American International University-Bangladesh (AIUB)

Department of Computer Science

Faculty of Science &Technology (FST)

Spring 23-24

Section: C

Software Quality Assurance and Testing

Online Canteen Service

A Report submitted By

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Under the supervision of

Md. Anwarul Kabir

Associate Professor

Checked By Industry Personnel

Name:

Designation:

Company:

Sign:

Date:

Software Test Plan
for

Online Canteen Service

Version 1.0 approved.

Rahad-Ul-Islam Rabby, Md. Saimun Islam Rahat, Md.Nafiul Islam Nayeem, Md. Kudrot-E-Khoda

American International University-Bangladesh

May 14 , 2024

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Revision History

Revision	Date	Updated by	Update Comments
0.1	5-5-2024	Rahad-Ul-Islam Rabby	Initial document
0.2	5-5-2024	MD. Nafiul islam Nayeem	First draft
0.3	7-5-2024	Md.Kudrot-E-Khoda	Second draft
0.4	9-5-2024	Md. Saimun Islam Rahat	Updated Requirement
0.5	11-5-2024	Rahad-Ul-Islam Rabby	Updated test cases
0.6	12-5-2024	Md. Kudrot-E-Khoda	Final revision

1. TEST PLAN IDENTIFIER:RS-MTP01.3

2. REFERENCES

   - Any reference documents with the test plan. For example: Software Requirement Specification (SRS) Document

3. **INTRODUCTION**

Background to the Problem

1. The goal of this project is to provide American International University—Bangladesh with an online canteen service. There are four canteens on campus right now, but none of them offer internet access. As a result, to verify that the food they want is available, teachers and students must physically visit the canteens. The start of the classes is delayed as a result.

2. When teachers and students cannot find the food they want in the canteen, the lack of an online canteen service causes them to waste time. They occasionally must change canteens, which results in even more inefficiency with time.

3. Furthermore, although canteens shouldn't be packed, they are constantly full. These days, health-related concerns are raised by this.

Thus, it would be beneficial to provide an online canteen service so that educators and students can utilize it via their portal to avoid crowded areas and save time. With the help of this software, you may see the daily menu, pay online, and pick up your food with your ID card.

Solution to the Problem

By putting this system in place, teachers and students will be able to see what food is available in each of the four canteens and buy what they want. The following software/system characteristics of this platform will provide consumers with a seamless experience:

1. Usability: The system will be easier to learn and use.
2. Availability: System should be accessible at the pick hours like lunchtime.
3. Scalability: The system will be able to handle the load without decreasing the quality.
4. Reliability: This platform should perform the orders or pre- orders in a decent way for five days in a week and at least from 8 am to 8 pm.
5. Portability: The system can be used from any platform or any device.
6. Security: the login and payment system should be secure enough to run the system.
7. Reusability: All the components of this software or web page that are used for user information should be easily processed so that many customers can interact with us very easily and very fast without any information.
8. Interoperability: System will be able to exchange data in different modules of the system.

4. REQUEIREMNT SPECIFICATION

4.1 System Features

(I) Login

- Users and admins have to login with their user id and password.
- System checks the user id and password.
- If the user id and password match, then the system shows the homepage.
- If the user id and password do not match, then the system shows the warning (user id and password does not correct please try again)
- If user enters the wrong user id and password three times, then the system will be locked. For this reason, users need to verify their account.

Priority Level: High

Precondition: user have valid user id and password.

(II) Menu (admin keep and updated menu, user's check updated menu for different time)

- When user's login successfully then the system shows the homepage.
- Then the system shows the all-updated menu for the users.
- Users see the different menu for breakfast, lunch and snacks.
- Admin updates the system menu for different times breakfast item for(7-11AM), lunch (11-4 PM), snacks (4-6) and dinner for (7-10).
- Users can see the update menu and select their needed food then user can order their perfect time.
- The name of the food, price and the quantity of availability will be shown here.
- After choosing the right choice press next to go the payment form.

