

American International University-Bangladesh (AIUB)

Department of Computer Science Faculty of Science & Technology (FST) Spring 23 24

Section: B
Software Quality Assurance and Testing

Green Dhaka

A Report submitted By

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Date: 13.05.2024

Software Test Plan

for

Green Dhaka

Version 1.0 approved

Prepared by Badhon Nath Joy, Nadim bin Hossain

American Internation University-Bangladesh

14/05/24

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Revision History

Revision	Date	Updated by	Update Comments
0.1	2024.05.01	Badhon Nath Joy	Initial Document
0.2	2024.05.03	Nadim Bin Hossain	First Draft
0.3	2024.05.05	Badhon Nath Joy	Second Draft
0.4	2024.05.08	Nadim Bin Hossain	Updated Requirement
0.5	2024.05.10	Badhon Nath Joy	Updated Test Cases
0.6	2024.05.11	Nadim Bin Hossain	Final Revision

1. TEST PLAN IDENTIFIER: RS-MTP01.3

2. REFERENCES

- Software Quality and Testing Course PowerPoint Slides
- Software Requirement documentation
- o Software Requirements Specification (SRS) Document

3. INTRODUCTION

Background to the Problem

- Ohaka, the capital city of Bangladesh, faces significant challenges, notably the scarcity of green spaces and high unemployment rates. The absence of parks or trees contributes to the city's dull appearance and environmental degradation. Moreover, a considerable portion of the population struggles with unemployment despite possessing skills and willingness to work. These issues not only affect the city's aesthetics and environmental health but also impact the livelihoods of its residents.
- The root cause of Dhaka's problems lies in the lack of green spaces and inadequate employment opportunities. Rapid urbanization and industrialization have led to the depletion of green areas, while the mismatch between skills and job availability exacerbates unemployment. It's crucial to address these challenges as they impact the city's livability, environmental sustainability, and economic prosperity. Green Dhaka aims to tackle these issues by utilizing rooftops to create green spaces, enhancing the city's aesthetics, and providing employment opportunities, thus fostering a more vibrant, sustainable, and inclusive urban environment.

Solution to the Problem

The proposed solutions include implementing self-sustaining rooftop gardens, providing assistance for rooftop garden implementation and maintenance, utilizing vocational training centers to address unemployment, and targeting users with empty rooftops for transformation into green spaces. These solutions are particularly appropriate as they directly address the issues of declining greenery and unemployment in Dhaka. By

leveraging existing resources, incentivizing community participation, and providing practical assistance, these solutions are feasible in meeting the business objective of creating a sustainable Dhaka city. They promote environmental sustainability, community engagement, and economic empowerment, making them comprehensive and impactful approaches to tackle the identified problems.

- The specified software, "Green Dhaka," is a purpose-built platform designed to address the challenges of declining greenery and unemployment in Dhaka. Its primary purpose is to facilitate the establishment and maintenance of rooftop gardens by providing users with tools, resources, and assistance. The software aims to empower residents to contribute to environmental sustainability while addressing unemployment by connecting them with gardening opportunities. Key benefits include streamlined access to gardening resources, incentivized participation through tax rebates, and enhanced community engagement. The objectives and goals of Green Dhaka align with promoting environmental sustainability, providing employment opportunities, and enhancing the overall quality of life in Dhaka.
- In the problem area of declining greenery and unemployment, existing software solutions like "Sheba.xyz" offer assistance for various tasks but lack a specific focus on greenery initiatives. While there may be other software solutions available targeting environmental sustainability or urban gardening, they may not address the specific challenges faced by Dhaka's metropolitan area. Therefore, the proposed project aims to fill this gap by providing a comprehensive solution tailored to the city's needs. By integrating greenery plans into existing software platforms, the project seeks to enhance accessibility and promote engagement in environmental initiatives among residents.

4. REQUEIREMNT SPECIFICATION

4.1 System Features

1. Software Signup

- The software will allow new users to register.
- Users will enter their image [optional], name, address, email/phone number, desired username & password which will be then saved to a database.
- While registering a verification code will be sent out to the given email/phonenumber.

Priority Level: High.

Pre-condition: The user must have a valid email/phone number for account verification.

2. Software Login

- The software will allow users to log in with their given username & password.
- The credentials will be verified against the database records.
- If the login attempt is successful user will be transferred to the user dashboard.
- If entered username or password doesn't match user can perform a usernameor password recovery through his/her given email/phone number.

Priority Level: High.

Pre-condition: The user must have a valid username & password.

3. Product services search

- The software will allow users to search through products or services that areavailable to purchase through the software.
- The search system will be dynamic. The software will start to show matches assoon as the user types something.
- Registered users will be able to use the search feature.

Priority Level: Medium.

Pre-condition: The user must have a verified account.

4. Garden Registration

• The software will allow new or existing users to register their gardens.

• Only the building owner can register under this option as the TIN & NID

will be verified against NRB & EC sites.

• Registering for the garden requires some basic info like the Building owner's

name, Tax Identification Number, address, garden size, images of the garden

[optional], and email/phone number.

• Registering their gardens requires physical verification. After registration, a

physical verification will be conducted by agents.

• The registration page will show some basic requirements to pass the garden

registration. Ex. Garden size. Tree types etc.

Priority Level: High.

Pre-condition: The user must be the owner of the building to register.

5. Gardening Equipment

• A variety of gardening items will be available through the software. Tools,

fertilizer, seeds, etc.

• The user will choose the equipment they want, and those items will be

placedto their shopping cart.

• They can place an order at the selected address by using the checkout process.

The products will be made available to them within a short period.

Priority Level: Medium.

Pre-condition: The user must register for a garden.

6. Hiring a Gardener

The software will have a function that allows users to hire a gardener to

assistthem by performing physical labor tasks in their gardens.

Through the software, the user will request a gardener with a date and

timeslot.

A person at their location will be available at the requested time.

Priority Level: Medium.

Pre-condition: The user must register for a garden.

