American International University-Bangladesh (AIUB)

Department of Computer Science

Faculty of Science &Technology (FST)

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Section: A/ B/ C

Software Quality Assurance and Testing

Hotel Management System- Software Quality Testing

A report submitted by

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Associate Professor

Software Test Plan

for

Hotel Management System- Software Quality Testing

Version 1.0 approved

Prepared by MD. Tarequl Islam

American International University-Bangladesh

Table of Contents

Revision History 3
1. TEST PLAN IDENTIFIER: RS-MTP01.3 4
2. REFERENCES 4
3. INTRODUCTION 4
Background to the Problem 4
Solution to the Problem 4
4. REQUEIREMNT SPECIFICATION 4
4.1 System Features 4
4.2 System Quality Attributes 5
4.3 System Interface 6
4.4 Project Requirements 9
5. FEATURES NOT TO BE TESTED 10
6. TESTING APPROACH 10
6.1 Testing Levels 11
6.2 Test Tools 11
6.3 Meetings 13
7. TEST CASES/TEST ITEMS 14
8. ITEM PASS/FAIL CRITERIA 21
9. TEST DELIVERABLES 21
10. STAFFING AND TRAINING NEEDS 22
11. RESPONSIBILITIES 23
12. TESTING SCHEDULE 25
13. PLANNING RISKS AND CONTINGENCIES 25
14. APROVALS 26

Revision History

Revision	Date	Updated by	Update Comments
01	17.04.2022	Islam, MD Tarequl	First Draft
02	18.04.2022	Nova, Fahmida Akter	Second Draft
03	17.04.2022	Adnan Bin Abdus Salam	Third Draft
04	18.04.2022	Jarin Tasnim Shama	Fourth Draft

1. TEST PLAN IDENTIFIER: RS-MTP01.3

2. REFERENCES

- Software Requirement Specification (SRS) Document
- Software Requirement Specification(SRS) for Online Shopping System(OSS) https://dipeshagrawal.files.wordpress.com/2018/07/docuri-com_online-project.pdf

- Online Grocery Shop in PHP or ASP.NET – SRS Document https://t4tutorials.com/online-grocery-shop-in-php-or-asp-net-srs-document/

3. INTRODUCTION

Background to the Problem

Our "Hotel Management System" project is designed to address the weaknesses of the existing manual system. This software is required to remove or, in some cases, minimize the difficulties that this system now faces. Moreover, this system is customized to the company's specific requirements for smooth and effective operations. We tried to put every requirement that a hotel management system should have in order to provide a reliable experience.

Solution to the Problem

Many hotels were physically closed in the pandemic conditions. That is why businesses are having issues. We took the choice to solve the situation online. This program is simple to use and allows hotel management to provide excellent service. They'll be able to maintain track of their system as well. This software will also be simple to use.

4. REQUEIREMNT SPECIFICATION

4.1 System Features

In this software, we will have the following features:

1. **Add Manager/Receptionist;**
   The system can add a Manager/ Receptionist to the system/ database.
2. **Remove Manager/Receptionist;**
   The system can remove the Manager/ Receptionist from the system/ database.

3. **Finance & Report Management;**
   The system can store the financial data of the business in a sorted way.

4. **Details Update (Manager/ Receptionist/ User);**
   Manager/ Receptionist/ User details can be saved/ updated.

5. **Details Check (Receptionist);**
   Manager/ Receptionist/ User details can be saved/ checked.

6. **Manager Requests to verify;**
   The manager can request to verify his/ her/ users data.
7. **Contact System**
   Clients can contact for any query.

8. **Post, view notice;**
   Access can post new notice and view notice.

9. **View, and update the salary of employees;**
   Information on salary can be viewed and updated.

10. **Publish job circular;**
    Job circular can be posted.

11. **Add, view Rating;**
    Ratings can be added and viewed.

4.2 System Quality Attributes

4.2.1 Reliability

- In a technological environment, the data communication protocol must maintain the reliability and quality of data and voice transmission.
- The memory system must be non-volatile, for example, CDMA/GSM.

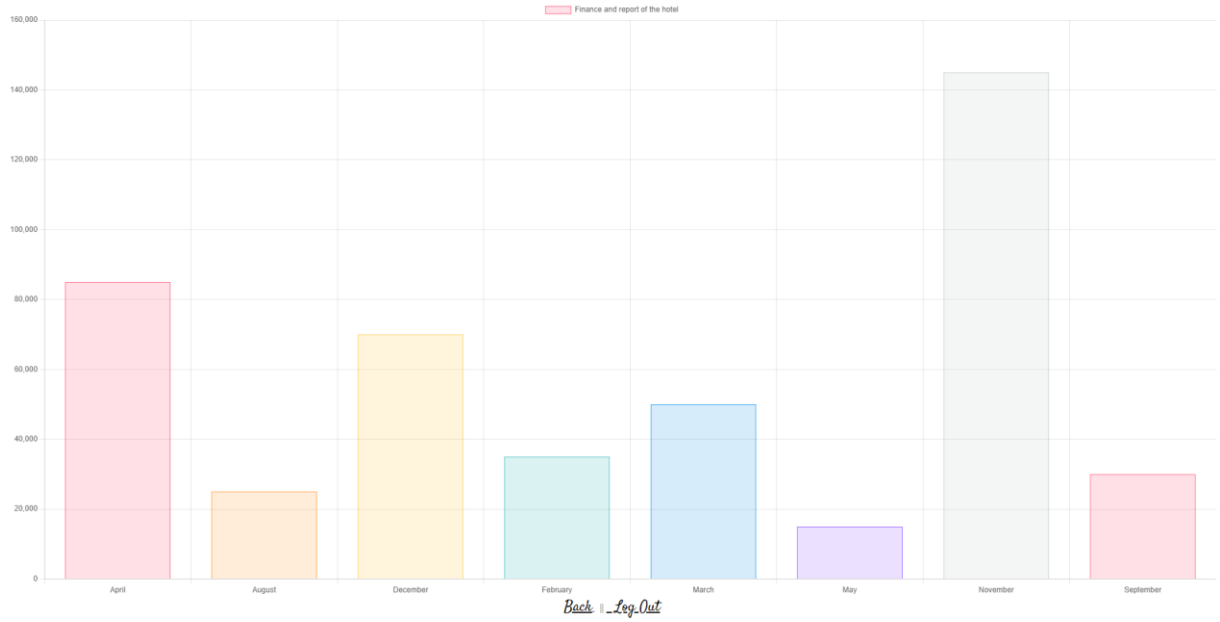
4.2.2 Availability

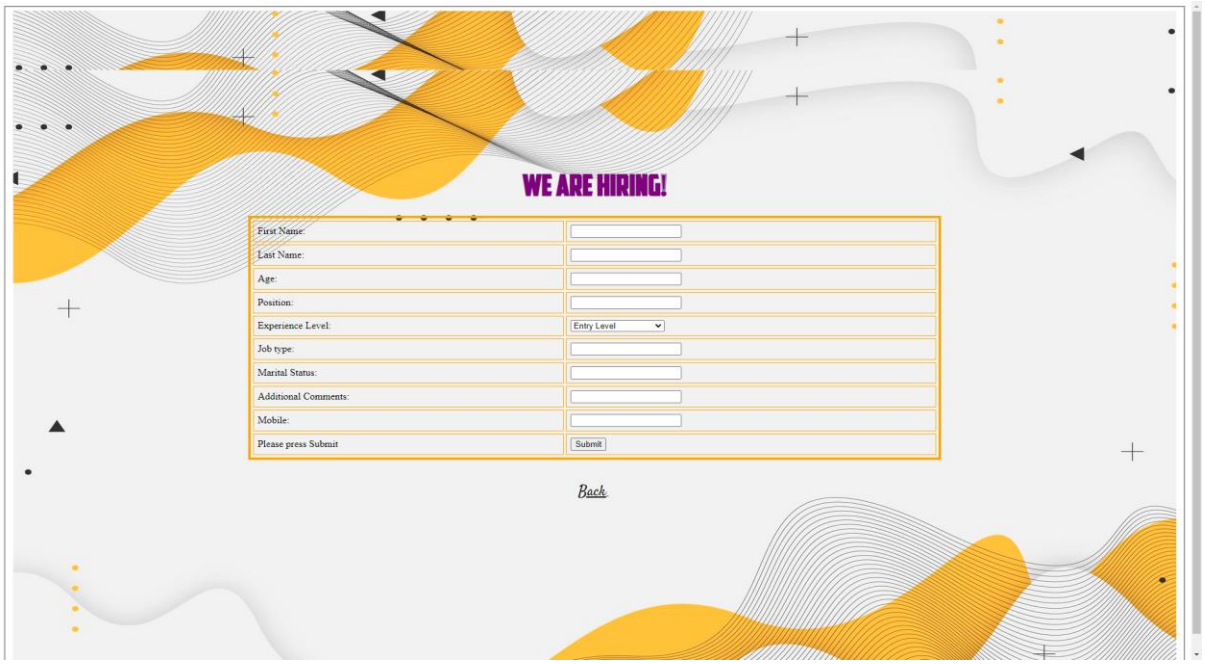
- In the event of a communication problem, the system will be shut down;
- In the event of a communication problem, the system will be shut down;
- The system must be manually restarted by maintenance employees or the director of management after an untrustworthy shutdown.
- No inconsistency in the account should be introduced throughout the system's booking.
- The system/booking system will be shut down as a result of this.

4.2.3 Security

- The system must comply with AIMS security requirements.
- The system must have two levels of security, one for login verification and the other for code verification, both of which are authenticated by the CMS software.
- During code transmission, the encryption standard must be triple DES.
- The password should be between six and ten characters long.
- Customer names should not be included in passwords because they are easily compromised.
- Numbers, hyphens, and underscores can all be used in passwords.
- The user should be given only three attempts to log in, after which his booking should be cancelled.
- Every room will have a security camera put near it.

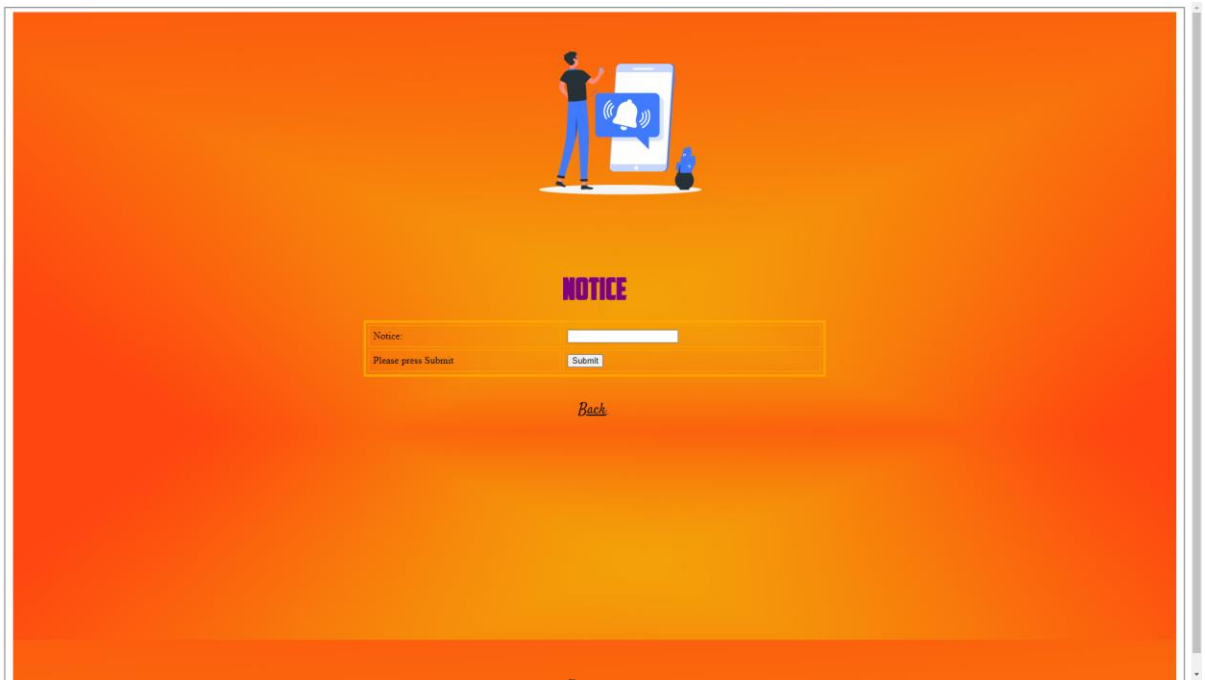
4.3 System Interface:

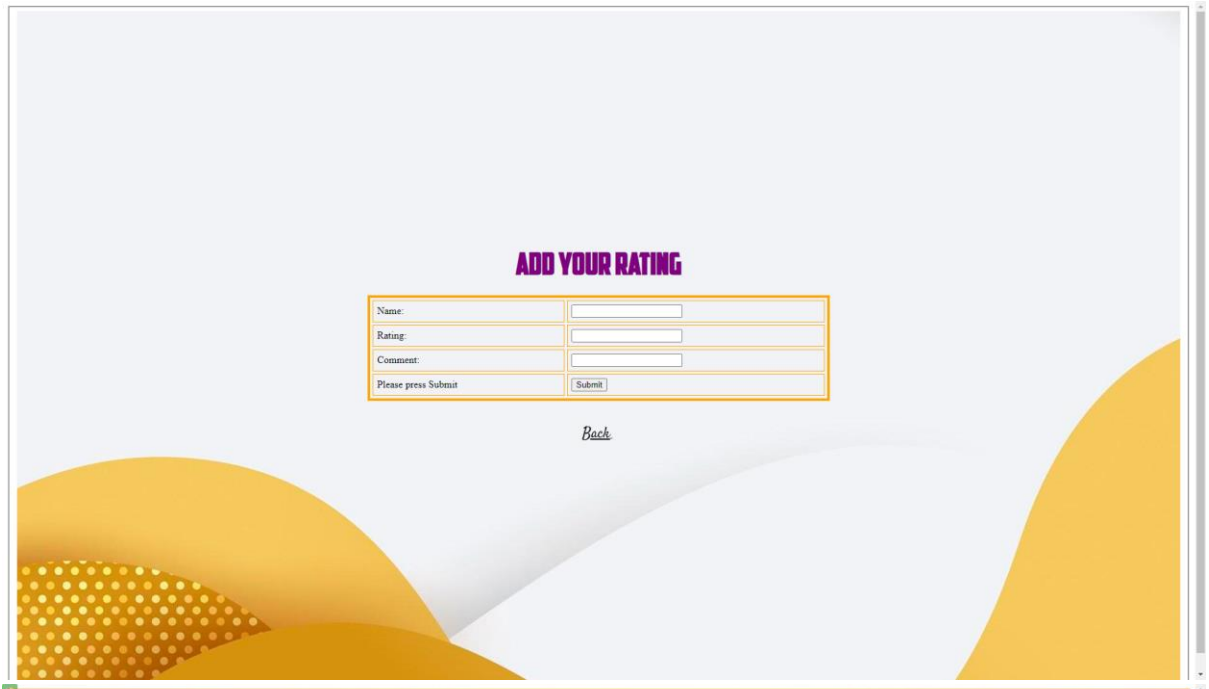


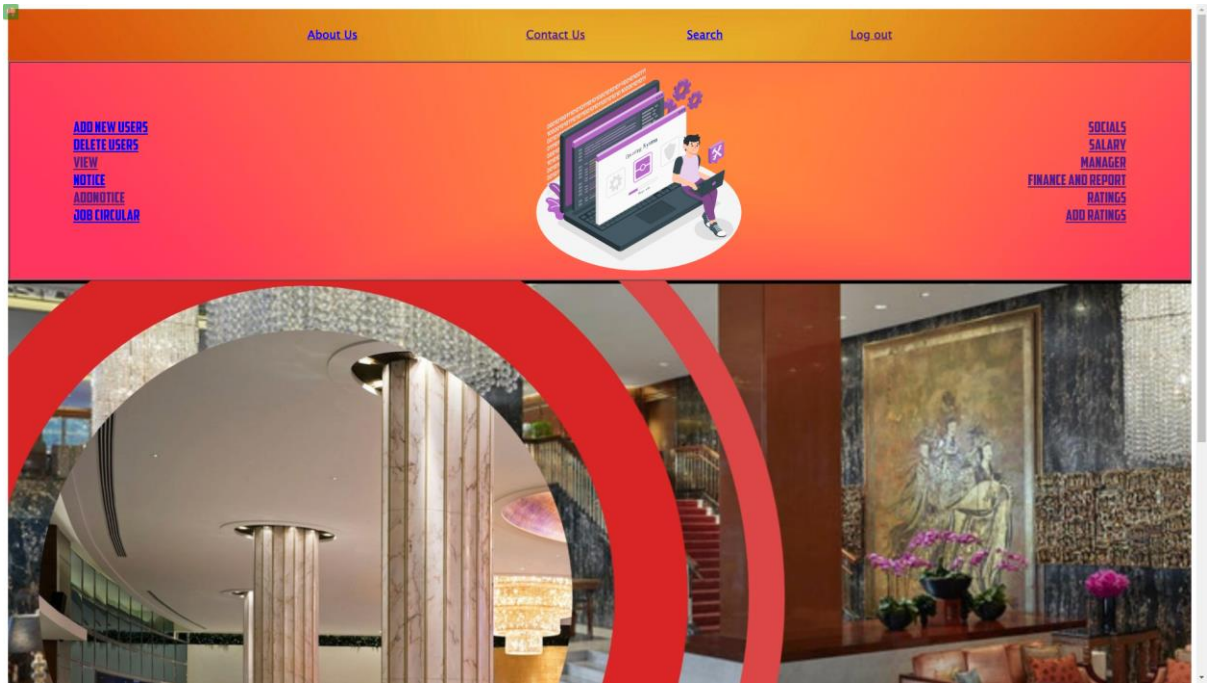


ID	Notice
1	Dear Guest, May the peace and joy of the holiday season be with you throughout the coming year. Merry Christmas and Happy New year! Best Regards, Hotel Green View
2	today office close
3	31.12.2021 (We have a programe)
4	today office close
5	Today is the grand ceremony
6	Hello im the hadmin of this project!
7	Hello i am the admin !
8	Eid Mubarak to all the employees.

Back || Log Out







4.4 Project Requirements

➢ Time: 3 Months (Estimated)
➢ Budget of 5 Lac (Estimated) BDT
➢ Need team of 04 members.
➢ Members should have technical knowledge.
➢ A space for collaboration.
➢ Dedicated IDE for development

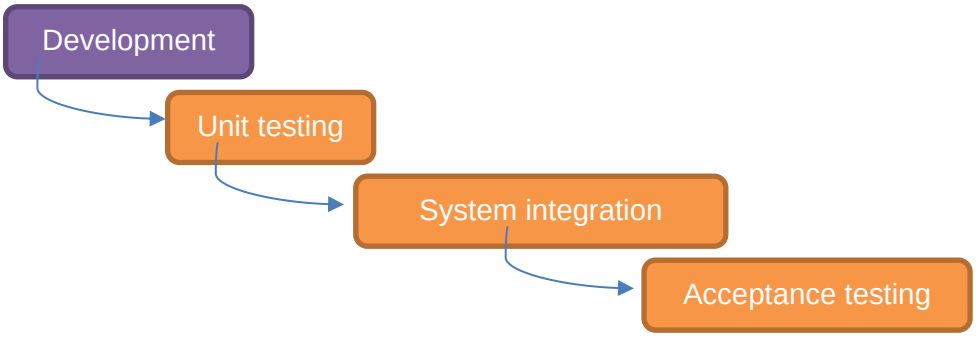
5. FEATURES NOT TO BE TESTED:

The features which are not to be tested are as follows:

- Types of users
- Maintenance of servers
- Customer Payment method
- Maintenance of user records
- Create, update and delete or customer records
- Finance and report of the hotel revenue.

6. TESTING APPROACH:

6.1 Testing levels:



In this project, we will implement a test plan for the **Hotel Management System**. To continue testing software in relation to the project, we need to go through three major stages of testing. Several test levels need to be addressed.

A **white-box testing** technique that tests the internal structure of an application. White-box testing requires a tester to step through the code line by line to ensure that internal operations are performed according to specifications and that all internal modules are properly implemented. We can use white-box testing during the development of our hotel management system to ensure that our system is functioning properly. Currently, there are several different types of white-box testing and these types of strategies can be used in test planning.

Unit testing is one of the basic steps performed in the early stages. Most testers prefer to see if a particular cord unit is working. Unit tests are one of the general steps performed for each activity because they help eliminate basic and simple bugs. Therefore, after completing each unit and module, we can create a test case and run a unit test to see if the module works as expected. For unit tests, there are also static and dynamic unit tests.

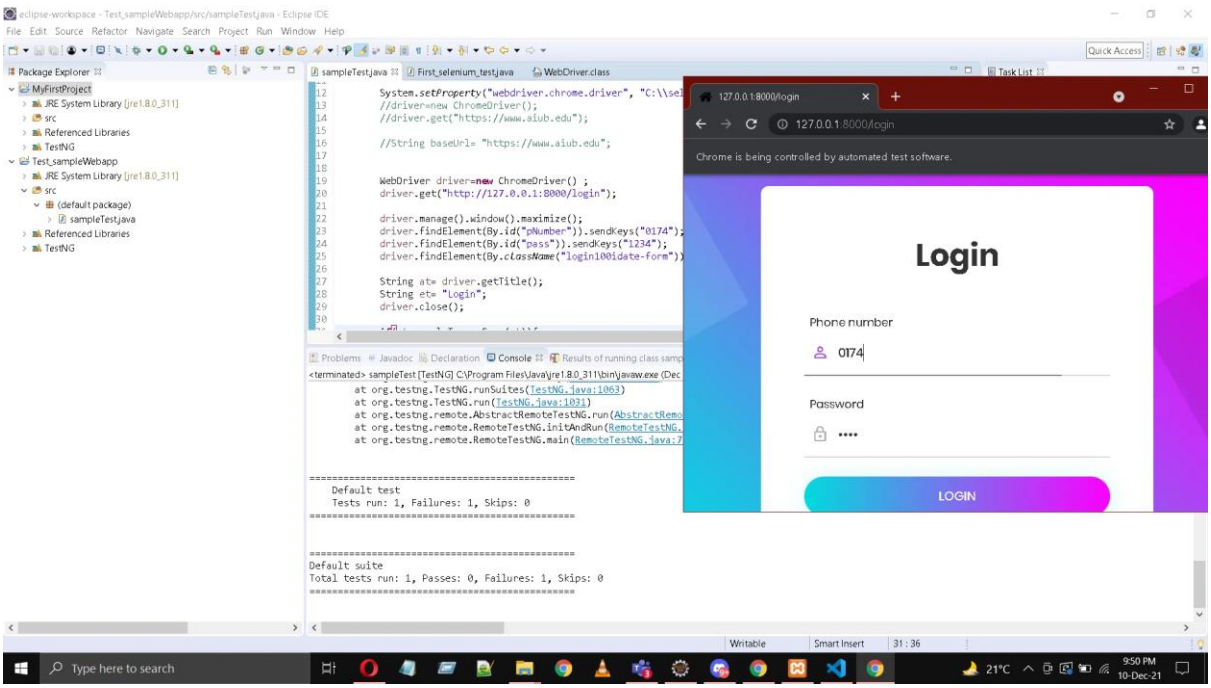
The static analysis step contains testing some of the static elements in our code. This step is performed to find one of the defects or errors that can occur in our application code. This step is important to rule out simple errors early in the testing process. **Dynamic analysis** is the next step in static analysis in a typical path test. Dynamic analysis helps us analyze and run the source code according to our requirements. The final stage of the step helps in analyzing the output without affecting the process

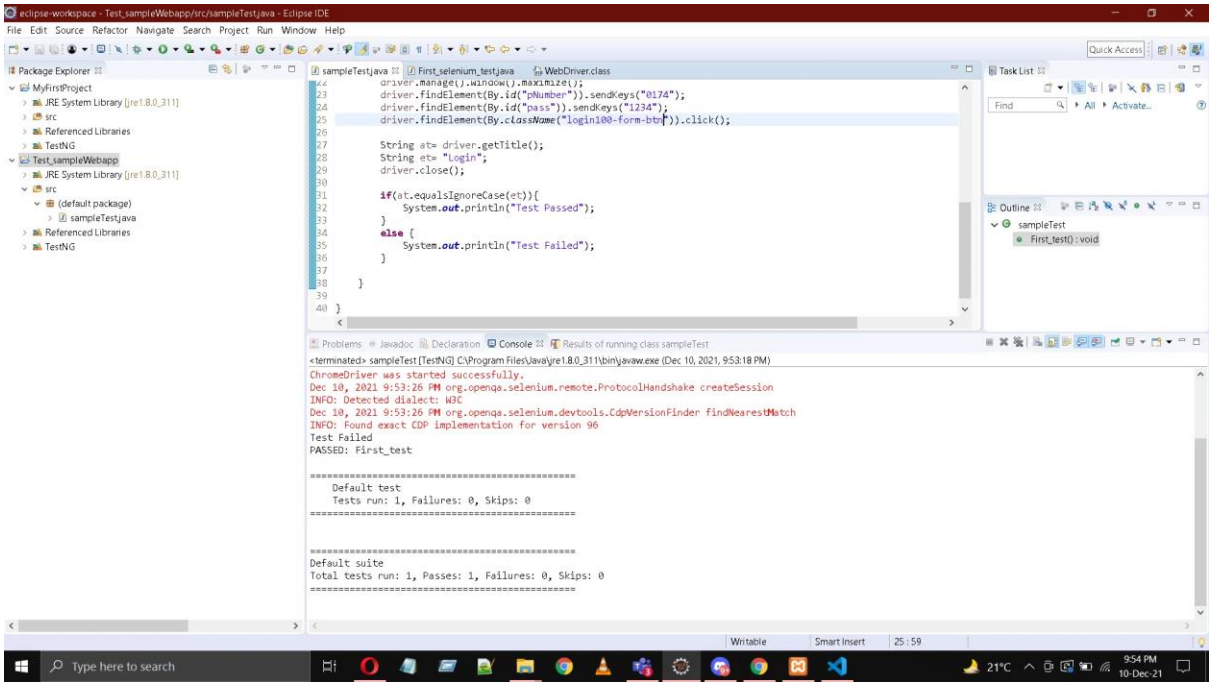
Also, for our **Hotel Management System,** we will implement **System integration testing** or **SIT**. SIT is mainly done to check how individual modules interact with each other when integrated into a system as a whole. It is conducted after unit testing and will be done each time when a new module is added to the system. SIT test cases focus on the interface between the system components.

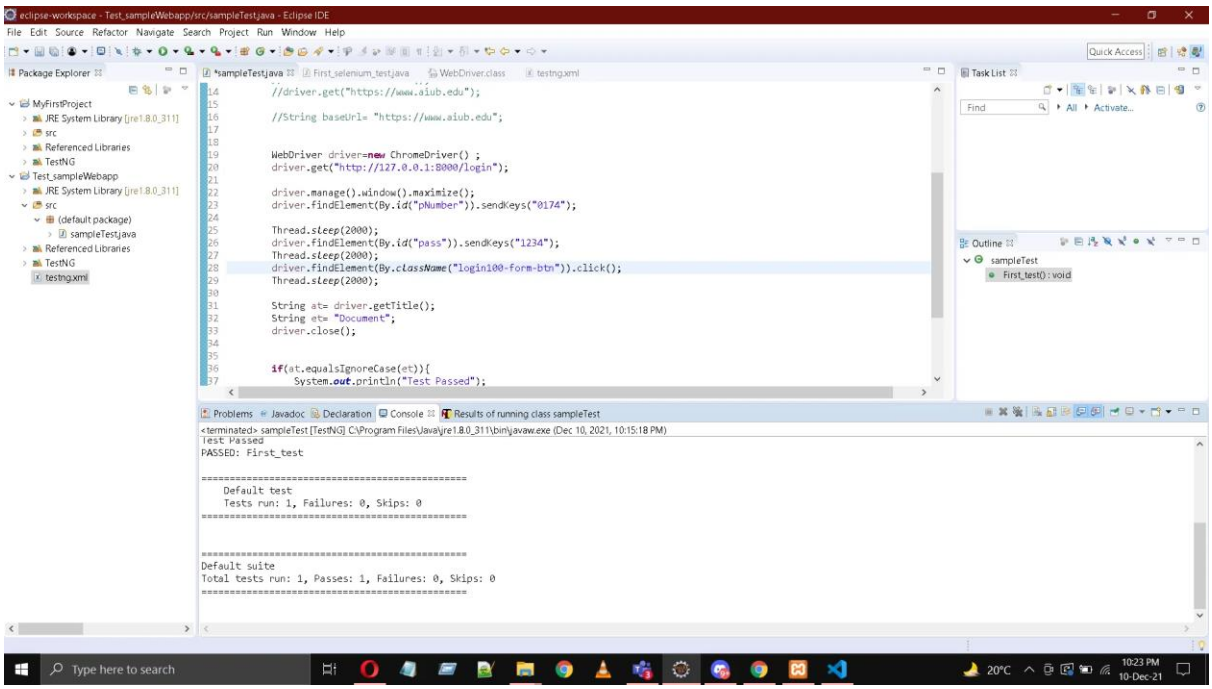
And last but not least we will go through **Acceptance testing**. With the help of our development team, it will be done by the final users. They will check whether our system meets all the user requirements or not.

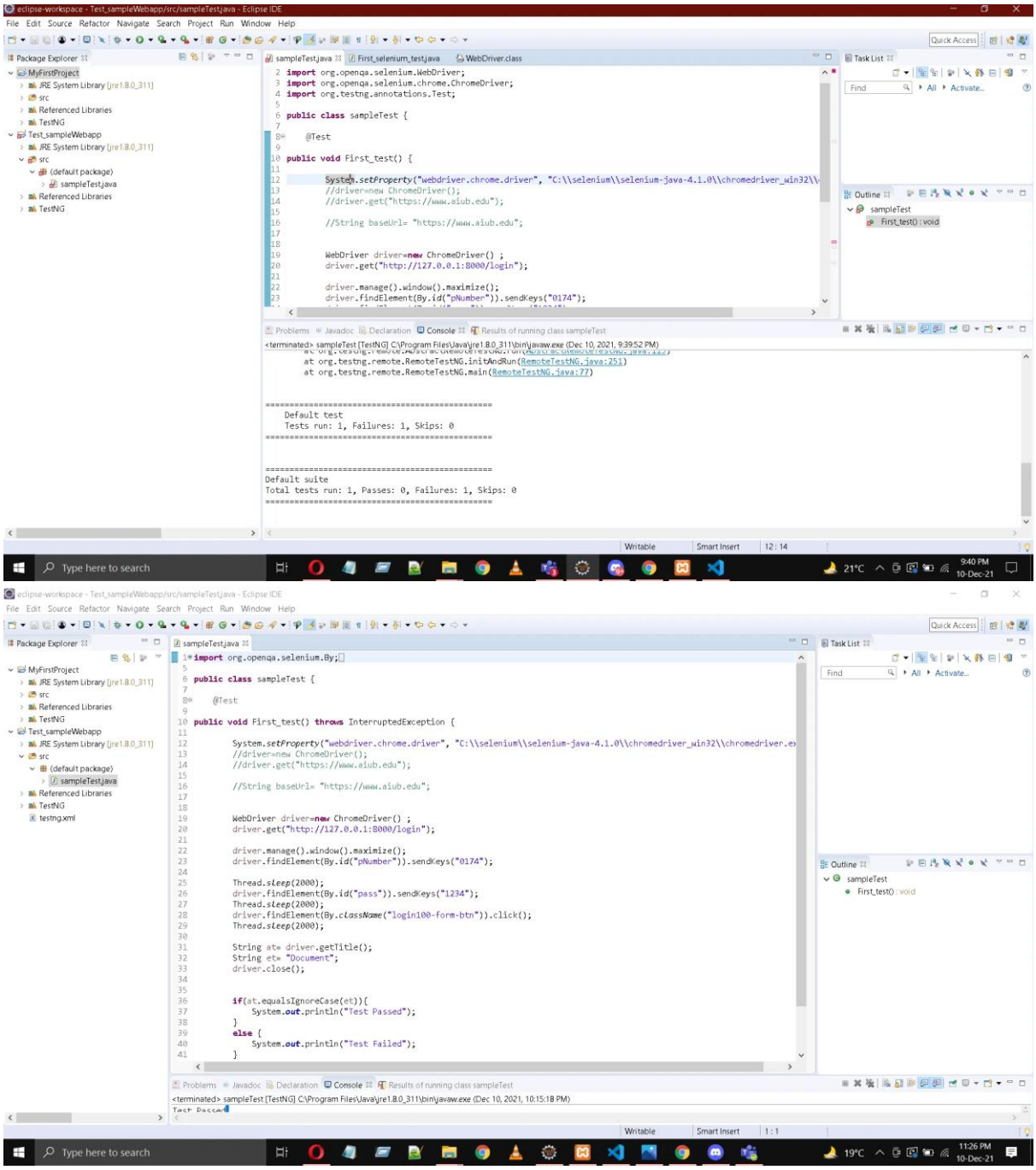
6.2 Test tools:

A test tool needs to be developed which can auto-generate the test results to the pre-defined form and automated test execution. And several tests are to be made as well. To run the test faster the test needs to be run parallelly.




eclipse-workspace - Test_sampleWebapp/src/sampleTest.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Package Explorer
MyFirstProject
JRE System Library [jre1.8.0_311]
src
Referenced Libraries
TestNG
Test_sampleWebapp
JRE System Library [jre1.8.0_311]
src
(default package)
sampleTest.java
Referenced Libraries
TestNG
sampleTest.java
First_selenium_test.java
WebDriver.class
driver.manage().window().maximize();
driver.findElement(By.id("pNumber")).sendKeys("0174");
driver.findElement(By.id("pass")).sendKeys("1234");
driver.findElement(By.className("login100-form-btn")).click();
String at= driver.getTitle();
String et= "Login";
driver.close();
if(at.equalsIgnoreCase(et)){
System.out.println("Test Passed");
}
else {
System.out.println("Test Failed");
}
}
}
Task List
Outline
sampleTest
First_test() : void
Problems Javadoc Declaration Console Results of running class sampleTest
<terminated> sampleTest [TestNG] C:\Program Files\Java\jre1.8.0_311\bin\javaw.exe (Dec 10, 2021, 9:53:18 PM)
ChromeDriver was started successfully.
Dec 10, 2021 9:53:26 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: W3C
Dec 10, 2021 9:53:26 PM org.openqa.selenium.devtools.CdpVersionFinder findNearestMatch
INFO: Found exact CDP implementation for version 96
Test Failed
PASSED: First_test
Default test
Tests run: 1, Failures: 0, Skips: 0
Default suite
Total tests run: 1, Passes: 1, Failures: 0, Skips: 0
Writable
Smart Insert
25 : 59
Type here to search
21°C
9:54 PM
10-Dec-21


eclipse-workspace - Test_sampleWebapp/src/sampleTest.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Package Explorer
MyFirstProject
JRE System Library [jre1.8.0_311]
src
Referenced Libraries
TestNG
Test_sampleWebapp
JRE System Library [jre1.8.0_311]
src
(default package)
sampleTest.java
Referenced Libraries
TestNG
testng.xml
*sampleTest.java
First_selenium_test.java
WebDriver.class
testng.xml
//driver.get("https://www.aiub.edu");
//String baseUrl= "https://www.aiub.edu";
WebDriver driver=new ChromeDriver() ;
driver.get("http://127.0.0.1:8000/login");
driver.manage().window().maximize();
driver.findElement(By.id("pNumber")).sendKeys("0174");
Thread.sleep(2000);
driver.findElement(By.id("pass")).sendKeys("1234");
Thread.sleep(2000);
driver.findElement(By.className("login100-form-btn")).click();
Thread.sleep(2000);
String at= driver.getTitle();
String et= "Document";
driver.close();
if(at.equalsIgnoreCase(et)){
System.out.println("Test Passed");
Task List
Outline
sampleTest
First_test() : void
Problems Javadoc Declaration Console Results of running class sampleTest
<terminated> sampleTest [TestNG] C:\Program Files\Java\jre1.8.0_311\bin\javaw.exe (Dec 10, 2021, 10:15:18 PM)
Test Passed
PASSED: First_test
Default test
Tests run: 1, Failures: 0, Skips: 0
Default suite
Total tests run: 1, Passes: 1, Failures: 0, Skips: 0
Type here to search
20°C
10:23 PM
10-Dec-21



6.3 Meetings:

Meetings should be scheduled every two weeks in order for the project to complete faster and return on time. In project evaluation, a testing team will come together to assess the progress of the and keep it up to date, checking for bug trends and issues as soon as possible. In addition, the test team leader meets with the development and project manager every week.

7. TEST CASES/TEST ITEMS

Test case 1:

Project Name: Hotel Management System			Test Designed by: MD Tarequl Islam	
Test Case ID: HMS_1			Test Designed date: 17/04/2022	
Test Priority (Low, Medium, High): Medium			Test Executed by: MD Tarequl Islam	
Module Name: View and post notice			Test Execution date:17/04/2022	
Test Title: Notice viewing and posting accurately				
Description: Admin should view & post notice for other employees				
Precondition (If any): Admin has the access to post notice				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Post a notice 3. Click submit 4. View notice	Admin ID: Tareq Password: 123 And Notice	Admin can successfully post notice and view.	As expected,	Pass
Post Condition: Admin can post notices and all the employees can see them in the notice list.				

Test case 2:

Project Name: Hotel Management System			Test Designed by: MD Tarequl Islam	
Test Case ID: HMS_2			Test Designed date: 17/04/2022	
Test Priority (Low, Medium, High): High			Test Executed by: MD Tarequl Islam	
Module Name: View and update the salary of employees			Test Execution date:17/04/2022	
Test Title: Salary upgradation and viewing of employees				
Description: Admin should view & update the salary of employees				
Precondition (If any): Admin has the access to update the salaries				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
5. Go to the website 6. Post a notice 7. Click submit 8. View notice	Admin ID: Tareq Password: 123 And the salary amount	Admin can successfully update and view the salary of employees.	As expected,	Pass
Post Condition: Admin can update the salary information and can see them accordingly.				

Test case 3:

Project Name: Hotel Management System			Test Designed by: MD Tarequl Islam		
Test Case ID: KD_1			Test Designed date:17/04/2022		
Test Priority (Low, Medium, High): High			Test Executed by: MD Tarequl Islam		
Module Name: Job Circular			Test Execution date: 17/04/2022		
Test Title: Posting Job Circular on the site					
Description: With a link on the dashboard, the system will present employment circulars for required jobs according to the calendar and date of interview, documentation required, and time of proceeding interview.					
Precondition (If any): Clients will allocate all the links provided according to the timing that has been given according to the interview process.					
Test Steps		Test Data	Expected Results	Actual Result	Status (Pass/Fail)
1. Go to the website 2. Click on List of job circular 3. Click on Submit application		Username: Nova123 Password: Nova&@12	People should successfully apply for jobs in the admin portal.	As expected	Pass
Post Condition: User is validated with database and successfully log in to account. The account session details are logged in the database.					

Test case 4:

Project Name: Hotel Management System	Test Designed by: MD Tarequl Islam
Test Case ID: Up_1	Test Designed date:17/04/2022
Test Priority (Low, Medium, High): Medium	Test Executed by: MD Tarequl Islam
Module Name: Update information	Test Execution date: 17/04/2022
Test Title: Update account information	
Description: Manager, Receptionist & Users can update/edit presets that are required for the software to operate.	

Precondition: Users are created with correct access levels.

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 5. Change Password 6. Click Submit	Old Password: Aa@123 New Password: Bb456@	User should made update into the application	As expected	Pass

Post Condition: User is validated with database and successfully made updates to the account. The update details are logged in the database.

Test case 5:

Project Name: Hotel Management System			Test Designed by: MD Tarequl Islam	
Test Case ID: Ve_1			Test Designed date:17/04/2022	
Test Priority (Low, Medium, High): Medium			Test Executed by: MD Tarequl Islam	
Module Name: View information			Test Execution date: 17/04/2022	
Test Title: View account information				
Description: Admin can view all the information of Manager, Receptionist and User.				
Precondition: Users need to be logged in with proper credentials.				
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 5. Click Profile Information	View Manager Information	Admin can view all the information of all the actors	As expected.	Pass
Post Condition: User is validated with database and successfully deleted/made changes in the account. The change/deletion details are logged in the database.				

Test Case: 6

Project Name: Hotel Management System			Test Designed by: MD Tarequl Islam	
Test Case ID: Con_1			Test Designed date:17/04/2022	
Test Priority (Low, Medium, High): High			Test Executed by: MD Tarequl Islam	
Module Name: Contact			Test Execution date: 17/04/2022	
Test Title: Contact Information				
Description: User can contact authority.				
Precondition: Users need to be logged in with proper credentials.				
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 5. Go to Contact 6. Fill in Information 7. Click Contact	Name: Adnan Mobile: 012345677 Message: Improve Service	User should contact proper authority	As expected,	Pass
Post Condition: User is validated with database and successfully login to account and contact mail was sent.				

Test Case: 7

Project Name: Hotel Management System	Test Designed by: MD Tarequl Islam
Test Case ID: AM_1	Test Designed date:17/04/2022
Test Priority (Low,Medium,High): High	Test Executed by: MD Tarequl Islam
Module Name: Add Manager	Test Execution date:18/04/2022

Test Title: Adding Manager to the Hotel.				
Description: The system can add Manager/ Receptionist to the system/ database.				
Precondition: Admin should login and all the needed personal data must be added .				
Test Steps	Test Data	Expected Results	ActualResults	Status(Pass/Fail)
1. Go to the website 2. Enter user name 3. Enter password 4. Click submit 5. Go to manager management section 6. Give inputs 7. Null Validation 8. Check if username is unique 9. Submit the inputs	name: jarin tasnim shama username: shama123 email: shama322411@gmail.com password: sdegy123 contact no: +8801700000000	Manager should be shown in the manager list.	As expected	Pass
Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.				

Test Case: 8

Project Name: Hotel Management System	Test Designed by: MD Tarequl Islam
Test Case ID: RM_1	Test Designed date:17/04/2022
Test Priority (Low,Medium,High): High	Test Executed by: MD Tarequl Islam
Module Name: Remove Manager	Test Execution date:18/04/2022

Test Title: Removing Manager from the System.				
Description: The system can Remove Manager/ Receptionist from the system/ database.				
Precondition: Admin should login				
Test Steps	Test Data	Expected Results	Actual Results	Status(Pass/Fail)
1.Go to the website 2.Enter user name 3.Enter password 4.Click submit 5.Go to manager management section 6.Click on delete button of the required manager 7.Press confirm button	On login table- id : 1 On manager table- login_id :1	Manager should be removed from the managers list and login should be terminated of the manager.	As expected	Pass
Post Condition: Manager should be removed from the managers list and login should be terminated of the manager.				

Test Case: 9

Project Name: Hotel Management System	Test Designed by: MD Tarequl Islam
Test Case ID: FRM_1	Test Designed date:17/04/2022
Test Priority (Low,Medium,High): High	Test Executed by: MD Tarequl Islam
Module Name: Finance & Report Management	Test Execution date:18/04/2022
Test Title: Storing Finance data to the system.	
Description: The system can store financial data of the business in a sorted way	
Precondition: Manager should login and all the financial reports must be present.	

Test Steps	Test Data	Expected Results	Actual Results	Status(Pass/Fail)
1.Go to the website 2.Enter user name 3.Enter password 4.Click submit 5.Go to manager management section 6.Give inputs 7.Perform null validation 8.Perform number validation on amount field. 9.Press submit button.	transaction_details: salary given transaction_type: debit transaction_amount: 200000 manager_id: 1	Transaction details should be shown on the list.	As expected	Pass
Post Condition: Transaction details should be shown on the list.				

8. ITEM PASS/FAIL CRITERIA

Here, if the test phase was completed successfully and the expected outcome is 95% functional with no severe flaws, the test step is considered successful. If a test step could not be completed or was completed but the expected outcome did not occur, or if the expected result could not be validated from the record, the test step must be regarded failed and the requirement not verified. For the software to pass the testing, all of the paths must be thoroughly checked.

9. TEST DELIVERABLES

- Unit Test Plan
- Test logs and turnover reports
- Acceptance Test Plan
- System Integration Test Plan
- Incident reports and summaries
- Report mock-ups

10. STAFFING AND TRAINING NEEDS

The importance of skilled personnel and teams in the construction and delivery of a project cannot be overstated. A team of skilled professionals is required to perform this job properly. Because the project can be finished on budget and on schedule with skilled workers and staff; otherwise, a lack of skilled workers can make it difficult to complete the project on time. As a result, it should be thoroughly tested to ensure that the personnel and workers are qualified for the project. To develop and ensure that various skill-based training sessions can be scheduled. Project manager, senior test engineer (test lead), junior test engineer, testing manager, database analyst and other professionals make up the team. If a senior test engineer is unavailable for a period of time, the project manager can take over or replace the junior engineer with someone who has the necessary abilities.

