American International University- Bangladesh (AIUB)

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

Section: A/ B
Software Quality Assurance and Testing

Orphanage Management System

The report was submitted.
By

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4	Ripon Ahmed Robin	18-38757-3

Checked By Industry Personnel

Name:

Designation:

Company:

Sign:

Date:

Software Test Plan

for

< Orphanage Management System >

Version 1.0 approved.

Prepared by < Saiful Islam, Mouri Kamal, Most. Afroja Mahamuda, Ripon Ahmed Robin >

< American International University- Bangladesh >

<25th December,2023>

Table of Contents

Revision History

Revision	Date	Updated by	Update Comments
1	12.12.2023	Saiful Islam	First Draft
2	15.12.2023	Mouri Kamal	Second Draft
3	19.12.2023	Most. Afroja Mahamuda	Third Draft
4	24.12.2023	Ripon Ahmed Robin	Fourth Draft (Final Draft)

1. TEST PLAN IDENTIFIER:RS-MTP01.3

2. REFERENCES

- MOURI KAMAL: http://localhost/Orphanage-Management-System-main/Views/Homepage/Land...
- ORPHANAGE INFORMATION MANAGEMENT SYSTEM (OIMS) A Project Report | George M U S I N E Musalakani - Academia.edu

3. INTRODUCTION

3.1 Background to the Problem:

Orphanage management software must undergo quality testing because of the wide range of customer requirements, intricate data structures, and constantly changing laws. User-friendly interfaces, strong security measures, and seamless connection with social services databases must all be ensured during testing. Because orphanage operations are dynamic, comprehensive testing is necessary to ensure that the software is reliable and efficient in supporting crucial childcare processes and to prevent system failures, data discrepancies, and potential vulnerabilities.

3.2 Solution to the Problem:

Construct a strong system that guarantees data correctness, security, and user-friendly interfaces to improve orphanage administration through software quality testing. To find and fix such problems, carry out thorough testing that includes functional, performance, and security evaluations. Make user-friendly design a top priority for simple navigation and implement

improvements frequently to meet changing requirements. Integrate a dependable database management system to effectively manage resident records. To avoid data loss, put automated backup processes in place. Make sure users are trained so that adoption and troubleshooting go smoothly. Engage stakeholders regularly to get their opinions on how to improve and optimize the software. The management of orphanages will be streamlined by a comprehensive approach to software quality testing, which will increase organizational efficacy, efficiency, and transparency.

4. REQUEIREMNT SPECIFICATION

4.1 System Features

4.1.1.2 Functional Requirements

2.1 Monitoring Orphan, adopter, and donor information by maintaining accurate database of all ID.

2.2 If the Orphan, adopter, and donor is valid on his /her information, then add that user.

2.3 The Orphan, adopter and donor will be able to see the Supervisor status.

Priority level: High

Precondition: Supervisor must have the right to access the whole system.

Cross-references: 1.1, 1.2, 3.1

4.1.1.3 Functional Requirements

3.1 Supervisor and Adopter can registration procedure.

3.2 Supervisor can set the appointment.

3.3 Supervisor can contact Adopter, orphan, and donor.

Priority level: High

Precondition: Must be in logged in condition

Cross-references: 2.1, 2.2, 2.3

Adopter, Orphan and Donar Edit and Update their profile.

4.1.1.4 Functional Requirements

4.1 Adopter, Orphan, and Donor information from the website.

4.2 Adopter, Orphan and Donar Update their information from the website.

4.3 Adopter, Orphan and Donar can easily submit their information through the site.

Priority level: Medium

Precondition: Must be in logged in condition

Cross-references: 4.1, 6.2

5. Chat

4.1.1.5 Functional Requirements

5.1 Supervisor can easily contact with Adopter, Orphan and Donar.

5.2 Through chat they can ask for any help.

5.3 Supervisor can give them proper direction.

Priority level: Medium

Precondition: Must be in logged in condition

Cross-references: 5.1, 6.2

4.2 System Quality Attributes:

- **Usability**: It should be accessible to any user to sign up and access the system.
- **Efficiency**: Each functional need needs to be accomplished.
- **Portability**: This is going to work correctly across all platforms.
- **Maintainability**: It is feasible to resolve any problems that are found or detected in the system.

Correctness: The client's desires will complete all aspects mentioned.

Functionality: A list of available appointments will be displayed.

Accessibility: Since the software is web-based, users can access it from any location with an Internet connection.

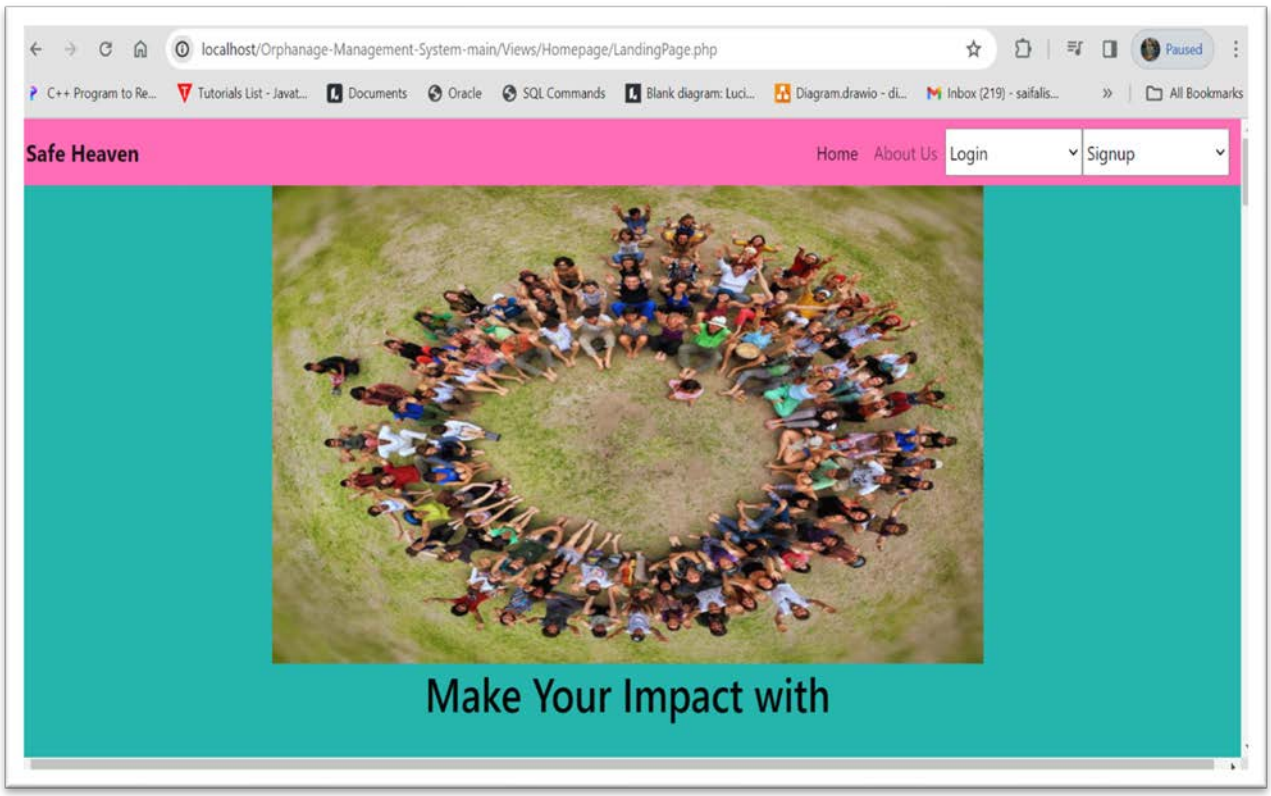
Readability: Relying on appointment software to contain scheduling requirements appropriately and precisely is essential. Verifying if the system is robust enough to withstand any circumstance is crucial.