Priority Level: High

(III) Live Chat (Admin- user interactions)

- This system has a live chat option.
- To use the live chat option, go to the chat option.
- If any user enters the live chat option, admin will have a notification.
- After entering the live chat option, the user will get an automated text.
- Users will ask if there are any queries about food and availability.
- Admin will answer the questions if user asks.
- The admin will reply within 2-3 minutes.

Priority Level: Medium to low

(IV) Pre-Order

User –

- Search the food.
- Check the quantity of the food and the period of the delivery.
- If the food is not available, the user will get the notification.
- Food quantity input will be given, pickup time for students should be maximum 40 minutes.
- Users will get a token or code, by which they will pick up their food by themselves.
- If the user is faculty, the food will be delivered to the office room. If the faculty is
- not present at the office, faculty will be notified that the food is delivered. In the case of the faculty food delivery, the highest time should be 15 minutes.

Admin-

- After getting pre- order request, admin will check if the quantity is available or not.
- If the food is not available, admin will let the user know.
- If the food is available, the admin will accept the request, A token or a code will be given to the user by which they can pick up the food.
- Then if the user gives another request, accept then order process will be done.

Priority Level: Medium to high

(V) Payment

User –

- User will have two ways to pay.
- Payment system with University ID card – Student can keep some amount in their ID card. While making payment, the user will input their id card and the payment is done if their account is not empty.
- If the account is empty, the user can refill their account.
- Users can pay by cash also.
- If a user forgets the cash, they can punch their ID card to pay in the canteen, then they will get a code, if this code is valid, they will get the food.

Admin-

- Admin will accept pre order after the confirmation of the payment.
- If users are ordering food in the canteens, admin will do the select the menu and confirm the order.

Priority Level: High

(VI) Refill

- System has an add balance application.
- The system gives permission Input Card number.
- Admin verifies card number with a one-time password.
- If the password is correct user should be able to add balance.
- If the password does not match the user has to try again to add balance.
- User input Balance how much want to add.
- Admin refills the account.
- If the add balance is successful, user can see the update balance.
- User will receive an email.

Priority Level: High

(VII) Logout

- System has logout application.
- If logged out successful login page displayed.
- If once logout successful for again login user must have to enter user id and password.