7. Solar Power Panel

The software allows users to book solar panels through a registration system.

The system will automatically take the username and address of the users

from the profile data, or the user can manually input those.

The system will ask for the rooftop area. Users can put their rooftop area

indesired measurements.

The system will suggest an ideal size and power of solar panel for the

specificrooftop.

• Users also can upgrade the solar panel though the system will maintain

amargin. This also goes for downgrade.

• At the bottom of the same page the system will show the expanses of the

solarpanel.

If the user like to purchase the panel system will forward it to cart segment

for the payment process.

Priority Level: Medium

Pre-condition: The user must have a profile in the system.

8. Gaeden Feeds

The software allows users to stay updated with other users through a

feedsystem.

• The system will allow users to post reels and short stories of the garden.

The system will have a post-reel function. Which will take the user to files

andhave access permission to use the camera directly.

The system will allow a certain size file. If the user exceeds the limit,

thesystem will notify with a message.

Users also can react to the feeds with two allowed reaction emoji.

The feeds segment will have another sub-segment Tips & tricks.

It will take the user to another page which will have a list of categories

based on basic information about gardening.

The user also can post short tutorial tips and tricks videos of their own.

The system will have a post function that will take files from the users.

The user must put a category from the listed options so that the system can

categorize the content.

• Users can see the content of other users and specialists.

Priority Level: High

Pre-condition: The user must have a profile in the system.

9. Subsidiary Panel (tax reduction/utility bill reduction)

This function calculates and finds out the tax benefit they can gain if

theyregister their garden.

This function calculates and finds out the utility bill reduction they can

obtainafter they become a part.

• A guest or user needs to provide their location, the area of their garden,

thearea of the whole rooftop, the area, and the number of solar panels.

• Total solar panel area is found out by multiplying the solar panel area and

thenumber of solar panels.

• Fixed rates for a different range of areas of the garden and total solar

panelarea are pre-determined.

• Using the rates, the overall benefit is shown.

Priority Level: High

Pre-condition: The user must have a profile in the system.

10. Expert Opinion

This function allows rooftop planners, who are authorized by the company,

toprovide expert suggestions.

• They provide a customized plan for each rooftop depending on the location,

size, and condition of the rooftop.

• They can design a new garden or modify an existing one for better use of

thelimited area.

They can help to solve existing problems with plants and solar panels and

provide maintenance tips.

They can also provide a cost-efficient and easy way of maintaining

suchgardens.

• A user has two options, he can make a video call, or can request a house tour.

• Each session is pre-paid and has a fixed rate depending on the type

andduration of the session.

Priority Level: Medium.

Pre-condition: The user must have a profile in the system.

11. Notification

• This function sends notifications on their status of registration.

• Users get notifications when they need to pay attention to certain

functions such as providing required information.

• Users receive the booking remainders.

• Users receive suggestions for using other functions.

• Send notifications about special events or discounts going on the platform.

Priority Level: Medium

Pre-condition: The user must sign in.

12. Donation

The software will offer a donation opportunity.

• Users can donate food, clothing, and money to help the needy and poor.

• If a user requests a donation, our volunteers will collect those donations

everyweek.

• The user may also make a donation using one of several online

paymentmethods.

Priority Level: Low

Pre-condition: User must have a verified account.

13. Software Add to cart/ Checkout

• The software should allow users to add any kind of product which are

available onthe shop page.

• From the cart, the users should delete products and add products that the user

wants.

• The software should display unit price, sub-total, and total.

• The user should confirm the order by checking out the page.

• On the checkout Page, the software should display which payment the user

wants.

• After choosing the payment method, the software should confirm the order

and mail it to the admin and the user.

Priority Level: Low

Pre-condition: User must have a verified account.

14. Software Service History

• The software should allow the user to see every service that the user has taken.

Priority Level: Low

Pre-condition: User must have a verified account.

15. Software Feedback

• The software should allow the users to give feedback on every operation.

• The software should allow this feature optional.

Priority Level: Low

Pre-condition: User must have a verified account.

16. Software help and customer service

The software should allow the users to message the help center.

• The software should allow the users to call the help center.

Priority Level: Low

Pre-condition: User must have a verified account.

4.2 System Quality Attributes

1. Usability: Users should be able to register for a garden or purchase gardening equipment

with minimal effort and within a reasonable amount of time, ensuring a smooth and intuitive

user experience.

2. **Reliability:** The system should operate consistently without unexpected downtime or errors,

ensuring that users can rely on it for tasks such as garden registration, equipment purchase,

and hiring gardeners without interruption.

3. **Performance:** The system should respond promptly to user actions, with fast loading times

for features such as garden registration, equipment search, and hiring gardeners, providing

an efficient user experience.

4. Security: The system should ensure the security of user data, including personal

information and payment details, protecting against unauthorized access or breaches to

maintain user trust and confidentiality.

5. **Testability:** The system should be designed to facilitate testing at all levels, including unit

testing, integration testing, and system testing, allowing for thorough validation and

verification of functionality, performance, and security features. Testability ensures that any

issues or defects can be identified and addressed promptly, contributing to the overall

reliability and quality of the system.

6. Maintainability: The system should be designed for easy maintenance and updates, with

clear documentation and modular components, facilitating ongoing improvements and

enhancements.

7. **Interoperability:** The system should seamlessly integrate with other platforms or services,

enabling data exchange and interoperability with external systems such as payment

gateways or third-party APIs.

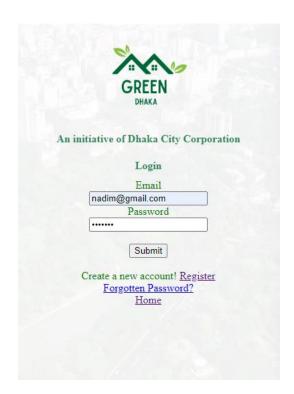
- 8. **Accessibility:** The system should be accessible to users of all abilities, complying with accessibility standards to ensure that individuals with disabilities can use the system effectively.
- 9. **Robustness:** The system should be resilient to errors and failures, able to recover gracefully from unexpected events such as system crashes or network outages, ensuring uninterrupted service for users.
- 10. **Efficiency:** The system should utilize resources efficiently, optimizing performance while minimizing resource consumption to ensure a cost-effective operation and a positive user experience.