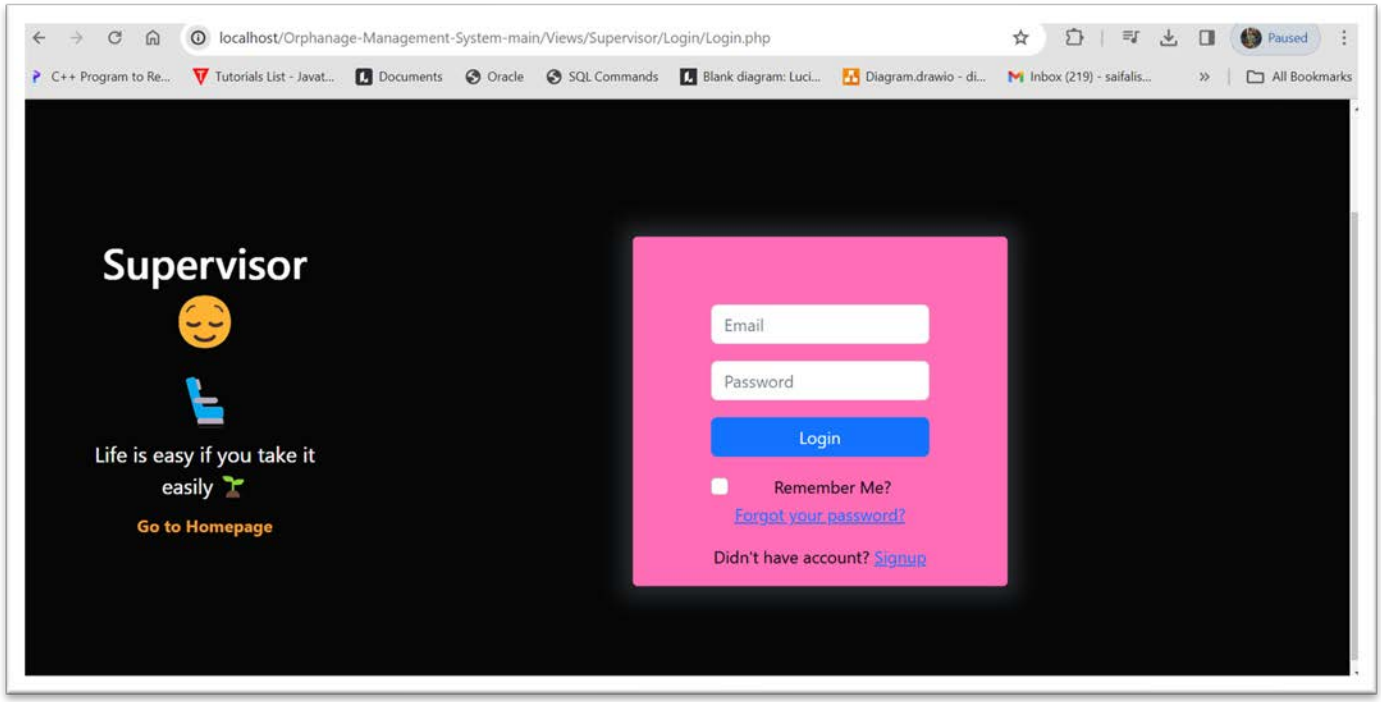
Reliability: each feature will function properly across a range of devices or working conditions. o Flexibility: Able to adjust to suit any requirements.

Integrity: To protect the privacy of data entering the system and prevent unauthorized access to system functions, information loss, and software virus infection, system integrity or security measures must be adequate. Security before integrity.

4.3 System Interface

4.3.1 Supervisor

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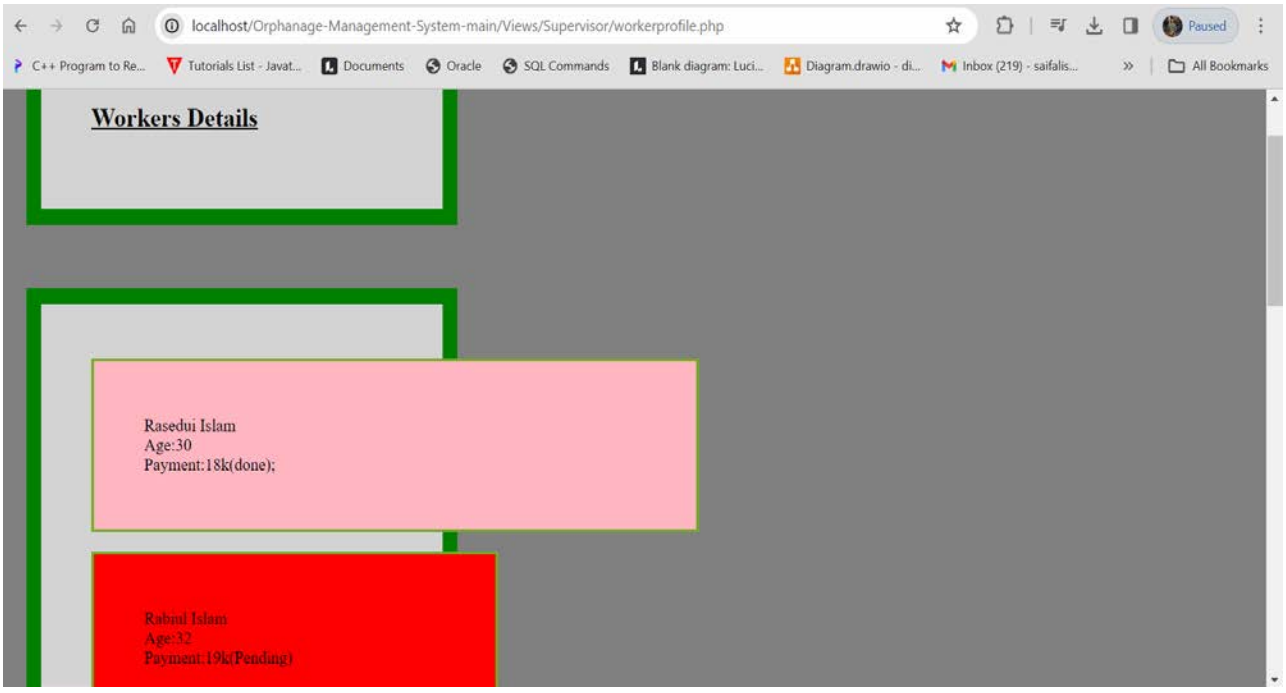
Documents
Oracle
SQL Commands
Blank diagram: Luci...
Diagram.drawio - di...
Inbox (219) - saifalis...
All Bookmarks
Supervisor
Life is easy if you take it easily
Go to Homepage
Email
Password
Login
Remember Me?
Forgot your password?
Didn't have account? Signup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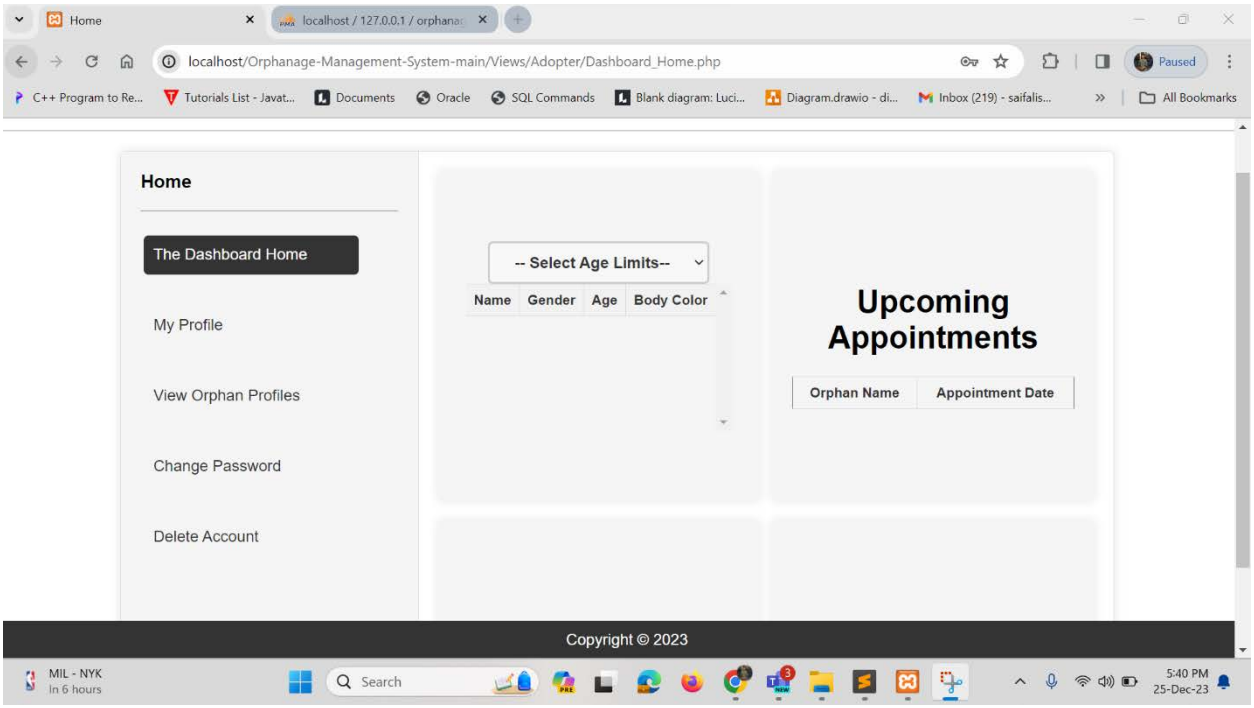
Tutorials List - Javat...
Documents
Oracle
SQL Commands
Blank diagram: Luci...
Diagram.drawio - di...
Inbox (219) - saifalis...
All Bookmarks
Workers Details
Rasedui Islam
Age:30
Payment:18k(done);
Rabiul Islam
Age:32
Payment:19k(Pending)