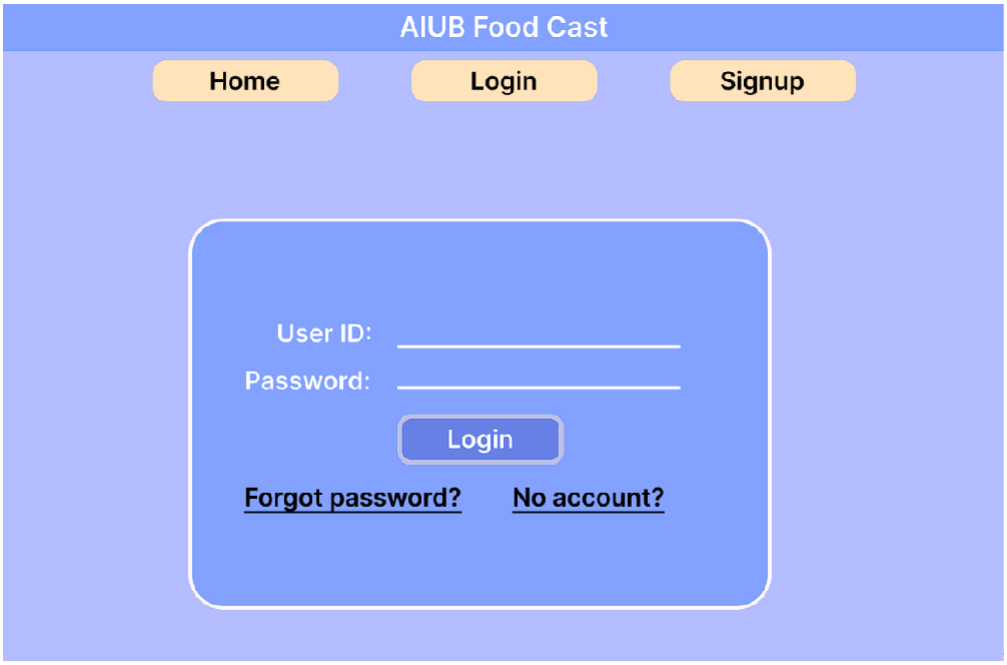
Priority Level: Medium

4.2 System Quality Attributes

- If the users or admins are in payment form, the system will be session out.
- Users or admins cannot login from 2 devices.
- System or the website will be accessible for everyone, but when someone needs to
- purchase, they have to login.
- After login the homepage should appear within 30 minutes.
- Users or admins can use this platform with a smartphone and internet connection.
- The system will be logged out after five minutes automatically.