4.3 System Interface

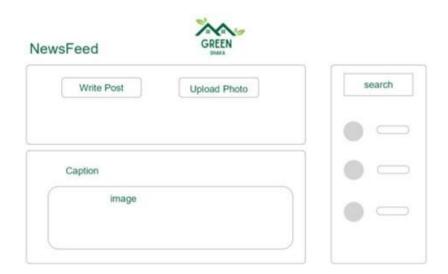
User registration:



User login:



Newsfeed:



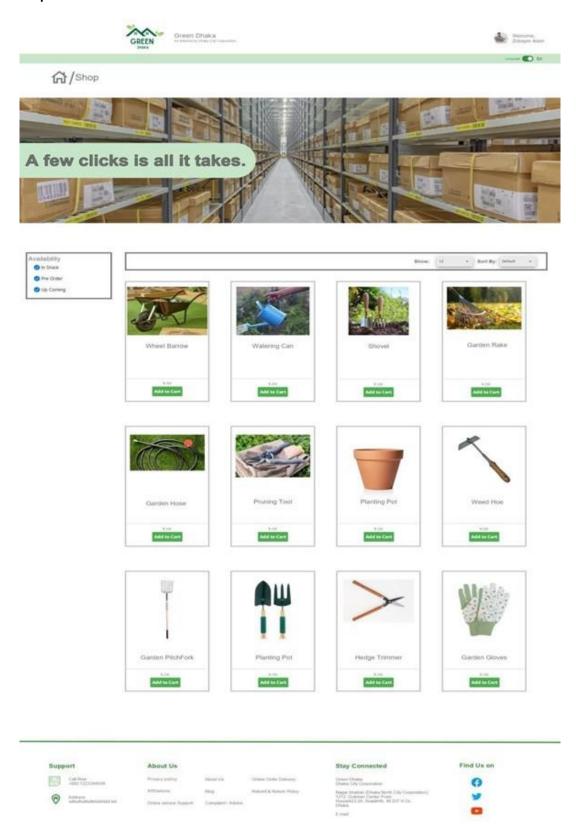
Home page:







o Shop:

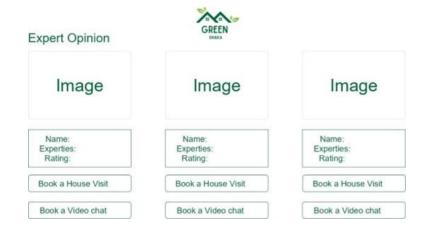


Subsidiary Calculator:



Subsidary Calculator

Expert opinion:



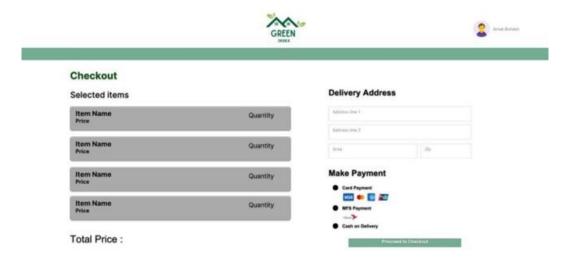
About us:



Donation:



Checkout:



Hiring a gardener:



Schedule an appointment:



Solar panel installation information:



Solar Panel installation for both Residential & Commercial building

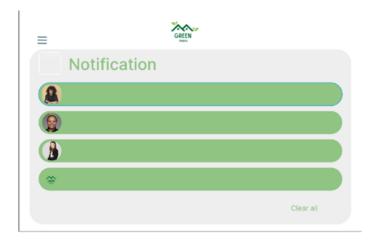
Lorem gourn debr să arred, coreactiviur adgrecting wit. Funce tartire purce, teoresi irmane contus acu, venerutis eu e Chance senues binion hodyste distar volutical, nun consectantur vetil censenalis.







Notification:



o Support:



Service history:



4.4 Project Requirements

Budget estimation:

Resource Name	Туре	Cost	
Project Management Team	Work	40,000 Taka	
HR Team	Work	40,000 Taka	
System Designer Team	Work	40,000 Taka	
Software Development Team	Work	50,000 Taka	
Quality Assurance Team	Work	20,000 Taka	
System Testing Team	Work	20,000 Taka	
4 Computer	Recourse	1,50,000 Taka	
Server	Resource	50,000 Taka	
Others	Recourse	50,000 Taka	
	Total	4,80,000 Taka	

Time estimation:

Task Name	Duration
Documentation	7 days
Design	7 days
Test plan	7 days
Unit testing	14 days
Integration testing	3 days
System Testing	3 days
Security testing	2 days
System testing bug report	3 days
Acceptance testing	3 days
Acceptance test bug report	7 days
Project completion	7 days
Feedback	3 days
Total	66 days

5. FEATURES NOT TO BE TESTED

The following is a list of the areas that will not be specifically addressed for testing in this project. All testing in these areas will be indirect as a result of other testing efforts:

- Performance Testing of Third-Party Systems: As the project primarily focuses on internal
 software functionalities, the performance of external third-party systems will not be directly
 tested. Any performance issues related to these systems will be monitored but not formally tested.
- Load Testing: Load testing scenarios involving a significant number of concurrent users
 accessing the system simultaneously will not be conducted as part of this testing phase. This
 includes stress testing to evaluate system behavior under extreme user loads.