Adopter:


Home
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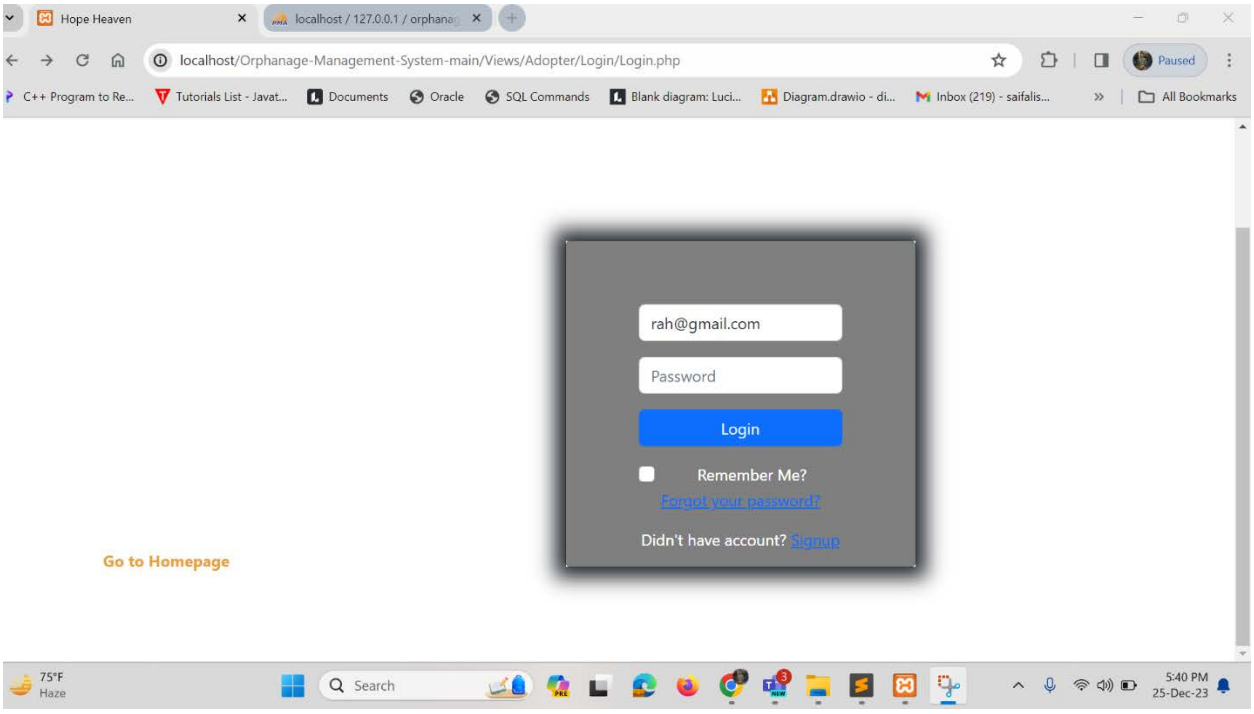
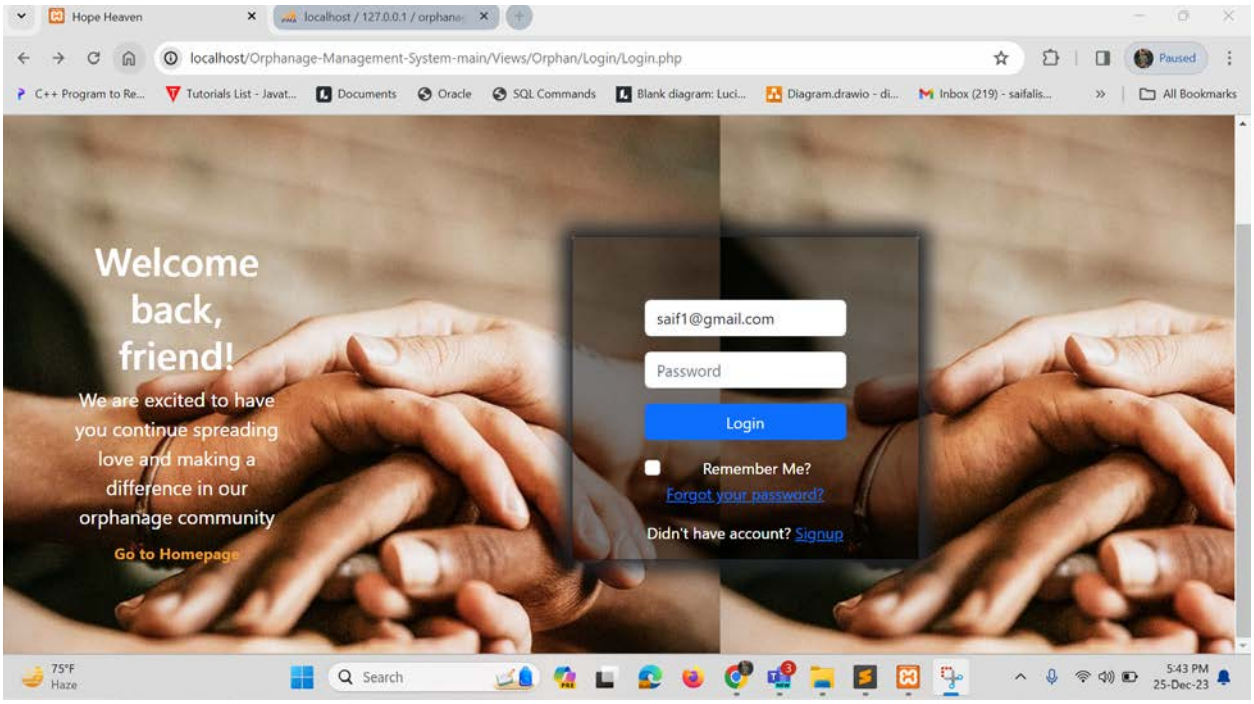
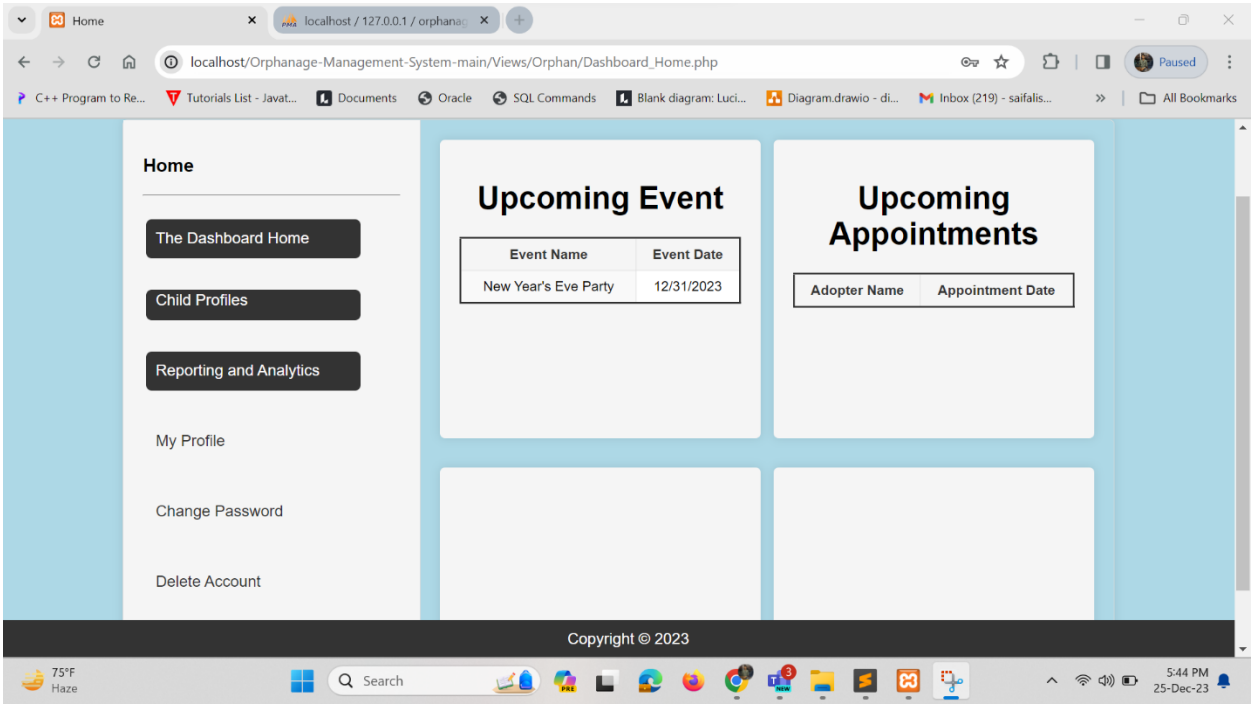
Home
The Dashboard Home
My Profile
View Orphan Profiles
Change Password
Delete Account
-- Select Age Limits--
Name
Gender
Age
Body Color
Upcoming Appointments
Orphan Name
Appointment Date
Copyright © 2023