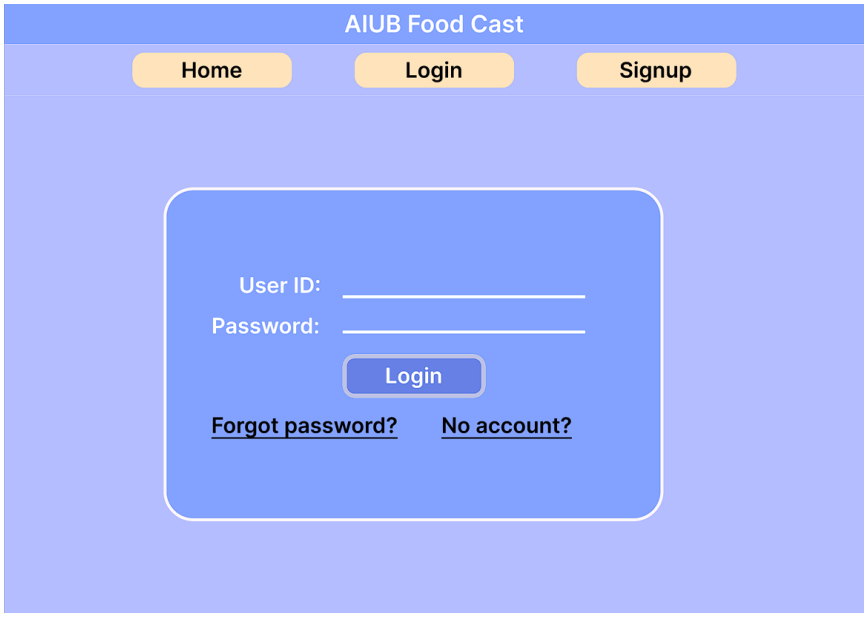
4.3 System Interface

- Login

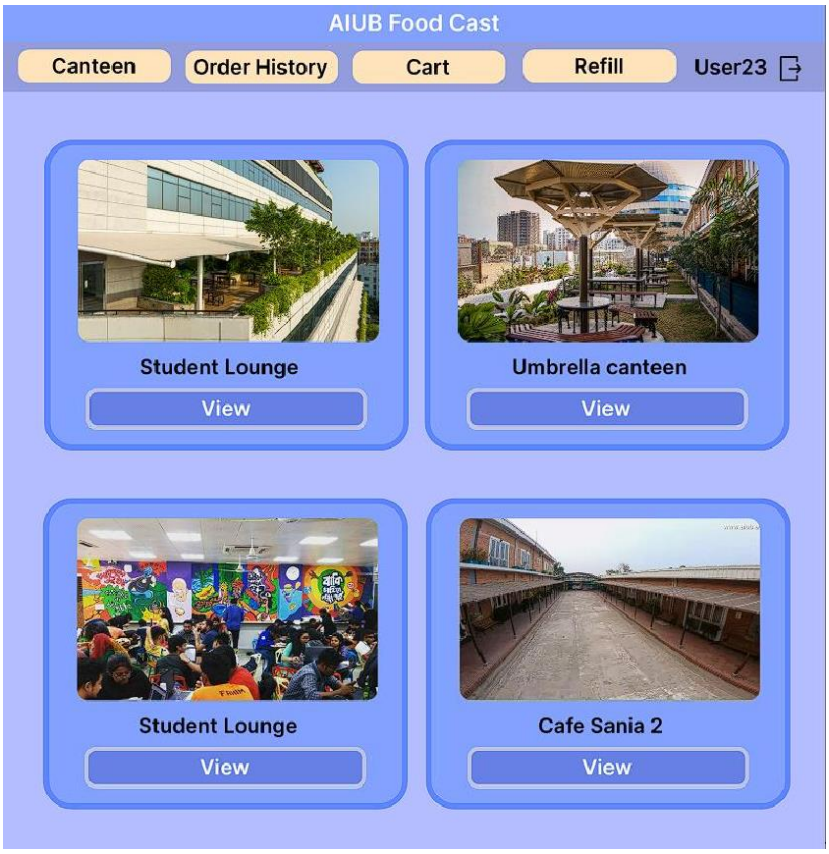


- Registration

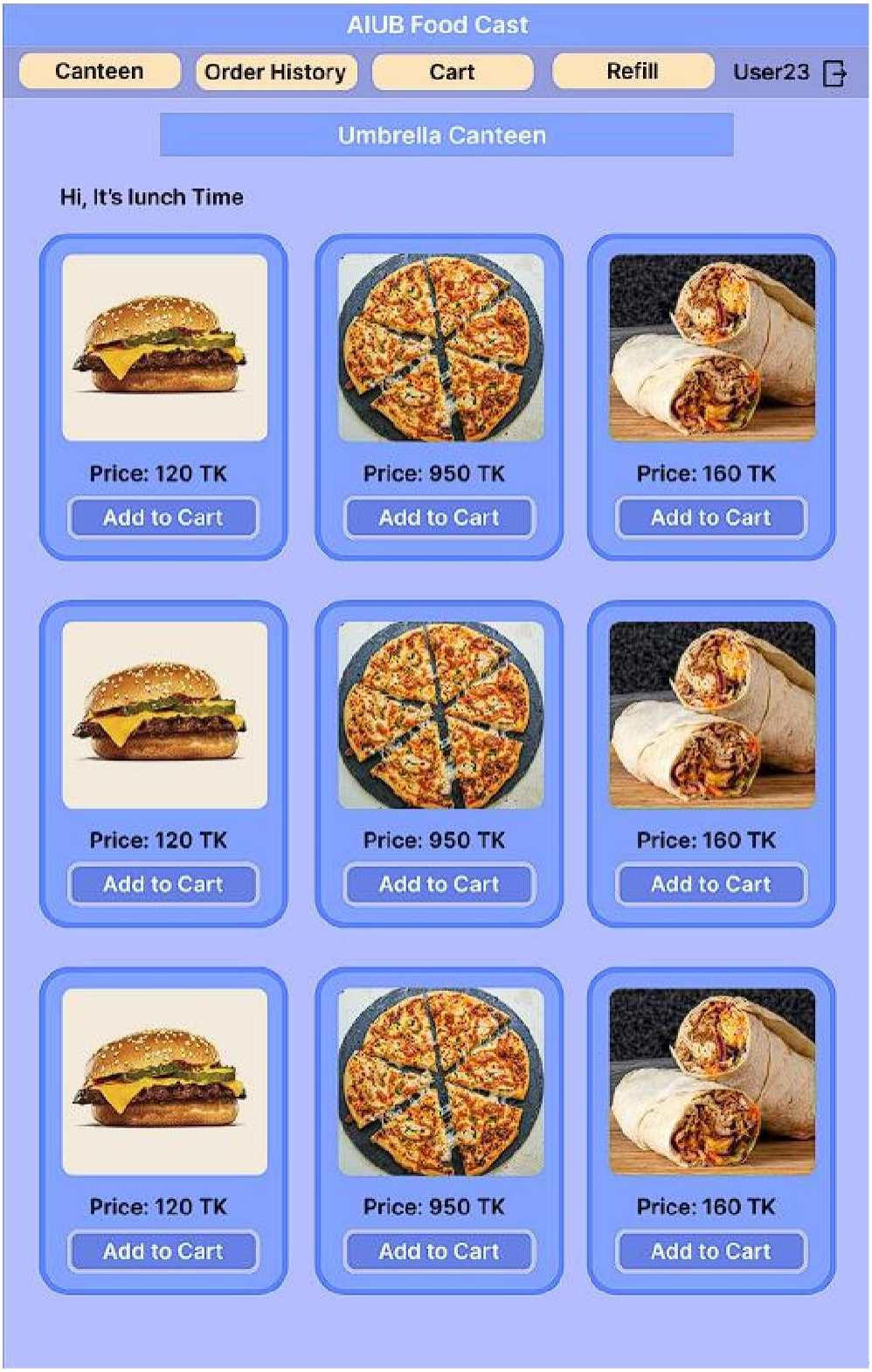
- **Forgot Password**



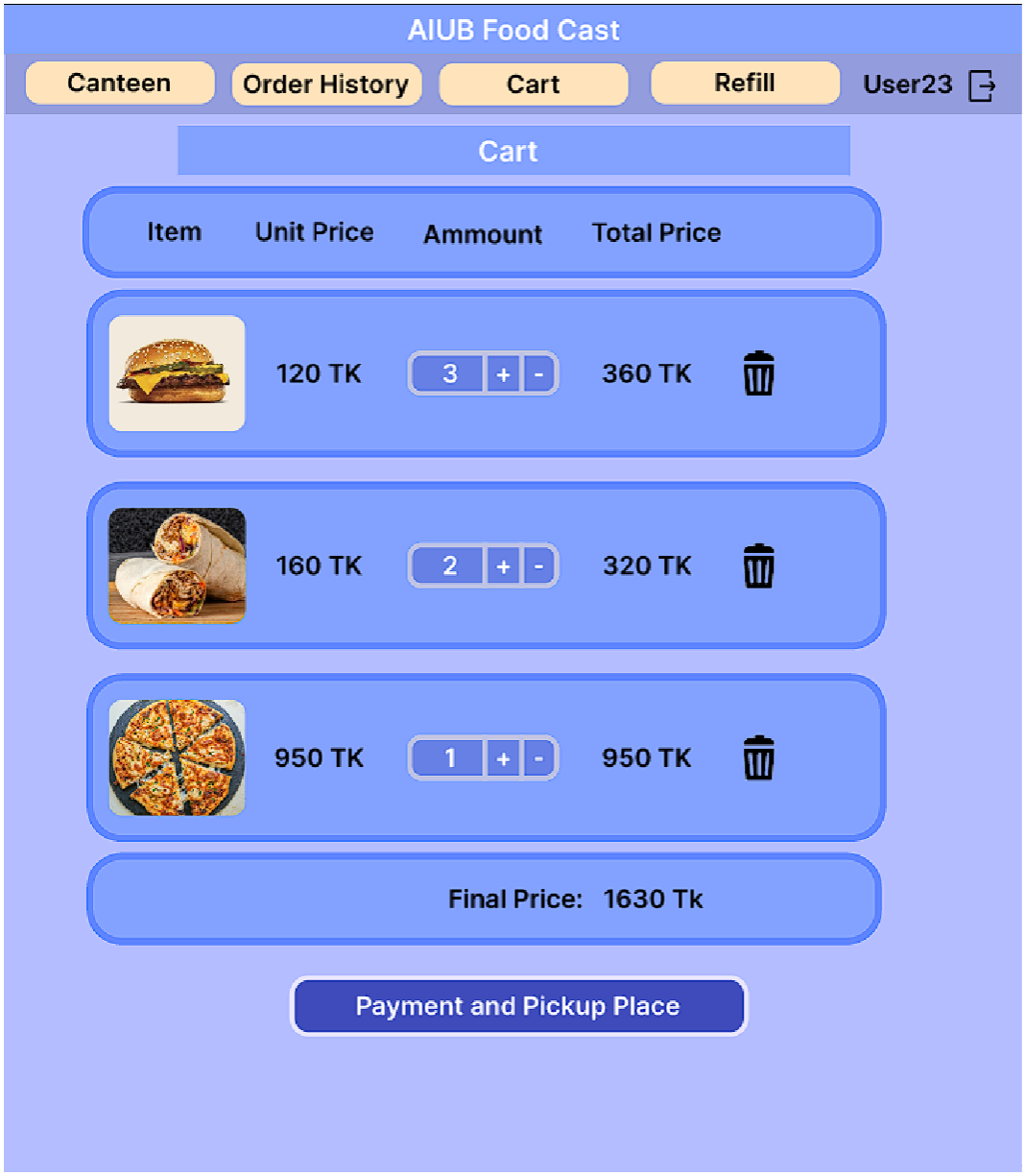
- **Canteen list**



- **Order food.**


AIUB Food Cast
Canteen
Order History
Cart
Refill
User23
Umbrella Canteen
Hi, It's lunch Time
Price: 120 TK
Add to Cart
Price: 950 TK
Add to Cart
Price: 160 TK
Add to Cart
Price: 120 TK
Add to Cart
Price: 950 TK
Add to Cart
Price: 160 TK
Add to Cart
Price: 120 TK
Add to Cart
Price: 950 TK
Add to Cart
Price: 160 TK
Add to Cart

- **Cart list.**


AIUB Food Cast
Canteen
Order History
Cart
Refill
User23
Cart
Item
Unit Price
Ammount
Total Price
120 TK
3
+
-
360 TK
160 TK
2
+
-
320 TK
950 TK
1
+
-
950 TK
Final Price: 1630 Tk
Payment and Pickup Place

- **Place order.**

- **Order Details**

- **Refill**

4.4 Project Requirements

Budget estimation:

Resource Name	Type	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

- Block browsing the website from different devices:

If a user tries to browse the website from different devices the system will block it and make logout all the users except the last login device. This feature will not be tested in this test plan as it will be done in another module.

- Tracing the food process:

There are some steps between order and delivery of the food like cooking, packaging, expected time etc. As this feature will be added in future, it will not be tested in this test plan.

6. TESTING APPROACH

6.1 Testing Levels

- The testing for the Online Canteen Service project will consist of Unit, System/Integration (combined) and Acceptance test levels. The project management team and QA team will be responsible for all testing.

- UNIT Testing will be done by the developer and will be approved by the development team leader. The developer will use an automated testing tool, Selenium IDE as same type of testing will be repeated many times here. The developer will take the proof of automatic testing results.

- SYSTEM/INTEGRATION Testing will be performed by the test manager and development team leader. It will also be tested by the automatic testing tool, Selenium IDE.

- Security testing will be tested by the programming during unit testing and by the test manager and software manager during system testing. The security bug will be find and handled in this testing to ensure that unauthorized person cannot access any resources.

- Performance testing will be performed by the test manager and the software manager. The time and space complexity, how much load the website can handle will be observed.

- ACCEPTANCE Testing will be performed by the actual users, the students and faculties of AIUB. Also, the project management team will check if all functions are present and work properly as required. The user will provide feedback and report problems of the software.

6.2 Test Tools

As the Online Canteen service is a website-based software, only an automatic testing tool, Selenium IDE will be used for testing. Using this software, the software developers and QA team will perform unit testing and the Software development leader and QA leader will perform integration testing.

6.3 Meetings

In the three-month software test plan, the team will meet weekly to evaluate progress, analyze test results and plan for the upcoming week. In each month the test team leader will arrange meetings between the test teams to ensure all testing is being done properly. Additionally emergency meetings can be called in case of urgent issues. At the end of the three months, a test closure meeting will be held with all project members.

7. TEST CASES/TEST ITEMS

Functional requirement 1: Login

Test Case ID: FR_1			Test Designed by: Md. Kudrot-E-Khoda	
Test Priority (Low, Medium, High): Medium			Test Designed date: 12-May-2024	
Module Name: Name: Login Session			Test Executed by: Rahad-Ul-Islam	
Test Title: Verify login with valid username and password			Test Execution date: 12-May-2024	
Description: Test website login page				
Precondition: User must have valid username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website. 2. Enter username. 3. Enter password. 4. Click submit	Username: 20-12345-2 Password: 123	User should login into the application	As expected,	Pass
Post Condition:				

Functional requirement 2: Menu

Test Case ID: FR_2			Test Designed by: Md.Nafiul Islam Nayeem	
Test Priority (Low, Medium, High): High			Test Designed date: 12-May-2024	
Module Name: Menu			Test Executed by: Md. Kudrot-E-Khoda	
Test Title: Verifying menu page			Test Execution date: 12-May-2024	
Description: Test the menu page for checking if users can select food to order				
Precondition:				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website. 2. View menu page 3. Select item to order. 4. Click Add to cart	Food Item 1: Selected And added to cart (also test for multiple items)	User should add food items to cart	As expected,	Pass
Post Condition:				

Functional requirement 3: Live Chat

Test Case ID: FR_3			Test Designed by: Md.Nafiul Islam	
Test Priority (Low, Medium, High): Medium to low			Test Designed date: 12-May-2024	
Module Name: Live chat			Test Executed by: Md. Kudrot-E-Khoda	
Test Title: Verifying the live chat session if it works and admin and user can chat.			Test Execution date: 12-May-2024	
Description: Testing live chat session				
Precondition:				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Click live chat 3. Leave a text 4. Wait for admin's reply	Admin replied within three minutes	User should get reply within three minutes	As expected,	Pass
Post Condition:				

Functional requirement 4: Pre- Order

Test Case ID: FR_4			Test Designed by: Md. Kudrot-E-Khoda	
Test Priority (Low, Medium, High): High to medium			Test Designed date: 12-May-2024	
Module Name: Pre- Order			Test Executed by: Md.Saimun Islam Rahat	
Test Title: Verifying pre- order page			Test Execution date: 12-May-2024	
Description: Testing Pre- order page				
Precondition: User must login to the website				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Add to cart any item 3. Go to cart page 4. Click payment and pick-up page	Pick- up place should be appeared	User should get the pick- up place	As expected,	Pass
Post Condition:				

Functional requirement 5: Payment

Test Case ID: FR_5			Test Designed by: Rahad-Ul-Islam Rabby	
Test Priority (Low, Medium, High): High			Test Designed date: 1 Feb, 2024	
Module Name: Payment system.			Test Executed by: Md.Saimun Islam Rahat	
Test Title: Verify payment page			Test Execution date: 1 Feb, 2024	
Description: Test website payment page				
Precondition: User has to choose the payment system				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the payment page 2. Select payment method- card or cash 3. Enter the payment amount 4. Enter Confirm Order	Payment amount: 100.00	User payment should be done	As expected,	Pass
Post Condition:				

Functional requirement 6: Refill

Test Case ID: FR_6			Test Designed by: Md.Saimun Islam Rahat	
Test Priority (Low, Medium, High):			Test Designed date: 1 Feb, 2024	
Module Name: Refill account			Test Executed by: Md.Kudrot-E-Khoda	
Test Title: Verify Refill functionalities			Test Execution date: 1 Feb, 2024	
Description: Refill the account by choosing method and entering amount.				
Precondition: User has to login and if the refill method is cash, student has to submit the cash to the account office first.				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Go to the refill page 3. Select the refill method. 4. Enter amount 5. Click OK.	Amount: 500.00	User should refill account	As expected,	Pass
Post Condition:				

Functional requirement 7: Logout

Test Case ID: FR_7			Test Designed by: Md.Saimun Islam Rahat	
Test Priority (Low, Medium, High): Low			Test Designed date: 1 Feb, 2024	
Module Name: Log out			Test Executed by: Md.Nafiul Islam Nayeem	
Test Title: Verifying log out functionality			Test Execution date: 1 Feb, 2024	
Description: Testing log out page				
Precondition: User has to be logged in in the website				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Click on Log out 2. Enter username 3. Enter password 4. Click submit		User should log out from the website	As expected,	Pass
Post Condition:				

8. ITEM PASS/FAIL CRITERIA

Once the enrolled student or faculty member can place an order for food, pay for it, and successfully replenish their account, the test will be considered successful. Following the ordering and payment of the food, the account and food quantity need to be updated appropriately.

9. TEST DELIVERABLES

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

10. STAFFING AND TRAINING NEEDS

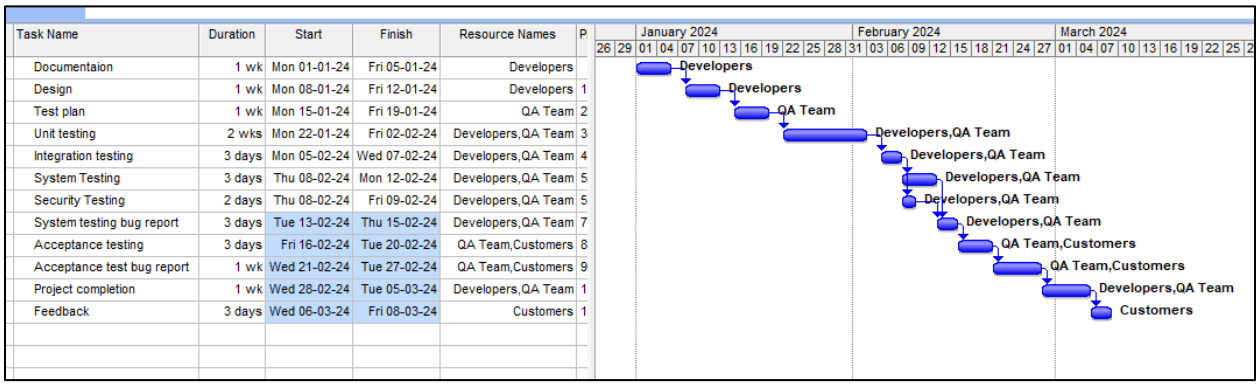
- o First, a project management team will be established. This group will oversee the entire project. Before acting, the project management team should approve all significant decisions.

- The project management team will establish an HR team to hire human resources. The number and kind of resources required, such as a system interface designer, software development team, quality assurance team, and system testing team, will be communicated by the project management team. Each member will receive training so they can get ready for the requirements-based .

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**

- In this project, the human resources and budget are very limited. If any employee leaves the job, it will be hard to reassign new employees and assign them to continuous work immediately. As a result, the budget will be increased, and the project delivery will be delayed.

14. **APROVALS**

Name	**Role**	**Signature**
AIUB	Project Sponsor	
Md. Anwarul Kabir	QA Lead	
Md. Rahad-ul-Islam Rabby	Project Manager	
Md.Kudrot-E-Khoda	Business Analyst	
Md.Nafiul Islam Nayeem	Test Manager	
Md.Saimun Islam Rahat	Developer Lead	