6. TESTING APPROACH

6.1 Testing Levels

- O UNIT Testing: Developers will be responsible for conducting UNIT testing. The unit tests will be subjected to review and approval by the development team leader. Prior to acceptance, the programmer must furnish evidence of unit testing, including a comprehensive test case list, sample output, data printouts, and defect information. All unit test information will be provided to the testing team.
- SYSTEM/INTEGRATION Testing: This phase will involve collaborative efforts between the test manager and development team leader, along with support from individual developers as needed. No specific test tools have been designated for this project. Programs will transition to the System/Integration testing phase only after addressing all critical defects. Programs may have up to two Major defects, provided they do not hinder the testing process and there are workarounds for any errors encountered.
- ACCEPTANCE Testing: Actual end users will participate in ACCEPTANCE testing under the guidance of the test manager and development team leader. This testing phase will run concurrently with the existing manual processes for a month following the completion of the System/Integration testing phase.

6.2 Test Tools

For the Green Dhaka project, Selenium IDE serves as the sole automated testing tool. Unit testing, conducted by the development team and QA, ensures the functionality of individual components. Integration testing, led by the Software Development and QA Leaders, verifies seamless interaction between modules. This method ensures comprehensive testing and early issue detection for a robust Green Dhaka platform.

6.3 Meetings

In the three-month software test plan, maintaining regular communication and collaboration between developers and testers is paramount for ensuring a successful software product. Weekly meetings are scheduled to assess progress, analyze test outcomes, and plan for the upcoming week. Additionally, the test team leader will organize monthly meetings among test teams to verify proper testing procedures. Emergency meetings can also be convened if urgent issues arise. At the conclusion of the three months, a test closure meeting will bring together all project members to reflect on the testing process and outcomes. This structured approach fosters effective teamwork, early issue identification, and ultimately contributes to the delivery of a high -quality software.

7. TEST CASES/TEST ITEMS

Functional requirement 1: Signup

Proj	ect Name: Gi	Test Designed by: Nadim				
, and the second					Bin Hossain	
Tes	t Case ID: FR	Test Designo	Test Designed date:			
				05/05/24		
Tes	t Priority (Lov	w, Medium, High): High		Test Execute	ed by: Badhon	
				Nath Joy		
Mod	dule Name: S	ignup Session		Test Executi		
				date:10/05/2	4	
Tes	t Title: Regist	ter new user with valid username, pass	sword & email.			
Des	cription: Test	signup page.				
Pred	Precondition (If any): The user must have a valid & previously not used					
Tes	t Steps	Test Data	Expected	Actual	Status	
			Results	Results	(Pass/Fail)	
1.	Go to	Username: nadim01	If there is no	As	Pass	
	website.		account with	expected		
2.	Enter	Name: Nadim Hossain	this email and			
	username.		username user			
3.	Enter	Password: nadim123*%	shouldregister			
	name.		into the			
4.	Enter	Email:	system.			
	password.	d. nadimhossain.nkh.1007@gmail.com				
5.	5. Enter					
	email.					
6.	Click					
	register.					

Post Condition: All user data is saved into an encrypted database. After that the user should be able to loginto his/her account.

Project Name: Green Dhaka Test Designed by: Nadim
Bin Hossain
Test Case ID: FR-1 Test Designed date:
05/05/24
Test Priority (Low, Medium, High): High Test Executed by: Badhon
Nath Joy
Module Name: Signup Session Test Execution date: 10/5/24
Test Title: Register new user with valid username, password & email.
Description: Test signup page.
Precondition (If any): User must have a valid & previously not used email
Test Steps Test Data Expected Actual Status
Results Results (Pass/Fail)
1. Go to Username: nadim01 Username & As Pass
website. email is expected
2. Enter Name: Nadim Hossain already in use
usernam
e. Password: nadim123*%
3. Enter
name. Email:
4. Enter nadimhossain.nkh.1007@gmail.com
passwor
d.
5. Enter
email.
6. Click
register.
Post Condition: As the username & email is previously used the user will not be able to signup

Post Condition: As the username & email is previously used the user will not be able to signup successfully.

Functional requirement 2: Login

Project Name: Gree	_	Test Designed by: Nadim Bin Hossain					
Test Case ID: FR-2	Test Desig						
Test case IB. TR	-		05/05/24	nea aute.			
Test Priority (Low,	Medium, High): Medium		Test Execu	ted by:			
			Badhon Na	ıth Joy			
Module Name: Log	gin Session		Test Execu	tion date:			
			10/5/24				
Test Title: Verify lo	ogin with valid username and password						
Description: Test w	rebsite login page						
Precondition (If an	y): User must have valid username and pa	assword					
Test Steps	Test Data	Expected	Actual	Status			
		Results	Results	(Pass/Fail)			
1. Go to the	Email:	User should	As	Pass			
website	nadimhossain.nkh.1007@gmail.com	login into the	expected				
2. Enter email	Password: nadim123*%	application					
3. Enter							
password							
4. Click submit							
Post Condition: User is validated with database and successfully login to account. The account session							
details are logged in the database.							

Project	Project Name: Green Dhaka Test Designed by: Nadim Bin						
		Hossain					
Test Ca	ase ID: FR-2.	.1		Test Designed d	late: 05/05/24		
Test Pr	riority (Low,	Medium, High): Medium		Test Executed b	y: Badhon		
				Nath Joy			
Module	e Name: Logi	n Session		Test Execution	date: 10/5/24		
Test Ti	itle: Verify log	gin with valid username and password					
Descrip	ption: Test we	ebsite login page					
Precon	dition (If any): User must have valid username and pa	ssword				
Test St	eps	Test Data	Expected	Actual Results	Status		
			Results		(Pass/Fail)		
1.	Go to the	Email:	Wrong	As expected	Pass		
,	website	nadimhossain.nkh.1007@gmail.com	password				
2.	Enter email	Password: nadim					
3.	Enter						
]	password						
4.	Click						
	submit						
Post Co	Post Condition: User is validated with database and successfully login to account.						

