Department of Information and Communication Technology
Faculty of Technology University
of Ruhuna

Tool Management System

Software Requirement Specification

Group Project (ICT3183)

Project ID: **GP-2024-02**

Submitted by:

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3. TG/2020/737 – I.A.N.M. Anusari
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Submitted to:

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Name of the supervisor:
Ms. Malsha Prabudhdhi

Date of submission
25.02.2024

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1. Introduction

The most famous cranes companies have challenges to manage their tool stores. They want to deliver tools to various projects, according to site supervisors' requests also want to return their tools from projects to their tool stores without missing tools. They want to track their tools, where are in. A web application that allows to manage the tool store from company to various projects. Dilum BMK (Pvt) Ltd is defined via a web application. This project was created by Group 02, third-year ICT students at the University of Ruhuna's Faculty of Technology, under the supervision of Ms. Malsha Prabudhdhi.

1.1 Purpose

The Software Requirement Specification document provides an overall description of the functions and specifications of proposed Tool Management System for Dilum BMK Engineers (Pvt) Ltd, Pannipitiya. The document includes functional requirements, non-functional requirements hardware specifications and interface designs of this System including purpose and features of the system, and what the system will do and how will do. By referring to the document the company could gain a clear understanding of behaviors and characteristics of the system proposed by the developer team. The company could consider the actual requirement of the company is being satisfied by the system and changes could be made if necessary. This would ensure that the exact requirements of the company will be addressed and implemented in future. Which would be great ease for both the company and the developer team.

1.2 Document Conventions

This document was created following the IEEE System Requirement Specification Document template. We follow bold headings and font sizes with Times New Roman font, to make the content more readable and effective.

1.3 Intended Audience and Reading Suggestions

This project is a prototype which was developed for Tool management System, and it was carried out under supervision of our supervisor and our client Dilum BMK Engineers (Pvt) Ltd, Pannipitiya. The intended audience for the Software Requirements Specification document includes stakeholders and individuals involved in the development and implementation of the tool management and tracking web application system for Dilum BMK (Pvt) Ltd in Sri Lanka. This includes but is not limited to software developers, project managers, system architects, quality assurance personnel, and end users such as administrators, company managers, stock supervisors, and site supervisors. The documents provide a comprehensive overview of the system's objectives, functionalities, user roles, and interactions, serving as a crucial reference for understanding the project scope, requirements, and technical specifications. It is recommended that stakeholders thoroughly review the document to ensure alignment with business needs and to facilitate effective communication and collaboration throughout the development lifecycle. And this document will also be beneficial for developers and testers to get clear guidance on system behavior, user interfaces, data management and performance to ensure successful implementation and deployment of the web application system.

[1]

1.4 Product Scope

The Product Scope outlined in the SRS document for the Tool management System Web application system for Dilum BMK Engineers (Pvt) Ltd encompasses the development of a comprehensive digitizing the process of tool handling across various project sites. This software solution will serve as a comprehensive platform catering to the needs of various stakeholders within the company, including administrators, company managers, stock supervisors, and site supervisors. By automating tasks such as user account management, project detailing, tool tracking, and toolbox creating , the system will enhance efficiency, accuracy, and transparency in day to-day operations. The system aims to optimize resource utilization, minimize manual errors, improve decision-making processes, and provide high-quality services to various project sites. [2]

1.5 References

[1] "Dilum BMK Engineers," [Online]. Available: https://www.dilumbmkengineers.com/services.

[2] https://www.dilumbmkengineers.com/download

[3] https://ieeexplore.ieee.org/document/9537086

[4] https://app.diagrams.net/

2. Overall Description

2.1 Product Perspective

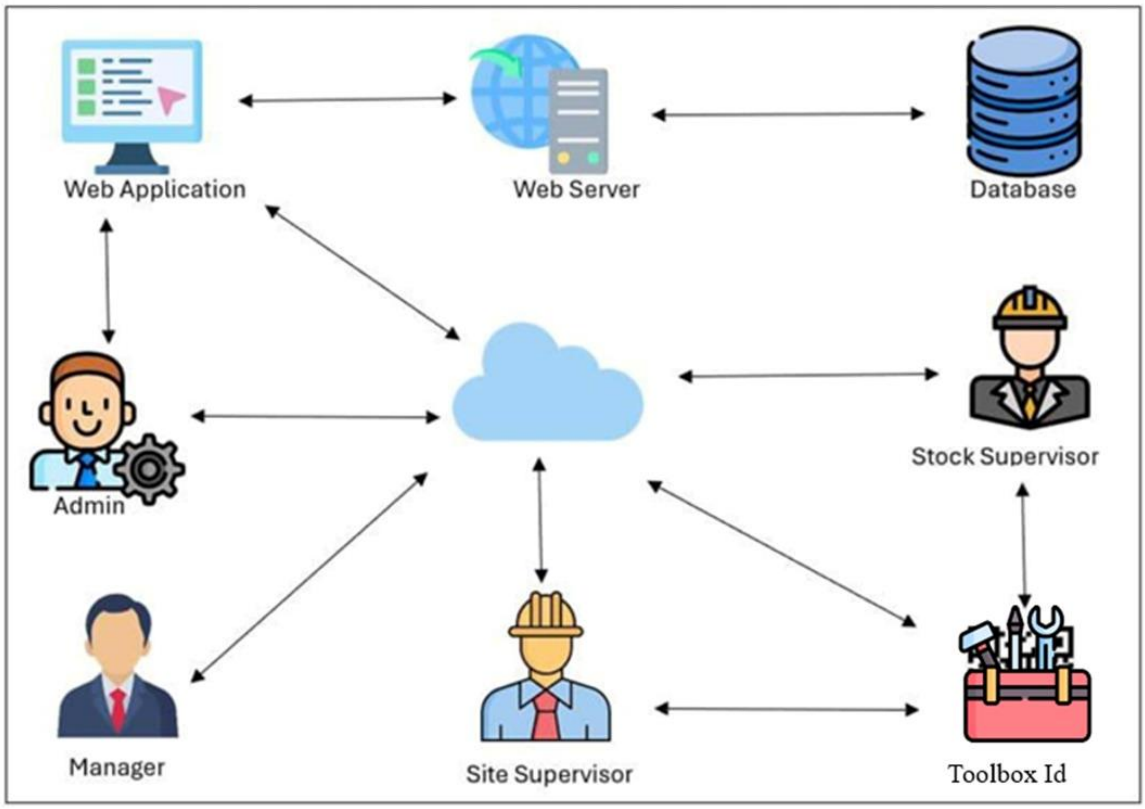

Figure 1 - Architecture Design

Admin: Create, view, update, and delete user accounts.

Company Manager: Manage project details, assign site supervisors, and, inventory, and project-wise tool allocation.

Stock Supervisor: Add, view, update, and delete equipment information in the inventory. Create toolboxes for projects and create reports. View current location of toolboxes and view equipment required tools reports.

Site Supervisor: Assign equipment to projects, create reports on equipment states, and send required equipment reports to stock supervisor. upload reports on equipment status.

2.2 Product Functions

Stock Supervisor:

The Stock Supervisor is primarily responsible for managing equipment inventory and facilitating equipment distribution to project sites. Their procedures involve tasks such as adding new equipment to the inventory, updating equipment information, and addressing damaged equipment by deleting corresponding records. Additionally, Stock Supervisors can view reports from site supervisors requesting specific equipment reports, select and create toolboxes for projects and update, they also monitor inventory levels, view toolbox details.

Site supervisor:

Site Supervisors play a critical role in managing equipment at project sites and ensuring smooth operations. Their procedures involve requesting specific equipment from the Equipment Store by sending reports to Stock Supervisors through the system. can track the location of tools within the system. They also provide status updates on equipment usage and report any issues or maintenance needs. Additionally, Site Supervisors can access reports regarding equipment status and usage for their respective project sites, enabling them to effectively manage resources and optimize project workflows.

Company Manager:

Company Managers play a crucial role in overseeing project details and resource allocation. They are responsible for managing project information within the system, including assigning Site Supervisors to specific projects. Furthermore, Company Managers can access reports regarding tool usage, inventory levels, and project-wise tool allocations, enabling them to make informed decisions and optimize project management processes.

Admin:

The admin role is primarily responsible for managing user accounts within the system. This includes creating new user accounts for individuals involved in the system, such as Company Managers, Stock Supervisors, and Site Supervisors. Additionally, the Admin can view, update, and delete user account details as needed. This role ensures that user access to the system is appropriately controlled and managed.

2.3 User Classes and Characteristics

The designed system's users include admins, managers, stock supervisors and site supervisors who maintain the web application. All user classes interact with separate interfaces and have various functions according to their roles through the tool management system.

Admin

- **Description**

  The admin has access to the web application and administrative privileges to user control and management in the whole tool management system.

- **Characteristics**

  Role: The admin has managed all users account in the system.

  Authentication: to access admin functions, the admin user must be authorized using a unique username and password.

  Privileges: The admin has the authority to create, update, view and delete data related to user accounts in the web application.

Stock Supervisor

- **Description**

  The Stock Supervisor has access to the web application and has privileges to manage tools inventory, view report, allocate tools to projects, create toolboxes and view toolboxes details.

- **Characteristics**

  Role: The Stock Supervisor has managed all tool inventory in the system.

  Authentication: to access stock supervisor functions, the stock supervisor user must be authorized using a unique username and password.

  Privileges: The stock supervisor has the authority to create, update, view and delete data related to tools inventory in the web application, and can view reports, can allocate tools to various projects, create toolboxes and view toolboxes.

Manager

- **Description**

  The Manager has access to the web application and has privileges to manage projects, view inventory levels usages, view project wise tool allocation.

- **Characteristics**

  Role: The Manager has managed all projects, in the system, view inventory levels usages, view project wise tool allocation.

  Authentication: to access manager functions, the manager user must be authorized using a unique username and password.

  Privileges: The Manager has the authority to create, update, view and delete data related to various projects in the web application, and view inventory levels usages, view project wise tool allocation.

Site Supervisor

- **Description**

  The Site Supervisor has access to the web application and has privileges to view own project, create tool allocation report, confirming that the requested tools are available in the toolbox using Toolbox Id , can check tools location.

- **Characteristics**

  Role: The Site Supervisor has viewed own project, created a tool allocation report, confirming that the requested tools are available in the toolbox using toolbox id.

  Authentication: to access site supervisor functions, the site supervisor user must be authorized using a unique username and password.

  Privileges: The site supervisor has the authority to view own project, create tool allocation report, confirming that the requested tools are available in the toolbox using toolbox id.

2.4 Operating Environment

The Operating environment of Tool Management System for Dilum BMK Engineers (Pvt) Ltd is listed below.

- Operation System: Windows
- Database: MySQL
- Application: React.js, Spring Boot
- Web browsers: The web application should be compatible with web browsers like Google Chrome.
- Internet Connectivity: The web application needs an active internet connection for accessing.

2.5 Design and Implementation Constraints

The tool management system handles sensitive company information such as personal and tools information. These integration needs should be considered in the design and execution to ensure compatibility and smooth data exchange.

- Web application system developed with Java, with help of Spring Boot framework. For creating the interfaces, react js framework was used.

2.6 Project Documentation

No project documentation is available for this project development.

2.7 User Documentation

Messages: the system will generate error messages when the user logs in to the system. And generate updated, Deleted, created messages when changing databases.

2.8 Assumptions and Dependencies

- All Users have an internet Connection.
- There will be no server latencies.
- Environment rules and regulations have followed when developing system and ensure the compliance.

3. External Interface Requirements

3.1 User Interfaces for the Web application

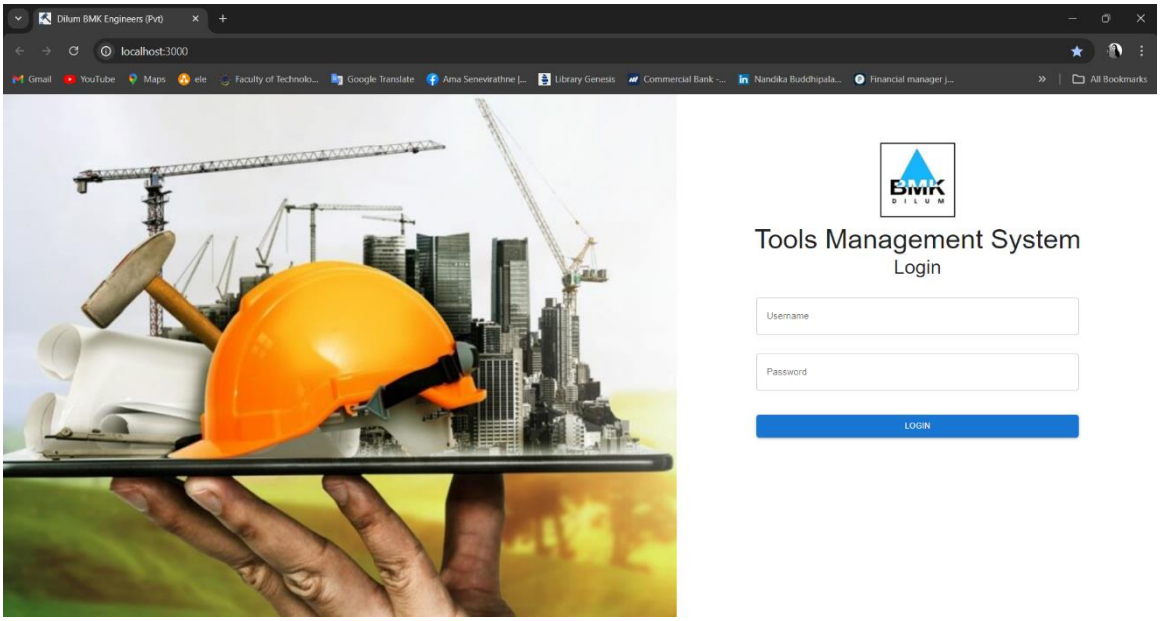

Figure 2 – Login page of the web application.

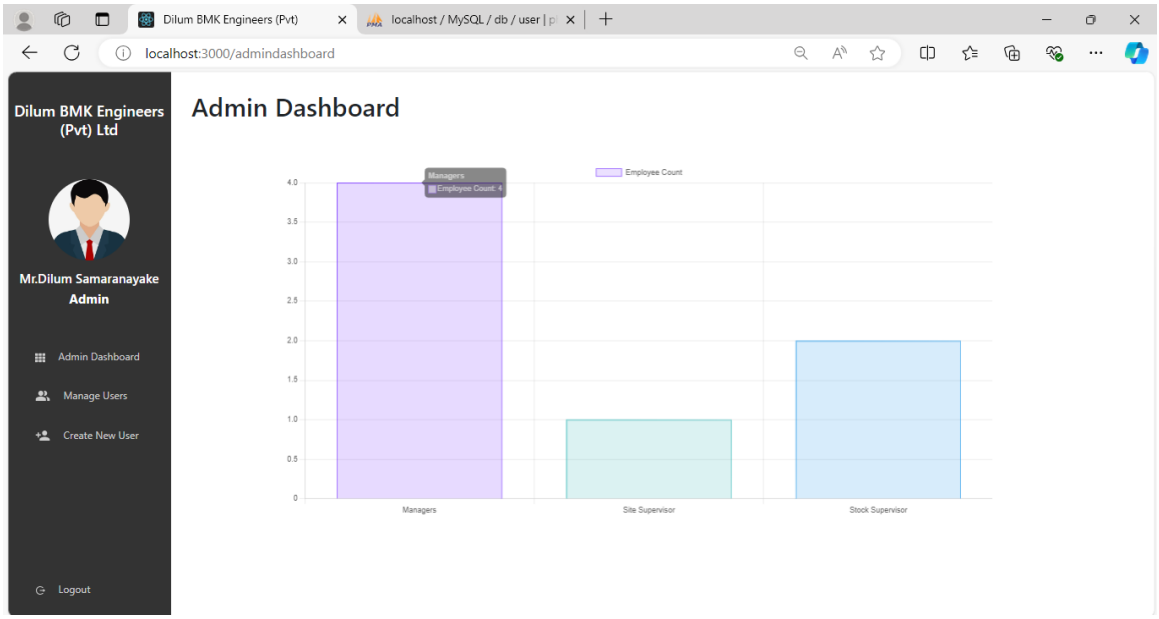

Figure 3- Admin Dashboard

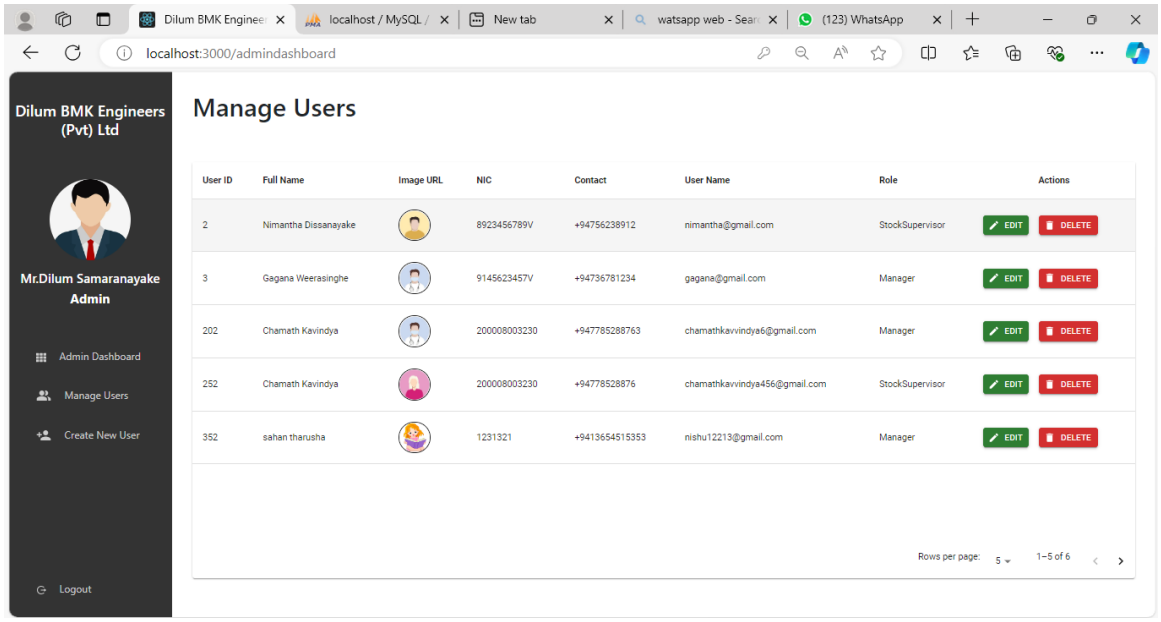

Figure 4 - Manage User Manage Page

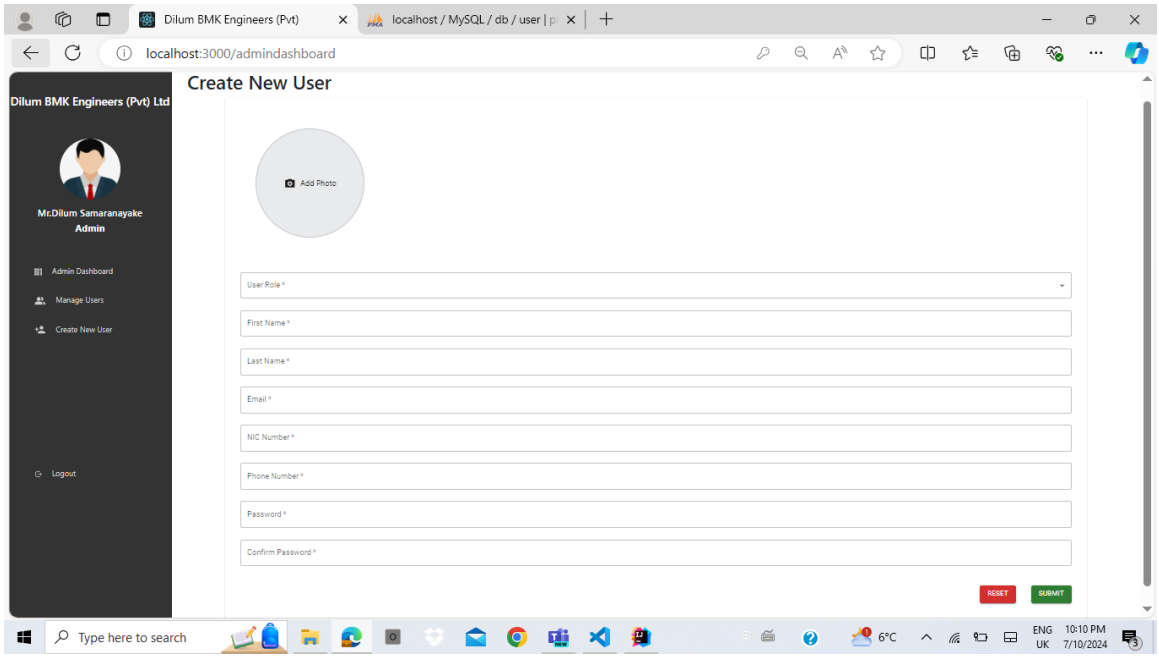

Figure 5 - Create User Form

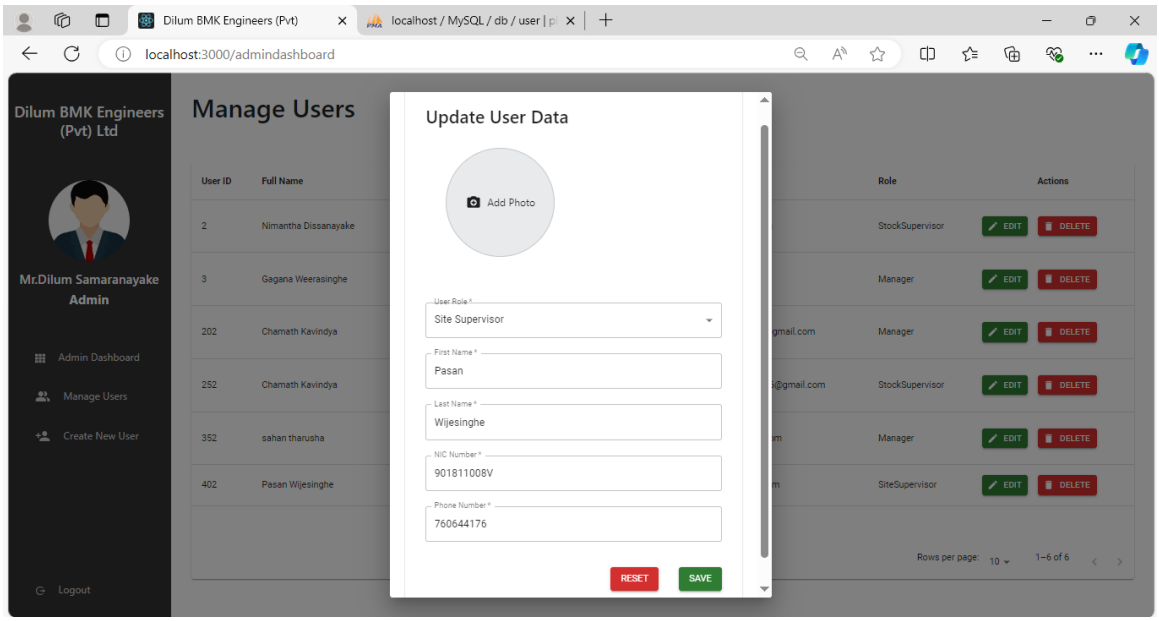

Figure 6 - Update User Form

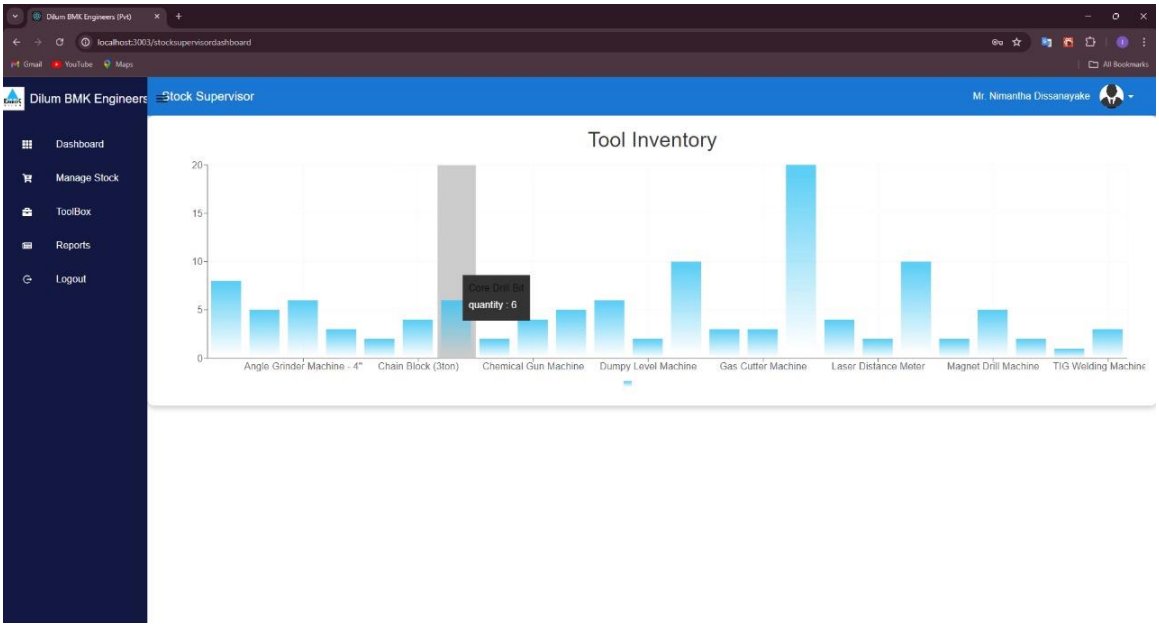

Figure 7- Stock Supervisor Dashboard

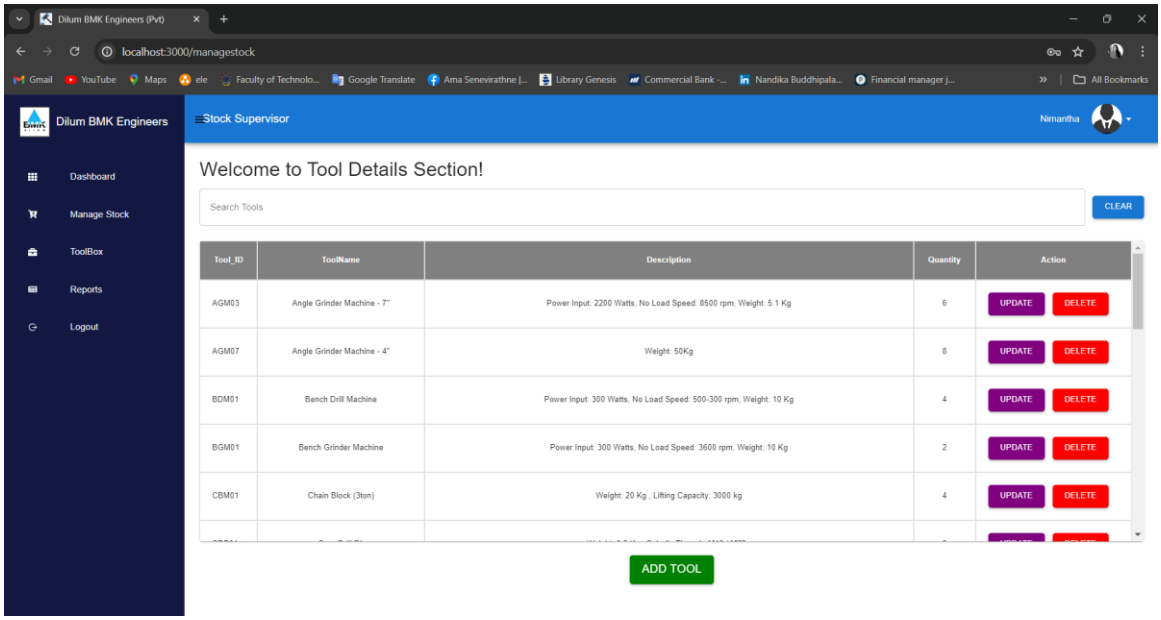

Figure 8- Stock Supervisor View Tool Inventory

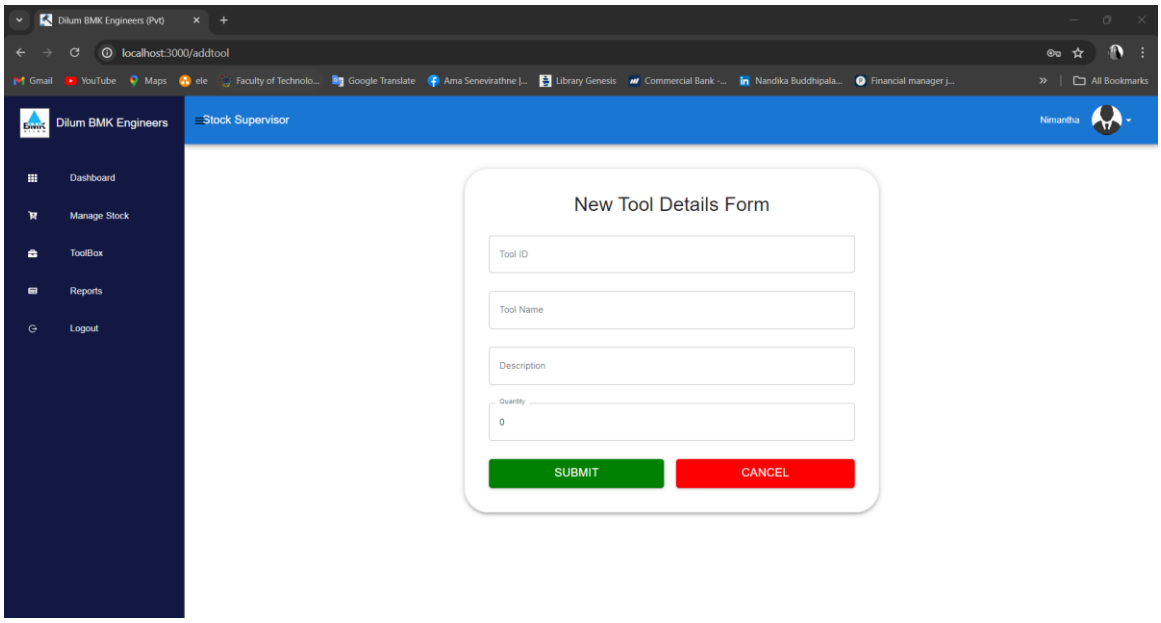

Figure 9 - Stock Supervisor Add New Tool Details Form

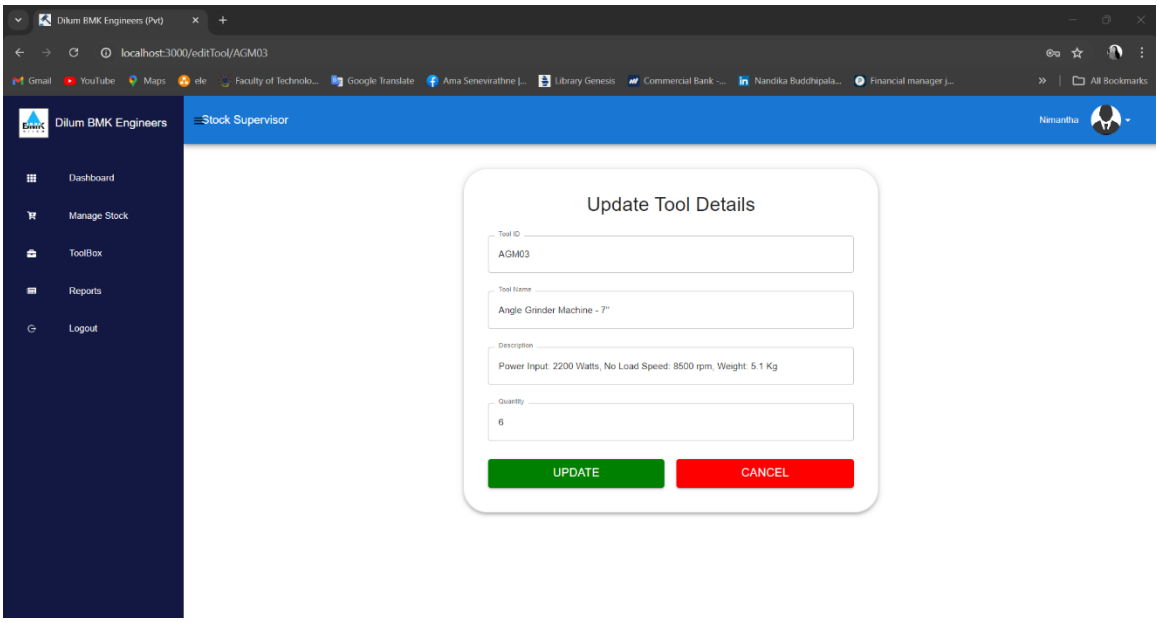

Figure 10- Stock Supervisor Update Tool Details Form