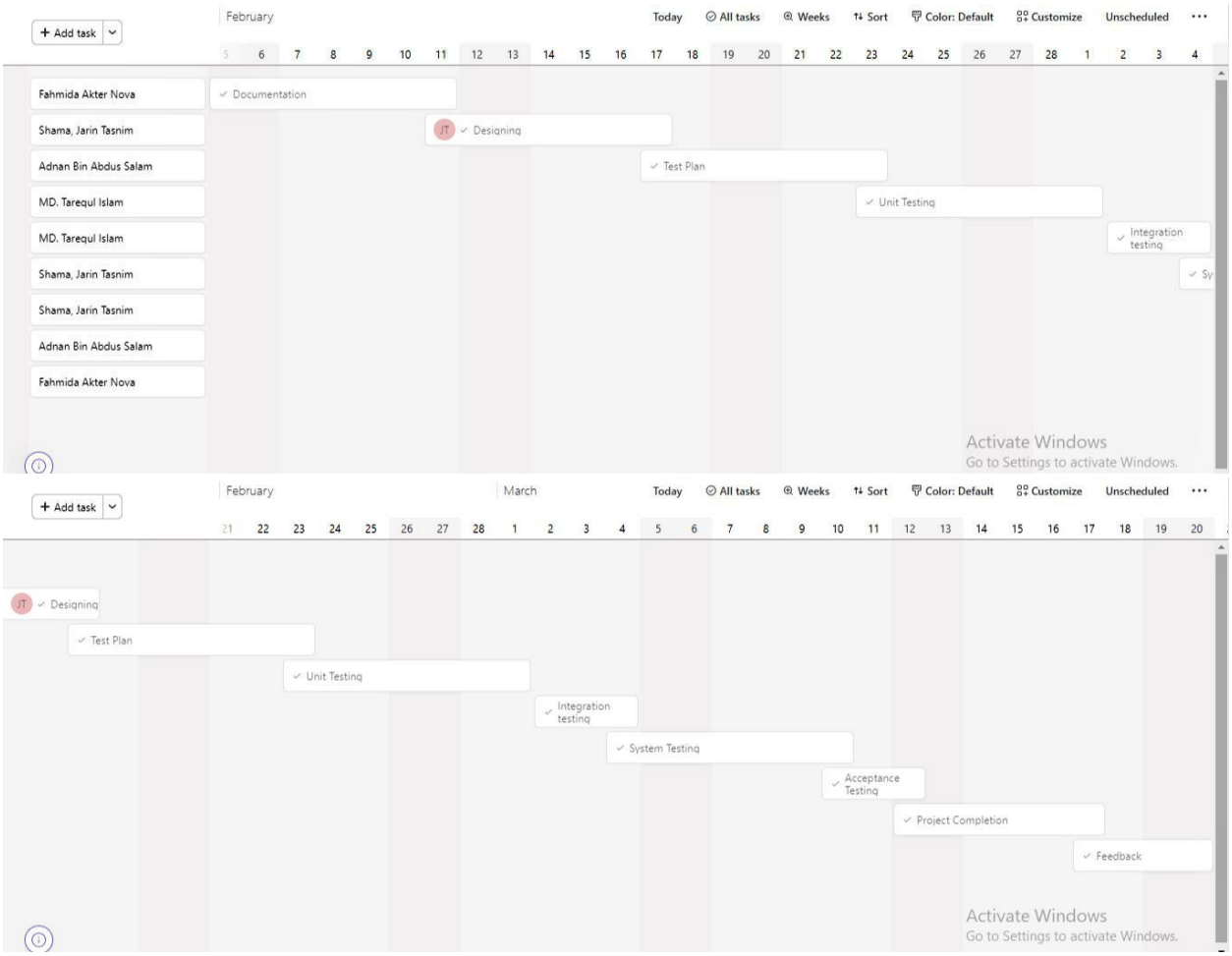
11.Responsibilities:

Project Manager	1.The Test Controller should monitor the progress of the test on a frequent basis.
	2.Manage risks that are related to the project or that are not under the control of the Test Team.
	3.Review the methodology, plans, and timetable for the test.
Development Team	1.Conduct unit testing.
	2.Fix errors and make sure the system is usable.
	3.Assist the test team in ensuring quality control
Test Planner	1.Create detailed and high-level test conditions.
	2.Achieve the desired outcomes.
	` 3.At regular status reporting meetings, update on progress.
	4.Ensure that any outages or difficulties with the test systems are reported and followed up on as soon as possible.
	5.Review the methodology, plans, and timetable for the test. 6.Before starting the System Test, double-check that the Entrance conditions have been met and before signing off on the System Test, double-check that the Exit conditions have been met.

Tester	1.Create a test data set and run it. 2.Examine the conditions and make a note of the results 3.Resolve backup-related queries.
	1.Assists with acceptability testing. 2.Make sure the system is easy to use and performs well.
End User	

12. TESTING SCHEDULE

The following testing activities have been scheduled in the project plan. The project plan timetable specifies the particular dates and hours for each task. The people who are needed for each procedure are also listed in the project timeline and plan. The project manager, in collaboration with the development and test team leaders, will coordinate the individuals required for each assignment, including the test team, development team, management, and customer.



13. PLANNING RISKS AND CONTINGENCIES

The success of a software development project can be harmed by a number of risks. As a result, we must be prepared in every manner to ensure that the project is not affected by any risks. Due to schedule associated risk, time related risk is formed. If the schedule is not completed correctly, there may be issues with project timing, and the project may take longer to prepare. The project will not be completed on time, and the client will be dissatisfied. Costing-related risk can be caused by incorrect cost estimation. The majority of the costing risk stems from a scheduling issue. The longer it takes to prepare a project, the higher the cost will be. When a project's quality falls short of stakeholder expectations, there's a good chance it won't succeed. Technical debt can be caused by low-quality code. Other developers may find it difficult to examine or alter the code since it is tough to read. It could have been hurried and delivered

without proper testing, resulting in a large number of bugs that could have been avoided. Because you rely heavily on their comments, it's critical to have an open, quick, and informative conversation with your stakeholders. If a client or stakeholder with whom you are working does not engage as much as they should with you or your team, your workflow and efficiency will suffer significantly.

14. Approvals

Project Manager	MD. Tarequl Islam
Developer	Fahmida Akter Nova
Test Lead	MD. Tarequl Islam
Test Planner	MD. Tarequl Islam
Tester	MD. Tarequl Islam
End User	Jarin Tasnim Shama MD. Tarequl Islam Adnan Bin Abdus Salam