Functional requirement 3: Search Execution

Project Name: Green D	haka	Test Designed by: Nadim Bin Hossain			
Test Case ID: FR-3		Test Designed	date: 05/05/24		
Test Priority (Low, Me	dium, High): Med	Test Executed Joy	Test Executed by: Badhon Nath Joy		
Module Name: Search	Execution.		Test Execution	date: 10/5/24	
Test Title: Search vario	ous product & ser				
Description: Test the se	earch bar.				
Precondition (If any): A	An user must be re	gistered & logged into	his account.		
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	
 Go to the website. Check if logged in or not. If logged in, search the desired 	Search bar 'seeds'	Matching Product found	As expected	Pass	

D : W C DI I			T . D . 11	NI I' D' II '		
Project Name: Green Dhaka			Test Designed by: Nadim Bin Hossain			
Test Case ID: FR-3			Test Designed date	: 05/05/24		
Test Priority (Low, Medium	, High): Mediu	ım	Test Executed by:	Test Executed by: Badhon Nath Joy		
Module Name: Search Exec	cution.		Test Execution dat	e: 10/5/24		
Test Title: Search various p	roduct & serv	ices through the				
search bar.						
Description: Test the search	bar.					
Precondition (If any): An user must be registered & logged			into his account.			
Test Steps	Test Data	Expected	Actual Results	Status (Pass/Fail)		
		Results				
1. Go to the website.	Search bar	Matching	As expected	Pass		
2. Check if logged in	'grass	Product not				
or not. cutter' found						
3. If logged in, search						
the desired product.						
Post Condition: As the product is not available no information will be shown.						

Functional requirement 4: Garden registration

Project Name: Green Dhaka			Test Designed by: Nadim Bin Hossain	
Test Case ID: FR-4			Test Designed date: 05/05/24	
Test Priority (Low, Medium, High): High			Test Executed by:	Badhon Nath Joy
Module Name: Garden Registration			Test Execution date: 10/5/24	
Test Title: User will be at	ole to register the			
Description: Test Garden	Registration por	tal.		
Precondition (If any): Use	r must be registe	ered in the system		
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
 Go to website. Check if the user logged in or not into the system. Click garden registration from the homepage Fill in the required data. Click submit. 	Owner's name: Nadim Hossain TIN: 08947862 Address: H#282, R#25 Garden size: 350 sq ft Images [optional] Image1.jpg	If the TIN matches with the owner's name, the application successfully submitted prompt will be shown	As expected	Pass

Post Condition: Users' data will be saved in a database & his application will be submitted for a physical verification.

Functional requirement 5: Garden equipment

Project Name: Green Dhaka			Test Designed by: Nadim Bin Hossain	
Test Case ID: FR-5			Test Designed date: 05/05/24	
Test Priority (Low, Medium, High): Medium			Test Executed by: Badhon Nath Joy	
Module Name: Gardening Equi	pment		Test Execution	date: 10/5/24
Test Title: Buying Gardening E	quipment			
Description: User can browse Gardening Equipment (tools, seeds, fertilizer etc.) & also buy them usingcheckout process. Precondition (If any): User must register for a garden.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
 Click on equipment shop item Browse desired equipment. Add equipment tocart. Buy thoseitems through checkout. 	Select items scrolling.	Items added tocart. Procced to checkout	As expected	Pass
Post Condition: Registered user successfully selected desired equipment & procced to checkout.				

Project Name: Green Dhaka			Test Designed by: Nadim Bin	
			Hossain	
Test Case ID: FR-5			Test Designed date: 05/05/24	
Test Priority (Low, Medium, High)	: Medium		Test Executed by: Badhon Nath	
			Joy	
Module Name: Gardening Equipm	nent		Test Execution	date: 10/5/24
Test Title: Buying Gardening Equ	ipment			
Description: User can browse Gard	dening Equi	pment (tools,		
seeds, fertilizer etc.) & also buy them using checkout process.				
Precondition (If any): User must re				
Test Steps	Test Data	Expected	Actual	Status (Pass/Fail)
_		Results	Results	
1. Click on equipment shop	Select	Product not	As expected	Pass
item	items	available.Could		
2. Browse	2. Browse scrolling. not proceed to			
desired equipment.		checkout		
3. Add equipment tocart.				
4. Buy thoseitems through				
checkout.				
Post Condition: Registered user c	an't select h	is desired equipme	ent due to produ	uct is out of stock

Functional requirement 6: Hire a gardener.

· ·			Test Designed by: Nadim Bin Hossain		
Test Case ID: FR-6	Tast Casa ID: ED 6			Test Designed date: 05/05/24	
Test case ID. TR-0			Test Designed	1 date: 03/03/24	
Test Priority (Low, Medium, I	High): Medium		Test Executed by: Badhon Nath		
			Joy		
Module Name: Hire a Gardener			Test Execution date: 10/5/24		
Test Title: Hiring a Gardener	for help.				
Description: User can hire a g	gardener by providing area	location			
& desired timeslot.					
Precondition (If any): User m	ust register for a garden.				
Test Steps	Test Data	Expected	Actual	Status	
		Results	Results	(Pass/Fail)	
 Click on hire a 	Address: H-517,	Gardener	As expected	Pass	
gardener icon.	Road-13	Hiring			
2. Fill up necessary	Area: MirpurR/A	request			
details.	Zip: 1216	submitted			
3. Provide	Date: 10/05/24 Time:				
desired date &	12.10PM				
time.					
4. Request for a					
gardener.					
Post Condition: Registered u	iser successfully submitted	d a request to	o hire a garden	er.	

Project Name: Green Dhaka			Test Designed by: Nadim Bin	
			Hossain	
Test Case ID: FR-6			Test Designed	date: 05/05/24
Test Priority (Low, M	edium, High): Mediu	m	Test Executed	by: Badhon Nath
•			Joy	·
Module Name: Hire a	Gardener		Test Execution date: 10/5/24	
Test Title: Hiring a G	ardener for help.			
Description: User can	hire a gardener by p	roviding area		
location & desired tir	•	10 viding area		
Precondition (If any):		or a garden.		
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Click on	Address:	Gardener not	As expected	Pass
hire a	H-517,	available		
gardener	Road-13			
icon.	Area: Mirpur			
2. Fill up	R/A			
necessary	Zip: 1216			
details.	•			
3. Provide	Date: 10/05/24			
desired	Time: 12.10PM			
date &				
time.				
4. Request for				
agardener.				
Post Condition: Regi	istered user failed to	submit a request to him	re a gardener.	

