

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

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Submitted to:

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Table of Contents

1. Introduction	3
1.1 Purpose	3
1.2 Document Conventions	4
1.3 Intended Audience and Reading Suggestions	4
1.4 Product Scope	5
1.5 References	5
2. Overall Description	
2.1 Product Perspective	6
2.2 Product Functions	7
2.3 User Classes and Characteristics	8
2.4 Operating Environment	10
2.5 Design and Implementation Constraints	11
2.6 Project Documentation	11
2.7 User Documentation	
2.8 Assumptions and Dependencies	11
3. External Interface Requirements	
3.1 User Interfaces for the Web application	
3.2 Hardware Interfaces	29
3.3 Software Interfaces	29
3.4 Communication Interfaces	29
4. System Features	30
4.1 Use Case Diagram	
4.2 ER Diagram	31
4.3 Data Flow Diagram	32
4.4 Test Case Description	33
5. Other Nonfunctional Requirements	
a. Performance Requirements	
b. Safety Requirements	89
c. Security Requirements	
d. Software Quality Attributes	
e Rusiness Rules	91

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, nonfunctional 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.

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

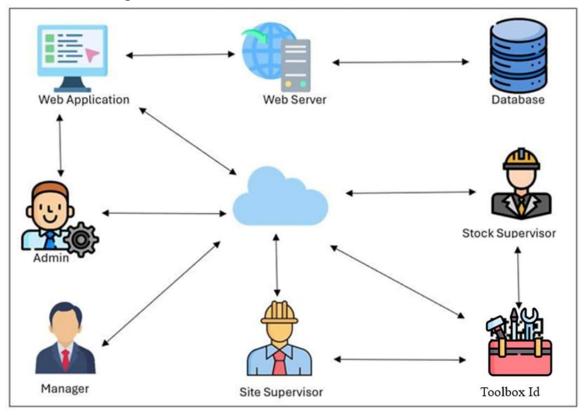


Figure 1 - Architecture Design

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

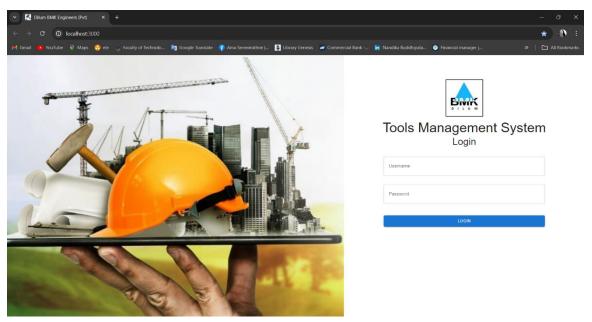


Figure 2 – Login page of the web application.

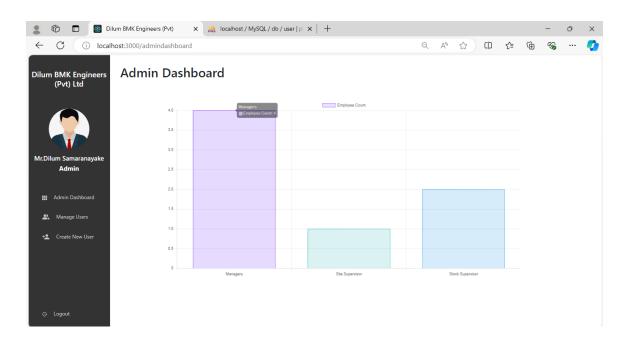


Figure 3- Admin Dashboard

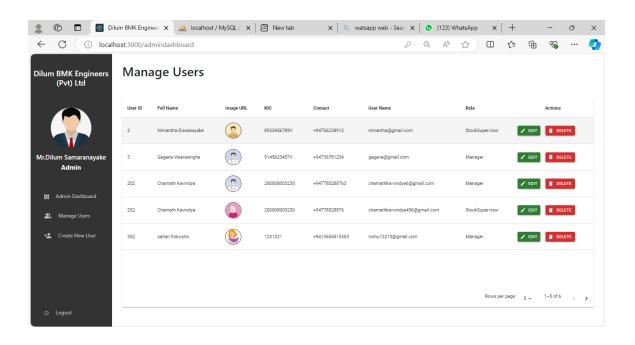


Figure 4 - Manage User Manage Page

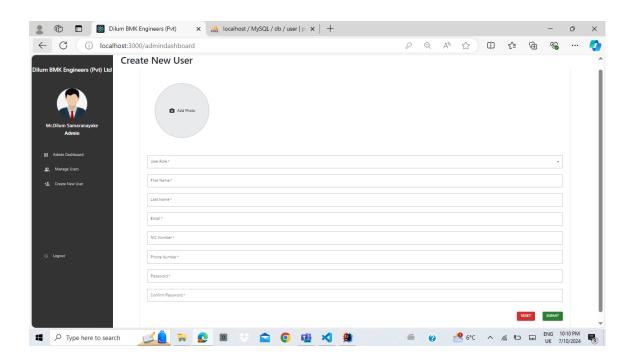


Figure 5 - Create User Form

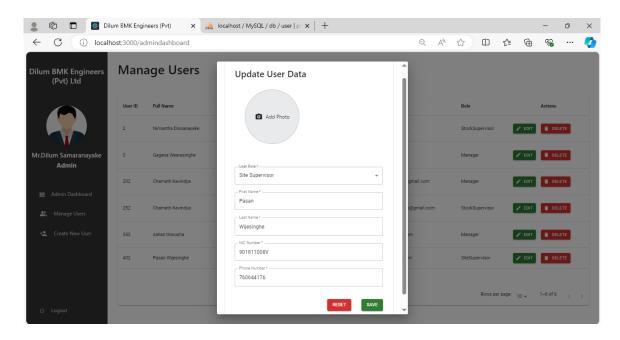


Figure 6 - Update User Form

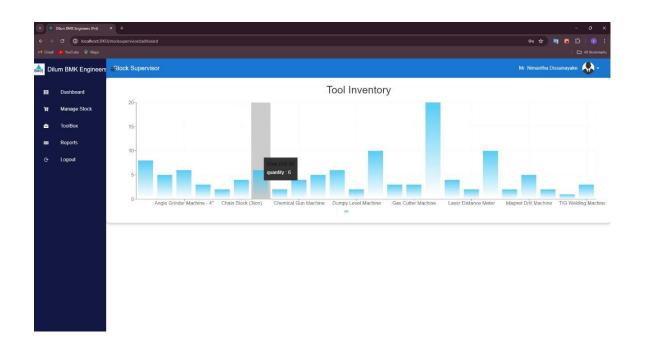


Figure 7- Stock Supervisor Dashboard

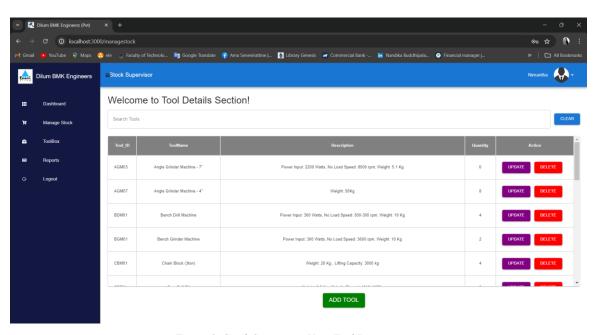


Figure 8- Stock Supervisor View Tool Inventory

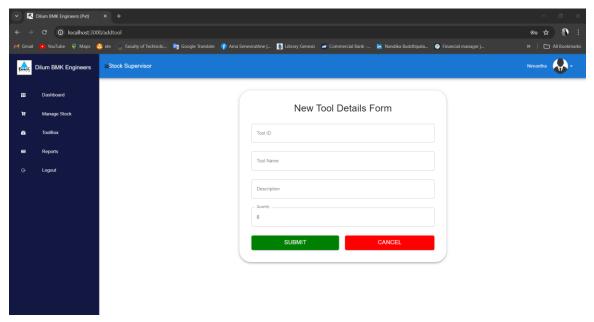


Figure 9 - Stock Supervisor Add New Tool Details Form

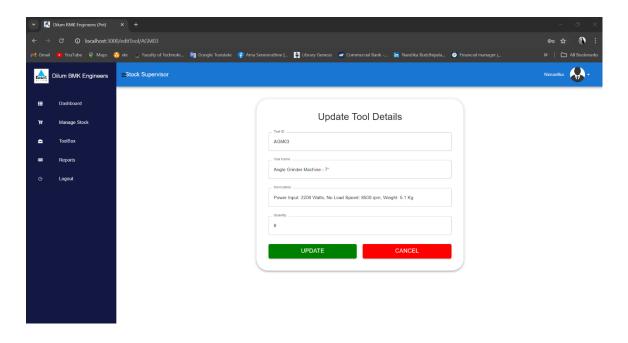


Figure 10- Stock Supervisor Update Tool Details Form

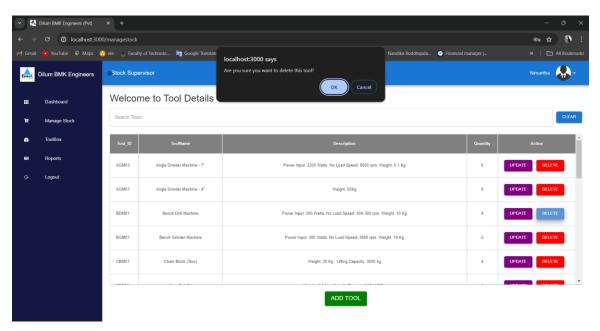


Figure 11 - Stock Supervisor Tools Delete

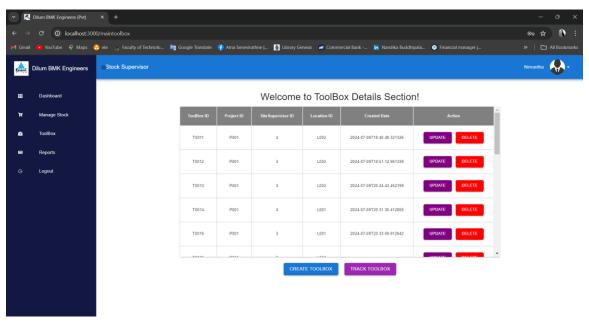


Figure 12- Stock Supervisor Toolbox Dashboard

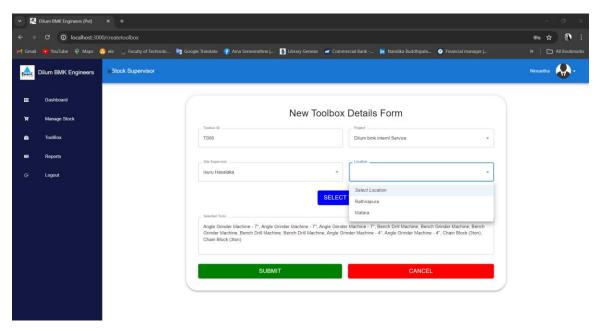


Figure 13 – Stock Supervisor Create New Toolbox Details Form

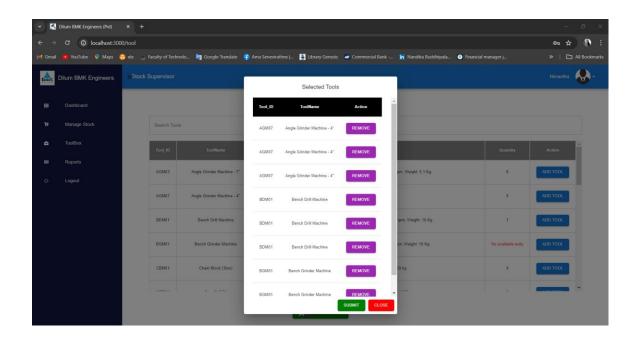


Figure 14 - Stock Supervisor Selected Tools Section

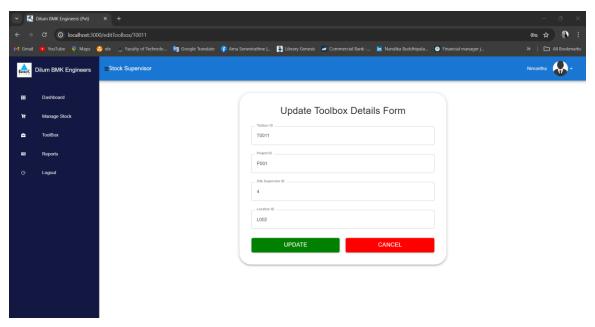


Figure 15 - Stock Supervisor Update Toolbox Details Form

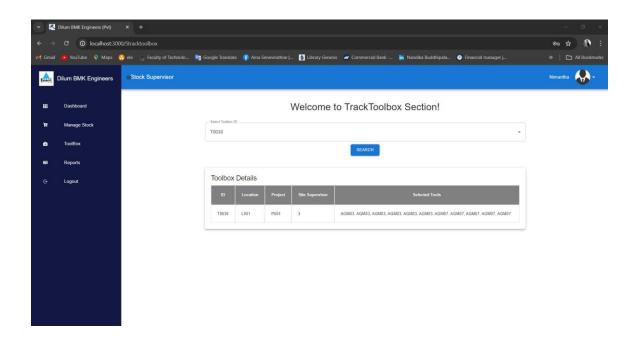


Figure 16 - Stock Supervisor Track Toolbox Details view

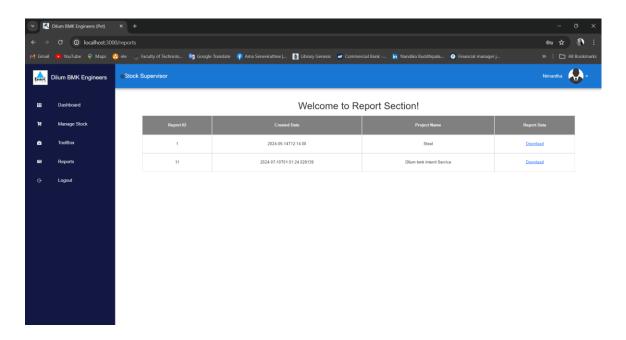


Figure 17 -Stock Supervisor View Report Page.

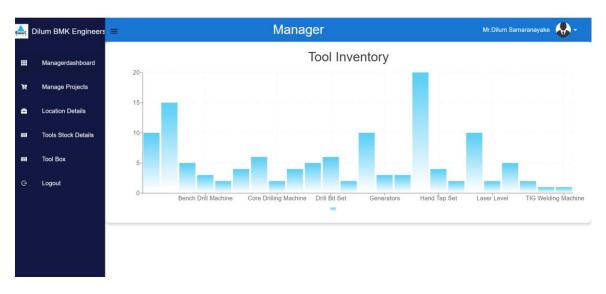


Figure 18- Manager Dashboard

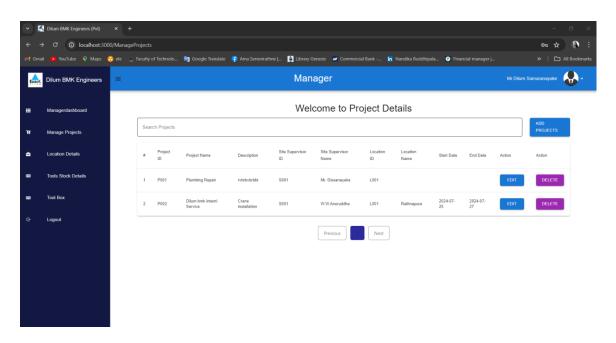


Figure 19- Manager Manage Project details

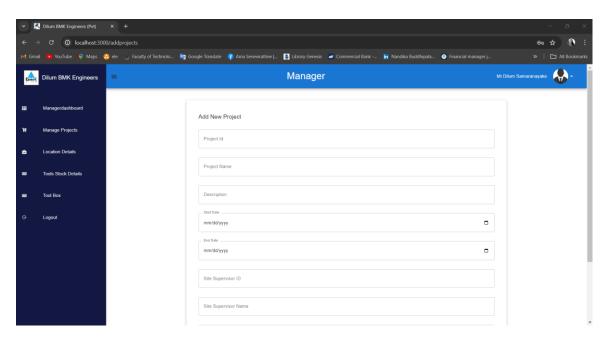


Figure 19- Manager Add New Project details Form

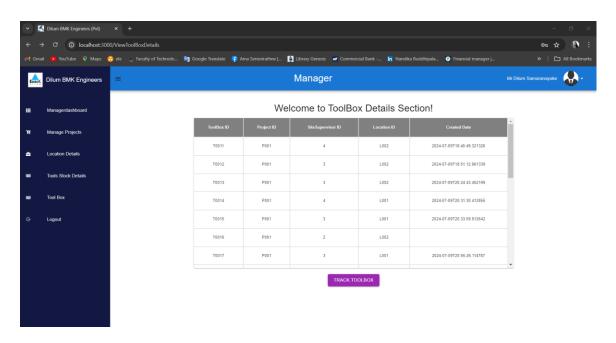


Figure 20- Manager view Toolbox Details Page

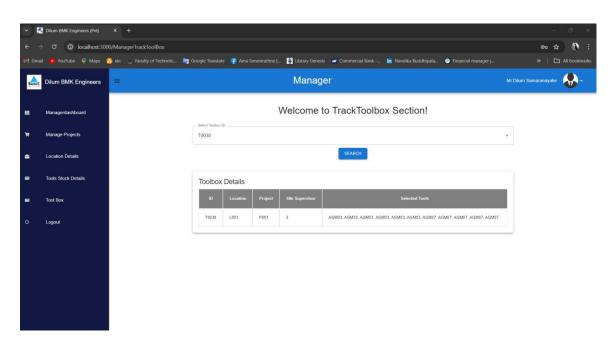


Figure 21- Manager view Track Toolbox Details

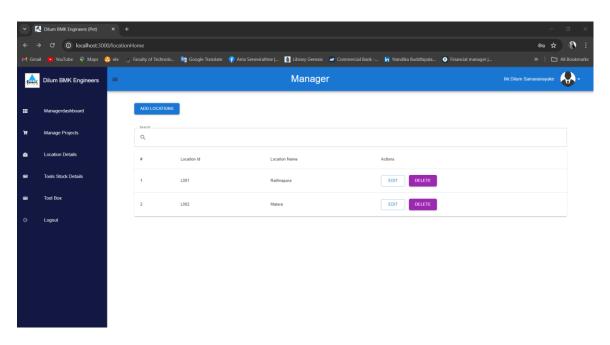


Figure 22- Manager Add Location Details Form

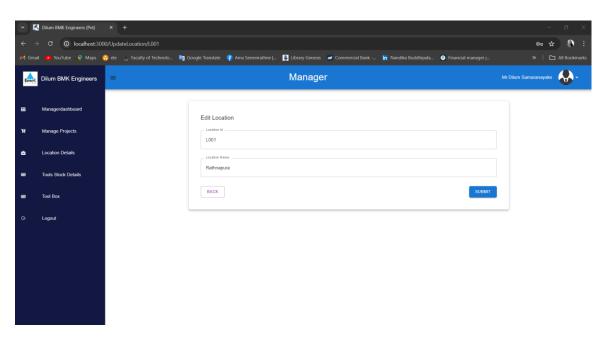


Figure 23- Manager Edit Location Details Form

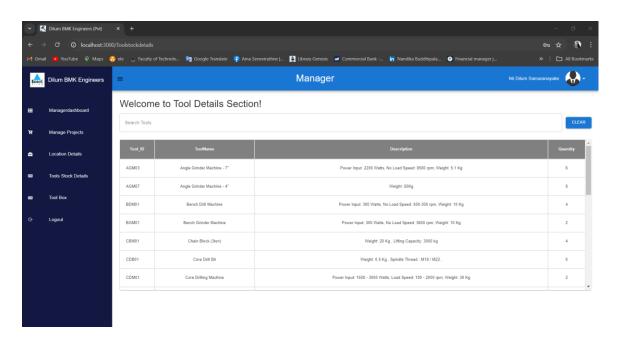


Figure 24- Manager view Tool Details page

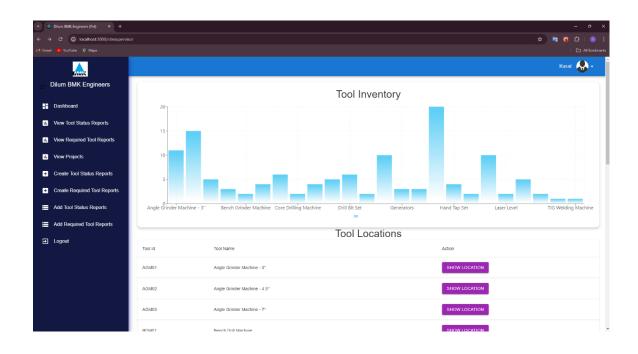


Figure 25- Site Supervisor Dashboard

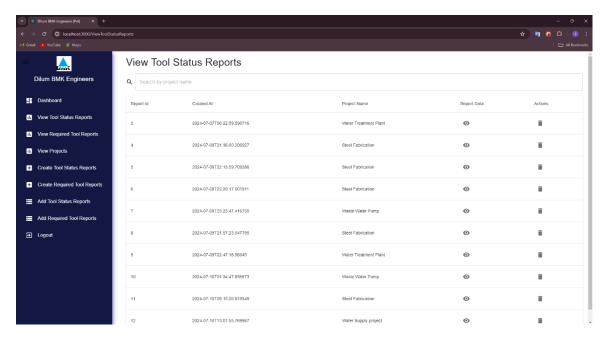


Figure 26- Site Supervisor View Tool status Reports page

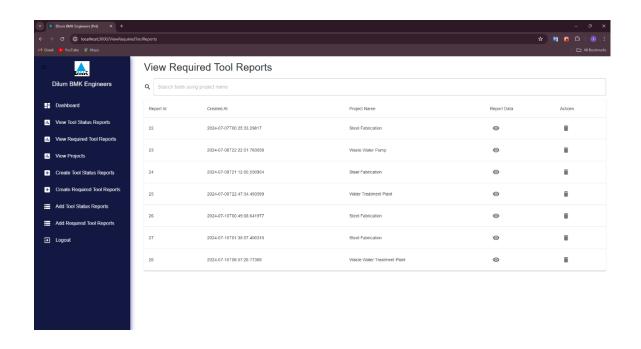


Figure 27 - Site Supervisor View Required Tool Reports page

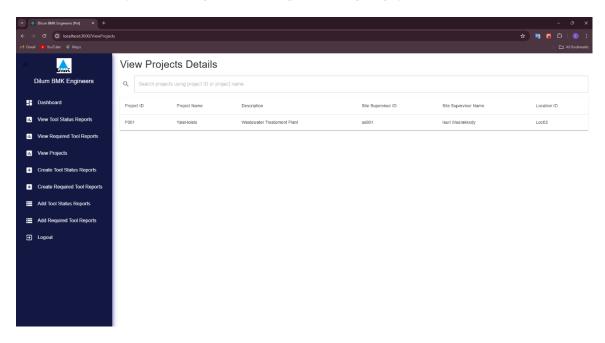


Figure 28 - Site Supervisor View Project Details page

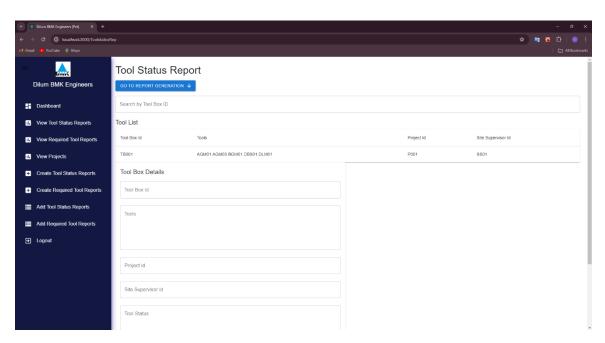


Figure 28 - Site Supervisor Create Tool Status Report page

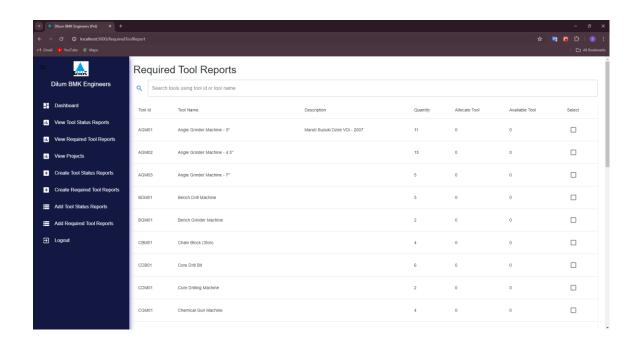
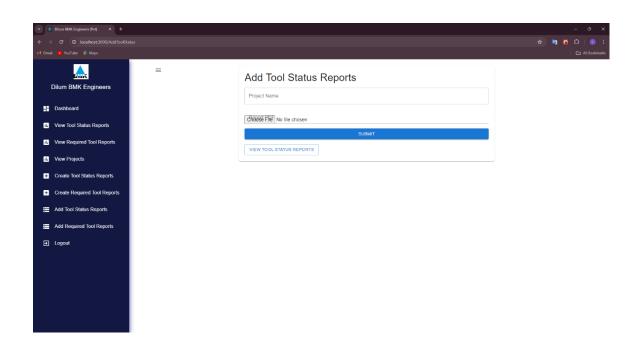


Figure 29 - Site Supervisor view Required Tool Report page





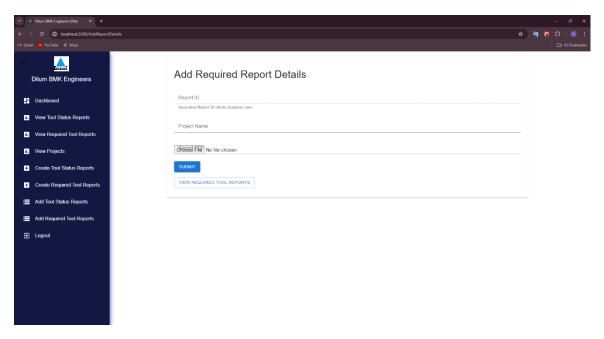


Figure 31 - Site Supervisor Add Required Tool Report Form page

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

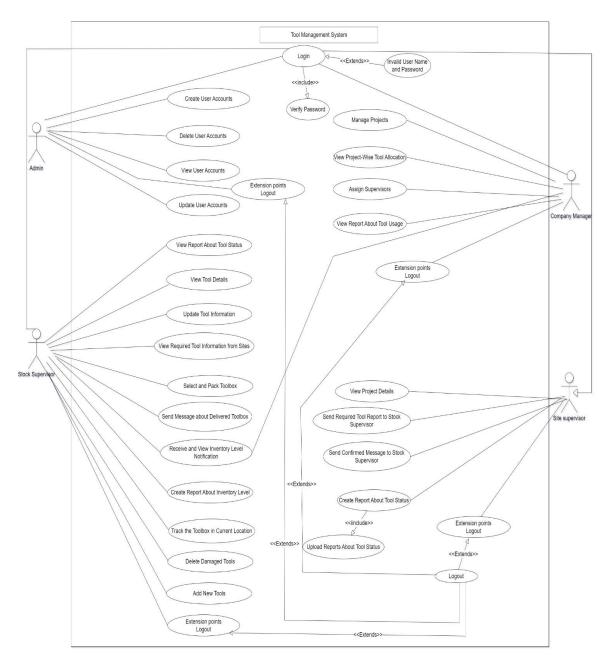


Figure 18 - Use Case Diagram

4.2 ER Diagram

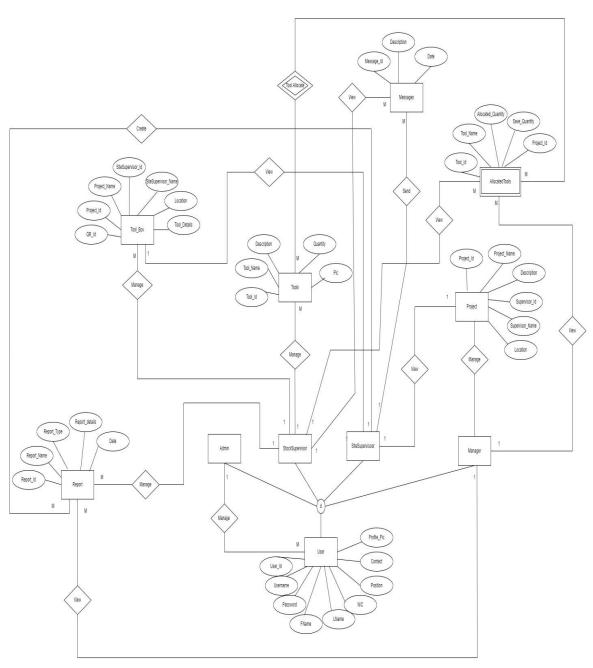
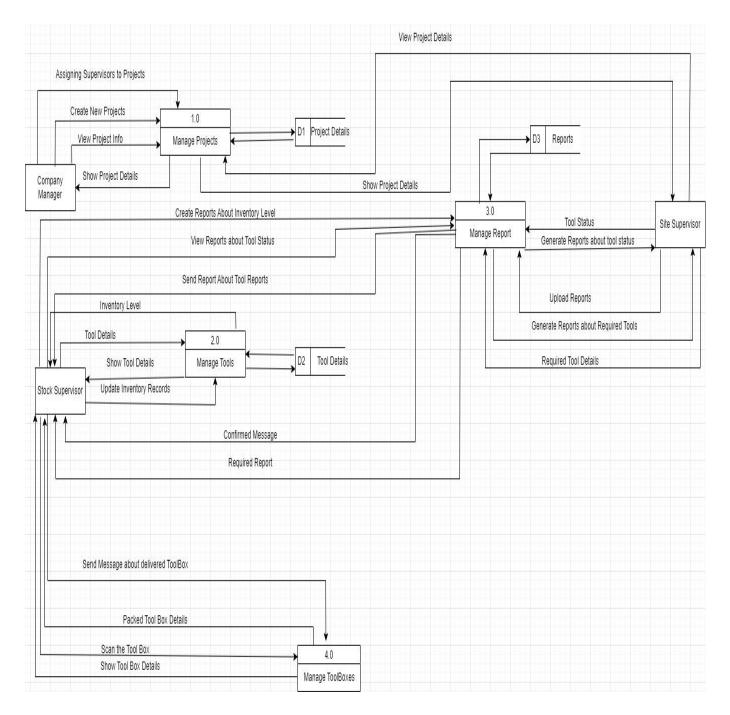


Figure 19 - ER Diagram

4.3 Data Flow Diagram



Figure~20-Data~Flow~Diagram

4.4 Test Case Description

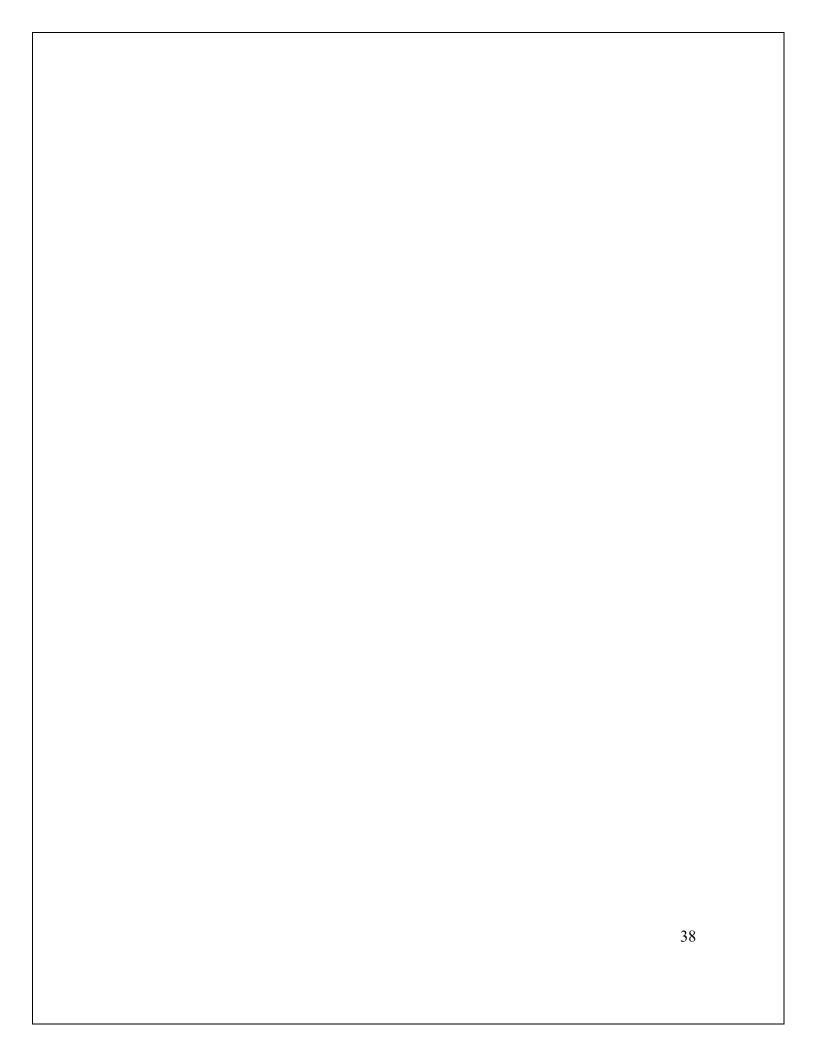
Test cas		TC_01		Test Case description			Test the login functionality in Tool Management System		
Created	by	Ama		Date March Created 30, 2024					
Tester's Name		Ama	Date March Tested 30, 2024		30,	Test case			
S#		Prerequisites			S#	Test Data			
1		Access to chrome bro			Username = isuru@gmail.com				
2		The user must be registered the system.	ered user in 2		2	Password = isu0ru@123			
Test Sce	Test Scenario Verify on entering valid username and password, the user and redirected to their dashboard.					can login to	o the system		
Step #	tep # Step Details			Expected Actual Results Results		Pass/Fail/Not executed/ Suspended			
1	Navigate to Tool Management System		Site si open	hould	As Expected,	Pass			
2	E					As Expected,	Pass		
3	C	lick Login button	Success login Redired	ccessfully As gin and Expected		Pass			

dashboard	1

Test cas		TC_02	des	Test Case description		Test the login functionality in Tool Management System	
Created	Created by Ama Date Created		March 30, 2024				
Tester's	Tested 30		March 30, 2024	Test cas e	cas		
S#	#	Prerequisites		S#		Test Data	
1		Access to chrome browse	er	1			
2		The user must be registered use system.	ser in the 2			Password = isuru@123	
Test Scenario Verify on entering invalid username and valid password, the user cannot login to the system							nnot login to
Step #	Ste	p Details	Expe Resu		Actual Results	e	cass/Fail/Not xecuted/ suspended
1		Navigate to Tool Management System		As Expected		Pass	
2		Enter invalid Username & valid Password		Credential As can be Expe entered		ed Pass	
3	Cli	Click Login button		lay uired l l @"		P	ass

Test case	e ID	TC_03	Test Case description			Test the login functionality in Tool Management System		
Created	Created by Ama		Date Created		March 30, 2024			
Tester's Name			· · · · · · · · · · · · · · · · · · ·	Test Pass case				
S#	<u>!</u>	Prerequisites			S#	Test I	Data	
1		Access to chrome brown	ser	1				
2		The user must be registered us system.	ed user in the		2 Pa		Password = is@12	
Test Sce	Test Scenario Verify on entering valid username and invalid password, the user cannot login to the system							
Step #	Step Details		1		Actual Results		ass/Fail/Not xecuted/ uspended	
1		vigate to ol Management System	Site open	_		Pass		
2	Enter valid Username & invalid Password		Credential can be entered		As Expected	Pass		
3	Click Login button		Display message "Passwe must be than characte and sho valid"	e ord e more 8 eristics	As Expect	P	ass	

Tester's Name	Test cas Created		TC_04 Ama	Dat	Date March Created 30,		Test the insert of Tools into the inventory in the Tool Management System		
Name Tested 30, cas e						,			
1			Ama			30,	cas	Pass	
1	C#	L	Dragaguisitas			C #	Toot F	Note	
Login to the Tools Management System 2 Tool name = Angle Grinder Machine			4	owear					
System Angle Grinder Machine 3									
Dashboard Weight 50			•	agement	2		Angle	Grinder	
Test Scenario Verify on entering valid tool details, Stock Supervisor can add new Tool details Step # Step Details Expected Actual Results Results Results Results Suspended 1 Navigate to Site should As Pass Tool Management System open Expected 2 Enter Tool_ID , Tool name, Credential As Pass Description and Quantity can be Expected 3 Click Add button Stock As Pass Supervisor Expected	3			pervisor		3			
Step #Step DetailsExpected ResultsActual ResultsPass/Fail/Not executed/Suspended1Navigate to Tool Management SystemSite should open ExpectedPass2Enter Tool_ID , Tool name, Description and QuantityCredential can be ExpectedPass3Click Add buttonStock As SupervisorPassSupervisorExpected	4		Access to Manage Stock	interface		4 Quantity = 1		ity = 10	
Step #Step DetailsExpected ResultsActual ResultsPass/Fail/Not executed/Suspended1Navigate to Tool Management SystemSite should open ExpectedPass2Enter Tool_ID , Tool name, Description and QuantityCredential can be ExpectedPass3Click Add buttonStock As SupervisorPassSupervisorExpected									
Step #Step DetailsExpected ResultsActual ResultsPass/Fail/Not executed/Suspended1Navigate to Tool Management SystemSite should open ExpectedPass2Enter Tool_ID , Tool name, Description and QuantityCredential can be ExpectedPass3Click Add buttonStock As SupervisorPassSupervisorExpected									
Results Pass Pass Credential As Pass Results Results Results Results Results Results Results Results Pass Pass Supervisor Results Results Pass Pass Supervisor Expected	Test Sce	enario	Verify on entering valid to	ool details,	Stock	Supervisor car	n add new	Tool details	
Results Pass Pass Credential As Pass Results Results Results Results Results Results Results Results Pass Pass Supervisor Results Results Pass Pass Supervisor Expected									
1 Navigate to Tool Management System 2 Enter Tool_ID , Tool name, Description and Quantity 3 Click Add button Site should As Open Expected Credential As Expected Expected Suspended As Pass Pass Expected Stock As Supervisor Expected	Step #	St	ep Details	-					
1 Navigate to Tool Management System open Expected 2 Enter Tool_ID , Tool name, Description and Quantity can be Expected 3 Click Add button Stock As Supervisor Expected				Results	S	Results			
Tool Management System open Expected 2 Enter Tool_ID , Tool name, Credential As Pass Description and Quantity can be Expected 3 Click Add button Stock As Pass Supervisor Expected	1	NT	ovicata ta	C:4	hov1d	Ag		_	
2 Enter Tool_ID , Tool name, Description and Quantity Credential As Expected 3 Click Add button Stock As Supervisor Expected			=		nould			iss	
Description and Quantity can be Expected 3 Click Add button Stock As Pass Supervisor Expected	2				•			200	
3 Click Add button Stock As Pass Supervisor Expected								155	
Supervisor Expected	3					-		ass	
			TON THU OUTOIT		isor			400	
tool Details									



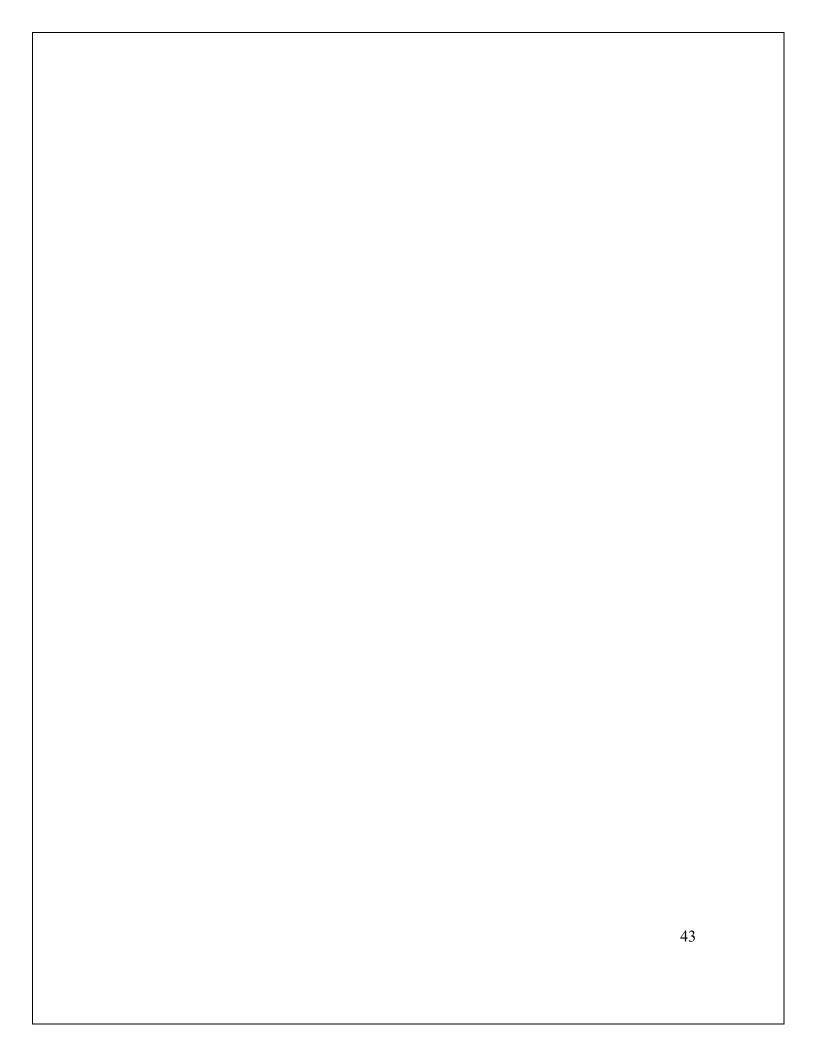
Test case	ID	TC_05	Test	st Case description		Test the inser Tools into the inventory in the Tool Management System	
Created b	У	Ama	Date Crea		March 30, 2024		
Tester's N	Name	Ama	Date Teste		March 30, 2024	Test case	Pass
S#		Prerequisites			S#	Test D	ata
1		Access to chrome brows	er		1	ToolIE	
2		Login to the Tools Managemen		2			
3		Access to the Stock Supervisor I	Dashboard		3	descrip	
4		Access to Manage Stock into			4		ty = 10
Test Scen		Verify on entering invalid tooll details			_		
Step #	St	ep Details	Expect Results		Actual Results	ex	ass/Fail/Not secuted/ aspended
1		avigate to pol Management System	Site open	should	As Expecte		uss
2		sert invalid ToolID, Tool name, escription, and Quantity	"Enter	olay an As t of error Expecto ter String ToolID		d,	ass
3	C	lick Add button	Display error messag "New		As Expecte	d,	ass

	details are	
	not added	
	successfully"	

Test cas	e ID	TC_07	Tes	Test Case description			Test the Update Tools details in the inventory in the Tool Management System	
Created	by	Ama	Dat Cre	e ated	March 30, 2024			
Tester's Name		Ama	Date Tes		March 30, 2024	Test cas e	Pass	
S#	!	Prerequisites			S#	Test l	Data	
1		Access to chrome bro	owser					
2		Login to the Tools Man. System	agement		1		Tool name = Angle Grinder Machine "7"	
3		Access to the Stock Sup Dashboard	pervisor		2	descr	iption	
4		Access the Manage Stock	Interface		3	Quan	tity = 10	
5		When click update buttor tool details form	-					
Test Sce	enario	Update valid tool details,	Stock Supe	rvisor	can update ex	xisting Too	ol details	
Step #	St	ep Details	Expect Results		Actual Results	e	ass/Fail/Not xecuted/ uspended	
1		avigate to ool Management System	Site si open	hould	As Expected		ass	

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

Test cas	se ID	TC_08	Test Case description			Test the Update Tools details in the inventory in the Tool Management System	
Created	by	Ama	Date Crea		March 30, 2024		
Tester's Name	3	Ama	Date Teste		March 30, 2024	Test case	Pass
S#	#	Prerequisites			S#	Test I	D ata
1		Access to chrome brows			1	ToolID = T003	
2	,	Login to the Tools Managemen	nt System			Tool name = Angle Grinder Machine "7"	
3		Access to the Stock Super Dashboard	visor		3	descri	ption
4		Access the Manage Stock In	iterface		4	Quant	sity = 10
5		When click update button oper details form	n the tool				
Test Sc	enario	Update ToolID, Stock Supervis	sor cannot u	ıpdate e	existing Too	l details	
Step #	Step	Details	Expects Results		Actual Results	e	ass/Fail/Not xecuted/ uspended
1		igate to Management System	Site s	should	As Expecte		ass
2	Upda	ate Tool name, Description and ntity, with ToolID	can't "ToolI		As Expecte	P	ass



Test cas		TC_09	Test Case description Date March			Test the Update Tools details in the inventory in the Tool Management System	
Created	бу	Ailla	Crea		30, 2024		
Tester's Name		Ama	Date Teste		March 30, 2024	Test case	Pass
S#	#	Prerequisites			S#	Test I	Data
1		Access to chrome brows	ser				
2		Login to the Tools Managemer	nt System	1		Tool name = Angle Grinder Machine "7"	
3		Access to the Stock Super Dashboard	visor	2		description	
4		Access the Manage Stock In	terface		3	Quantity <0	
5		When click update button oper details form	the tool				
Test Sco	enario	Update invalid Quantity value, S	Stock Supe	rvisor (cannot updat		
Step #	Ste	p Details	Expecte Results		Actual Results	e	ass/Fail/Not xecuted/ suspended
1		vigate to		should	As		ass
2		ol Management System	open		Expecte		logg
2		date Tool name, Description, and alid Quantity type (minus value)	Display Alert o "canno select minus for qua	f error t the value	As Expecte		ass

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

Test cas Created		TC_10		Date Created March 30,			Test deleteTools details in the inventory of the Tool Management System	
					2024			
Tester's Name	\$	Ama	Date Tes	sted	March 30, 2024	Test case	Pass	
S#		Prerequisites			S#	Test I	Data	
1		Access to chrome	browser		Sii	Test L	Jata	
2		Login to the Tools M System			1	ToolI	D = T001	
3		Access to the Stock Dashboard						
4		Access the Manage St	ock Interface					
	5	Click on the View op	tion					
Tes: Scena		View existing tool detai	ls, Stock Superv	visor can	access and vi	ew Tool d	etails	
Step #	St	ep Details	Expected F	Results	Actual Results		ass/Fail/Not	
					Results		buspended	

1	Navigate to	Site should open	As	Pass
	Tool Manage		Expected	
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			New details invent	ory in the
Created by	Ama	Date Create	ed	April 04 2024		
Tester's	Ama	Date		April	Test	Pass
Name		Teste	d	08, 2024	case	
				-		
S#	Prerequisites			S#	Test D	ata
1	Access to chrome brows	er		1	Toolbe T0031	
2	Login to the Tools Managemen	nt System		2	Project = Plumbing Repair	
3	Access to the Stock Superv Dashboard	visor		3		
4	Access the ToolBox International	oolBox Interface		4	Location = Rathnapura	
5	When click Create Toolbox inavigate to Create New Toolbox Form			5		ed Tools = e Grinder

	Bench	Drill
	Machine"	

Test Sce	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	Site should	As Expected	Pass							
2	Tool Management System Enter Toolbox_ID , Project Sitesupervisor, Location, select tools	open Credential can be	Expected, 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 April Created 04, 2024					
Tester's Name	Ama	Date Tested April 08, 2024		Test case	Pass		
S#	Prerequisites			S#	Test Data		
1	Access to chrome brow	/ser	1		Toolbox ID = T0031		
2	Login to the Tools Manageme	ent System		2	Project	ţ	
3	Access to the Stock Supervisor	Dashboard		3	Site Supervisor =		
4	Access to Manage Stock in	terface 4		Location Rathna			
				5		Drill	
Tost Sagnaria	Varify on antaring invalid tooll	- ov. doto:10 00		11 4h a data ya	luga Ctarl	Cymomyica	

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	As	Pass
		message "New	Expected,	
		Toolbox details	_	
		are not added		
		successfully"		

Test case ID		TC_12		Test Case description				t the s	uccessful tool at
Created by		Ganga		Date March 30, Created 2024),			
Tester's Nar	ne	Ganga		Date Tested	d	March 30 2024,), Tes	t case	Pass
S#		Prerequisites				S#	1	Test Da	ta
1		Access to chro	ome browser			1			Id= 001
2		Login to the Too Syst	_	nt		2	Wat	ject_nater Treater Expansion	atment
3		Access to the Site Supe	ervisor Dashb	oard		3			
							(Quantit	y = 10
Test Sc	enario	Test the successful too	ol assignment	t					
Step #	Step D	etails	Expected Ro	esults		Actual Ro	esults	execu	Fail/Not nted/ ended
1	select	specific project	System disp of availabl and choos project	e proj			ected	Pass	
2	Naviga	tes to the tool inventory		ts site supervisor successfut tool inventory redirects		the r to tool	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 l	D	TC13	Test	Test Case description		Verifica assignme	tion of tool ent		
Created by	1	Ganga	- 1	Date March 30, Created 2024					
Tester's N	ame	Ganga	Date March 30, Tested 2024		5		Test case	Pass	
S#		Prerequisites			S#	Test Dat	a		
1		Access to chrome bro	wser		1	Project	Id= P001		
2		Login to the Tools Mana System			Plant Ex	reatment pansion			
3		Access to the Site Super Dashboard	rvisor		3	Tool_Id=	=1001		
						Quantity	y = 10		
Test Scen	ario	Verify that the site superv successfully	visor can	assig	gn tools to the	ir specific	projects		
Step #	Step	Details	Expecte Results	d	Actual Results	exec	/Fail/Not cuted/ pended		
1	Sele	cts a specific project	System As displays a Expect list of available projects and can be choose the desired project		displays list of available projects can be choose the		Expected	Pass	
2	Nav: detai	igates to the project ils	project 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	System	As	Pass	
	list of assigned tools.	displays the	Expected		
		list of tools			
		assigned to			
		the project			
		details page.			
4	Cross references the assigned	Compares	As expected.	Pass	
	tools.	the list of			
		assigned			
		tools			
		displayed			
		on the			
		project			
		details page			
		with the			
		inventory			
		records.			
					1

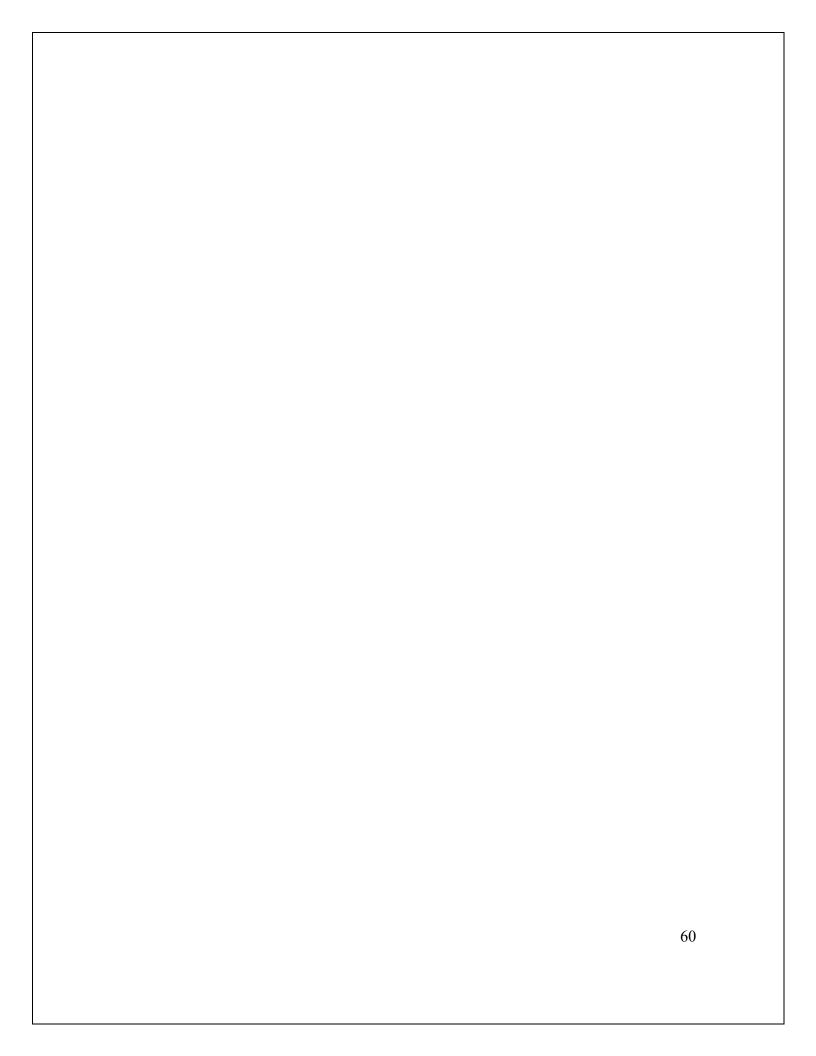
Test case ID	TC14	Test Case description			Test the Unsucces assignme		tool	
Created by	Ganga	Date Create	Date March 30, Created 2024					
Tester's Name	Ganga	Date Tested	 il	March 2024	30,	Test case	Pass	
S#	Prerequisites		S#		Test Data			
1	Access to chrome browse	er		1		Project_Id= 001		
2	Login to the Tools Manageme System	ent		2		Project_r Water Tro Plant Exp	eatment	
3	Access to the Site Superv Dashboard	isor		3				
				Quantity	= 10			
Test Scenario	Verify Unsuccessful tool assig	gnment						

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

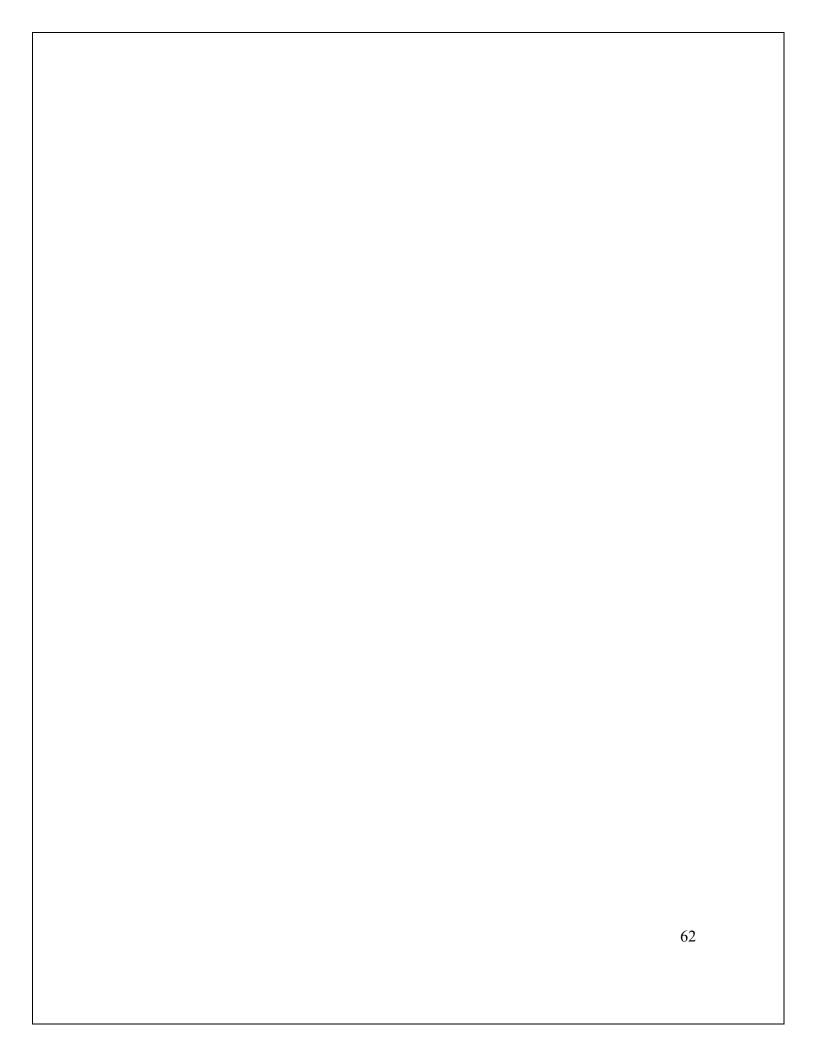
		displays a list of available projects and choose desired project	expected	
2	Attempts to assign tools	Check if the selected tool is available in the inventory and not assigned to another project	Site supervisor attempts to assign the tools, but it is already assigned to another project or unavailable 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 I	D	TC15	Test C	ase de	escription	n	Test S creatin	1
Created by	7	Ganga	Date Create	March 30, 2024				
Tester's Name Ganga			Date Tested		March 2024	30,	Test case	Pass
S#			S#		Test Da	ata		
1	1 Access to chrome br				1		Report	_Id= Rep001
2	2 Login to the Tools Manage System				2		Report_Type = Tool status report	
3 Access to the Site S Dashboard			-	pervisor 3				•
							Quanti	ty = 5
Test Scena	arıo	Test Status report creating	ng					
Step #	Step	Details	Expected Results	-		Actual Results		ss/Fail/Not ecuted/ spended
1	1 Navigates to the reporting section		superviso generate report al	provides an option for site upervisor to		As Expected		SS

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



Test case I			ion	Test generated report contains accurate information		ontains			
Created by	7	Ganga	Date Creat		March 2024	30,			
Tester's Na	Date Teste	Date Marc Tested 2024		30,	Test Pass case		Pass		
S#		Prerequisites			S#		Test	Data	1
1					1				d= 001
2					2		Rep		ype=Tool
3	pervisor	isor 3							
							Qua	ntity	= 5
Test Scen	ario	Test generated report con	tains acc	urate i	informa	tion			
Step #	Step	Details	Expected Results			Actual Results		exec	/Fail/Not outed/ oended
1	Recerepo	eives the generated rt.	System delivers the generated report to the site supervisor in readable and accessible format			As Expected		Pass	
2	Revi	ews the report contents.	Generated report contains accurate		A E	s xpect		Pass	



Test case I	est case ID TC17		Test C	Test Case description			Test the Unsuccessful tool status report generation		
Created by		Ganga	Date Create	ed	March 2024	30,			
Tester's Name Ganga			Date Tested	Date March 30, Tested 2024		30,	Test case	Pass	
S#	Prerequisites			S#		Test Dat	a		
1		Access to chrome br	owser		1			Id= R001	
2		Login to the Tools Man System	agement		2		Report_ status re	Type = Tool	
3		Access to the Site Su Dashboard	upervisor		3				
						Quantity	y = 5		
Test Scena	ario	Verify Test the Unsucce	ssful tool s	status	s report ge	nera	tion		
Step #	Step	Details	Expected Results			Actual Results		s/Fail/Not cuted/ pended	
1	Nav secti	rigates to the reporting	System provides option generate report al tool statu		As expe	cted	Pass	3	
2	Sele repo	cts the option to create a	System presents form input paramete for report generatio	As Expected to ers		ected	Pass	S	

Test case I	D	TC18	Test	Case	description	Sen rep	nd required tool ort	
Created by	,	Ganga	Date Crea	ted	March 30, 2024	,		
Tester's Na	ame	Ganga	Date Teste	ed	March 30, 2024	Tes		
S#		Prerequisites	S		S#	Tes	t Data	
1			owser		1		oort_Id= R001	
2			agement		2	Rep	port_Type = Tool rus report	
3	· · · · · · · · · · · · · · · · · · ·				3		-	
						Qua	Quantity = 5	
Test Scena	ario	Send required tool repor	t					
Step #	Step	Details	Expected Results		Actual Results		Pass/Fail/Not executed/ Suspended	
1	Nav secti	vigates to the reporting	System provides option c	reate	reportin section	the	Pass	
			a new report	too	1			
2	Creates a new tool report		System presents form to paramet for the rigenerati	inpu ers epor	accurate	tion ly		

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

Test case I	D	TC19	Test Case	Test Case description			Unsuccessful sending of require tool report		of required
Created by	y	Ganga	Date Created March 2024		n 30,				
Tester's Name		Ganga			March 2024			-	Pass
S#		Prerequisites			S#		Tes	t Dat	a
1		Access to chron	ne browser						Id= R001
2		Login to the Tools System		2		Report_Type = Too status report		Type = Tool	
3		Access to the Si	te Supervisor	3				1	
				Qua			antity	y = 5	
Test Scenario	0	Unsuccessful send	ing of required	tool re	eport				
Step #	Ste	ep Details	Expected Res	ults	_	Actual Results	Pass/Fail/Not executed/ Suspended		
1		reate a new tool oort	Present a input information,is site name, and tool description	requir ncludir locatio	ed ng on	Fills incomple or incorr informati in report for	rect ion the	Pass	S

2	Submits report	the	tool	System detects the incomplete or incorrect information and promts to correct it.	As Expected	Pass
3	Submits report	the	tool	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 2024	30,		
		Cicaico	1	2024			
Tester's Name	Ganga	Date Tested		March 2024	30,	Test case	Pass
S#	Prerequisites			S#		Test Data	ļ
1	Access to chrome brows	er		1		Tool_Box	x_Id= tb001
2	Login to the Tools Manage. System	ment					
3	Access to the Site Super Dashboard	visor					
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 1	D	TC21	Torre	Coss 1	a a wine ti a	<u>C</u> -	Confirmation		
Test case I	ע	1021	Test	Case de	scription		message		
							_	relevent	
							ails.	1010 (0111	
Created by	<i>J</i>	Ganga	Date	;	March 30	,			
•			Crea	ted	2024				
Tester's		Ganga	Date	Tested	March 30	, Tes	t	Pass	
Name					2024	cas	e		
S#		Prerequisites			S#	Tes	t Dat	a	
1		Access to chrome	browser		1	Bar	code	_Id=b001	
2		Login to the Tools N	1anageme	nt	2	Too	ol_Bc	ox_Id=	
		System				tb0	01		
3		Access to the Site	-	or	3				
		Dashbo	ard				<u> </u>		
						Qua	antity	r=5	
		Γ							
Test		Confirmation messa	ge contain	s releve	nt details.				
Scenari	0								
G: //	Q.	D : 11	D . 1	D 1	Actual		Ъ	/D :1/NT :	
Step #	Ste	p Details	Expected	Expected Results				s/Fail/Not cuted/	
					Results			spended	
1	R _e	ecieves the	System	delive	Success	fully	Pas	_	
1		nfirmation message.	•	firmatio		Successfully receives the		3	
	COL	inimation message.	message						
			stock s						
			indicating	-	a from the				
			successfu	ıl toolbo	x supervi	sor.			
			check.						
2	Rev	views the message	Confirma	ition	The	stock	Pas	s	
	con	ntents.	message		_				
			such as th						
			status("C		*				
			any disc	-					
			found d check ar	_					
			taken.	iu actio	IIS TOTO VOII	uc			
			uncii.						

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

Test case II	D	TC22	Test (Test Case description		Unsuccessful toolbox confirmation		
Created by		Ganga	Date Creat		March 30, 2024			
					1			
Tester's Name		Ganga Date March 30,	Test	Tested 2024		Test case		
S#		Prerequisites			S#		Test Data	
1		Access to chrome browser		1		Barcode_Id=b001		
2		Login to the Tools Mana System	gement 2		Tool	Box_Id= tb001		
3		Access to the Site Supervisor Dashboard		or 3				
						Quan	ntity = 5	
Test Scenario Unsuccessful toolbox		Unsuccessful toolbox cor	nfirmatio	n				
'								
Step # Step Details			Expected Results	1	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 Pass/F Results execut Suspen		ed/	
1	N	avigate to	Created	2024	Site		As	Pass	
		tps://www.dilum	bmkengii	gineers.com		ould	Expected		
Tester's				March	3 6 pe	30penTest case		Pass	
Name2	E	nter User ID, Fi	rste stac he	e, L2024	Cre	dential	As	Pass	
	n	ame, NIC, Pass	word, Co	ontact,	can	an be Expected			
S#	U	s prenama ispositio	n	S#		Test Da	ta		
β	С	lick Add byttenh browser		1	Adı	min _{ser} II add	D=0 2 s Expected	Pass	
2		Login to the Managem	ent	2	Use	VFirst na er ails	me= Nishadi		
3		Access to the Admin Dashbo	Site	3		Last na	me=Sansala		
				4		NIC=2	00053303135		
				5		Passwo	ord=N@123		
			6		Contact=+94760644176				
				7		User name=1	nishu12213@gr	nail.com	
				8			n =Admin		
Test Verify on entering User details, Admin can add new User Scenario									

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

S#	Prerequisites	S#	Test Data
1	Access to chrome browser	1	User_ID=02
2	Login to the Tools Management	2	First name= Nishadi
	System		
3	Access to the Stock Supervisor	3	Last name=Sansala
	Dashboard		
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/
		results	resures	Suspended
1	Navigate to	Site should	As	Pass
	https://www.dilumbmkengineers.com	open	Expected	
2	Enter User_ID, First name, Last	Display an	As	Pass
	name, NIC, Password, Contact,	Alert of error	Expected	
	User name, position	"Enter valid		
		phone		
		number"		
3	Click Add button	Display and	As Expected	Pass
		error		
		message		
		"New User is		
		not added		
		successfully"		

Test case ID	TC_25	Test Case description		Verify success registration valid phone n	with a	
Created by	Nishadi	Date Create	ed	May 06 2024		
Tester's Name	Nishadi	Date Tested	l	May 06, 2024	Test case	Pass
S#	Prerequisites			S#	Test Data	
1	Access to chrome browser			1	Phone 0714525999	number
2	Login to the Tools Manageme System	ent				
3	Access to the register customer	form				
4	Required fields are clearly defined as red in color star mark					

Test Scenario

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

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		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		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		Pass

Test Case Id		TC_27		Test Case Description		Valid user d	eletion.	
Created By		Nishadi			Date Created			
			P					
Tester's Name	Nishad	di	Date Tested		2024/04/14	Test	: Case	Pass

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

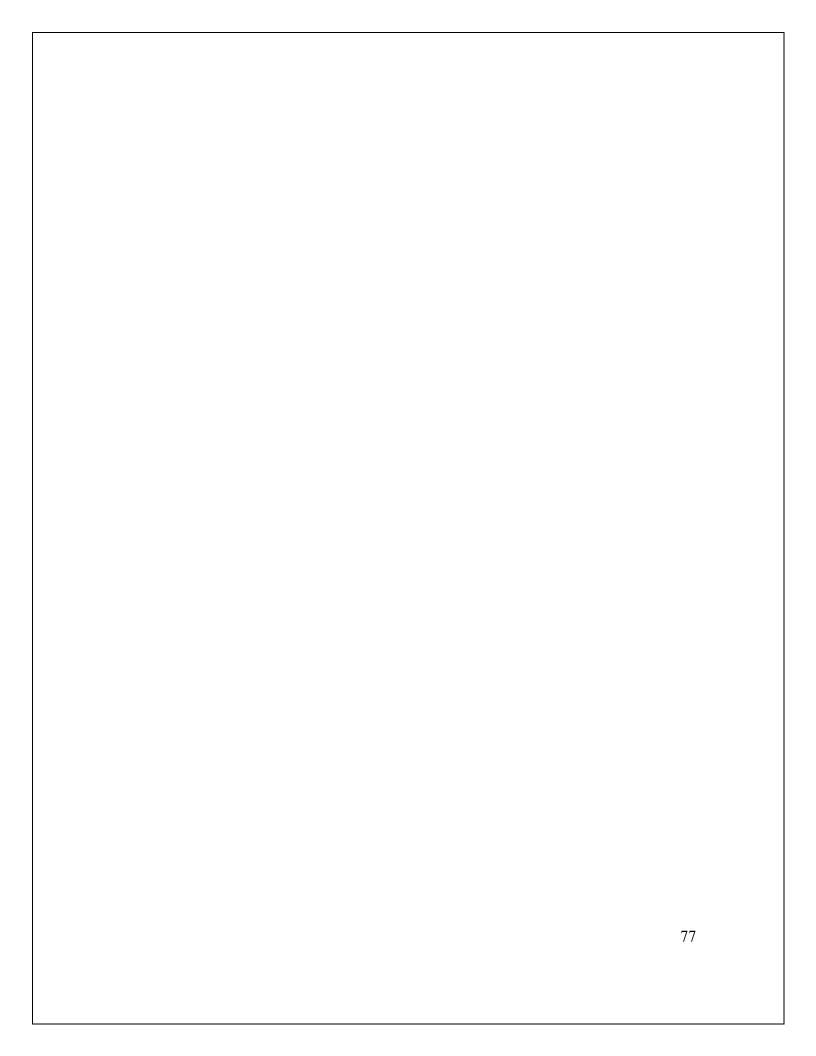
S#	Test Data
1	UserId=001

To verify an existing user is successfully deleted.

Test

	Scenar	Scenario						
	Step	Step Details	Expected Results	Actual Results	Pass/Fail/Not			
	#				executed/Suspended			
	1	Login into the system as	Show the admin	As Expected.	Pass			
		Admin	dashboard.					
	2	Click the "Users" button in the sidebar.	Show the "Users" button in the sidebar.	As <u>Expected</u> .	Pass			
3		Navigate the user table	Show the user table.	As <u>Expected</u> .	Pass			

Click the "Delete" button in the user table.	Click the	As Expected.	Pass
	"Delete" button.		
Display confirmation message box.	Expect a confirmation message box to appear.	As <u>Expected</u> .	Pass
Delete the user by clicking "OK".	User deleted; alert message: "User delete successful"	As <u>Expected</u> .	Pass
Click the "Cancel" button.	User deletion canceled, table refreshed	As <u>Expected</u> .	Pass
	message box. Delete the user by clicking "OK".	confirmation message box to appear. Delete the user by clicking "OK". User deleted; alert message: "User delete successful" Click the "Cancel" button. User deletion canceled, table	confirmation message box to appear. Delete the user by User deleted; alert message: "User delete successful" Click the "Cancel" button. User deletion canceled, table



Test case I	D	PM1	Test	case ription	Testing the	Insert of a	all project		
Created By		Manuji		Created	29-March-2	2024			
010000000	<u> </u>	1:10:10:01	2	010000					
Tester's Na	ame	Manuji	Date	Tested	29-Mrach- 2024	Test Cas e	pass		
S #	Prerequ	isites		S#	Test Data				
1	Access	to chrome Browser		1	Project id =				
2	Login t	o the Tools management syst	tem	2	Project nan	ne = EOT	&		
					Monorail c				
					Manufactu				
3	Access	to the Manager Dashboard	3 Description = Client: C						
				Envico Pty Ltd-Aus					
				4	Site Superv				
				5	Site Superv	usor name	=Saman		
					Kumara Location id	1 1 001			
				7			-44		
				/	Location N pump static				
					Mount Lav		iwaia,		
					Kolonnawa				
				8	Date =24 th		1		
Test	Verify	on system response entering	valid project		-				
Scenari o	, stary	on system response entering	rana projec	Ф					
Step		Step	Expecte	Actu	al Results		ail/Not		
#		Details	d				cuted/		
_			Results				ended		
1		e to Tools management	Site	As Exp	ected F	Pass			
	system.		should						
2	Enton De	piant id Project id Project	open Credential	Ac Eve	octod T	Pass			
2		oject id, Project id, Project Description, Site Supervisor,	can be	As Exp	ecteu F	ass			
		ervisor name, Location id &	can be						
	Location								
		-: 	1						

3	Click Submit button	Credential	As Expected	Pass
		can be		

Test case II)	PM2	Test		_		e One filed	is not	
G . 1D				riptio		added	2024		
Created By		Manuji	Date	Crea	ted	29-Mrach	-2024		
Tester's Na	me	Manuji	Date	Teste	ed	29- March- 2024	Test Case	pass	
~									
S#	Prerequ				S#	Test Data			
1	_	to chrome Browser			1	Project id			
2	Login to	o the Tools management syster		2	Project name = Manufacturing and installation,2 over Head travelling crane				
3	Access	to the Manager Dashboard		3 Description = Client: Squir Mech Engineers Pvt Ltd.					
4	Access	to the Project managing section	n		4 Site Supervisor io				
		5 Site Supervisor =Hemal Perera					apervisor name al Perera		
					6	Location i	d =L002		
					7	Location 1	Name =		
							er pump sta Mount Lav		
					8	Date = [empty]			
Test Scenario	Verify s	system response when entering	invalid pro	ject d					
Step#		Step Details	Expecto	ad	Actus	al Results	Pass/Fai	1/Not	
Зтер #		Step Details	Result		Actu	ai Resuits	Execu		
			Kesuit	ıs			Suspen		
1	Navigate	to Toolsmanagement system.	Site shoul open	ld	As Exp	ected	Pass	laca	
2	Name, D	oject id, Project id, Project escription, Site Supervisor, ervisor name, Location id & name	Credential can be.	1	As Expected Pass				
3		bmit button	Display and error mess "Please finall fields."	sage ll in	As Expected Pass				

Test case II)	PM3		Test case Description	n		he insert of alid format.	Project
Created By		Manuji		Date Creat	ed	29-Mrach	-2024	
Tester's Na	me	Manuji		Date Teste	d	29- March- 2024	Test Case	pass
S#	Prerequ	isites			S#	Test Data		
1		to chrome Browser			1	Project id		
2		o the Tools management system		2	Project name = All Mechanical Installation of Water treatment plant & Intake.			
3	Access	to the Manager Dashboard			3	Description	on = Client:	Abeima
							rvisor id = S	
					5	_	rvisor name	=prasad
					6	adikari Location	id = 1 002	
					7		$\frac{1d - 1002}{\text{Name} = \text{Wa}}$	stewater
					,	pump stat Mount La	ions in Deh winia and	
						Kolonnav		
Test Scenario	Verify of	on system response when update	ite by ei	npty proje	8 ect detai		of July 202	24
Step#		Step Details	Ex	pected	Actua	al Results	Pass/Fa	ail/Not
•		·		esults			Exect Suspe	
1		to Tools management system.	Site s open	hould	As Exp	ected	Pass	
2	Name, D	oject id, Project id, Project escription, Site Supervisor, ervisor name, Location id & name	Creder be.	ntial can	As Exp	ected	Pass	
3	Click Sul	bmit button		ist be in formate		ected	Pass	

Test case ID PN		PM4		Test case Description	n		reation of lo		
Created By		Manuji		Date Creat		29-Mrach-			
Tester's Nar	ne	Manuji		Date Tested		29-Mrach- Test pa 2024 Case		pass	
S#	Prerequi	sites			S#	Test Data			
1		o chrome Browser			1	Project id =L003			
2	Login to the Tools management system				2	Project name = [empty]			
3	Access t	o the Manager Dashboard							
Test Scenario	Verify o	n Creation of location details	partia	lly empty. (l	Negative)			
Step#		Step Details		Expected Results	Actua	al Results	Pass/Fai Execu Susper	ted/	
1	Navigate	to vw.dilumbmkengineers.com	Site	should	As Expe	cted	Pass		
2	Enter Pro Name, De	ject id, Project id, Project escription, Site Supervisor, rvisor name, Location id &			As Expe	cted	Pass		
3	Click upo	late button	error	olay an r message the fields ald be	As Expe	cted	Pass		

Test case ID		PM5		Test case Description	n		then updating of tails, all fields are		
Created By		Manuji		Date Creat	ted	29-Mrach-	2024		
Tester's Nan	ne	Manuji		Date Teste	d	29-Mrach- 2024	Test pass Case		
S#	Prerequi	sites			S#	Test Data			
1		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 t	to the Manager Dashboard		3	Abeima	n = Client:			
							visor id = SI003		
						Site Supervisor name =prasad adikari			
					6		d =[empty]		
				7	Dehiwala, and Kolon	er pump stations in Mount Lavinia mawa			
					8		of July 2024		
Test Scenario	Verify s	ystem on updating of Project of	details	, all fields a	re entere	ed.			
Step#		Step Details	E	xpected	Actu	al Results	Pass/Fail/Not		
				Results			Executed/ Suspended		
1		ww.dilumbmkengineers.com	oper		As Expe		Pass		
2	Name, D	ject id, Project id, Project escription, Site Supervisor, rvisor name, Location id & name	Cred be.	lential can	As <u>Expe</u>	ected	Pass		
3	Click Up	date button	erro: "All	olay an r message the fields ald be	As Expe	ected	Pass		

Test case ID)	PM6		est case escriptio		details, pro format.	en Update p oject id is in	
Created By		Manuji	D	ate Crea	ted	29-Mrach-2	2024	
Tester's Nar	ne	Manuji	D	ate Test	ed	29-Mrach- 2024	Test Case	pass
S#	Prerequ	isites			S#	Test Data		
1		to chrome Browser			1	Project id =	=d456	
2	Login to the Tools management system				2	Project name = Installation of Water treatment plant		
3	Access	Access to the Manager Dashboard			3	Description	n = Client:	Abeima
		<u> </u>			4	Site Superv		
						Site Supervisor name =prasad adikari		
					6 7	Location id =S003		
						Location Name = Wastewater pump stations in Dehiwala, Mount Lavinia and Kolonnawa.		
					8	Date = 6th o		1
Test Scenario	Verify (on Update project details, proj	ect id is i	n valid i	format.		-	
C4 II		C. D. 3	T =			10 1	D (F	107 .
Step #		Step Details		cted ults	Actu	al Results	Pass/Fa Execu Susper	ited/
1	Navigate https://w	to ww.dilumbmkengineers.com	Site sho	ould	As Exp	ected F	Pass	
2	Name, D	oject id, Project id, Project lescription, Site Supervisor, ervisor name, Location id & name	Creden be	Credential can		ected F	Dass	
3	Click Ad	d button	Display message "Project must be format P	ID in the	As Exp	ected F	ass	

Test case ID		PM7	Test cas Descrip	-		ne updating of Project I details are filled		
Created By		Manuji	Date Cr	eated	29-Mrach-2	024		
m , ; 3.		N. "	D (T		20.34	m .		
Tester's Nar	ne	Manuji	Date Te	sted	29-Mrach- 2024	Test Case	pass	
~"	1-5	• •.		1 00	m . n .			
S#	Prerequ			S#	Test Data	D040		
1		to chrome Browser		1	Project id =			
2	Login to	o the Tools management systen	n	2	Project name = All Mechanical Installation of Water treatment plant & Intake.			
3	Access	to the Manager Dashboard		3	Description			
				4	Site Supervisor id = S003			
			5	Site Superv adikari		prasad=		
				6	Location id	=L003		
				7	Location Name = Wastewater pump stations in Dehiwala, Mount Lavinia and Kolonnawa.			
				8	Date = [empty]			
Test Scenario	Verify s	ystem response updating of Pro	oject details, a	ll details	are filled.(N	egative)		
Step #		Step Details	Expected Results		al Results	Pass/Fa Execu Suspe	ited/	
1	Navigate https://wv	to ww.dilumbmkengineers.com	Site should open	As Expe	ected, P	ass		
2		omit button	Display an error message "Please fill in all fields".	As Expo	ected, F	ass		

Test case ID)	PM9	Test c		Test the v	iewing of Pro	oject		
Courted Dec		N (- · · · - · · ·	Descri			2024			
Created By		Manuji	Date	Created	29-Mrach-	-2024			
			-						
Tester's Na	me	Manuji	Date 7	ested	29-Mrach	_	pass		
					2024	Cas			
						e			
S	Prerequ	isites		S#	S# Test Data				
#	1								
1	Access to chrome Browser			1	Project id	=P011			
2	Login to	o the Tools management syst	em	2	Project	name =	All		
						al Installati			
			Water treatment pla			tment plant	&		
	<u> </u>				Intake.	G11			
3	Access	to the Manager Dashboard		3		on = Client: A			
				4	-	visor id = Si			
				5	Site Super adikari	visor name =	prasad		
				6	Location i	d_I 012			
				7		Name = Wasi	tarriatan		
				/		name = was ions in Dehiv			
					Mount La		waia,		
					Kolonnaw				
_				8		of July 2024			
Test	Verify s	system should response when	viewing pro	oject deta	ils by click	the "manage	project		
Scenari		(positive)	01	Ū	•				
0									
Step		Step	Expecte	Actu	al Results	Pass/Fai	il/N		
#		Details	d			ot	1/		
			Results			Execute			
1	Navigate	a to	Site	Ac Eva	ected	Suspend Pass	uea		
1	_	ww.dilumbmkengineers.com	should	As Exp	As Expected Pass				
	1111ps.//W	w w.difumonikengmeets.com	open						
2	Click "m	nanage project details"	Display	As Exp	ected	Pass			
	button	\mathcal{S} 1 \mathcal{S}	project	P					
			data						

Test case ID Created By Tester's Nar					details by c id 29-Mrach-2	29-Mrach-2024 29-Mrach- Test pass		
					2024	Case		
S#	Prerequi	sites		S#	Test Data			
1		to chrome Browser		1	Project id =	ki67		
2	Login to the Tools management system 2 Project name = All Management & Installation of Water plant & Intake.							
3	Access 1	to the Manager Dashboard		3	Description = Client: Abeima			
				4	Site Supervisor id = SiteS003			
			5	Site Superv adikari	isor name =	prasad		
				6	Location id	=S003		
				7	Location N pump statio Mount Lavi	ns in Dehiv	wala,	
				8	Date = 6th o			
Test Scenario	Verify o	n system should Test the delet	te of Project de	tails by	click relevant	project id(j	positive)	
Step #		Step Details	Expected Results	Actu	al Results	Pass/Fa Execu Suspe	ated/	
1	Navigate	to	Site should	As Exp	ected I	Pass		
	https://wv	vw.dilumbmkengineers.com	open					
2	Click del	ete button	Display an" Are you sure you want to delete this project?".	As Expected Pass				

Test case ID)	PM11	Test ca Descrip		Test the vi	ewing of to	ols			
Created By		Manuji	Date C		29-Mrach-					
Tester's Nar	me	Manuji	Date To	ested	29-Mrach-	Test	pass			
					2024	Cas				
						e				
S	S Prerequisites S# Test Data									
#				~	Test Bata					
1	Access	to chrome Browser		1	Tool_ID =	AGM01				
2	Login to	o the Tools management syste	em	2	ToolName = Angle Grinder Machine - 4"					
2		(d M		2	D : .:	. 1.	501			
3	Access	to the Manager Dashboard		3	*	n = weight	50kg			
Test	Vanify	system should response when	alialr "ta ala a	•	Quantity =					
Scenari	_	g of tools stock details(positive		iock ucia	ilis on the h	iavigation t	vai,			
0	110 11112	, or tools stock details (positive	-,							
Step#		Step	Expecte	Actu	al Results	Pass/Fa				
		Details	d D 1			t Exec				
1	Marrianta	to	Results Site	A o Evro	acted 1	Suspe	naea			
1	Navigate https://wv	ww.dilumbmkengineers.com	should open	As Expected Pass						
2	Click "to the navig	ols stock details"button on ation 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.

<u>Interoperability</u>

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.