Hope Heaven
localhost/Orphanage-Management-System-main/Views/Adopter/Login/Login.php
rah@gmail.com
Password
Login
Remember Me?
Forgot your password?
Didn't have account? Signup
Go to Homepage

Orphan:


Hope Heaven
localhost/Orphanage-Management-System-main/Views/Orphan/Login/Login.php
Welcome back, friend!
We are excited to have you continue spreading love and making a difference in our orphanage community
Go to Homepage
saif1@gmail.com
Password
Login
Remember Me?
Forgot your password?
Didn't have account? Signup


Home
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Home
The Dashboard Home
Child Profiles
Reporting and Analytics
My Profile
Change Password
Delete Account
Upcoming Event
Event Name
Event Date
New Year's Eve Party
12/31/2023
Upcoming Appointments
Adopter Name
Appointment Date
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4.4 Project Requirements

4.5 Developer Team***:***

Team Member	Total Number	Hour/Day	Monthly Salary (Per Person)	Total Salary
Business Analyst	1	6	40,000/-	60,000
Senior Developer	2	6	50,000/-	100,000
UX Designer	2	4	40,000/-	80,000
Front-end Developer	2	3	45,000/-	90,000
Back-end Developer	2	3	45,000/-	90,000
Quality Tester	2	5	45,000/-	90,000

Table 1: - Developer Cost Table

Estimated Monthly Salary for Developers: 60,000 + 100,000 + 80,000 + 90,000 + 90,000 + 90,000= 510000/-

So, the total salary cost for one month of development is 510000 BDT.

The time it will take to finish development is estimated to be around 7 weeks or 1.7 months.

Estimated Total Salary During Project Development: 510000 X 1.7 = 867000 BDT

Annual Office Rent and other Cost:

- *Office Space Rent:*
  Approximately 70,000 BDT Per Month [In Gulshan Area]
  Total Office Rent (During project development): = 70,000 X 2 =140000/-
- *Electricity Bills:*
  Average electricity bill for a typical office space is around 20,000 BDT So, Total electricity bill (During project development) = 20,000 X 2 = 40,000 BDT
- *Others:*
  Internet Cost (During project development): 1000 X 2 = 2000/-Approx. office accessories cost 3,000/-

  Grand Total: 867000 + 140000+ 40,000 + 2000 +3000 = 1,052,000 BDT

5. FEATURES NOT TO BE TESTED

The following is a list of the areas that will not be specifically addressed. All testing in these areas will be indirect because of other testing efforts.

For example:

5.1User Interface Aesthetics:

Extensive testing of the visual design and aesthetics may not be a top priority for an Orphanage Management System. While basic usability is important, intricate design details might be less critical.

5.2 Advanced Graphics or Animations:

Unless the system includes a specific component where advanced graphics or animations play a crucial role, testing for high-end graphical performance may not be necessary.

5.3 Advanced Reporting and Analytics:

While basic reporting functionality is important, complex reporting and analytics features may not be a priority unless explicitly required by stakeholders.

5.4 Advanced Security Features:

While basic security measures are crucial, extensive testing of advanced security features that are not directly relevant to the system's core functionality may be a lower priority.

6. TESTING APPROACH

6.1 Testing Levels

The test for the online Unit, System/Integration (combined), and Acceptance test levels will comprise an astonishing technique for interacting with the project's adopter and supervisor. It is intended that at least one independent test professional work full-time on system/integration testing projects. However, most of the testing will be performed by the test manager with input from the development teams due to financial limitations and set schedules.

Unit Test:

A unit test is perhaps the most fundamental form of testing. A developer will check that every feature works as planned inside the component design after it has been created. Developers will carry out this testing because they are the ones who know how these features work and because they have experience with internal logic, program structure, etc. The development team leader will provide their consent, and the developer will be carrying out UNIT testing in our application. The programmer must provide the team leader with evidence of unit testing (test case list, sample

output, data printouts, defect information) before it is approved and sent to the tester. All unit test data will be accessible to the test person as well.

Integration Test:

Integration testing is the second stage of testing. the current state. One module or feature at a time will be connected to the others. This testing will be supervised by our development team leader, who will assess the accuracy of the data communication between these modules. At this stage, we will employ techniques such as top-down integration, bottom-up integration, big bang approach, and sandwich strategy.

System Test:

After the completion of the unit and integration tests, this testing level will be conducted by our quality assurance team. Once our entire program is developed, our quality team will verify that the entire system satisfies the requirements provided by the customer. We referred to these testing techniques as "black boxes." At this evaluation level, a variety of testing techniques will have been applied. Our testing team also does nonfunctional testing, including volume, load, and performance testing, in addition to functional testing.

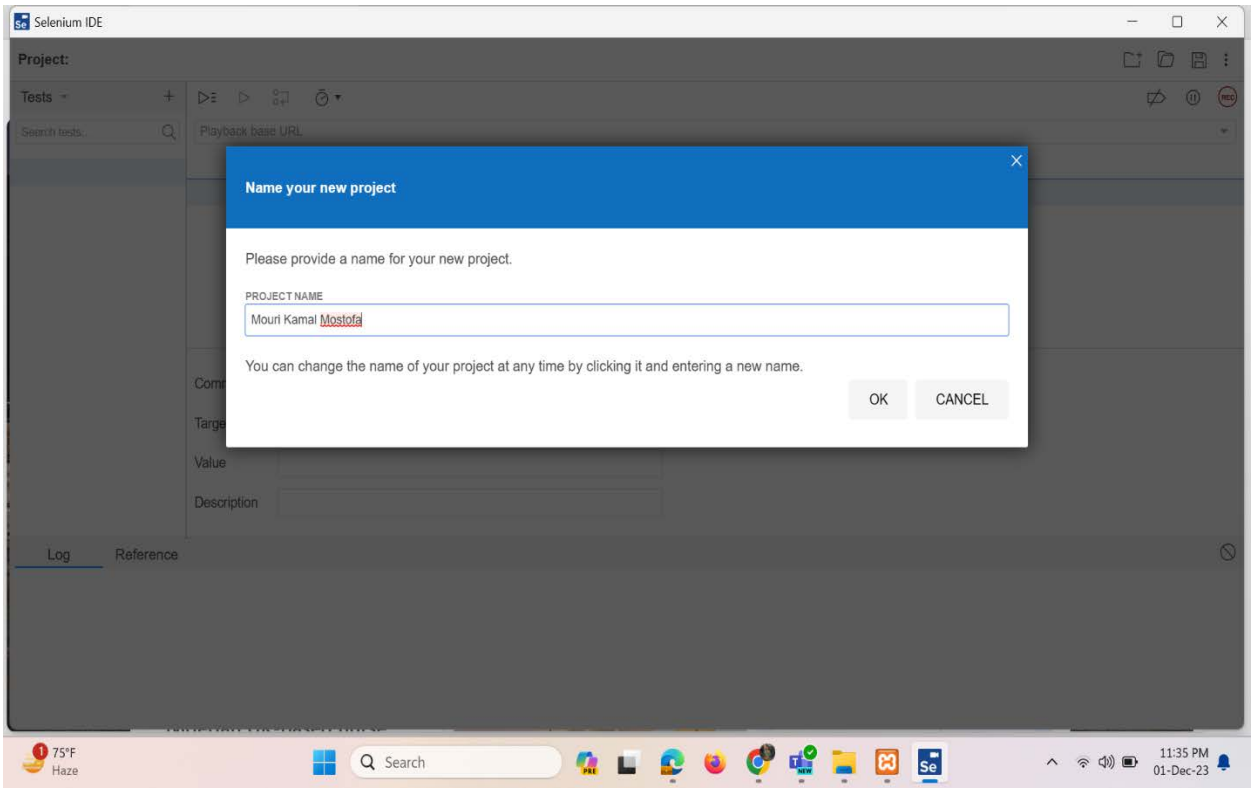
Acceptance Test:

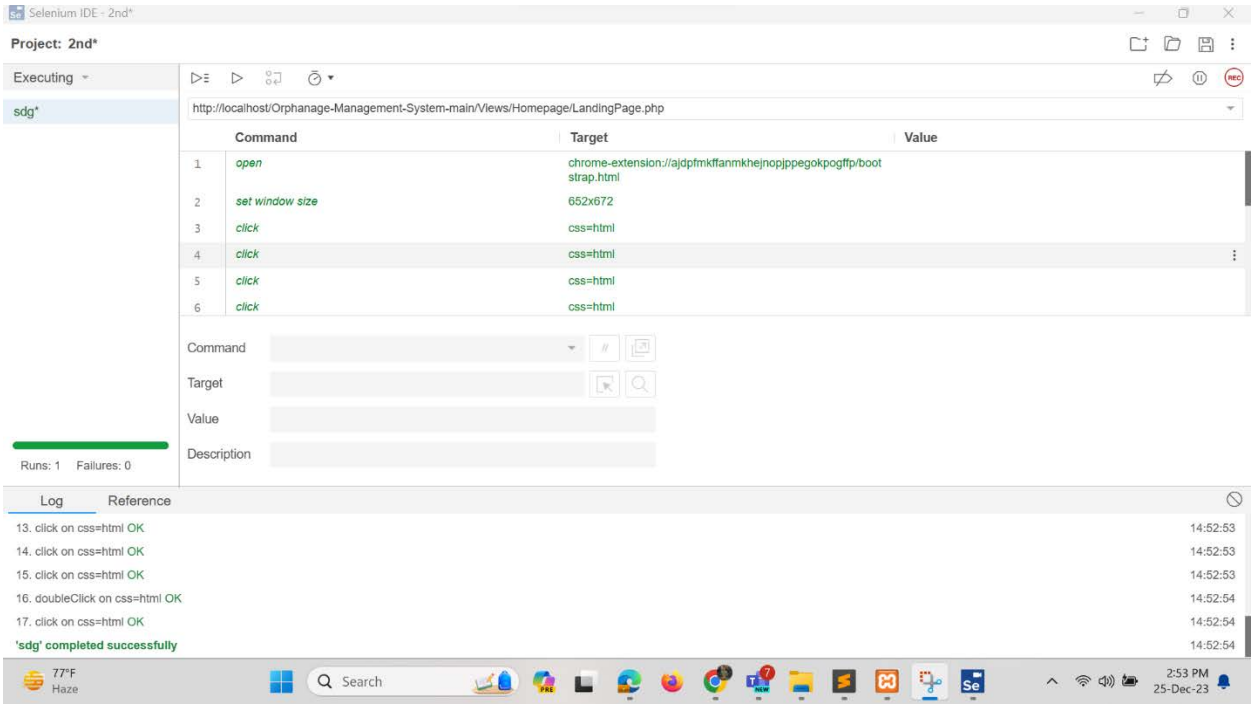
Following the completion of our application in its entirety and the testing of the first three stages, we shall proceed to the acceptance testing stage. At present, the end user and the test team leader will collaborate to assess our product. We will essentially examine the functioning and usability of the software. After this testing process, we will make sure that our system meets all users' needs.

6.2 Test Tools

Selenium: To perform automated testing, we selected Selenium. Our quality control engineer will do this portion of the testing. We will perform automation testing after the manual portion of the test. The most crucial tool for automated testing is Selenium. A free and open-source framework called Selenium tests web applications across various platforms and browsers. Programming languages used to generate Selenium Test Scripts include Python, C#, Java, and others.

Selenium screenshots:




Selenium IDE - 2nd*
Project: 2nd*
Executing
sdg*
http://localhost/Orphanage-Management-System-main/Views/Homepage/LandingPage.php
Command
Target
Value
1 open chrome-extension://ajdpfmkffanmkhejnopjppegokpogffp/bootstrap.html
2 set window size 652x672
3 click css=html
4 click css=html
5 click css=html
6 click css=html
Command
Target
Value
Description
Runs: 1 Failures: 0
Log
Reference
13. click on css=html OK 14:52:53
14. click on css=html OK 14:52:53
15. click on css=html OK 14:52:53
16. doubleClick on css=html OK 14:52:54
17. click on css=html OK 14:52:54
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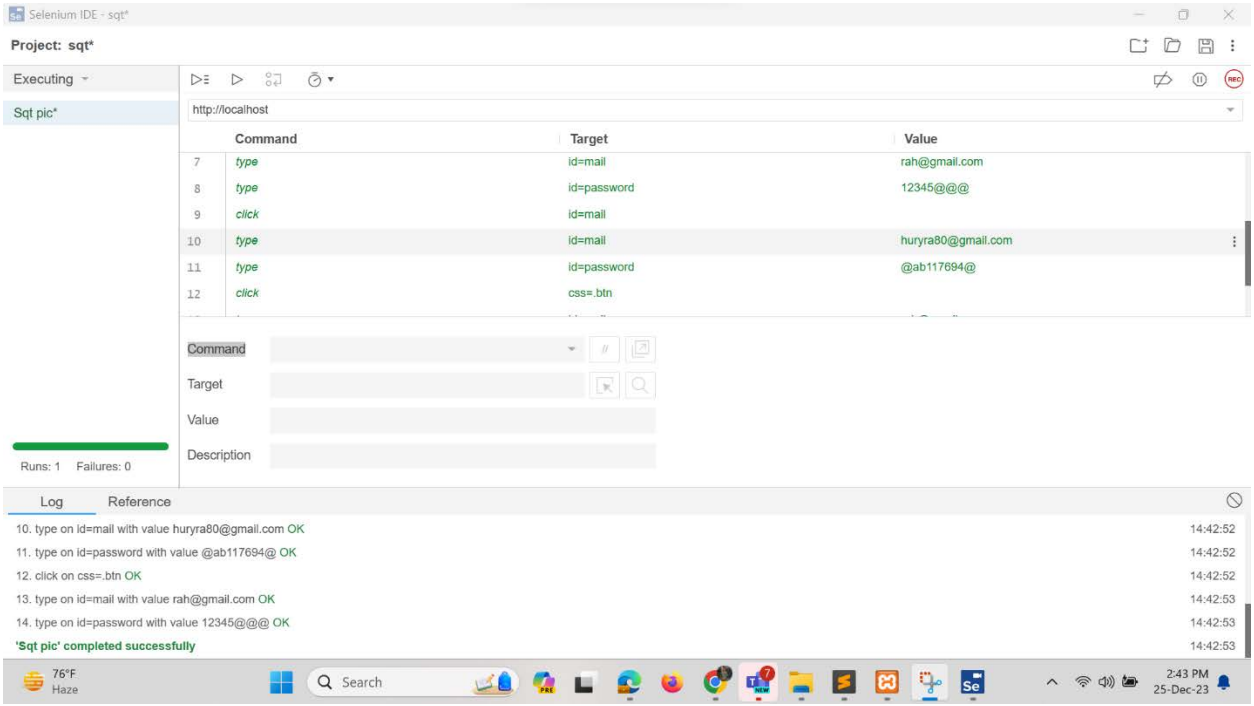
77°F Haze
Search
2:53 PM 25-Dec-23


Selenium IDE - sqt*
Project: sqt*
Executing
Sqt pic*
http://localhost
Command
Target
Value
7 type id=mail rah@gmail.com
8 type id=password 12345@@@
9 click id=mail
10 type id=mail huryra80@gmail.com
11 type id=password @ab117694@
12 click css=.btn
Command
Target
Value
Description
Runs: 1 Failures: 0
Log
Reference
10. type on id=mail with value huryra80@gmail.com OK 14:42:52
11. type on id=password with value @ab117694@ OK 14:42:52
12. click on css=.btn OK 14:42:52
13. type on id=mail with value rah@gmail.com OK 14:42:53
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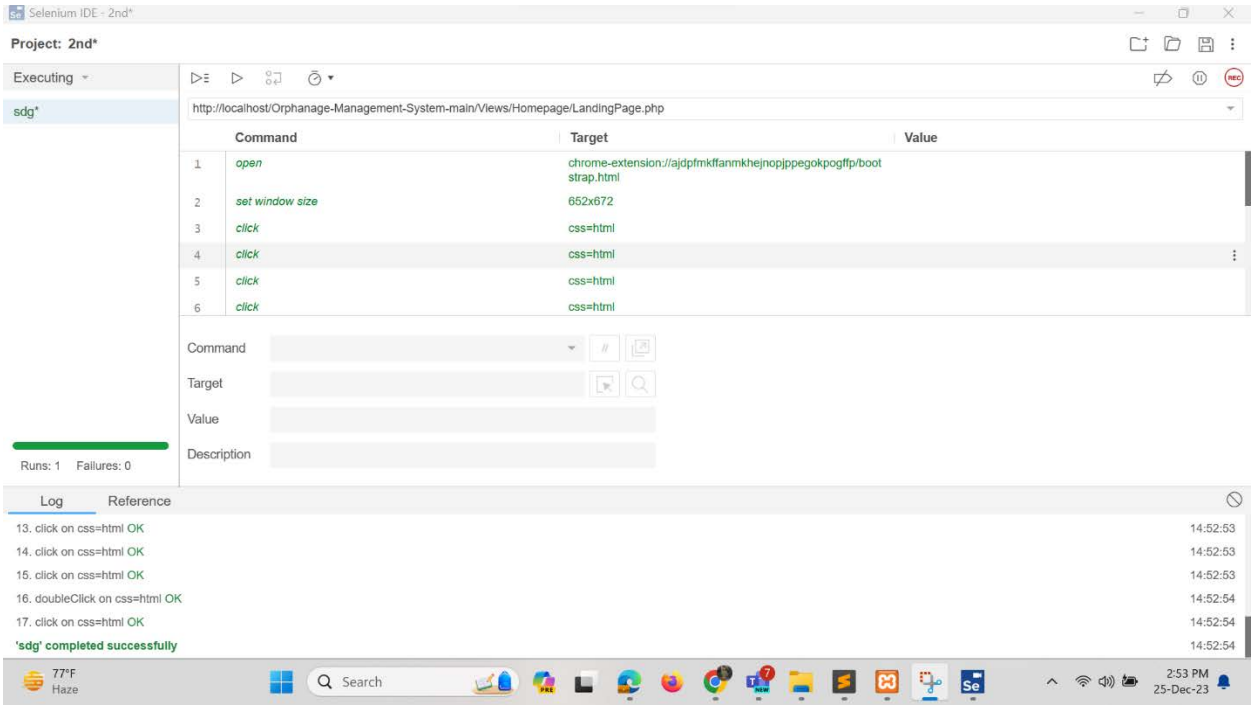
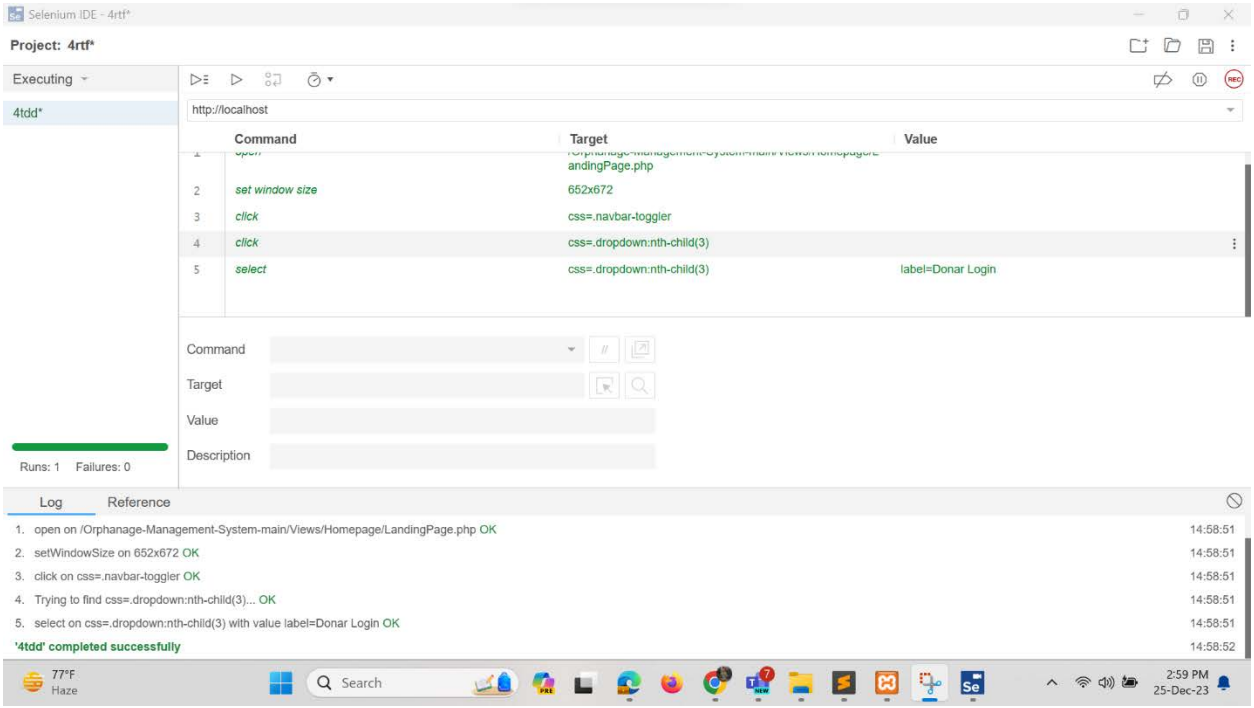