Functional requirement 7: Solar Power Panel

Project Name: Green Dhaka			Test Designed by: Nadim Bin			
Test Ca	Test Case ID: FR-7			Hossain Test Designed date: 05/05/24		
Test Ca	sc ID. I K-7			Test Designed	date: 03/03/24	
Test Pri	ority (Low, Med	ium, High): Med	lium	Test Executed by: Badhon Nath		
Modulo	Name: Solar Po	war Danal		•	Joy Test Execution date: 10/5/24	
Module	Name. Solai Fo	wei Fallei		Test Execution	Test Execution date: 10/5/24	
Test Tit	Test Title: Requesting for Solar Power Panel					
	de or downgrade	register to book current solar pa	a solar panel & also inel			
Precond	lition (If any): U	ser must have a	profile in the system.			
Test Ste	eps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	
1.	Click on	Area of	Ideal size of	As expected	Pass	
	solarpower	Rooftop:	Solar panel:			
	panel	3000 sq	250 sq feet			
	option.	feet	T 1			
2.	Provide		Total cost: 2lac			
	detailed		De alsina na musat			
	measurements		Booking request			
	of the		submitted			
2	rooftoparea.					
3.	Book a solar					
Panel.						
Post Condition: Registered user successfully submitted a request to book a solar panel.						

Project Name: Green Dhaka			Test Designed by: Nadim Bin Hossain	
Test Case ID: FR-7	Test Case ID: FR-7		Test Designed date: 05/05/24	
Test Priority (Low, Medi	um, High): Medium	1	Test Executed by: Badhon Nath	
Module Name: Solar Pov	var Danal		Joy Test Execution date: 10/5/24	
Wiodule Ivaine. Solar I ov	wer raner		Test Execution date. 10/3/24	
Test Title: Requesting fo	or Solar Power Pan	el		
Description: User can r	register to book a so	olar panel & also		
upgrade or downgrade				
module.				
Precondition (If any): Us	er must have a prof	file in the system.		
Test Steps	Test Data	Expected Results	Actual	Status (Pass/Fail)
			Results	
1. Click on	Area of	Total cost: 50k	As expected	Pass
solarpower	Rooftop:50 sq	3.6.11.6.1		
panel	feet	Modifying		
modify	M 116 0 11	Requestsubmitted		
option.	Modify Option:			
2. Provide	Downgrade			
measurements				
of the rooftop area which				
will be				
modified.				
3. Request a				
modification.				
Post Condition: Registe	red user successful	ly submitted a reques	t to downgrade	a solar panel

Functional requirement 8: News feed

Project Name: Green Dhaka			Test Designed by: Nadim Bin Hossain	
Test Case ID: FR-8			Test Designed date: 05/05/24	
Test Priority (Low, Medium, High): High			Test Executed by: Badhon Nath Joy	
Module Name: Garden feed	ds		Test Execution date: 10/5/24	
Test Title: User will be ablinfo.	e post questions, f	inding & general		
Description: Test blog & fe	eed section portal.			
Precondition (If any): User	must be a register	ed user & logged into	your account.	
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
 Go to website. Check if the user is loggedin or not. Click Blog & News button. User can post status or image. User can also choose toscroll & observer otherspost. 	Status What is on your mind? Attach. [image, gif] [optional] img2.jpg	User will be able to post questions, information. This will be showed in thefeeds section.	As expected	Pass

Post Condition: Users' data will be saved in a database & his application will be submitted for a physical verification.

Functional requirement 9: Subsidiary calculator

			Test Designed by: Nadim Bin Hossain		
Test Case ID: FR-9			Test Designed	Test Designed date: 05/05/24	
Test Priority (Low, Me	dium, High): High		Test Executed by: Badhon Nath Joy		
Module Name: Subsid	iary Panel		Test Execution date: 10/5/24		
Test Title: Calculates t	he tax benefit that a	user can avail			
Description: Test web	site subsidy calculat	or page.			
Precondition (If any): N	Must input the user p	eassword for printing the	he subsidy slip		
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	
 Go to subsidia ry calculato r page Input the required values. Enter password Click Print 	Address: Mohammadpur Area of Rooftop:3000 sq feet Area of Garden:1000 sq feet Area of Solar panel: 250 sqfeet Fixed Rate: Tk 0.2 /sq feet Tax reductionvalue: Tk 250Print: 001100 (password)	User will be able to calculate the amount of subsidy based on their garden area.	As expected	Pass	

)haka	Test Designed by: Nadim Bin		
	Hossain	•	
	Test Designed	date: 05/05/24	
dium, High): High		by: Badhon Nath	
iary Panel		Test Execution	n date: 10/5/24
he tax benefit that a	user can avail		
site subsidy calculat	or page.		
Must input the user p	password for printing t	he subsidy slip	
Test Data	Expected Results	Actual Results	Status (Pass/Fail)
Address: Mohammadpur Area of Rooftop:300 sq feet, Area of Garden: 70 sq feet Area of Solar panel: 250 sqfeet Fixed Rate: Tk 0.2 /sq feet Tax reduction value: Tk 250Print:	Rooftop to Garden ratio is toosmall to avail subsidy.	As expected	Pass
	redium, High): High iary Panel he tax benefit that a site subsidy calculate Must input the user p Test Data Address: Mohammadpur Area of Rooftop:300 sq feet, Area of Garden: 70 sq feet Area of Solar panel: 250 sqfeet Fixed Rate: Tk 0.2 /sq feet Tax reduction value: Tk	dium, High): High liary Panel he tax benefit that a user can avail site subsidy calculator page. Must input the user password for printing to the subsidy calculator page. Must input the user password for printing to the subsidy calculator page. Must input the user password for printing to the subsidy to the subsidy to the subsidy calculator page. Must input the user password for printing to the subsidy to the subsidy to the subsidy to the subsidy to the subsidy. Rooftop to Garden ratio is toosmall to avail subsidy. Area of Solar panel: 250 sq feet Area of Solar panel: 250 sq feet Fixed Rate: Tk 0.2/sq feet Tax reduction value: Tk	dium, High): High Test Designed Test Designed Test Executed Joy Test Execution Test Executed Joy Test Execution Test Ex