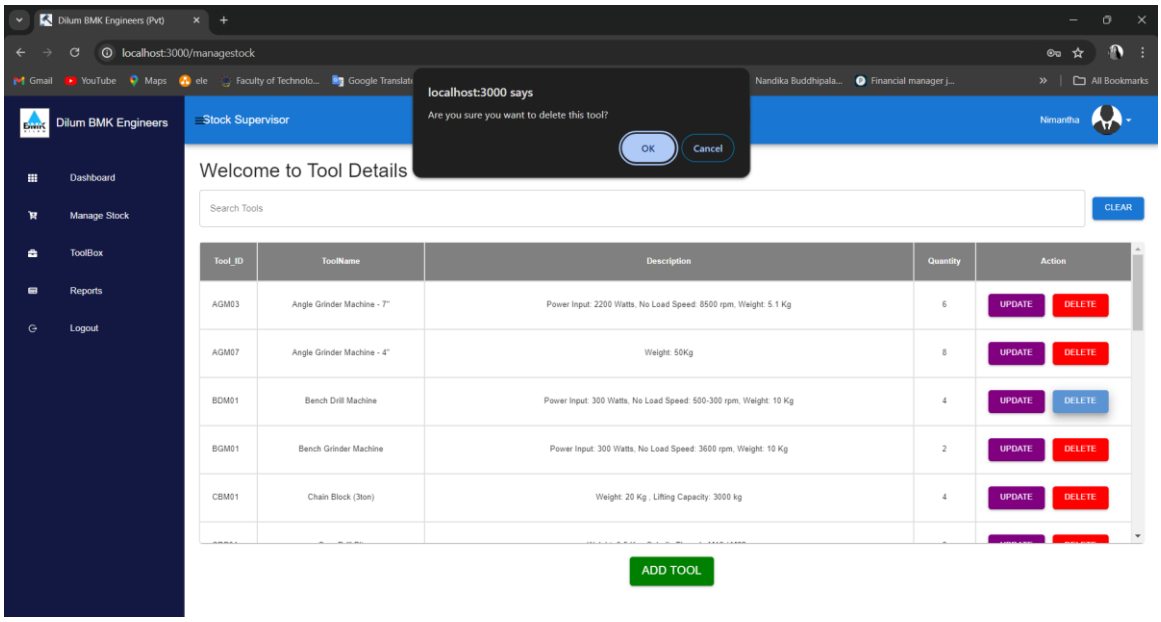

Figure 11 - Stock Supervisor Tools Delete

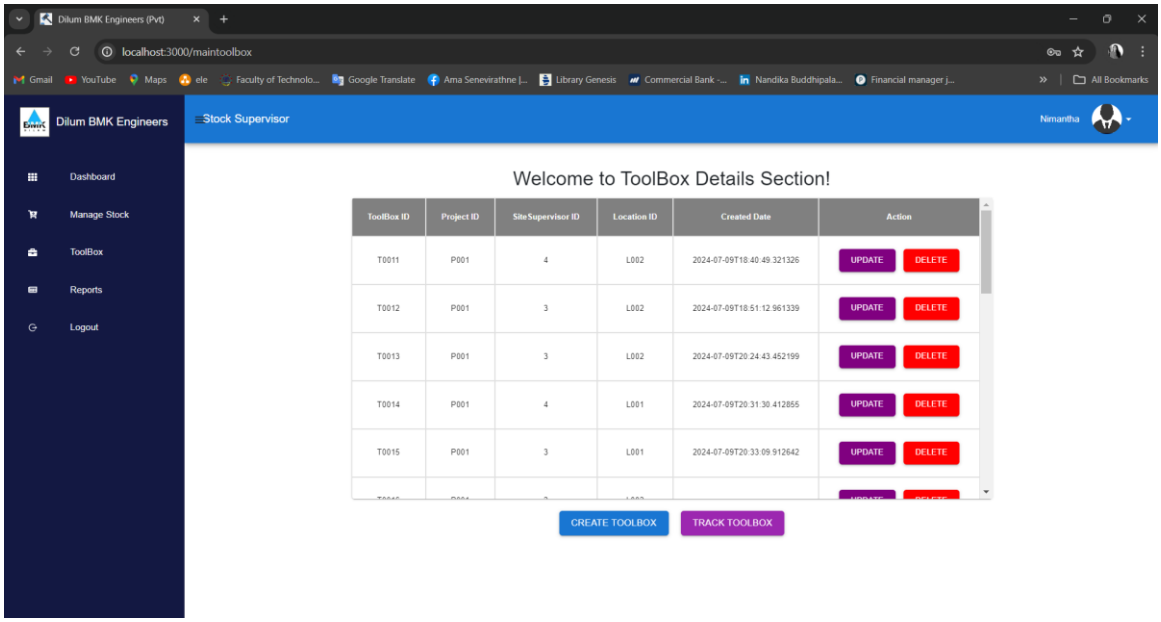

Figure 12- Stock Supervisor Toolbox Dashboard

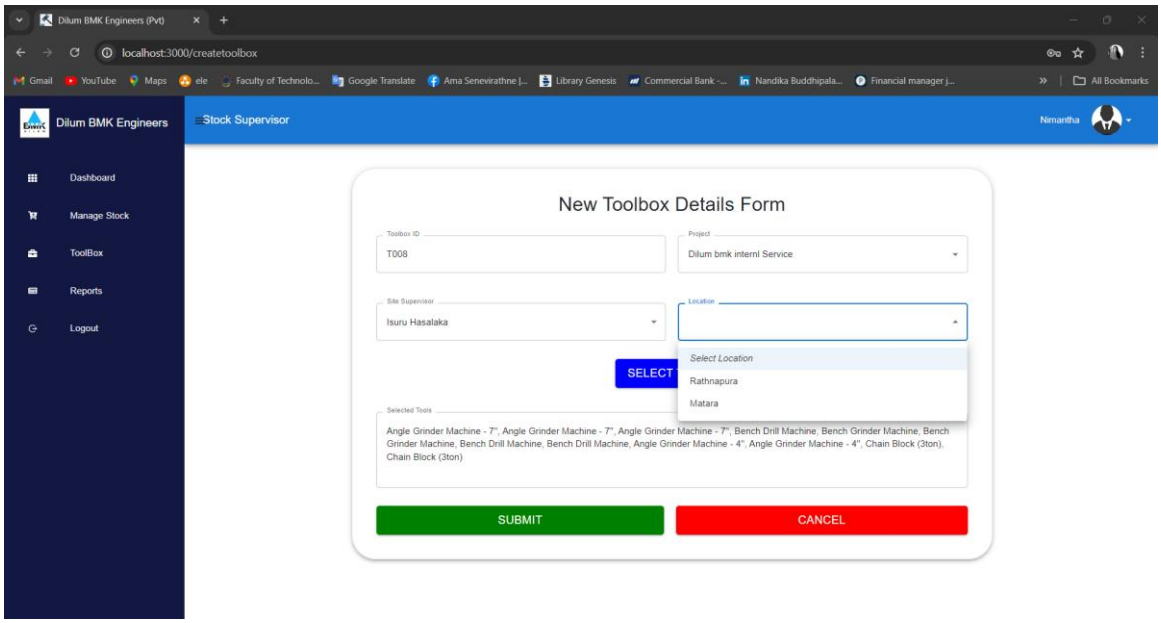

Figure 13 – Stock Supervisor Create New Toolbox Details Form

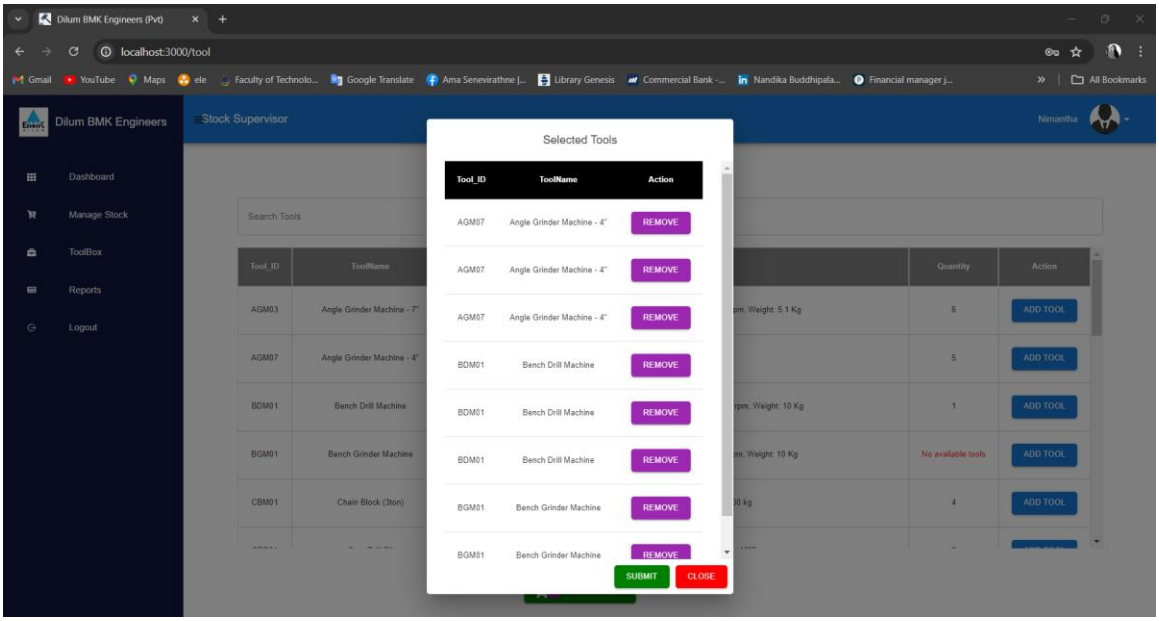

Figure 14 - Stock Supervisor Selected Tools Section

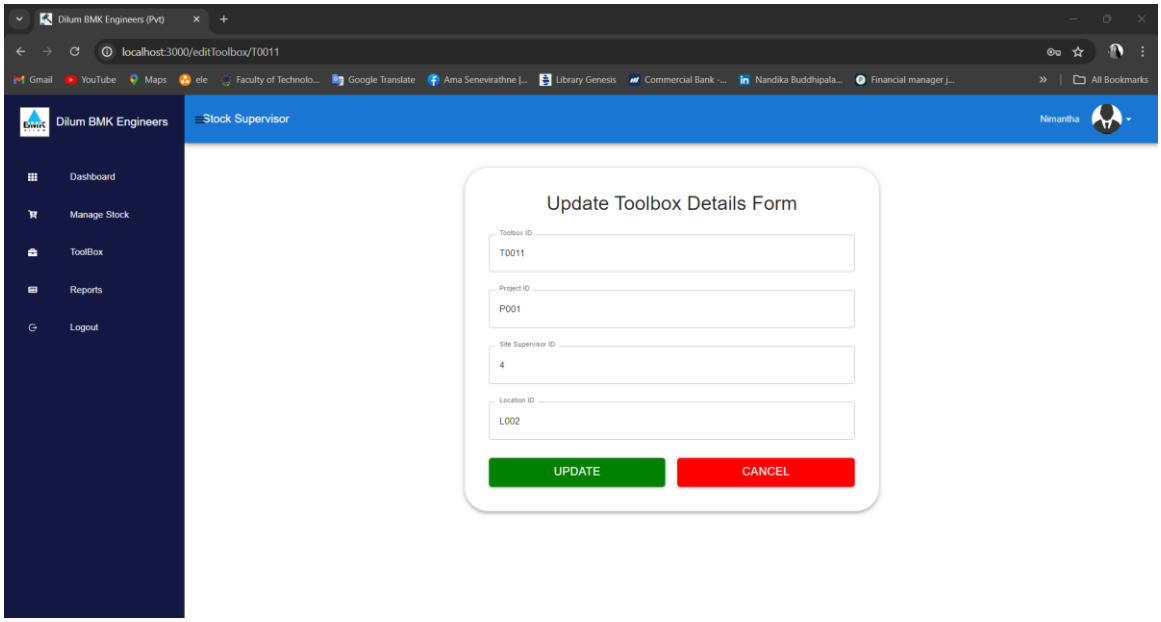

Figure 15 - Stock Supervisor Update Toolbox Details Form

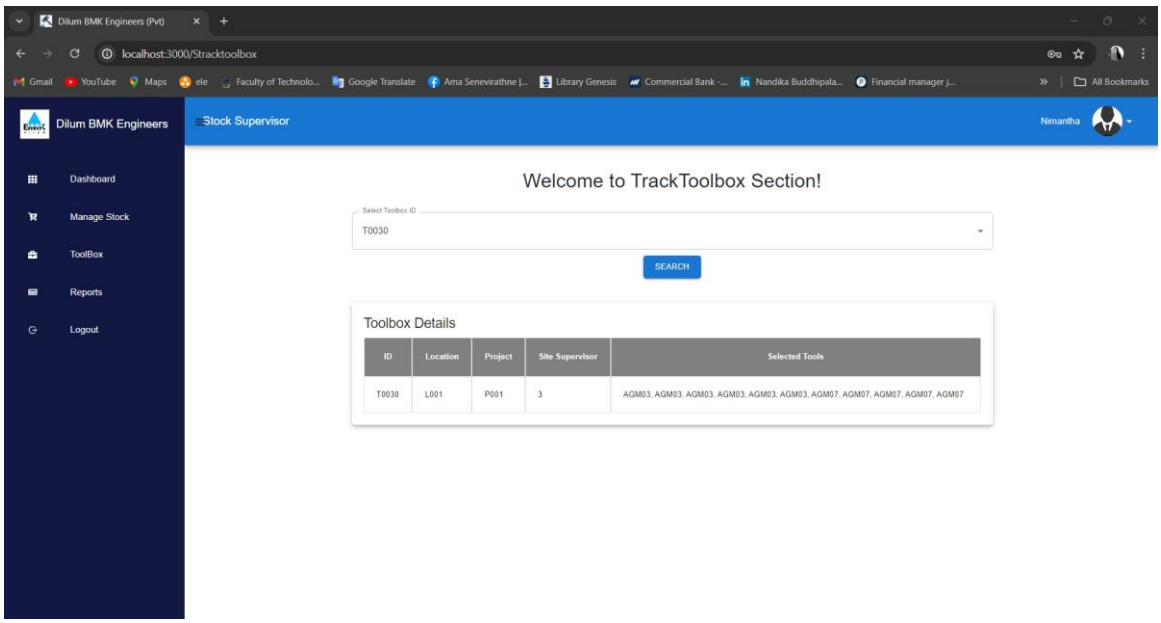

Figure 16 - Stock Supervisor Track Toolbox Details view

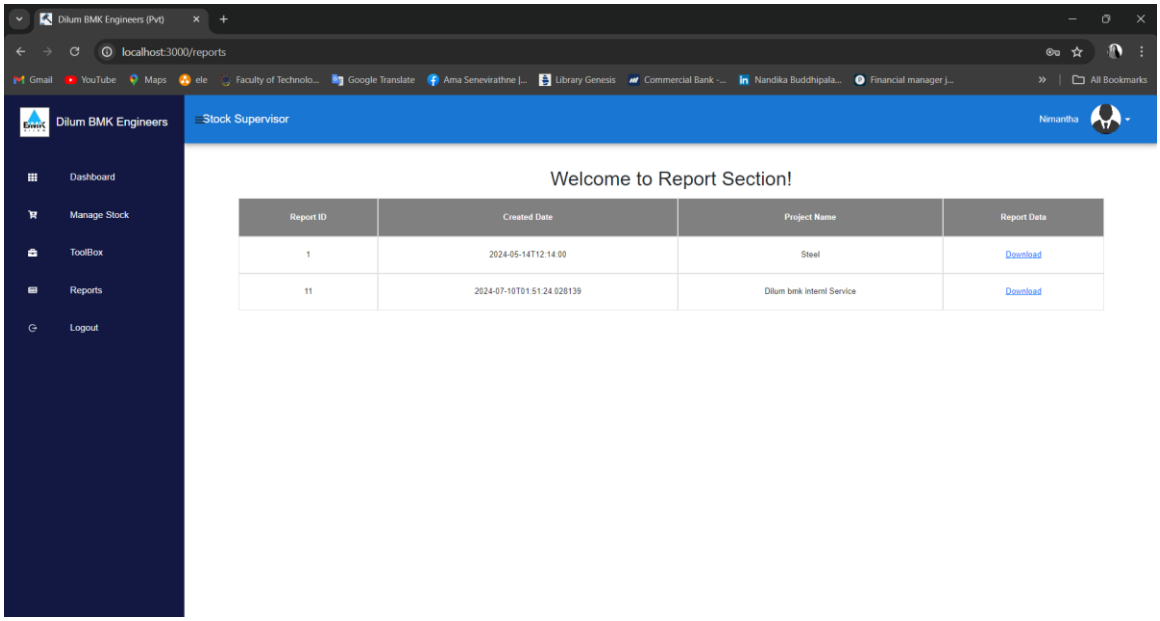

Figure 17 -Stock Supervisor View Report Page.

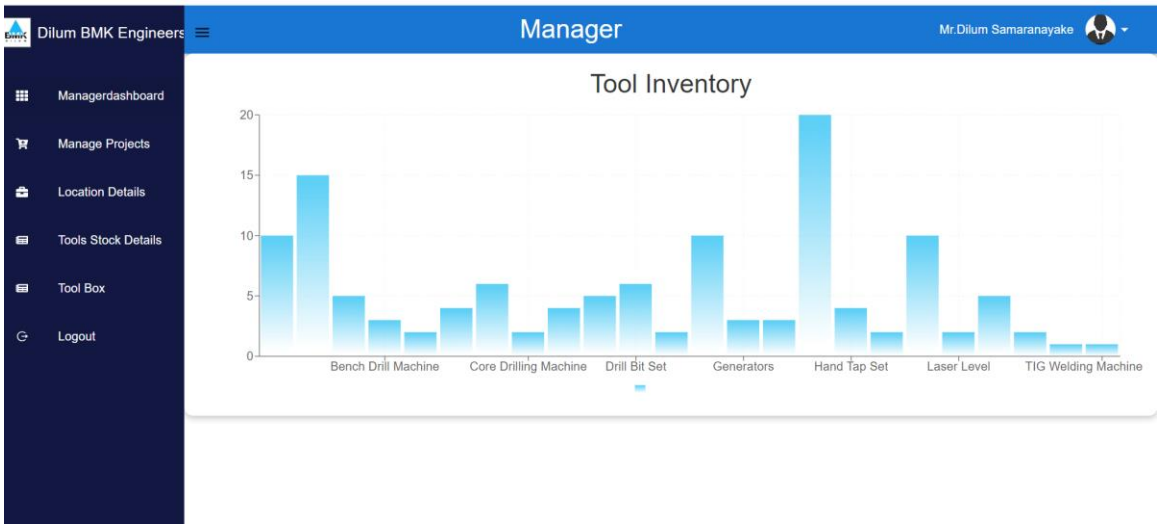

Figure 18- Manager Dashboard

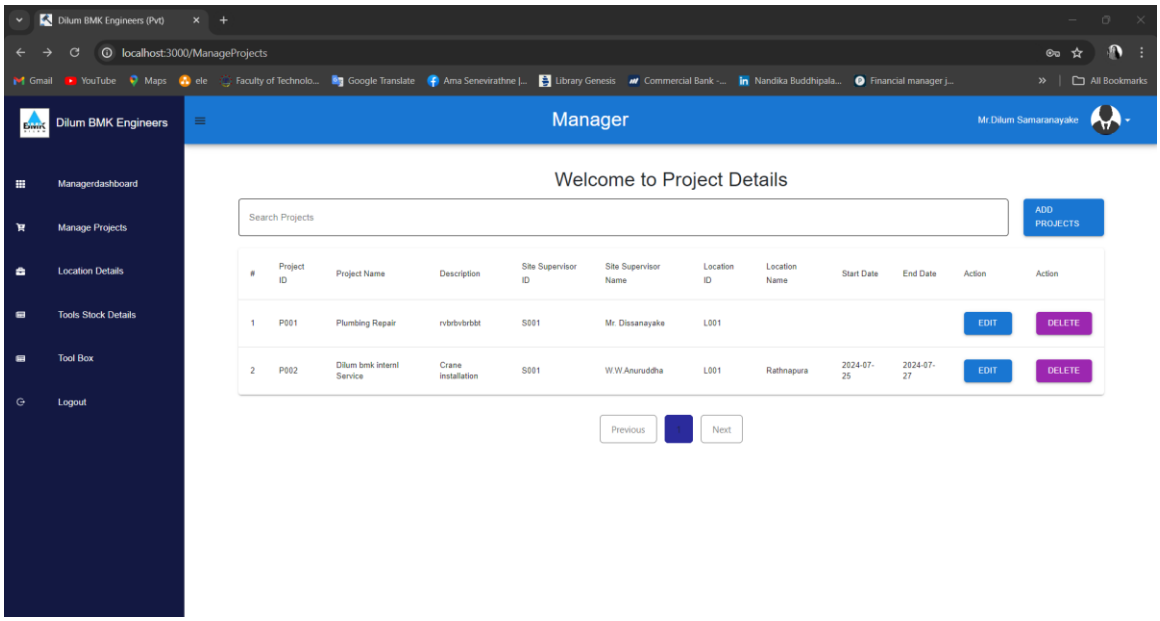

Figure 19- Manager Manage Project details

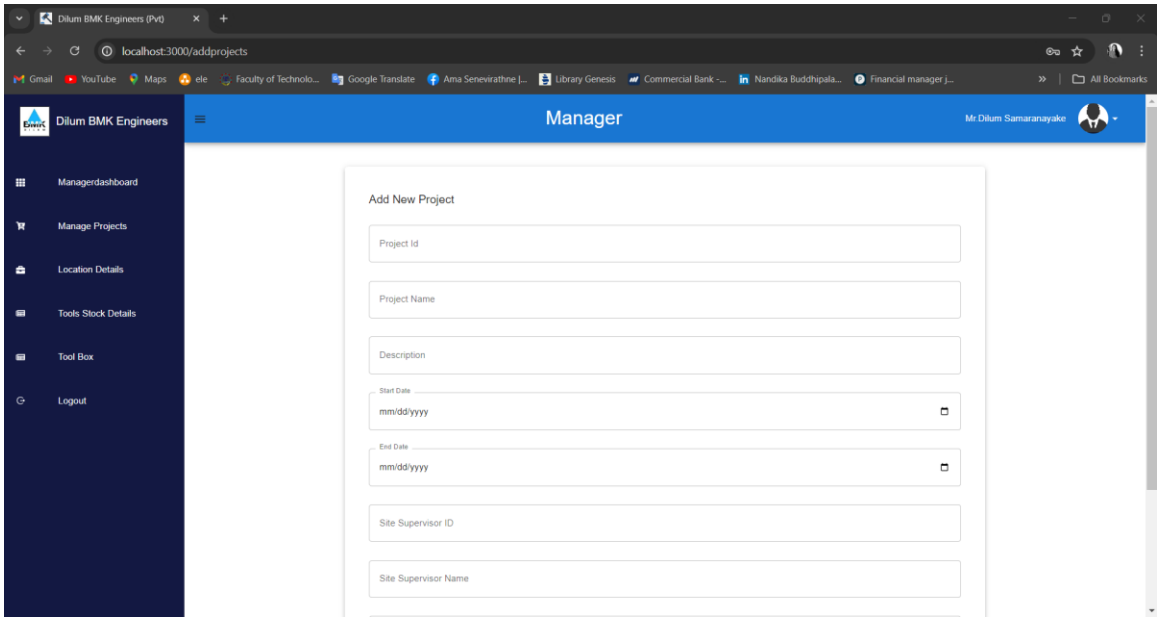

Figure 19- Manager Add New Project details Form

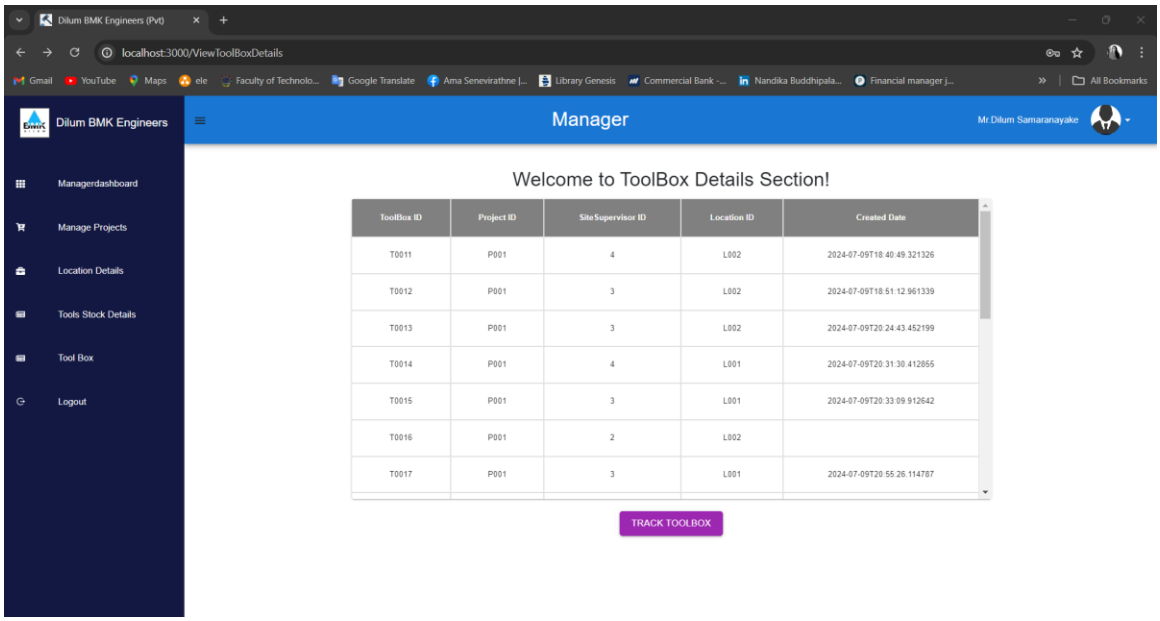

Figure 20- Manager view Toolbox Details Page

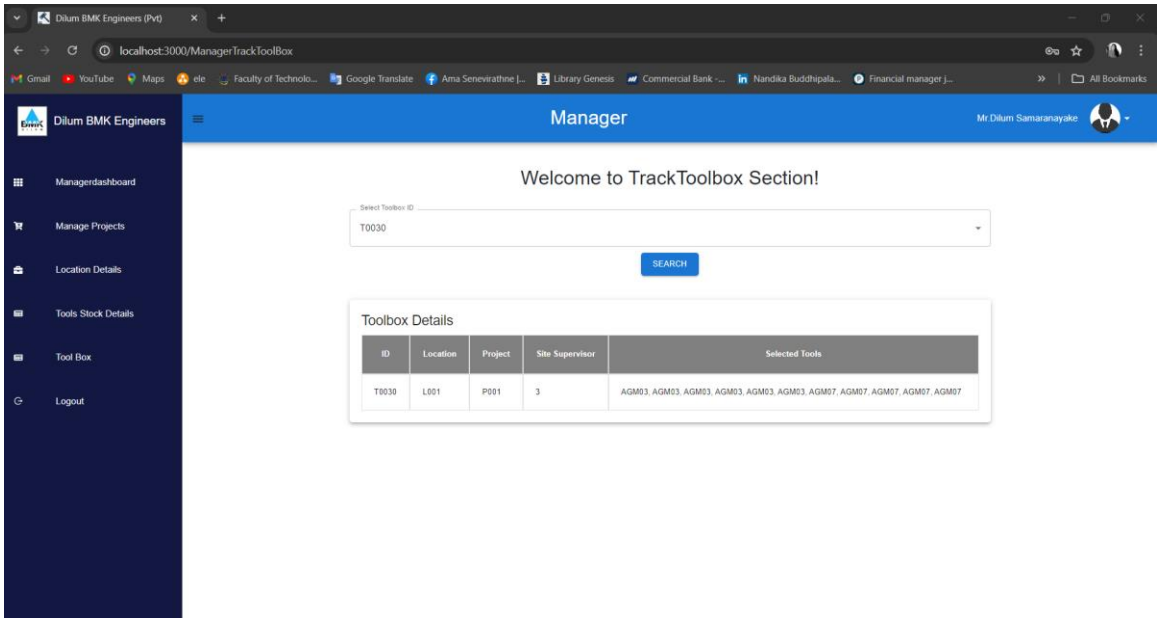

Figure 21- Manager view Track Toolbox Details

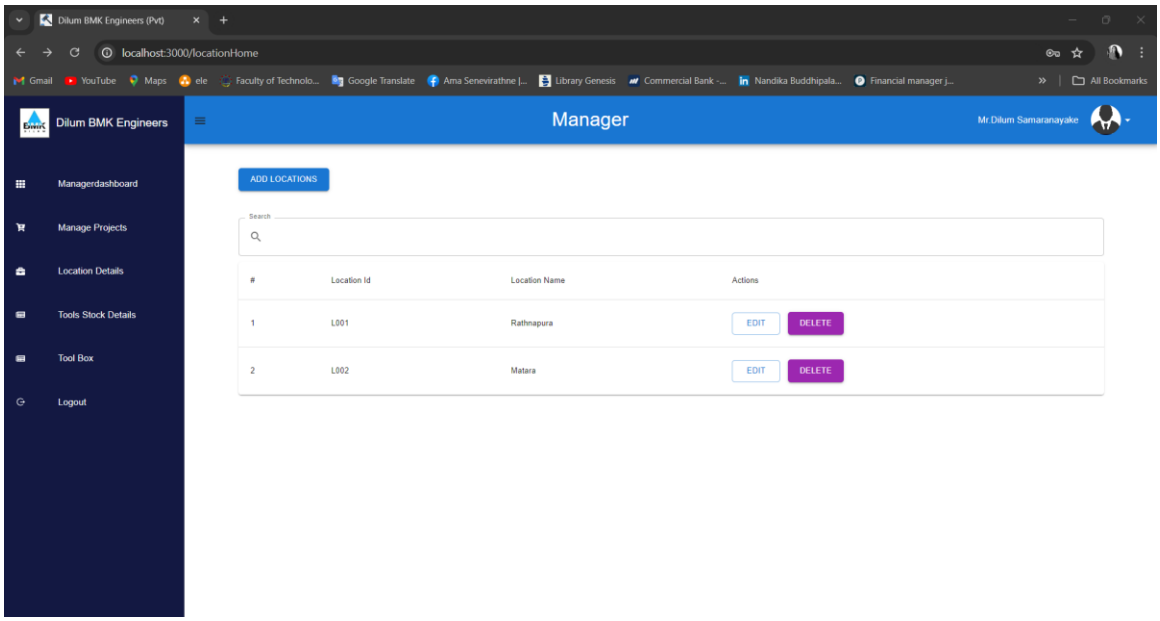

Figure 22- Manager Add Location Details Form

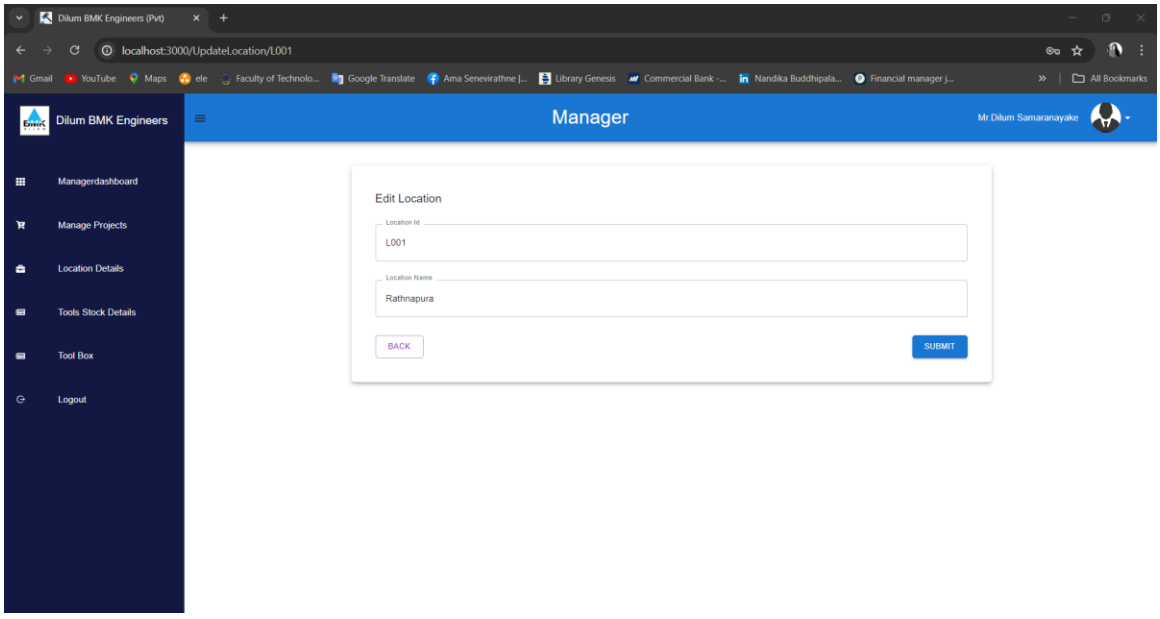

Figure 23- Manager Edit Location Details Form

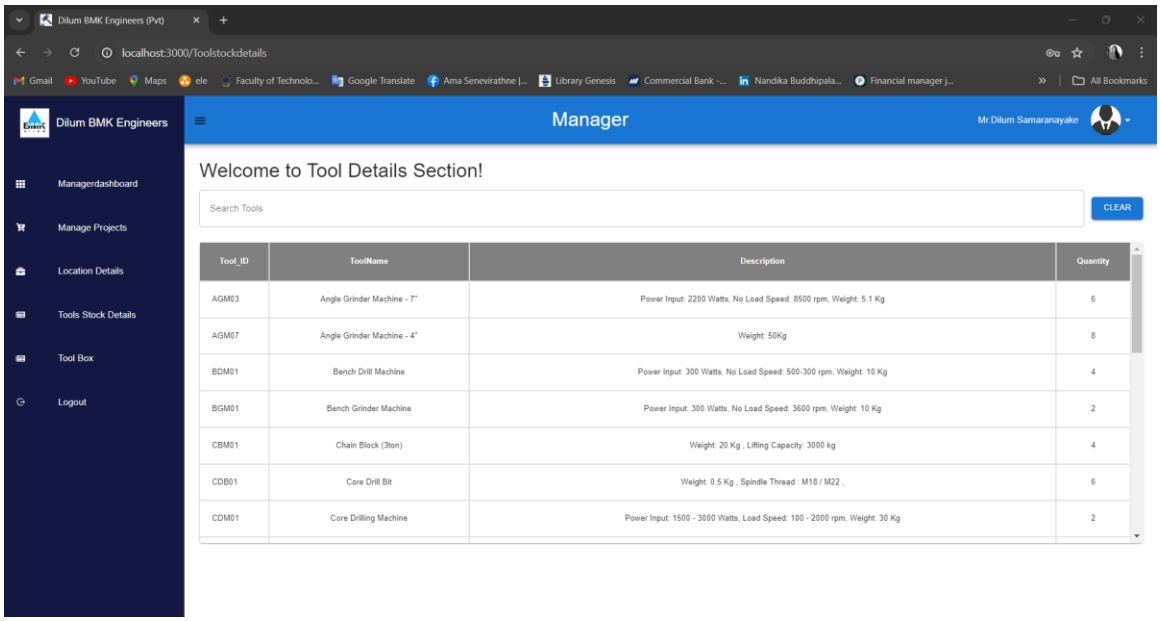

Figure 24- Manager view Tool Details page

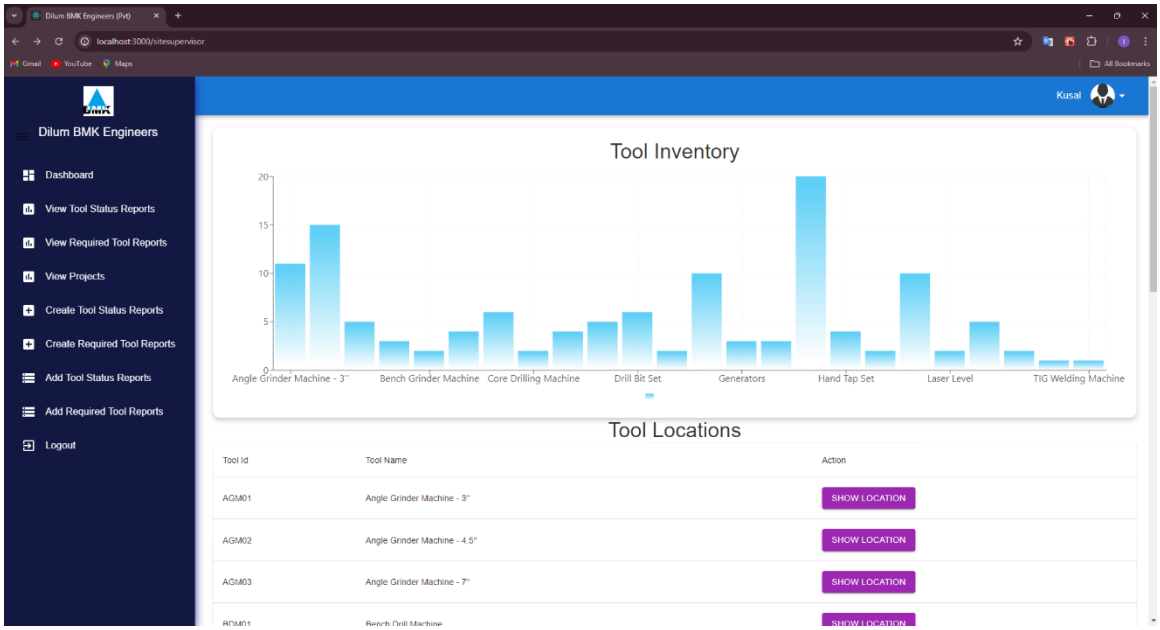

Figure 25- Site Supervisor Dashboard

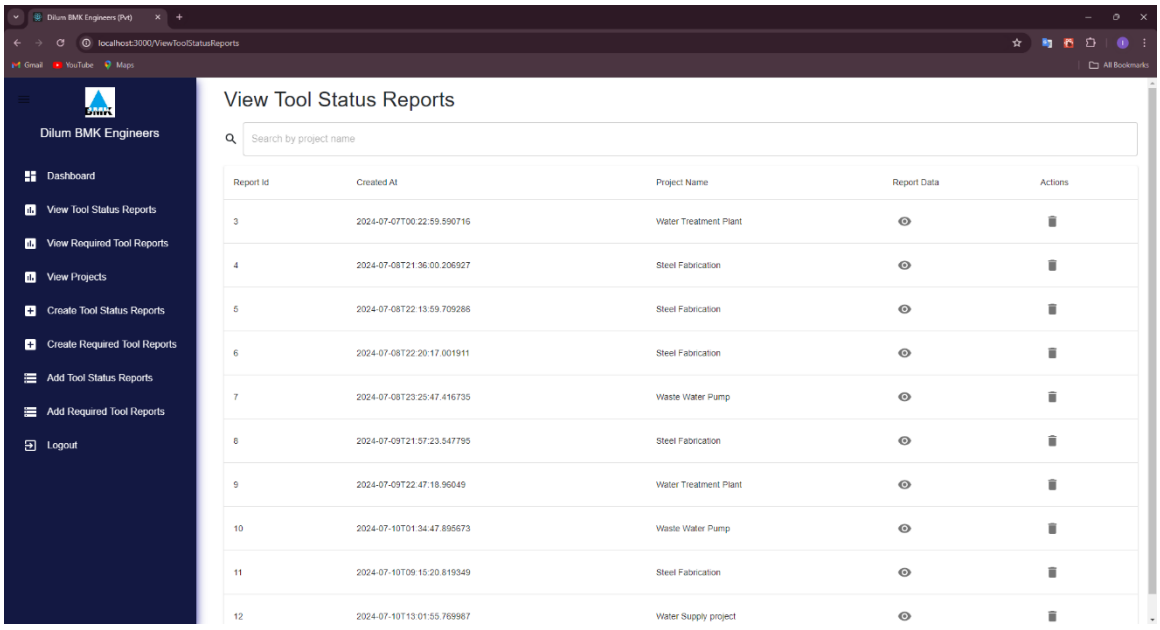

Figure 26- Site Supervisor View Tool status Reports page

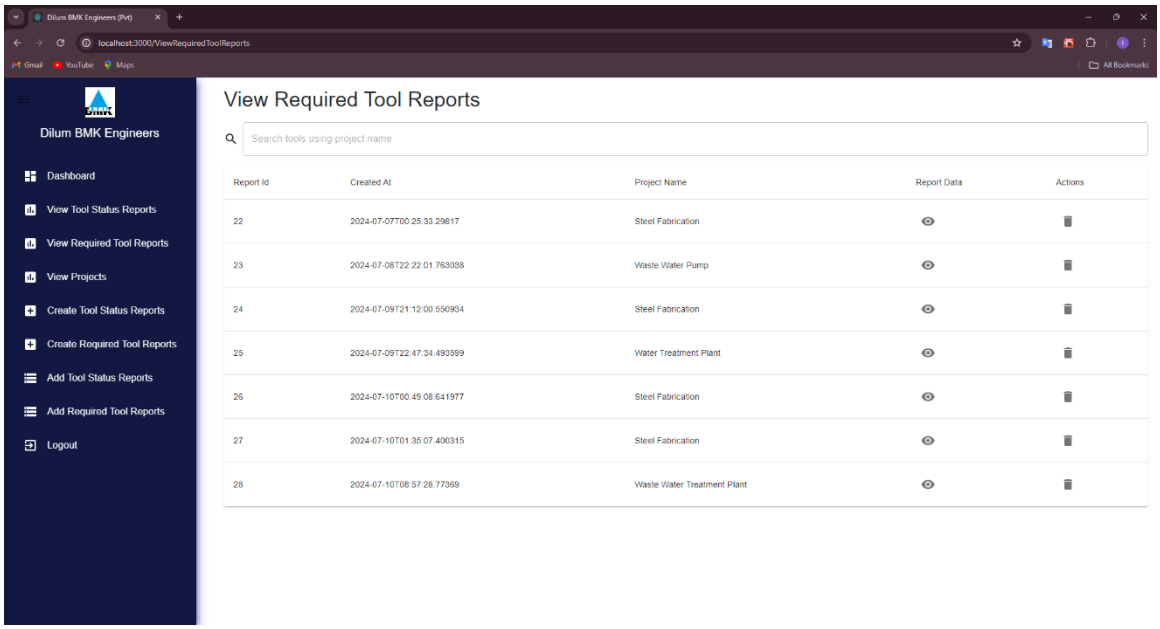

Figure 27 - Site Supervisor View Required Tool Reports page

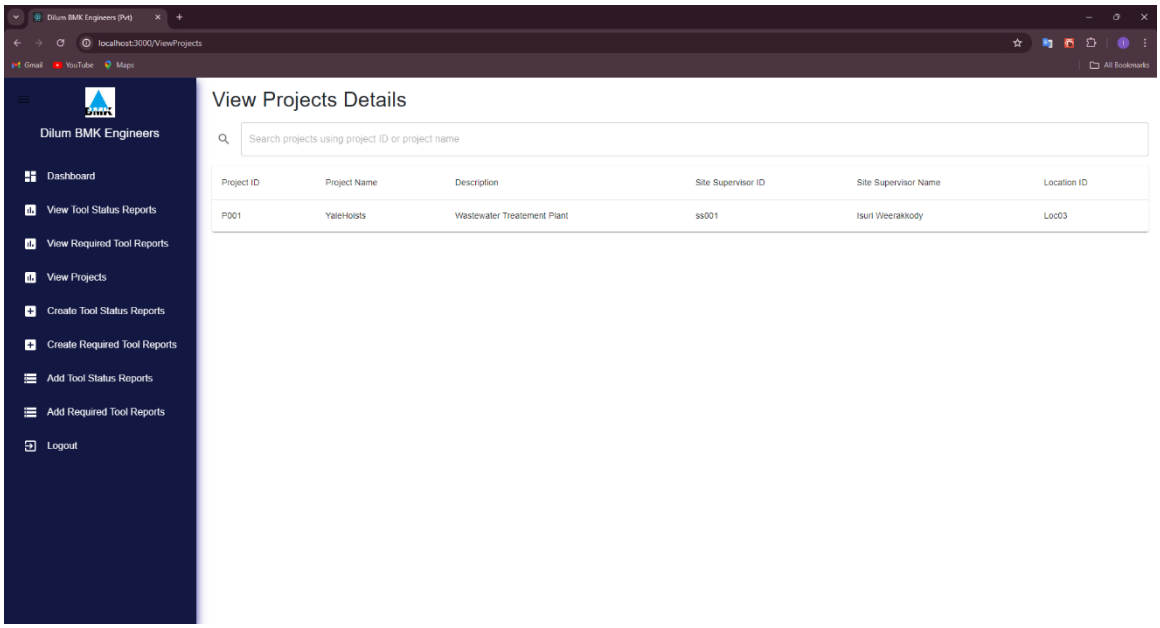

Figure 28 - Site Supervisor View Project Details page

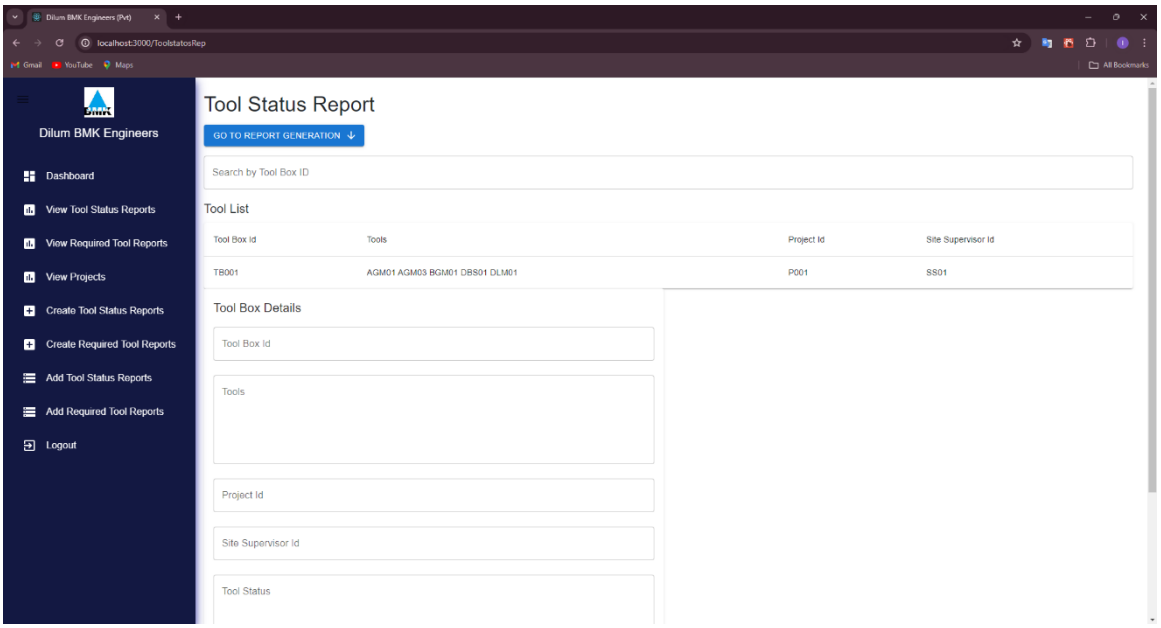

Figure 28 - Site Supervisor Create Tool Status Report page

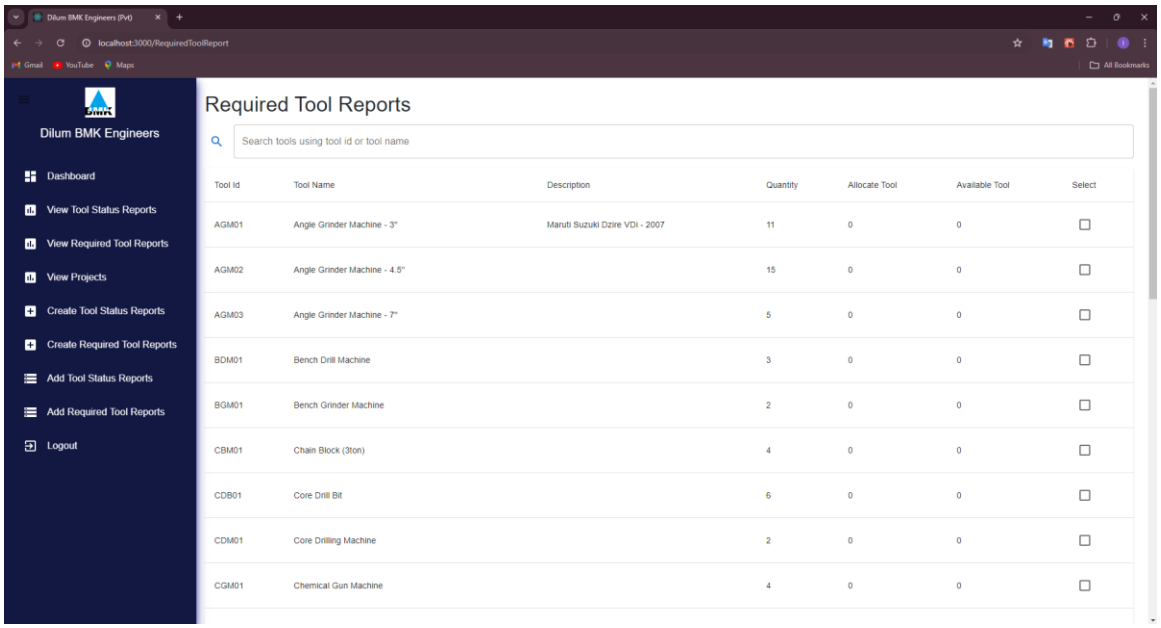

Figure 29 - Site Supervisor view Required Tool Report page

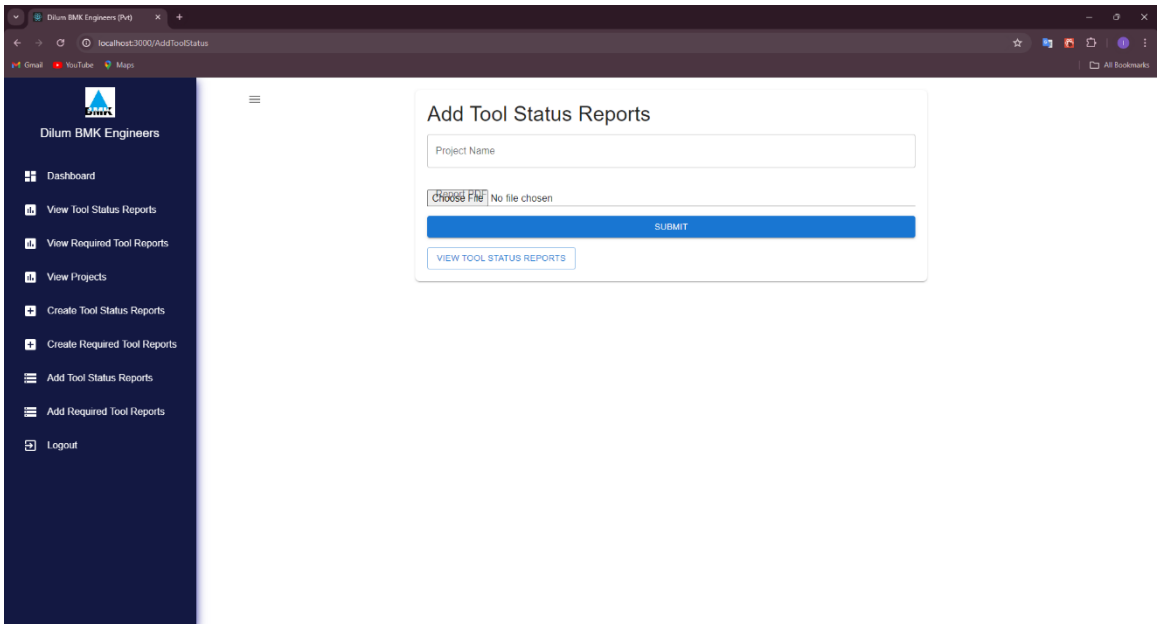

Figure 30 - Site Supervisor Add Tool Status Report Form page

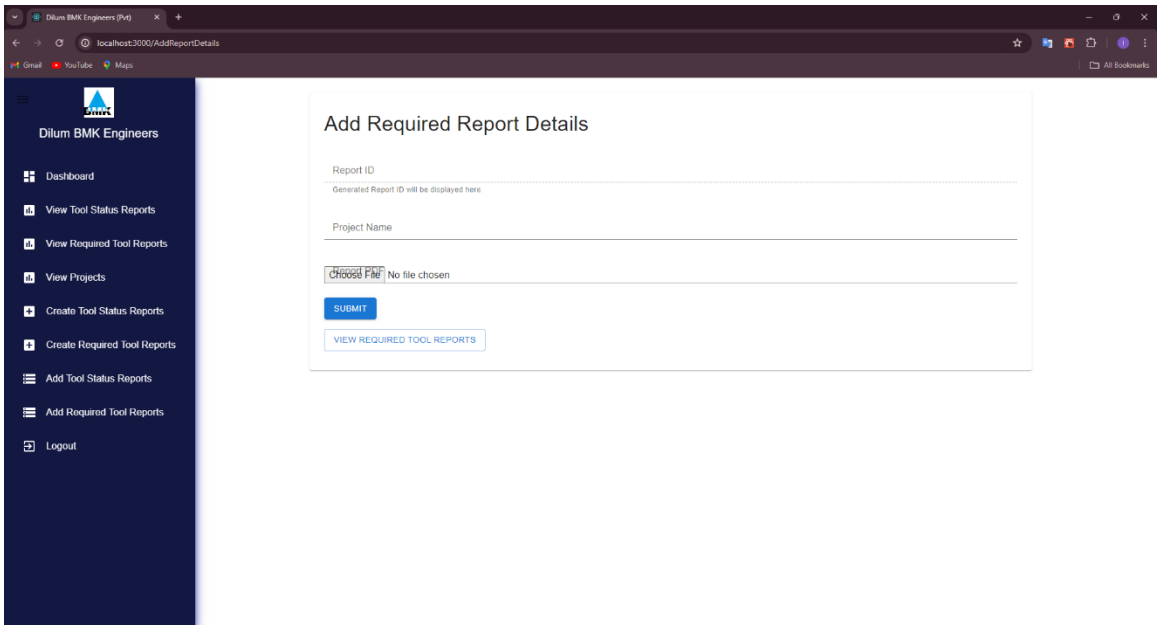

Figure 31 - Site Supervisor Add Required Tool Report Form page

3.2 Hardware Interfaces

Hardware interfaces are computers in additionally we need keyboards and mouses as helping for computes.

3.3 Software Interfaces

Operating System: the development utilizes the Windows operating system due to user friendly nature and provide an efficient computing experience.

Database: a database organized the collection of data that is stored and accessed electronically through a system. The company tool information and users' information data are stored and managed by the tool management system using a database.

Visual Studio Code: it is a lightweight source code editor to develop the front end in our system.it supports multiple programming languages and provide cross-platform compatibility.

IntelliJ Idea: it is a powerful integrated development environment (IDE) primarily designed for java development with spring boot framework. We used to develop the back-end environment in our system.

3.4 Communication Interfaces

For the Tool Management web application system, will need various communication interfaces to ensure seamless interaction between the frontend and backend.

RESTful API: implement the RESTful API using Spring Boot to handle communication between the frontend and backend.

HTTP/HTTPS: that protocols for transmitting data between the frontend and backend. That are widely supported protocols for communication over the web.

Responsive Design: design the front end using responsive web design principles to ensure compatibility and optimal user experience across different devices and screen sized, including desktops, laptops, tablets, and smartphones.

4. System Features

4.1 Use Case Diagram

Figure 18 - Use Case Diagram

4.2 ER Diagram

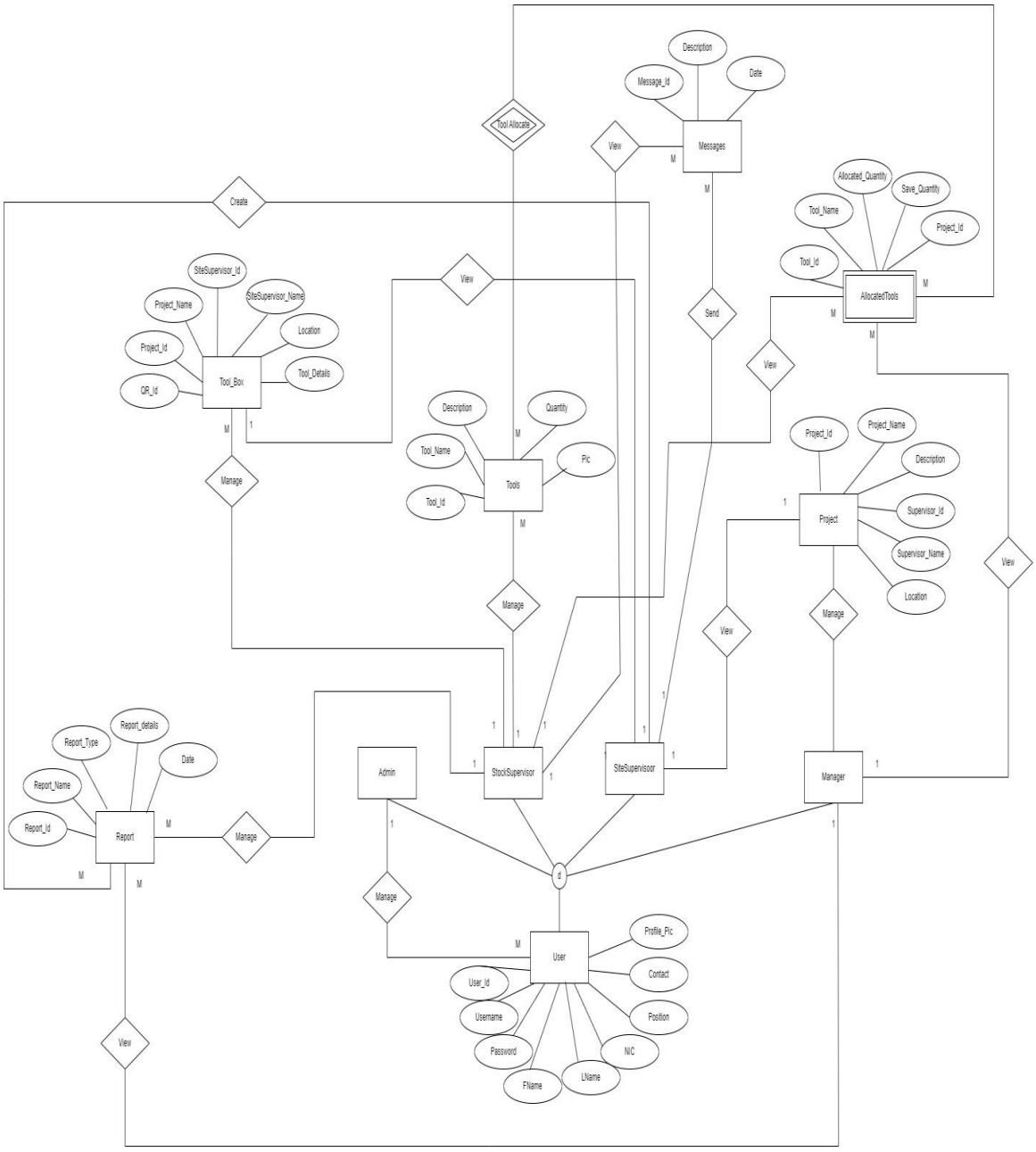

Figure 19 - ER Diagram

4.3 Data Flow Diagram

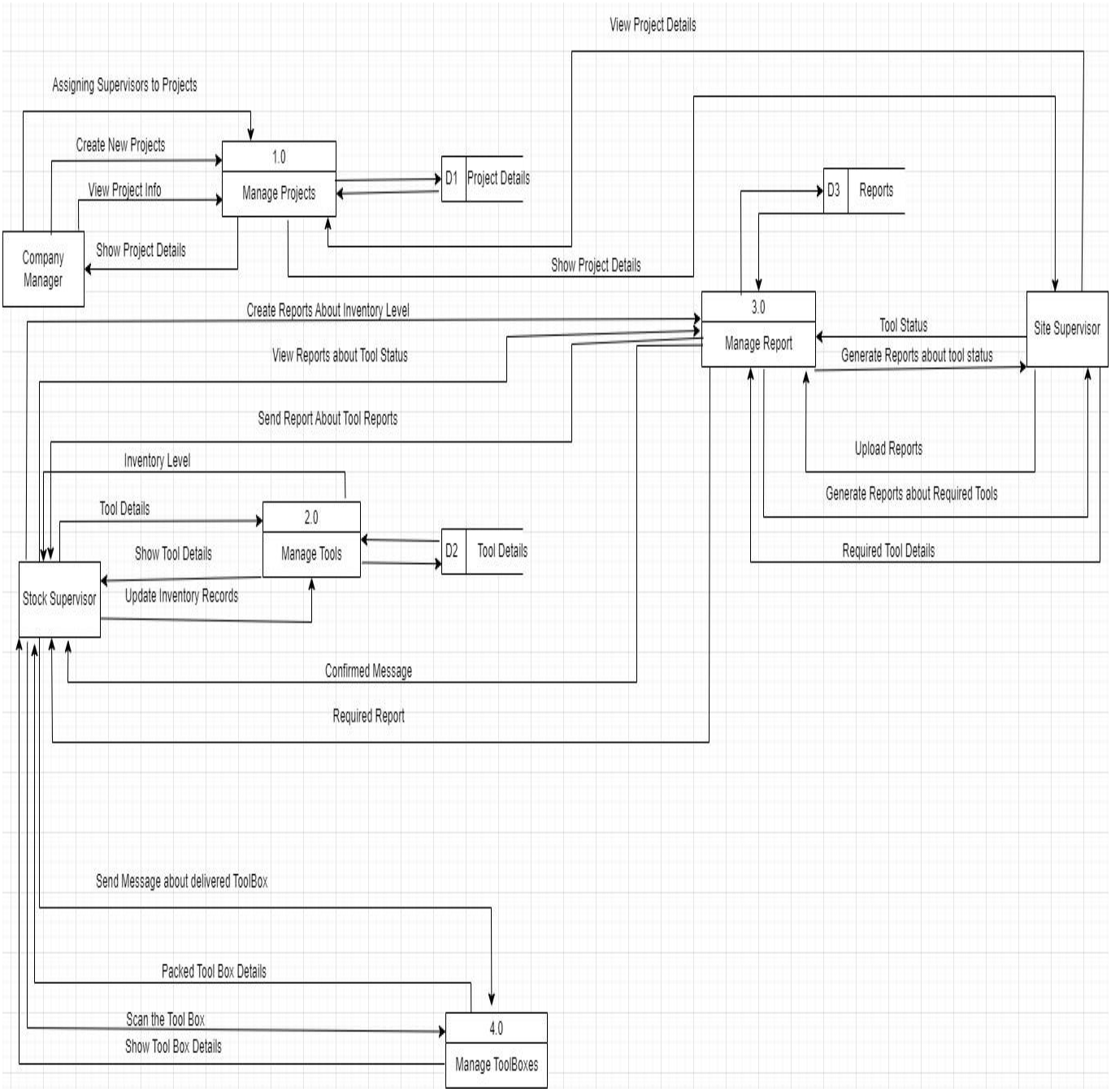

Figure 20 – Data Flow Diagram

4.4 Test Case Description

Test case ID	TC_01	Test Case description		Test the login functionality in Tool Management System	
Created by	Ama	Date Created	March 30, 2024		
Tester's Name	Ama	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	Username = isuru@gmail.com
2	The user must be registered user in the system.	2	Password = isu0ru@123

Test Scenario	Verify on entering valid username and password, the user can login to the system and redirected to their dashboard.

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Navigate to Tool Management System	Site should open	As Expected,	Pass
2	Enter Username & Password	Credential can be	As Expected,	Pass
3	Click Login button	Successfully login and Redirect	As Expected,	Pass

		user dashboard		

Test case ID	TC_02	Test Case description		Test the login functionality in Tool Management System	
Created by	Ama	Date Created	March 30, 2024		
Tester's Name	Ama	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	Invalid Username = isurugmail.com
2	The user must be registered user in the system.	2	Password = isuru@123

Test Scenario	Verify on entering invalid username and valid password, the user cannot login to the system

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Navigate to Tool Management System	Site should open	As Expected	Pass
2	Enter invalid Username & valid Password	Credential can be entered	As Expected	Pass
3	Click Login button	Display "required valid email with @ "		Pass

Test case ID	TC_03	Test Case description		Test the login functionality in Tool Management System	
Created by	Ama	Date Created	March 30, 2024		
Tester's Name	Ama	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	Username = isuru@gmail.com
2	The user must be registered user in the system.	2	Password = is@12

Test Scenario	Verify on entering valid username and invalid password, the user cannot login to the system

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Navigate to Tool Management System	Site should open	As Expected,	Pass
2	Enter valid Username & invalid Password	Credential can be entered	As Expected,	Pass
3	Click Login button	Display error message "Password must be more than 8 characteristics and should be valid"	As Expected,	Pass

Test case ID	TC_04	Test Case description		Test the insert of Tools into the inventory in the Tool Management System	
Created by	Ama	Date Created	March 30, 2024		
Tester's Name	Ama	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	Tool_ID = T001
2	Login to the Tools Management System	2	Tool name = Angle Grinder Machine
3	Access to the Stock Supervisor Dashboard	3	Description: weight 50
4	Access to Manage Stock interface	4	Quantity = 10

Test Scenario	Verify on entering valid tool details, Stock Supervisor can add new Tool details

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Navigate to Tool Management System	Site should open	As Expected	Pass
2	Enter Tool_ID , Tool name, Description and Quantity	Credential can be	As Expected	Pass
3	Click Add button	Stock Supervisor can add new tool Details	As Expected	Pass

Test case ID	TC_05	Test Case description		Test the insert Tools into the inventory in the Tool Management System	
Created by	Ama	Date Created	March 30, 2024		
Tester's Name	Ama	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	ToolID = 1
2	Login to the Tools Management System	2	Tool name = Angle Grinder Machine
3	Access to the Stock Supervisor Dashboard	3	description
4	Access to Manage Stock interface	4	Quantity = 10

Test Scenario	Verify on entering invalid toolID details, Stock Supervisor cannot add new Tool details

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Navigate to Tool Management System	Site should open	As Expected,	Pass
2	Insert invalid ToolID , Tool name, Description, and Quantity	Display an Alert of error "Enter String type ToolID "	As Expected,	Pass
3	Click Add button	Display an error message "New Tool	As Expected,	Pass

		details are not added successfully"		

Test case ID	TC_07	Test Case description		Test the Update Tools details in the inventory in the Tool Management System	
Created by	Ama	Date Created	March 30, 2024		
Tester's Name	Ama	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser		
2	Login to the Tools Management System	1	Tool name = Angle Grinder Machine "7"
3	Access to the Stock Supervisor Dashboard	2	description
4	Access the Manage Stock Interface	3	Quantity = 10
5	When click update button open the tool details form		

Test Scenario	Update valid tool details, Stock Supervisor can update existing Tool details

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Navigate to Tool Management System	Site should open	As Expected,	Pass

2	Update Tool name, Description and Quantity	Credential can be	As Expected,	Pass
3	Click Update button	Stock Supervisor can Update existing Tool Details.	As Expected,	Pass

Test case ID	TC_08	Test Case description		Test the Update Tools details in the inventory in the Tool Management System	
Created by	Ama	Date Created	March 30, 2024		
Tester's Name	Ama	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	ToolID = T003
2	Login to the Tools Management System	2	Tool name = Angle Grinder Machine "7"
3	Access to the Stock Supervisor Dashboard	3	description
4	Access the Manage Stock Interface	4	Quantity = 10
5	When click update button open the tool details form		

Test Scenario	Update ToolID , Stock Supervisor cannot update existing Tool details

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Navigate to Tool Management System	Site should open	As Expected,	Pass
2	Update Tool name, Description and Quantity, with ToolID	can't update "ToolID"	As Expected,	Pass

Test case ID	TC_09	Test Case description		Test the Update Tools details in the inventory in the Tool Management System	
Created by	Ama	Date Created	March 30, 2024		
Tester's Name	Ama	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser		
2	Login to the Tools Management System	1	Tool name = Angle Grinder Machine "7"
3	Access to the Stock Supervisor Dashboard	2	description
4	Access the Manage Stock Interface	3	Quantity <0
5	When click update button open the tool details form		

Test Scenario	Update invalid Quantity value, Stock Supervisor cannot update existing Tool details

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Navigate to Tool Management System	Site should open	As Expected	Pass
2	Update Tool name, Description, and invalid Quantity type (minus value)	Display an Alert of error "cannot select the minus value for quantity"	As Expected	Pass

3	Click Update button	Display an error message “Tool details are not updated successfully”	As Expected	Pass

Test case ID	TC_10	Test Case description		Test deleteTools details in the inventory of the Tool Management System	
Created by	Ama	Date Created	March 30, 2024		
Tester's Name	Ama	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser		
2	Login to the Tools Management System	1	ToolID = T001
3	Access to the Stock Supervisor Dashboard		
4	Access the Manage Stock Interface		
5	Click on the View option		

Test Scenario	View existing tool details, Stock Supervisor can access and view Tool details

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended

1	Navigate to Tool Manage	Site should open	As Expected	Pass
2	Search tool from ID or name and view tool details option.	Tool Details should be displayed	As Expected	Pass
3	Click Delete button and Display Confirm Message “If click ok”	Display message “ ToolDetails Delete Successfully“Delete	As Expected	Pass

Test case ID	TC_11	Test Case description		Test the Create New Toolbox details in the inventory in the Tool Management System	
Created by	Ama	Date Created	April 04 2024		
Tester's Name	Ama	Date Tested	April 08, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	ToolboxID = T0031
2	Login to the Tools Management System	2	Project = Plumbing Repair
3	Access to the Stock Supervisor Dashboard	3	SiteSupervisor = Kusal Senarathne
4	Access the ToolBox Interface	4	Location = Rathnapura
5	When click Create Toolbox Button navigate to Create New Toolbox Details Form	5	Selected Tools = "Angle Grinder Machine-7,

			Bench Drill Machine”

Test Scenario	Create New Toolbox, Stock Supervisor can create New Toolbox details

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Navigate to Tool Management System	Site should open	As Expected,	Pass
2	Enter Toolbox_ID , Project Sitesupervisor, Location, select tools	Credential can be	As Expected,	Pass
3	Click “Submit “button	Display Message “Successfully Created New Toolbox “	As Expected,	Pass

Test case ID	TC_12	Test Case description		Test the Create New Toolbox in the Tool Management System	
Created by	Ama	Date Created	April 04, 2024		
Tester's Name	Ama	Date Tested	April 08, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	Toolbox ID = T0031
2	Login to the Tools Management System	2	Project
3	Access to the Stock Supervisor Dashboard	3	Site Supervisor =
4	Access to Manage Stock interface	4	Location = Rathnapura
		5	Selected Tools = "Angle Grinder Machine-7, Bench Drill Machine"

Test Scenario	Verify on entering invalid toolbox details as not fill the data values, Stock Supervisor cannot add new Tool details

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Navigate to Tool Management System	Site should open	As Expected,	Pass
2	Not enter the values to field in the toolbox create form	Display an Alert of error" Fill the all data values in the field "	As Expected,	Pass

3	Click Add button	Display an error message “New Toolbox details are not added successfully”	As Expected,	Pass

Test case ID	TC_12	Test Case description		Test the successful tool assignment	
Created by	Ganga	Date Created	March 30, 2024		
Tester's Name	Ganga	Date Tested	March 30, 2024,	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	Project_Id= 001
2	Login to the Tools Management System	2	Project_name = Water Treatment Plant Expansion
3	Access to the Site Supervisor Dashboard	3	
			Quantity = 10

Test Scenario	Test the successful tool assignment

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	select specific project	System displays a list of available projects and choose desired project	As expected	Pass
2	Navigates to the tool inventory	System redirects site supervisor to the tool inventory section	System successfully redirects the site supervisor to the tool inventory section	Pass

3	Selects required tools.	Display s list of available tools and can be choose the require ones.	As Expected	Pass
4	Assigns tools to the project	The system confirms successful assignment of tool to the chosen project.	Successfully assigns the selected tools to the chosen project and displays a success message.	

Positive Test case 02

Test case ID	TC13	Test Case description		Verification of tool assignment	
Created by	Ganga	Date Created	March 30, 2024		
Tester's Name	Ganga	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	Project_Id= P001
2	Login to the Tools Management System	2	Project_name = Water Treatment Plant Expansion
3	Access to the Site Supervisor Dashboard	3	Tool_Id=T001
			Quantity = 10

Test Scenario	Verify that the site supervisor can assign tools to their specific projects successfully

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Selects a specific project	System displays a list of available projects and can be choose the desired project	As Expected	Pass
2	Navigates to the project details	System redirect the site	As Expected	Pass

		supervisor to the project details page for the selected project on the project details page		
3	Verifies the list of assigned the list of assigned tools.	System displays the list of tools assigned to the project details page.	As Expected	Pass
4	Cross references the assigned tools.	Compares the list of assigned tools displayed on the project details page with the inventory records.	As expected.	Pass

Test case ID	TC14	Test Case description		Test the Unsuccessful tool assignment	
Created by	Ganga	Date Created	March 30, 2024		
Tester's Name	Ganga	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	Project_Id= 001
2	Login to the Tools Management System	2	Project_name = Water Treatment Plant Expansion
3	Access to the Site Supervisor Dashboard	3	
			Quantity = 10

Test Scenario	Verify Unsuccessful tool assignment

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	select specific project	System	As	Pass

		displays a list of available projects and choose desired project	expected	
2	Attempts to assign tools	Check if the selected tool is available in the inventory and not assigned to another project	Site supervisor attempts to assign the tools , but it is already assigned to another project or unavailable in inventory.	Pass
3	Verifies the assignment status	Displays an error message indication that the tool assignment was unsuccessful	As Expected	Pass
4	Assigns tools to the project	The project details and records remain unchanged, showing no assignment of tools to the project.	Project details and inventory records remain unchanged, indicating that the tool assignment did not occur	Pass

Test case ID	TC15	Test Case description		Test Status report creating	
Created by	Ganga	Date Created	March 30, 2024		
Tester's Name	Ganga	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	Report_Id= Rep001
2	Login to the Tools Management System	2	Report_Type = Tool status report
3	Access to the Site Supervisor Dashboard	3	
			Quantity = 5

Test Scenario	Test Status report creating

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Navigates to the reporting section	System provides an option for site supervisor to generate a report about tool status.	As Expected	Pass

2	Selects the option to create a report	System presents a form where the site supervisor can input parameters for the report generation.	As Expected	Pass
3	Fill the required information	Inputs necessary details such as project name, tools Id, data range etc for the report.	As Expected	Pass

Test case ID	TC16	Test Case description		Test generated report contains accurate information	
Created by	Ganga	Date Created	March 30, 2024		
Tester's Name	Ganga	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	Report_Id= 001
2	Login to the Tools Management System	2	Report_type=Tool status report
3	Access to the Site Supervisor Dashboard	3	
			Quantity = 5

Test Scenario	Test generated report contains accurate information

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Receives the generated report.	System delivers the generated report to the site supervisor in readable and accessible format	As Expected	Pass
2	Reviews the report contents.	Generated report contains accurate	As Expected	Pass

Test case ID	TC17	Test Case description		Test the Unsuccessful tool status report generation	
Created by	Ganga	Date Created	March 30, 2024		
Tester's Name	Ganga	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	Report_Id= R001
2	Login to the Tools Management System	2	Report_Type = Tool status report
3	Access to the Site Supervisor Dashboard	3	
			Quantity = 5

Test Scenario	Verify Test the Unsuccessful tool status report generation

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Navigates to the reporting section	System provides an option for generate a report about tool status	As expected	Pass
2	Selects the option to create a report	System presents a form to input parameters for the report generation.	As Expected	Pass

Test case ID	TC18	Test Case description		Send required tool report	
Created by	Ganga	Date Created	March 30, 2024		
Tester's Name	Ganga	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	Report_Id= R001
2	Login to the Tools Management System	2	Report_Type = Tool status report
3	Access to the Site Supervisor Dashboard	3	
			Quantity = 5

Test Scenario	Send required tool report

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Navigates to the reporting section	System provides an option create	Successfully accesses the reporting section	Pass
		a new tool report		
2	Creates a new tool report	System presents a form to input parameters for the report generation.	Fills the required information accurately in the report form	Pass

3	Submits the tool report	Successfully sends the tools report to stcok supervisor	Show successful message.	Pass

Test case ID	TC19	Test Case description		Unsuccessful sending of required tool report	
Created by	Ganga	Date Created	March 30, 2024		
Tester's Name	Ganga	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	Report_Id= R001
2	Login to the Tools Management System	2	Report_Type = Tool status report
3	Access to the Site Supervisor Dashboard	3	
			Quantity = 5

Test Scenario	Unsuccessful sending of required tool report

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Create a new tool report	Present a form to input required information,including site name, location and tool description.	Fills in incomplete or incorrect information in the report form	Pass

2	Submits the tool report	System detects the incomplete or incorrect information and promts to correct it.	As Expected	Pass
3	Submits the tool report	Successfully sends the tools report to stcok supervisor	Show successful message.	Pass

Test case ID	TC20	Test Case description		Sends confirmed message to stock supervisor	
Created by	Ganga	Date Created	March 30, 2024		
Tester's Name	Ganga	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	Tool_Box_Id= tb001
2	Login to the Tools Management System		
3	Access to the Site Supervisor Dashboard		

Test Scenario	Sends confirmed message to stock supervisor

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Check the toolbox from toolboxId	System identifies the toolbox and retrieves its information, including status and contents.	Toolbox id successfully reads the toolbox and the system retrieves relevent information.	Pass
2	Verifies the toolbox status	Ensures that the toolbox is in the expected condition and contains the requires tool.	As Expected,	Pass
3	Sends a confirmation message	Selects the option to send a confirmation message to the stock supervisor, indicating a successful toolbox check.	Successfully sends a confirmation n message to the stock supervisor	Pass

Test case ID	TC21	Test Case description		Confirmation message contains relevent details.	
Created by	Ganga	Date Created	March 30, 2024		
Tester's Name	Ganga	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	Barcode_Id=b001
2	Login to the Tools Management System	2	Tool_Box_Id= tb001
3	Access to the Site Supervisor Dashboard	3	
			Quantity = 5

Test Scenario	Confirmation message contains relevent details.

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Recieves the confirmation message.	System delivers the confirmation message to the stock supervisor indicating a successful toolbox check.	Successfully receives the confirmation message from the site supervisor.	Pass
2	Reviews the message contents.	Confirmation message includes such as the toolbox status("Checked"), any discrepancies found during the check and actions taken.	The stock supervisor reviews the message contents and finds all relevent de	Pass

3	Sends a confirmation message	Selects the option to send a confirmation message to the stock supervisor, indicating a successful toolbox check	Successfully sends a confirmation message to the stock supervisor.	Pass

Test case ID	TC22	Test Case description		Unsuccessful toolbox confirmation	
Created by	Ganga	Date Created	March 30, 2024		
Tester's Name	Ganga Date March 30,	Tested	2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	Barcode_Id=b001
2	Login to the Tools Management System	2	Tool_Box_Id= tb001
3	Access to the Site Supervisor Dashboard	3	
			Quantity = 5

Test Scenario	Unsuccessful toolbox confirmation

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended

1	Scans the barcode on the tool box.	System identifies the toolbox and retrieves its information, including status and contents.	Barcode scanner successfully reads the barcode on the toolbox, and the system retrieves relevent information.	Pass
2	Verifies the toolbox status	Finds discrepancies in the toolbox condition or contents, indicating an unsuccessful check.	As Expected,	Pass
3	Attempts to send a confirmation message.	System prevents the site supervisor from sending the confirmation message and prompts them to resolve the issues.	As Expected,	Pass

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Navigate to https://www.dilumbmkengineers.com	Site should open	As Expected	Pass
2	Enter User ID, First name, Last name, NIC, Password, Contact, User name, position	Credential can be	As Expected	Pass
3	Click Add button	Admin can add new User Details	As Expected	Pass

Created by	Nishadi	Date Created	March 30, 2024	Test case	Pass
Tester's Name	Nishadi	Date Tested	March 30, 2024		

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	User ID=02
2	Login to the Tools Management System	2	First name= Nishadi
3	Access to the Site Admin Dashboard	3	Last name=Sansala
		4	NIC=200053303135
		5	Password=N@123
		6	Contact=+94760644176
		7	User name=nishu12213@gmail.com
		8	Position =Admin

Test Scenario	Verify on entering User details, Admin can add new User

Test case ID	TC_24	Test Case description		Test the User Registration	
Created by	Nishadi	Date Created	March 30, 2024		
Tester's Name	Nishadi	Date Tested	March 30, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	User_ID=02
2	Login to the Tools Management System	2	First name= Nishadi
3	Access to the Stock Supervisor Dashboard	3	Last name=Sansala
4	Access to Manage Stock interface	4	NIC=200053303135
		5	Password=N@123
		6	Contact=123
		7	User name=nishu12213@gmail.com
		8	Position =Admin

Test Scenario	Verify on entering invalid Phone number with user details, Admin can not add new User

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Navigate to https://www.dilumbmkengineers.com	Site should open	As Expected	Pass
2	Enter User_ID, First name, Last name, NIC, Password, Contact, User name, position	Display an Alert of error “Enter valid phone number”	As Expected	Pass
3	Click Add button	Display and error message “New User is not added successfully"	As Expected	Pass

Test case ID	TC_25	Test Case description		Verify successful user registration with a valid phone number	
Created by	Nishadi	Date Created	May 06 2024		
Tester's Name	Nishadi	Date Tested	May 06, 2024	Test case	Pass

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	Phone number 0714525999
2	Login to the Tools Management System		
3	Access to the register customer form		
4	Required fields are clearly defined as red in color star mark		

Test Scenario	
When registering a user a valid phone number	

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/ Suspended
1	Go to the Dilum bmk web site	Site should open	As Expected	Pass
2	Login the admin dashboard	Will be open the admin dashboard	As Expected	Pass

3	Click the “New User Registratin” button	“Pop up User registration Form ”	As Expected	Pass
4	Fill in all required field with valid data	Fill in all required fields	As Expected	
5	Enter a valid phone number in the phone number field.	System should be accepting the phone number as valid	As Expected	
6	Processed with the registration process	Registration should be successful	As Expected As Expected	
7	Attempt to register with a new valid phone number	System should accept the new valid phone number	As Expected	

Test Case Id	TC_26	Test Case Description	Verify unsuccessful user registration with a duplicate phone number.
Created By	Nishadi	Date Created	2024/05/06

Tester’s Name	Nishadi	Date Tested	2024/05/06	Test Case	Pass

S#	Prerequisites

1	Navigate to https://www.dilumbmkengineers.com
2	Access to the register User form
3	Required fields are clearly defined as red in color star mark

S#	Test Data
	Phone number 0784490388
	Phone number 0784490388

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/Suspended
1	Navigate to https://www.dilumbmkengineers.com	Show the website home page to the user	As Expected	Pass
2	Click the “Login” button.	Popup login form	As Expected	Pass
3	Click the “New user registration” button.	Popup User Registration form	As Expected	Pass
4	Fill in all required fields with valid data.	Fill in all required fields	As Expected	Pass
5	Enter a phone number that already exists in the database in the Phone Number field	System should reject the phone number as it duplicate	As Expected	Pass
6	Proceed with the registration process.	Registration should be unsuccessful	As Expected	Pass
7	Attempt to register with a new duplicate phone number.	System should reject the duplicate phone number with an error	As Expected	Pass

Test Case Id	TC_27	Test Case Description	Valid user deletion.
Created By	Nishadi	Date Created	

Tester's Name	Nishadi	Date Tested	2024/04/14	Test Case	Pass

S#	Prerequisites
1	Log in to the system as Admin.
2	Access to the user table.

S#	Test Data
1	UserId=001

Test Scenario	To verify an existing user is successfully deleted.

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not executed/Suspended
1	Login into the system as Admin	Show the admin dashboard.	As Expected.	Pass
2	Click the "Users" button in the sidebar.	Show the "Users" button in the sidebar.	As Expected.	Pass
3	Navigate the user table	Show the user table.	As Expected.	Pass
4	Click the "Delete" button in the user table.	Click the "Delete" button.	As Expected.	Pass
5	Display confirmation message box.	Expect a confirmation message box to appear.	As Expected.	Pass
6	Delete the user by clicking "OK".	User deleted; alert message: "User delete successful"	As Expected.	Pass
7	Click the "Cancel" button.	User deletion canceled. table refreshed	As Expected.	Pass

Test case ID	PM1	Test case Description	Testing the Insert of all project details		
Created By	Manuji	Date Created	29-March-2024		
Tester's Name	Manuji	Date Tested	29-Mrach-2024	Test Case	pass

S#	Prerequisites	S#	Test Data
1	Access to chrome Browser	1	Project id =P001
2	Login to the Tools management system	2	Project name = EOT & Monorail cranes Manufacturing and installation
3	Access to the Manager Dashboard	3	Description = Client: CCB Envico Pty Ltd-Australia.
		4	Site Supervisor id = SiteS001
		5	Site Supervisor name =Saman Kumara
		6	Location id =L001
		7	Location Name = Wastewater pump stations in Dehiwala, Mount Lavinia and Kolonnawa.
		8	Date =24th April 2024
Test Scenario	Verify on system response entering valid project details(positive)		

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not Executed/ Suspended
1	Navigate to Tools management system.	Site should open	As Expected	Pass
2	Enter Project id, Project id, Project Name, Description, Site Supervisor, Site Supervisor name, Location id & Location name	Credential can be	As Expected	Pass

3	Click Submit button	Credential can be	As Expected	Pass

Test case ID	PM2	Test case Description	Testing the One filed is not added
Created By	Manuji	Date Created	29-Mrach-2024

Tester's Name	Manuji	Date Tested	29-March-2024	Test Case	pass

S#	Prerequisites	S#	Test Data
1	Access to chrome Browser	1	Project id =P002
2	Login to the Tools management system	2	Project name = Manufacturing and installation,2 over Head travelling crane
3	Access to the Manager Dashboard	3	Description = Client: Squire Mech Engineers Pvt Ltd.
4	Access to the Project managing section	4	Site Supervisor id = SI002
		5	Site Supervisor name =Hemal Perera
		6	Location id =L002
		7	Location Name = Wastewater pump stations in Dehiwala, Mount Lavinia and Kolonnawa.
		8	Date = [empty]
Test Scenario	Verify system response when entering invalid project details(Negative)		

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not Executed/ Suspended
1	Navigate to Toolsmanagement system.	Site should open	As Expected	Pass
2	Enter Project id, Project id, Project Name, Description, Site Supervisor, Site Supervisor name, Location id & Location name	Credential can be.	As Expected	Pass
3	Click Submit button	Display an error message "Please fill in all fields.".".	As Expected	Pass

Test case ID	PM3	Test case Description	Testing the insert of Project Id in invalid format.		
Created By	Manuji	Date Created	29-Mrach-2024		
Tester's Name	Manuji	Date Tested	29-March-2024	Test Case	pass

S#	Prerequisites	S#	Test Data
1	Access to chrome Browser	1	Project id =kl67
2	Login to the Tools management system	2	Project name = All Mechanical Installation of Water treatment plant & Intake.
3	Access to the Manager Dashboard	3	Description = Client: Abeima
		4	Site Supervisor id = SI003
		5	Site Supervisor name =prasad adikari
		6	Location id = L002
		7	Location Name = Wastewater pump stations in Dehiwala, Mount Lavinia and Kolonnawa.
		8	Date = 6th of July 2024
Test Scenario	Verify on system response when update by empty project details,		

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not Executed/ Suspended
1	Navigate to Tools management system.	Site should open	As Expected	Pass
2	Enter Project id, Project id, Project Name, Description, Site Supervisor, Site Supervisor name, Location id & Location name	Credential can be.	As Expected	Pass
3	Click Submit button	Project ID must be in the format P001	As Expected	Pass

Test case ID	PM4	Test case Description	Test the Creation of location details partially empty.		
Created By	Manuji	Date Created	29-Mrach-2024		
Tester's Name	Manuji	Date Tested	29-Mrach-2024	Test Case	pass

S#	Prerequisites	S#	Test Data
1	Access to chrome Browser	1	Project id =L003
2	Login to the Tools management system	2	Project name = [empty]
3	Access to the Manager Dashboard		
Test Scenario	Verify on Creation of location details partially empty. (Negative)		

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not Executed/ Suspended
1	Navigate to https://www.dilumbmkengineers.com	Site should open	As Expected	Pass
2	Enter Project id, Project id, Project Name, Description, Site Supervisor, Site Supervisor name, Location id & Location name	Credential can be.	As Expected	Pass
3	Click update button	Display an error message "All the fields should be flled"	As Expected	Pass

Test case ID	PM5	Test case Description	Test the when updating of Project details, all fields are entered.		
Created By	Manuji	Date Created	29-Mrach-2024		
Tester's Name	Manuji	Date Tested	29-Mrach-2024	Test Case	pass

S#	Prerequisites	S#	Test Data
1	Access to chrome Browser	1	Project id =P003
2	Login to the Tools management system	2	Project name = All Mechanical Installation of Water treatment plant & Intake.
3	Access to the Manager Dashboard	3	Description = Client: Abeima
		4	Site Supervisor id = SI003
		5	Site Supervisor name =prasad adikari
		6	Location id =[empty]
		7	Location Name = Wastewater pump stations in Dehiwala, Mount Lavinia and Kolonnawa.
		8	Date = 6th of July 2024
Test Scenario	Verify system on updating of Project details, all fields are entered.		

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not Executed/ Suspended
1	Navigate to https://www.dilumbmkengineers.com	Site should open	As Expected	Pass
2	Enter Project id, Project id, Project Name, Description, Site Supervisor, Site Supervisor name, Location id & Location name	Credential can be.	As Expected	Pass
3	Click Update button	Display an error message "All the fields should be filed"	As Expected	Pass

Test case ID	PM6	Test case Description	Testing when Update project details, project id is in valid format.		
Created By	Manuji	Date Created	29-Mrach-2024		
Tester's Name	Manuji	Date Tested	29-Mrach-2024	Test Case	pass

S#	Prerequisites	S#	Test Data
1	Access to chrome Browser	1	Project id =d456
2	Login to the Tools management system	2	Project name = Installation of Water treatment plant
3	Access to the Manager Dashboard	3	Description = Client: Abeima
		4	Site Supervisor id = K004
		5	Site Supervisor name =prasad adikari
		6	Location id =S003
		7	Location Name = Wastewater pump stations in Dehiwala, Mount Lavinia and Kolonnawa
		8	Date = 6th of July 2024
Test Scenario	Verify on Update project details, project id is in valid format.		

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not Executed/ Suspended
1	Navigate to https://www.dilumbmkengineers.com	Site should open	As Expected	Pass
2	Enter Project id, Project id, Project Name, Description, Site Supervisor, Site Supervisor name, Location id & Location name	Credential can be	As Expected	Pass
3	Click Add button	Display an error message "Project ID must be in the format P001 ".	As Expected	Pass

Test case ID	PM7	Test case Description	Testing the updating of Project details, all details are filled		
Created By	Manuji	Date Created	29-Mrach-2024		
Tester's Name	Manuji	Date Tested	29-Mrach-2024	Test Case	pass

S#	Prerequisites	S#	Test Data
1	Access to chrome Browser	1	Project id =P012
2	Login to the Tools management system	2	Project name = All Mechanical Installation of Water treatment plant & Intake.
3	Access to the Manager Dashboard	3	Description = Client: Abeima
		4	Site Supervisor id = S003
		5	Site Supervisor name =prasad adikari
		6	Location id =L003
		7	Location Name = Wastewater pump stations in Dehiwala, Mount Lavinia and Kolonnawa.
		8	Date = [empty]
Test Scenario	Verify system response updating of Project details, all details are filled.(Negative)		

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not Executed/ Suspended
1	Navigate to https://www.dilumbmkengineers.com	Site should open	As Expected,	Pass
2	Click Submit button	Display an error message "Please fill in all fields".	As Expected,	Pass

Test case ID	PM9	Test case Description	Test the viewing of Project details
Created By	Manuji	Date Created	29-Mrach-2024

Tester's Name	Manuji	Date Tested	29-Mrach-2024	Test Case	pass

S#	Prerequisites	S#	Test Data
1	Access to chrome Browser	1	Project id =P011
2	Login to the Tools management system	2	Project name = All Mechanical Installation of Water treatment plant & Intake.
3	Access to the Manager Dashboard	3	Description = Client: Abeima
		4	Site Supervisor id = SiteS003
		5	Site Supervisor name =prasad adikari
		6	Location id =L013
		7	Location Name = Wastewater pump stations in Dehiwala, Mount Lavinia and Kolonnawa.
		8	Date = 6th of July 2024
Test Scenario	Verify system should response when viewing project details by click the "manage project details" .(positive)		

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not Executed/ Suspended
1	Navigate to https://www.dilumbmkengineers.com	Site should open	As Expected	Pass
2	Click "manage project details" button	Display project data	As Expected	Pass

Test case ID	PM10	Test case Description	Test the delete of Project details by click relevant project id		
Created By	Manuji	Date Created	29-Mrach-2024		
Tester's Name	Manuji	Date Tested	29-Mrach-2024	Test Case	pass

S#	Prerequisites	S#	Test Data
1	Access to chrome Browser	1	Project id =kj67
2	Login to the Tools management system	2	Project name = All Mechanical Installation of Water treatment plant & Intake.
3	Access to the Manager Dashboard	3	Description = Client: Abeima
		4	Site Supervisor id = SiteS003
		5	Site Supervisor name =prasad adikari
		6	Location id =S003
		7	Location Name = Wastewater pump stations in Dehiwala, Mount Lavinia and Kolonnawa.
		8	Date = 6th of July 2024
Test Scenario	Verify on system should Test the delete of Project details by click relevant project id(positive)		

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not Executed/ Suspended
1	Navigate to https://www.dilumbmkengineers.com	Site should open	As Expected	Pass
2	Click delete button	Display an" Are you sure you want to delete this project?".	As Expected	Pass

Test case ID	PM11	Test case Description	Test the viewing of tools stock details		
Created By	Manuji	Date Created	29-Mrach-2024		
Tester's Name	Manuji	Date Tested	29-Mrach-2024	Test Case	pass

S#	Prerequisites	S#	Test Data
1	Access to chrome Browser	1	Tool_ID = AGM01
2	Login to the Tools management system	2	ToolName = Angle Grinder Machine - 4"
3	Access to the Manager Dashboard	3	Description = weight 50kg
		4	Quantity =12
Test Scenario	Verify system should response when click "tools stock details" on the navigation bar, viewing of tools stock details(positive)		

Step #	Step Details	Expected Results	Actual Results	Pass/Fail/Not Executed/ Suspended
1	Navigate to https://www.dilumbmkengineers.com	Site should open	As Expected	Pass
2	Click "tools stock details"button on the navigation bar	Display tools stock details	As Expected	Pass

2. Other Nonfunctional Requirements

a. Performance Requirements

Performance is a crucial characteristic that characterized how the system response to different user inputs. The system performance considered under these factors,

- Response Time
- Scalability
- Data Integrity
- Cross-Platform Compatibility

Name	Description
Page Loading Time	The page loading time should be within 4-8 seconds.
Scalability	The system should be able to handle an increasing number of users, equipment's and projects without significant degradation in performance.
Data Integrity	The system should ensure the integrity of data by implementing mechanisms such as data validation, error handling, and transaction management to prevent corruption or loss of information.
Cross-Platform Compatibility	The web application should be compatible with web browsers such as Chrome, Mozilla Firefox

b. Safety Requirements

- Every user needs to have a separate user account with their own user credentials to log in to this system. Users can log out from their account once they are done with their work or leaving the workspace to protect the system from unauthorized access.

- Generate confirmation messages: all edit/save/reset/delete/remove functions should be confirmed before the action.

- Data loss or system failure: the system should take the backups of the user database regularly.

c. Security Requirements

- To secure user and company tools information, the system should emphasize strong security measures. Secure data transmission, encryption of sensitive data and role base action are all part of this.

- Only users with valid login credentials can access the system.

- The system must use strong encryption to protect users' personal information and company information.

d. Software Quality Attributes

Reliability

The system should be reliable in managing tools information accurately, e ensuring that the data regarding inventory, tools status, and project details are dependable for decision making processes.

Usability

The web application should be user friendly for all stakeholders, including Admin, managers, stock supervisors and site supervisors involves an intuitive interface, easy navigation, and clear instructions for tasks such as adding tools, managing projects, and generating reports.

Flexibility

Error messages are displayed to the user for invalid operations within functions or any valid login attempt.

Performance

The system should perform efficiently, especially considering the large amounts of data it will handle regarding tool inventory, project details, and user accounts. Quick response time and minimal downtime are crucial for smooth operations.

Security

As application deals with sensitive information such as user accounts, project details, and tools inventory, robust security measures should be in place to protect against unauthorized access and ensure the integrity of the system.

Interoperability

The application should be able to seamlessly integrate with other systems or tools that the company may use for related process such as QR scanning, or inventory management, facilitating smooth communication and data exchange between different platforms.

Accuracy

The system should ensure the accuracy of information regarding tools details, project assignments, and inventory levels, as any discrepancies or errors could lead to inefficiencies or disruptions in operations.

e. Business Rules

User Authentication

- Only admin can manage user accounts.
- Company Managers can manage project details and assign site supervisors.
- Only Stock supervisor can manage tool inventory.
- Both managers and stock supervisors can view toolboxes full details entering toolbox Id.

Role-Based access control

- Each user role has specific permissions and access levels within the system.
  Ex: Admins have full access to user management features, while Stock supervisors can only manage tool inventory-related functions.

Project Management

- Managers have exclusive rights to manage projects details, including assigning site supervisors and overseeing tool usage and inventory allocation for each project.

Inventory Management

- Stock supervisors are responsible for managing tool information, managing inventory levels, view toolboxes full details entering toolbox Id, and view reports of required tools reports.

Tool assignment and reporting

- Site supervisors can assign tools to own specific projects, send tool reports to Stock supervisors, conform toolbox usage. And upload tool status reports.

3. Other Requirements

According to the client requirements, every necessary condition is covered in the SRS document. Then there is no other requirement.