Selenium IDE - 2nd*
Project: 2nd*
Executing
sdg*
http://localhost/Orphanage-Management-System-main/Views/Homepage/LandingPage.php
Command
Target
Value
1 open chrome-extension://ajdpfmkffanmkhejnopjppegokpogffp/bootstrap.html
2 set window size 652x672
3 click css=html
4 click css=html
5 click css=html
6 click css=html
Command
Target
Value
Description
Runs: 1 Failures: 0
Log
Reference
13. click on css=html OK 14:52:53
14. click on css=html OK 14:52:53
15. click on css=html OK 14:52:53
16. doubleClick on css=html OK 14:52:54
17. click on css=html OK 14:52:54
'sdg' completed successfully 14:52:54
77°F Haze
Search
2:53 PM 25-Dec-23


Selenium IDE - 4rtf*
Project: 4rtf*
Executing
4tdd*
http://localhost
Command
Target
Value
2 set window size 652x672
3 click css=.navbar-toggler
4 click css=.dropdown:nth-child(3)
5 select css=.dropdown:nth-child(3) label=Donar Login
Command
Target
Value
Description
Runs: 1 Failures: 0
Log
Reference
1. open on /Orphanage-Management-System-main/Views/Homepage/LandingPage.php OK 14:58:51
2. setWindowSize on 652x672 OK 14:58:51
3. click on css=.navbar-toggler OK 14:58:51
4. Trying to find css=.dropdown:nth-child(3)... OK 14:58:51
5. select on css=.dropdown:nth-child(3) with value label=Donar Login OK 14:58:51
'4tdd' completed successfully 14:58:52
77°F Haze
Search
2:59 PM 25-Dec-23

6.3 Meetings

The quality assurance team leader will schedule a weekly meeting to review the status of our application. To identify mistakes and problems as soon as feasible, we will also do code reviews and code walks on a regular basis. Our project manager meets with the lead of our quality assurance team once a week to discuss the project's progress. Every two weeks will take part in the inspection phase.

7. TEST CASES/TEST ITEMS

Project Name: Orphanage Management System	Test Designed date: 14.12.2023.
Test Case ID: FR_1	Test Designed by: Mouri Kamal. Test Executed by: Most. Afroja Mahamuda
Test Priority (Low, Medium, High): High	Test Execution date: 15.12.2023
Module Name: signup	
Test Title: signup up to the home page	
Description: Testing signup page	
Precondition (If any): Employee must be logged in from their account while receiving payment	

Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1.Go to the website 2. Enter a valid email 3. enter a password 4. signup	Date: 15.12.23 Time: 10:42 PM user: Mouri pass: 303*1M0	user should be able to sign up successfully	Sign up successfully	pass

Post Condition:

Project Name: Orphanage Management System	Test Designed date: 16.12.2023.
Test Case ID: FR_2	Test Designed by: Ripon Ahmed Robin. Test Executed by: Saiful Islam
Test Priority (Low, Medium, High): High	Test Execution date: 17.12.2023
Module Name: supervisor login	
Test Title: login as a supervisor	
Description: Testing supervisor login page	

Precondition (If any): User must have to use a valid username and email address.

Test Steps	Test Data	Expected Results	Actual	Status

			Results	(Pass/Fail)
1.Go to the supervisor login page 2. Enter a valid username 3. enter a valid email 4. enter password 5.login	Date: 17.12.23 Time: 7:42 PM user: Saiful pass: 203*1S0	user should be able to login successfully	Login successfully	pass
Post Condition:				

Project Name: Orphanage Management System	Test Designed date: 20.12.2023.
Test Case ID: FR_3	Test Designed by: Most. Afroja Mahamuda. Test Executed by: Saiful Islam
Test Priority (Low, Medium, High): High	Test Execution date: 21.12.2023
Module Name: update	
Test Title: Update a user profile	
Description: Testing updated module	
Precondition (If any): User must have to enter the accessible profile.	

Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1.Go to a user profile 2. change profile picture 3. rename the username 4. enter password to save the updates 5.login	Date: 20.12.23 Time: 9:42 PM user: Afroja pass: A03*1S0	user should be able to update his/her profile successfully	updated	pass
Post Condition:				

Project Name: Orphanage Management System	Test Designed date: 22.12.2023.
Test Case ID: FR_4	Test Designed by: Ripon Ahmed Robin Test Executed by: Mouri Kamal
Test Priority (Low, Medium, High): High	Test Execution date: 23.12.2023
Module Name: delete	
Test Title: delete a user profile	
Description: Testing deleted module	

Precondition (If any): User must have to enter the accessible profile.

Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1.Go to a user profile 2. Delete account 3. Enter Password 4. Click Delete Account	Date: 22.12.23 Time: 2:42 PM user: Ripon pass: R03*1S0	user should be able to Delete his/her account successfully	Deleted	pass

Post Condition: after deleting any user profile the user profile will be deleted forever

8. ITEM PASS/FAIL CRITERIA

- Each module or feature passes a unit test.
- Each module is added one at a time, and an integration test is conducted following the integration of each module.
- The integration test was 100% successful.
- no significant flaws remain present there.
- There are no more than fifteen minor flaws left unrepaired.
- All code is covered according to code coverage tools.
- Making sure that every important test case passes.
- Finding and dealing with each high-priority defect

9. **Test DELIVERABLES**:

The technical and administrative processes needed for the system's development and delivery are outlined in the Software Quality and Testing Plan.

- First, a strategy for the acceptance test, which acts like a contract between our project and the project's authors for release.

- After that, a system integration plan will be required. Since system integration is defined as a process, we may use it to link different software programs or computer systems to a larger, single system so that all the solutions can operate together.

- We must evaluate the system that will be tested in the unit test strategy section.

- Screen prototypes consisting of several papers. Iterative prototyping with a redesign constitutes what that one prototype is. Iterative prototyping involves creating a prototype based on the product design, testing its functionality and usability, and then adjusting what didn't work. The research team will create and produce a new version for testing after the testing is completed.

- A framework for entering and copying graphics is offered by mockup reports, in addition to the chance to experiment with various chart, graph, and illustration formats and arrange them so that the reader doesn't have to flip back and forth between the report and a copy of the prototype artwork.

- Screen prototypes, software control implementation, report mockups, hardware and software platforms, concurrency detection, acceptance test strategy, system integration plan, and design goals are all addressed here. Reports on occurrences are essential for maintaining worker safety and creating best practices in the workplace. An effective incident reporting system is essential to a project's success. In our project, we produced a report and a thorough description of our work. a test manual that describes the system's unit and system tests, the intended outcomes, and the tests executed before delivery.

- Events that happened throughout a test run or scheduled run are recorded in the test log along with each checkpoint's current condition. We updated every checkpoint in our project and gathered information about our actions and procedures. The number of workers who have been fired from a company among its existing workforce is

summarized in an employee turnover report. The average for the year is seen in the monthly analysis report, which is generated every month. It therefore plays a crucial part in our endeavor and is essential.

10. STAFFING AND TRAINING NEEDS

Ensuring that the project has enough personnel with the right knowledge and experience to finish it successfully is the aim of the staffing technique. The tasks necessary to finish the project are listed in detail below. It outlines every position involved in the project, their duties, and the number of workers required to fill each one.

- It is made obvious that at least one or two project managers who are skilled in planning, organizing, and carrying out tasks while adhering to schedules and budgets will be present.

- For the system/integration and acceptance testing phases of our project, we require at least one full-time tester. After the project commences, the full-time tester will be appointed after roughly four months. The test manager will fill in for the tester if there isn't one. To ensure an accurate and suitable test, we must solve a few training-related issues.

- We hired lead programmers for our project. Software developers in charge of multiple projects are known as lead programmers. He oversees project management, technological choices, and developer work at the technical level. At the managerial level, he oversees achieving deadlines and goals.

- The basic concepts of the EDI interface must be explained to developers and testers. Before the project is eventually approved, operations staff members must also receive thorough training in the EDI communication procedure.

- Examine project specifications and figure out how to convert a designer's concept into a plan that developers can work with. We can accomplish this kind of work in our project by bringing in a requirement analyst. o Mechanisms for regulating and monitoring are essential to the goals of the project. The project will function well if it has a well-planned budget, and all of its perspectives are operating. We determined the goal of our testing after determining our project's testing method and objectives. also noted the appearance of a testing cycle that has been completed.

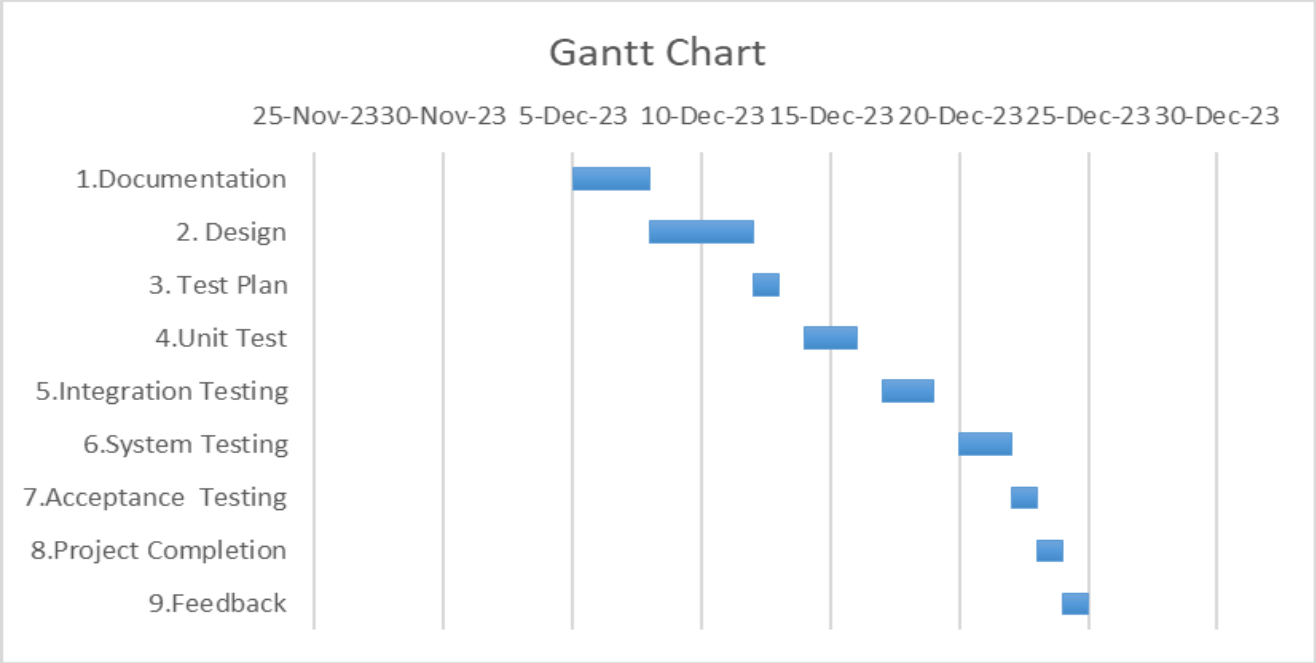
- User and development management are significantly connected. The user administrator decides where to go based on adjustments to the control procedure. Therefore, the user management team can be consulted when the development management system in our project needs assistance to better the project.

11. RESPONSIBILITIES

	TM	PM	Dev Team	Test Team	Client
Acceptance test Documentation & Execution	X	X		X	X
System/Integration test Documentation & Exec.	X		X	X	
Unit test documentation & execution	X		X	X	
System Design Reviews	X	X	X	X	X
Detail Design Reviews	X	X	X	X	
Test procedures and rules	X	X	X	X	
Screen & Report prototype reviews			X	X	X
Change Control and regression testing	X	X	X	X	X

12. TESTING SCHEDULE

The project plan includes time set aside for the following testing tasks. The project plan schedule contains exact times and timings for every task. The project schedule and plan also include a list of the personnel needed for each step of the process. The project manager will work with the leaders of the development and test teams to coordinate the people needed for each task, as well as the management, customer, and test team. Any PM tool must be used to create the schedule.



Serial N0.	Task Name	Duration
1	Document	3 days
2	Design	4 days
3	Test Plan	1 days
4	Unit Testing	2 days
5	Integration Testing	2 days
6	System Testing	2 days
7	Acceptance Testing	1 days
8	Project Completion	1 days
9	Feedback	1 days

13. PLANNING RISKS AND CONTINGENCIES

Very few Reassigned Sales Personnel. There are two open vacancies in the Reassigned Sales administrative staff right now. Staff reviews of pertinent documents and participation in the Acceptance test procedure may be delayed because of this staff shortfall. The dates for reviews and acceptance testing will be adjusted if client staff becomes an issue. There will be no attempt to avoid any step in the evaluation and testing processes.

14. APPROVALS:

Project Sponsor	Shishuder Jonno Foundation
Development Management	Saiful Islam
Project Manager/Team Leader	Saiful Islam
Test Manager/Tester	Mouri Kamal
Test Manager	Ripon Ahmed Robin
Test Executed BY	Mouri Kamal
Project Analyst	Most. Afroja Mahamuda