Functional requirement 10: Expert Opinion

Project Name: Green Dhaka	Test Designed by: Badhon Nath Joy		
Test Case ID: FR-10	Test Designed date: 05/05/24		
Test Priority (Low, Medium, High): Medium	Test Executed by: Nadim Bin Hossain		
Module Name: Expert Opinion	Test Execution date: 10/05/24		
Test Title: It allows to book experts for help and suggestions.			
Description: Test expert Opinion Page.			
Precondition (If any): User must have a registered garden.			
Test Steps Test Data Expected Results	Actual Results Status (Pass/Fail)		
 Click on experts' profile. Browse desired experts' profile. Select items. Successful booking the options. Browse desired experts' profile. Book an 	As expected, Pass		
3. Book a house appointment visit.			
4. Book a Video chat.			
5. Confirm booking through checkout. Post Condition: With a successful checkout user will be able to rese	wa on one cintro ont		

Functional requirement 11: Notification

Project Name: Green D	Test Designed by: Badhon Nath Joy			
Test Case ID: FR-11			Test Design 05/05/24	ned date:
Test Priority (Low, Me		Test Executed by: Nadim Bin Hossain		
Module Name: Notifica		Test Execution date: 10/05/24		
Test Title: It sends user purchases, printing of s				
Description: Test the N				
Precondition (If any): U	Jser must have a profile.			
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
 Login as admin Send notification 	1. Test Notification:00001 111	As expected,	Pass	
Post Condition: User go	ot the notification successfully.			

Functional requirement 12: Donation

Project Name: Gree	n Dhaka	Test Designed by: Badhon Nath Joy			
Test Case ID: FR-12	2		date: 05/05/24		
Test Priority (Low,	Medium, High): Low		Test Executed by: Nadim Bin Hossain		
Module Name: Don	ation		Test Execution	n date: 10/05/24	
Test Title: It allows	the user to donate money, food,	clothes.			
Description: Test th	e donation Page				
Precondition (If any): User must have a profile		1		
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)	
 Fill the pickup location. Pick a date. Describe your donation. 	Pickup location: House:517 Address: H-517, Road-13 Area: Bashundhara R/A Zip: 1229 Date: 22/03/23 Time: 12.10 PM Description: I want to donate clothes and food	Successful donation of food and clothes.	As expected,	Pass	
Post Condition: A v	olunteer will physically collect th	ne donation from pick	up location.		

Functional requirement 13: Add to cart

Project Name: Green l	Test Designed by: Badhon			
Test Case ID: FR-13	Nath Joy Test Designed date: 05/05/24			
Test Priority (Low, M	edium, High): Low		Test Executed Hossain	by: Nadim Bin
Module Name: Add to	cart		Test Execution	n date: 10/05/24
Test Title: Checkout s	ession.			
Description: User can unit price, total, sub-to page. user can select p order, it will be notified Precondition (If any):	order by checkout			
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
 Click on the add to cart icon on any item. Click on the cart icon. Click on delete icon. Click on payment method icon. Click on confirm order 	 Scrolling item selection Selected items total, per unit price. Selecteditem Changes in total Available payment methods. Checks all the fields 	1. added to check-out page. 2. Show added cart items 3. Delete the selected items. 4. Shows the eligible payment methods. 5.Order confirmation.	As expected,	Pass
Post Condition: Succe	ssfully ordered.			

Project Name: Green Dhaka					Test Designed by: Badhon Nath Joy		
Test Case ID: FR-13					Test Designed date:		
						05/05/24	
Test Priority (Low, Medium, High): Low						Test Execu	ited by:
						Nadim Bin	Hossain
Module Na	me: Add to cart					Test Execu	tion date:
						10/05/24	
Test Title:	Checkout session.						
	n: User can add, de						
	otal. Should be able tethod. After the co						
through a r		mmano	ii oi tile order, it v	viii de iloti	ned to admin		
	on (If any): User m	ust have a	profile				
Trecondition	on (ii uny). Oser in	ast nave a	prome				
Test Steps		Test Da	ta	Expect	ted Results	Actual	Status
						Results	(Pass/Fail)
1.	Click on	1.	No items	1.	Cart is empty.	As	Pass
	the add to		selected.			expected,	
	carticon	2.	No payment	2.	Order denied.		
	on any		methods				
	item.		selected				
2.	Click on the						
	cart icon.						
3.	Click on delete						
	icon.						
4.	Click on						
	payment						
	methodicon.						
5.	Click on						
	confirm order						
Post Condi	tion: Not applicabl	e.					

Functional requirement 14: History

Project Name: Green Dhaka						Test Designed by:	
						Badhon Nath Joy	
Test Case ID: I	FR-14				Test Design	ned date:	
					05/05/24		
Test Priority (I	ow, Medium, High	n): Low			Test Execu	ted by:	
		,			Nadim Bin	•	
Module Name:	History				Test Execu	tion date:	
	·				10/05/24		
Test Title: Serv	vice histories						
			 				
Description: Should allow the users to see their previous service information.							
Precondition (I	f any): User must h	nave to have a ver	rified account.				
Test Steps		Test Data		Expected	Actual	Status	
1				Results	Results	(Pass/Fail)	
1.	Click on the	1.	Checks for	Shows the	As	Pass	
	service history		the	information.	expected,		
	icon.		Performed		,		
			services				
			information.				
Post Condition	: User will be show	n a list of previo		ices.	I.	I.	
Post Condition: User will be shown a list of previously taken services.							

