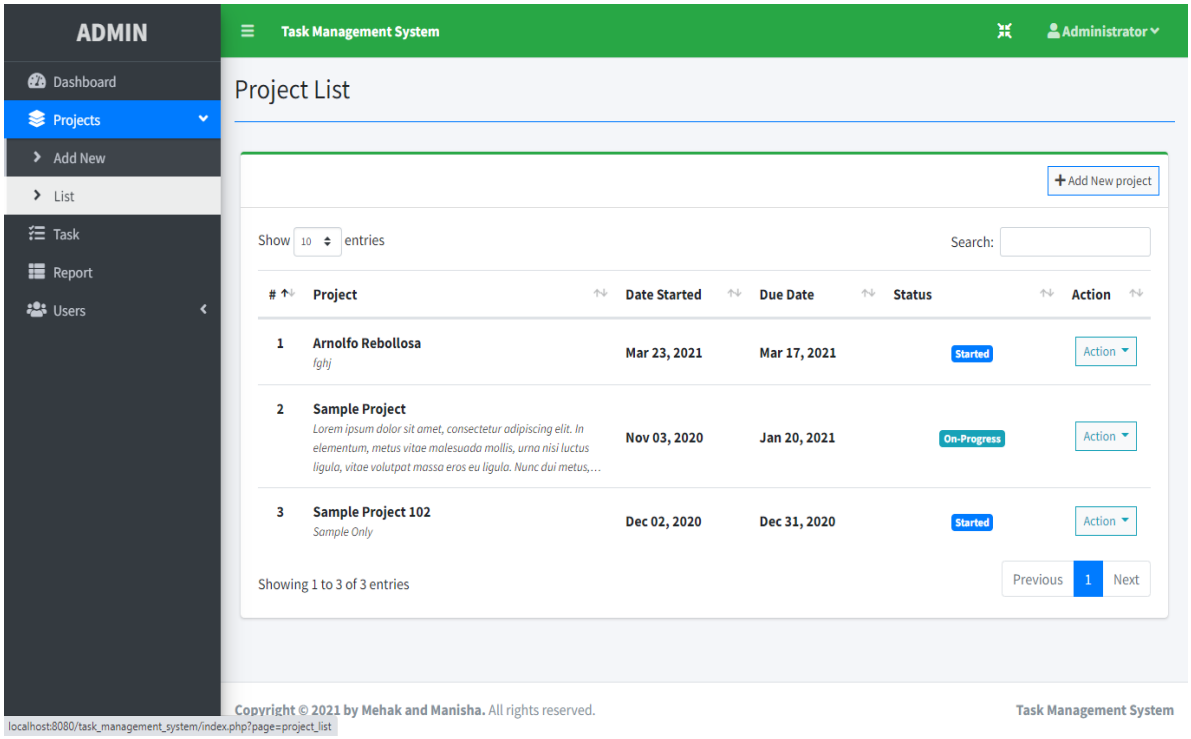


Fig 5: Project List Page

8.4 Task

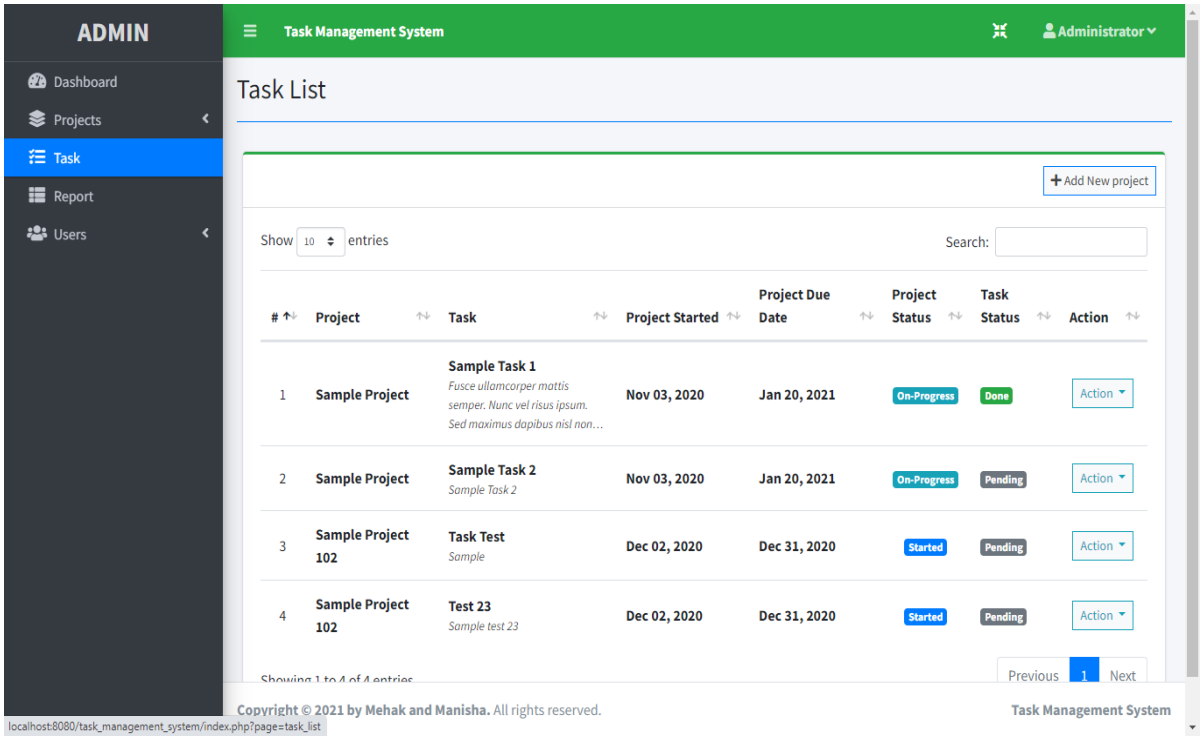


Fig 6: Task List Page

8.4 Report

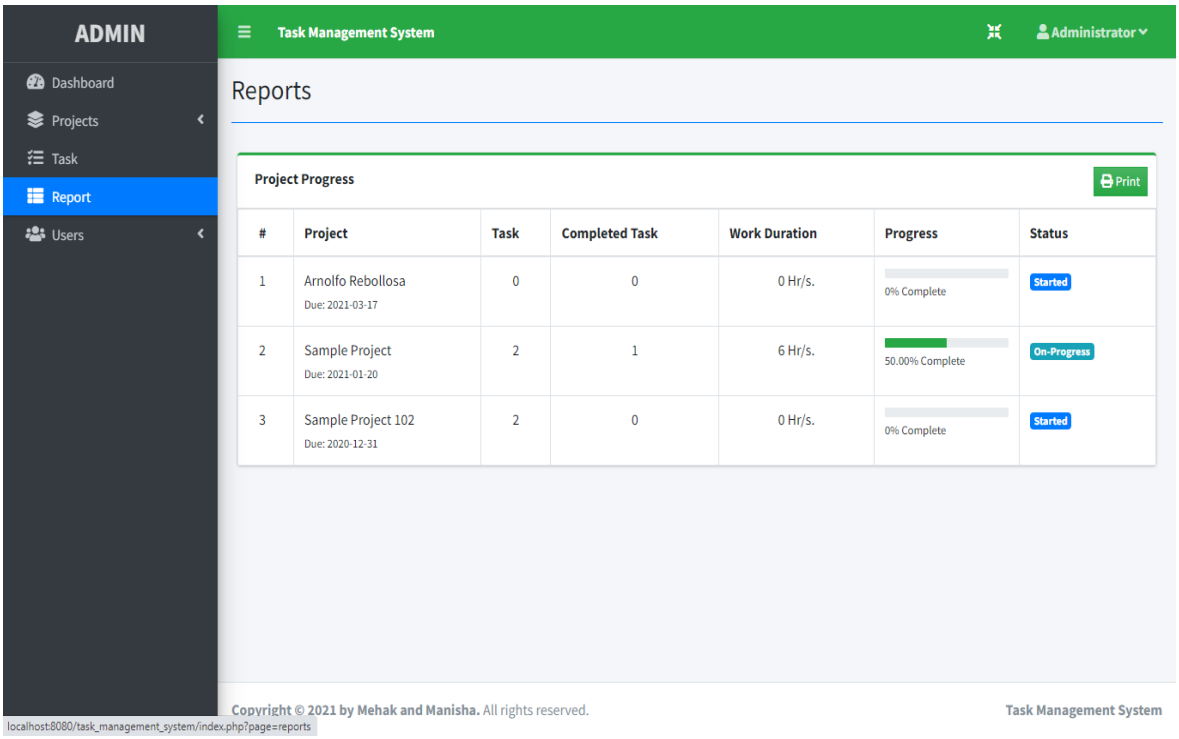


Fig 7: Report Page

8.5 Users

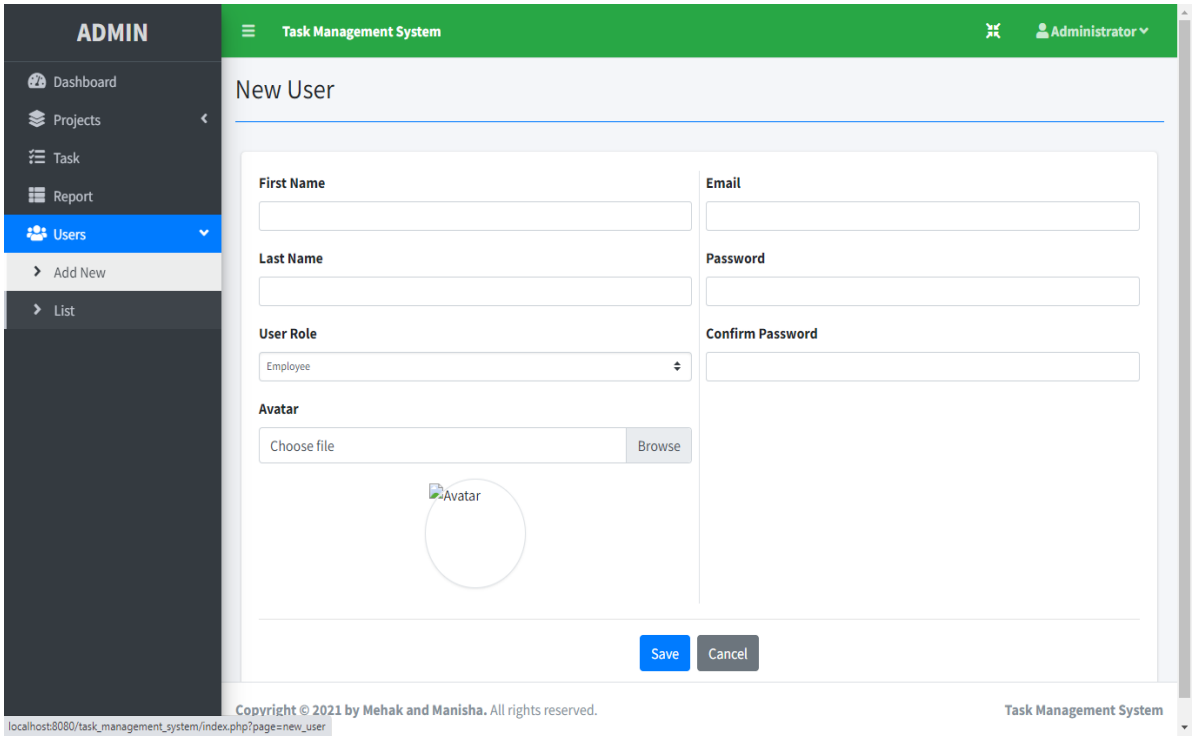


Fig 8: Add New users to the system

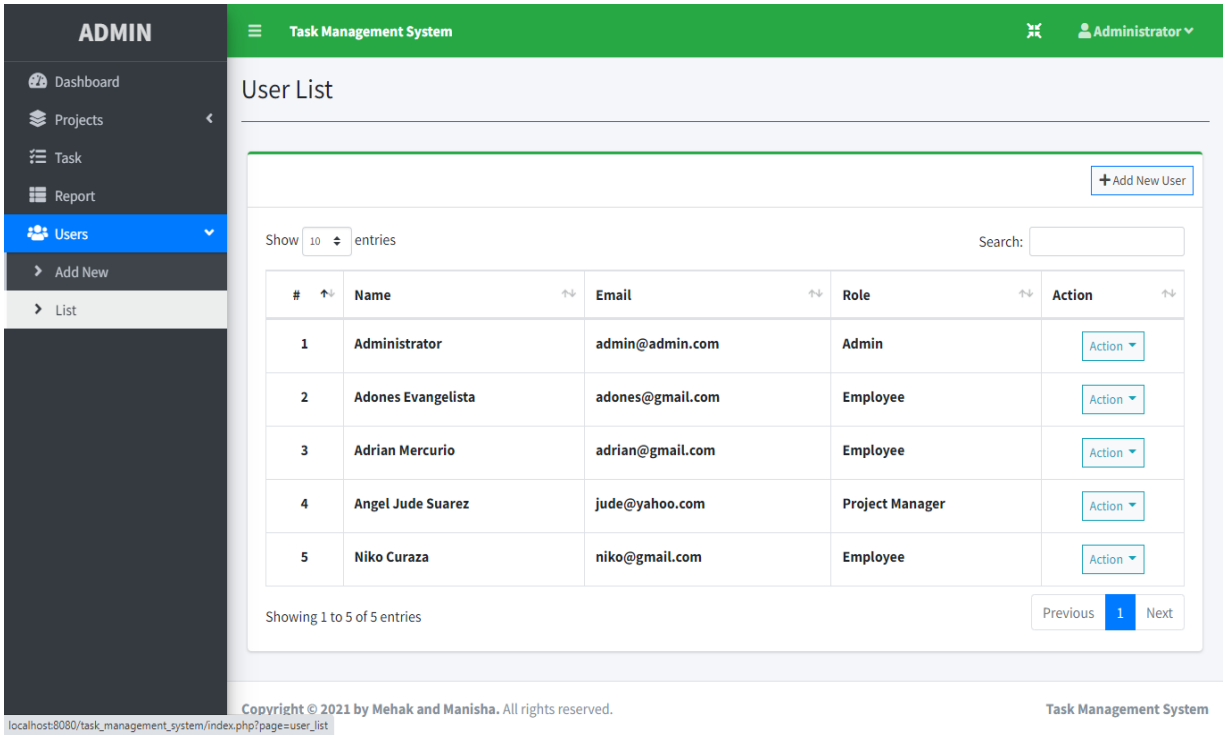


Fig 9: View Users List

8.6 Admin Account

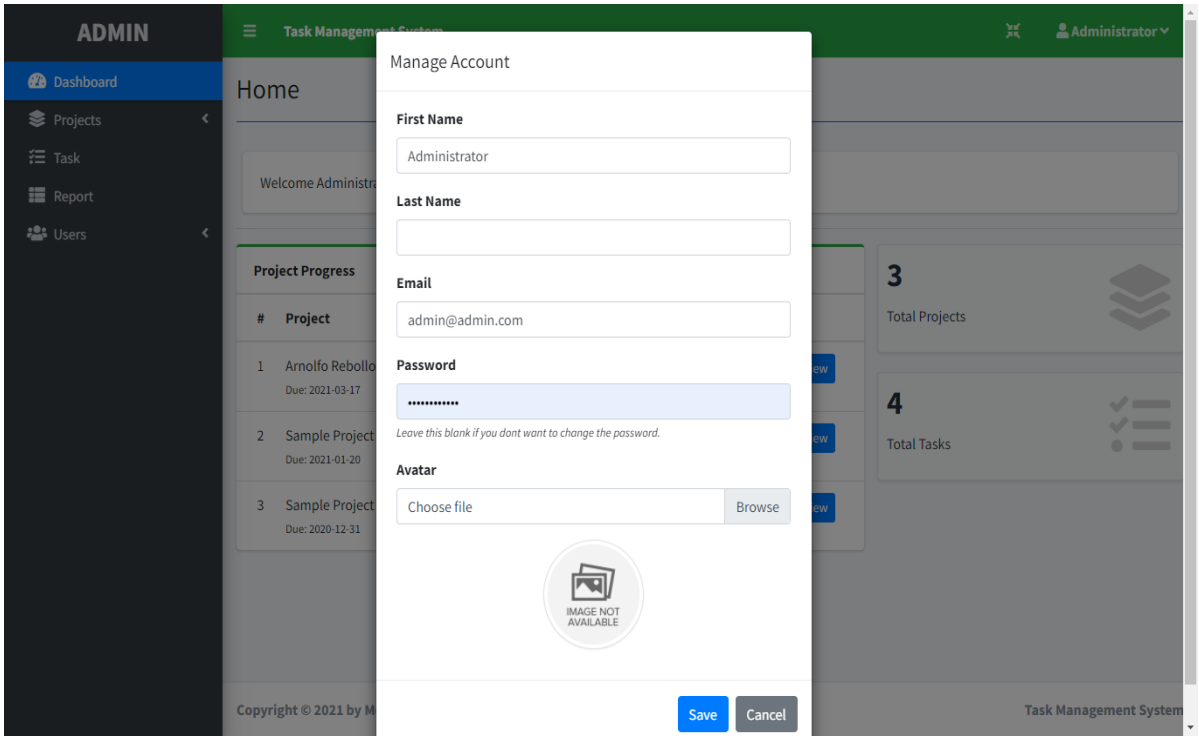


Fig 10: Manage Admin Account

8.7 User Dashboard

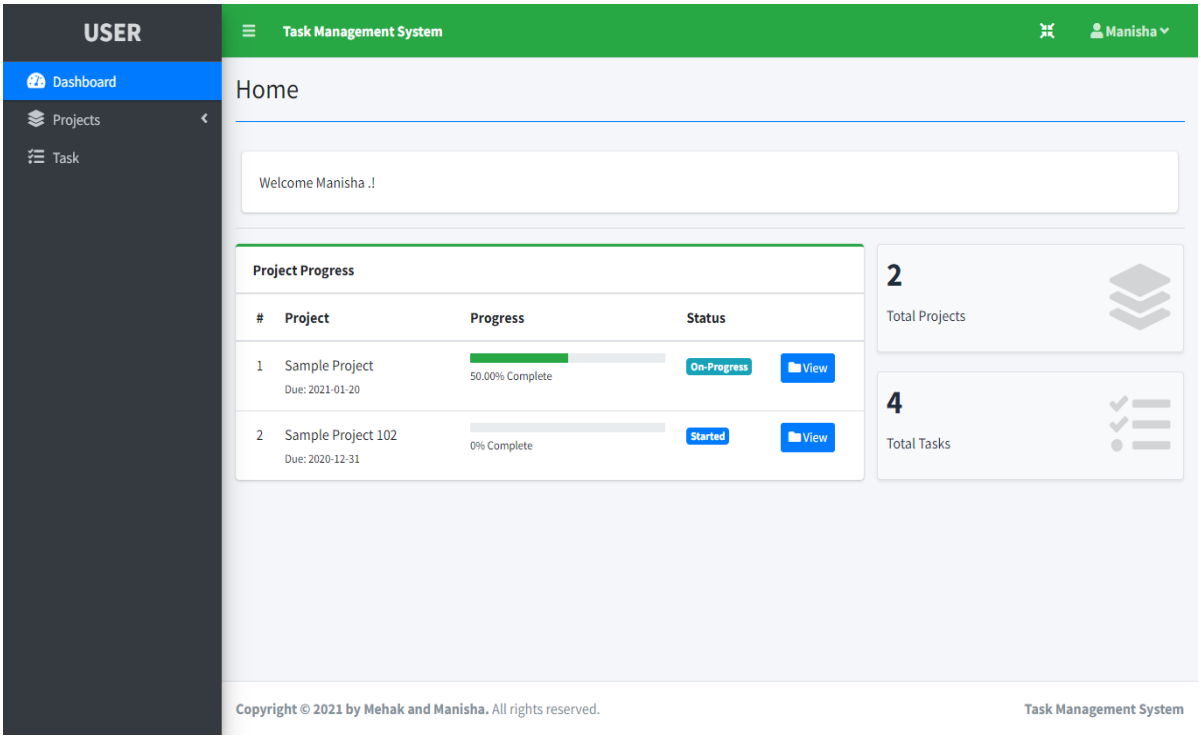


Fig 11: User Dashboard

8.8 Project Manager Dashboard

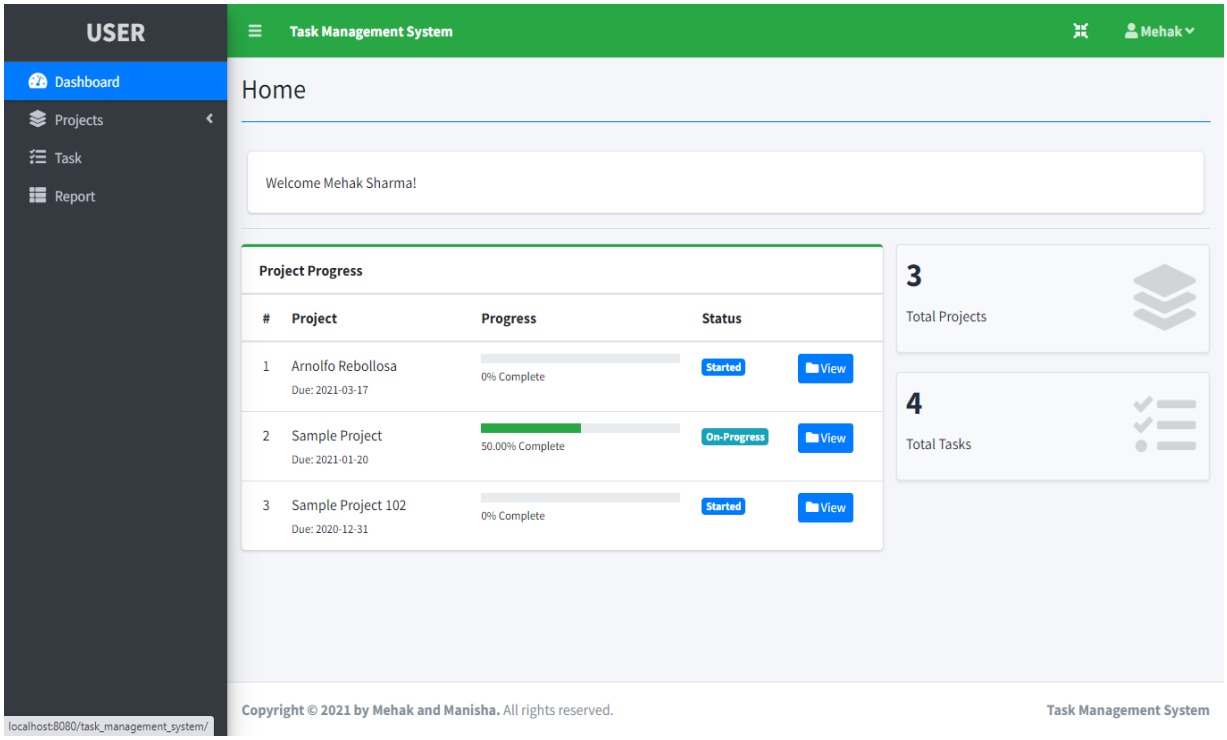


Fig 12: Project Manager Dashboard

Chapter – 9

Testing And Debugging

9.1 Unit Testing

Unit Testing is the first level of software testing where the smallest testable parts of a software are tested. This is used to validate that each unit of the software performs as designed.

The unittest test framework is python's xUnit style framework.

Method:

White Box Testing method is used for Unit testing.

9.2 Integration Testing

Integration testing exercises two or more parts of an application at once, including the interactions between the parts, to determine if they function as intended. This type of testing identifies defects in the interfaces between disparate parts of a codebase as they invoke each other and pass data between themselves.

While unit testing is used to find bugs in individual functions, integration testing tests the system as a whole. These two approaches should be used together, instead of doing just one approach over the other. When a system is comprehensively unit tested, it makes integration testing far easier because many of the bugs in the individual components will have already been found and fixed.

9.3 System Testing

SYSTEM TESTING is a level of testing that validates the complete and fully integrated software product. The purpose of a system test is to evaluate the end-to-end system specifications. Usually, the software is only one element of a larger computer-based system. Ultimately, the software is

interfaced with other software/hardware systems. System Testing is actually a series of different tests whose sole purpose is to exercise the full computer-based system.

9.4 Acceptance Testing

Acceptance testing, a testing technique performed to determine whether or not the software system has met the requirement specifications. The main purpose of this test is to evaluate the system's compliance with the business requirements and verify if it is has met the required criteria for delivery to end users.