Functional requirement 15: Customer service

Project Name: Green Dha	Test Designed Joy	by: Badhon Nath		
Test Case ID: FR-15	Test Designed date: 05/05/24			
Test Priority (Low, Media	Test Executed by: Nadim Bin Hossain			
Module Name: Customer	service		Test Execution	n date: 10/05/24
Test Title: Help & custon	n services			
Description: Allow the us	sers to message and call the l	help center.		
Precondition (If any): Use	er must have to have a verifi	ed account.	l	
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
 Click on the help icon. Click on the chat icon. Click on send. Click on the call icon. Click on history Icon 	 Options Inbox Sends the message. Looks for a carrier operator. Gets data of previous calls. 	1. opens a help page with chat or call option. 2. opens a chat inbox for writing the message. 3. message will be sent to the help center to respond. 4. Dials the help line of the help center to respond. 5. shows the helps history.	As expected,	Pass

Functional requirement 16: Customer service

Project	Name: Green D	haka	Test Designed by: Badhon Nath				
Test Case ID: FR-16					Test Designed date: 05/05/24		
Test Pı	riority (Low, Med	dium, Hi	Test Executed Hossain	by: Nadim Bin			
Modul	e Name: Custome	er servic	e			date: 10/05/24	
Test Title: Help & custom services							
Descri	ption: Allow the	users to					
Precon	dition (If any): U	ser mus	t have to have a	verified account.			
Test St	eps	Test D	ata	Expected Results	Actual Results	Status (Pass/Fail)	
1. 2.	Click on the help icon. Click on the chat icon.		Looks for carrier network.	Error	As expected,	Pass	
3.	Click on send.		with the help				
4.	Click on the call icon.		center.				
5.	Click on history Icon						
Post C	ondition: Error in	networl	or other conne	ction will terminate t	he connection with	the customer	

Post Condition: Error in network or other connection will terminate the connection with the customer service.

8. ITEM PASS/FAIL CRITERIA

The completion of the test process hinges on the successful execution of several key actions within the Green Dhaka platform. Firstly, registered users must be able to seamlessly order food, execute payment transactions, and replenish their account balances without encountering any technical glitches or errors. Once a user initiates an order and proceeds to make the necessary payment, the system should accurately update both the inventory of available food items and the user's account balance. This synchronization ensures that the platform reflects the most current information regarding available food items and user account statuses. If any discrepancies or failures arise during these processes, it signifies a failure in the test criteria. Conversely, if users can smoothly navigate through ordering, payment, and account replenishment procedures, it indicates a successful pass in the test criteria for Green Dhaka.

9. TEST DELIVERABLES

- Requirement Documentation
- System Interfaces
- Unit test plans
- Integration/System test plans
- Acceptance test plans
- Test logs and turnover reports
- Report mock-ups

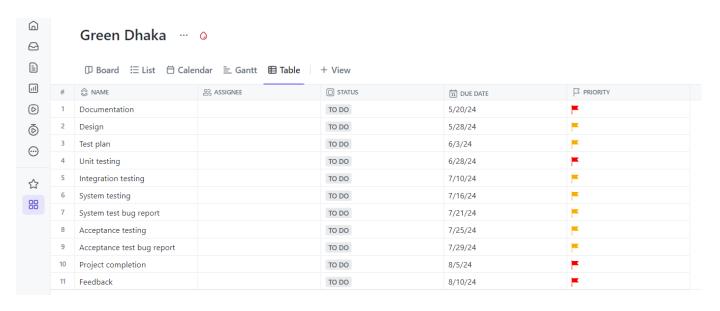
10. STAFFING AND TRAINING NEEDS

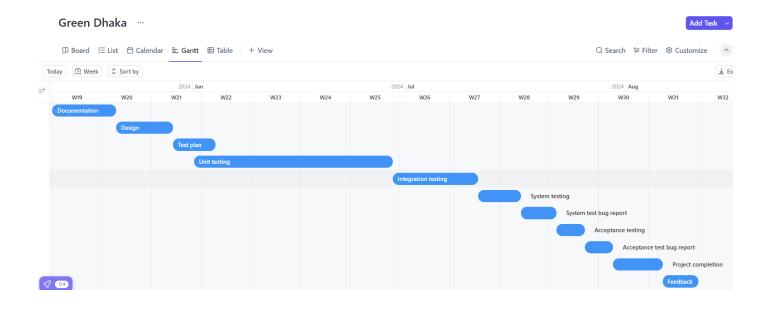
- A project management team will be formed first. This team will be responsible for everything in the project. Every major decision should be approved by the project management team before taking action.
- A HR team will be formed among the project management team for hiring the human resources. The project management team will inform how many and what type of resources they need like system interface designer, software development team, quality assurance team, system testing team. Every member will be trained for preparing for the development and testing process as per requirements.

11.RESPONSIBILITIES

	TM	PM	Dev Team	Test Team	Client
Test cases documentation	X	X	X	X	
Test Procedures and rules	X		X	X	
Unit test documentation & execution			X	X	
Integration test Documentation & Execution	X		X	X	
System test Documentation & Execution		X		X	
System Design Reviews	X	X	X	X	X
Details Design Reviews	X	X	X	X	
Screen & Report prototype reviews	X	X		X	X
Change Control and regression testing	X	X	X	X	X
Acceptance test Documentation & Execution	X	X		X	X

12.TESTING SCHEDULE





13.PLANNING RISKS AND CONTINGENCIES

Risk	Probability	Impact	Mitigation
Error in database	Low	Low	Testing the database related features frequently and maintain daily update.
Error in function	Low	Low	Testing the website frequently and maintain daily update.
Error while giving invalid input	Medium	Medium	The users or testers have to test the input fields regularly by giving correct input data.
Loss of Data	High	High	Maintain security checkup regularly.

14.APROVALS

Role	Name
Project Sponsor	AIUB
QA Lead	Sara Mahjabin
Project Manager	Sara Mahjabin
Business Analyst	Nadim Bin Hossain
Test Manager	Nadim Bin Hossain
Development Manager	Badhon Nath Joy

Meeting with QA Engineer:

