

American International University-Bangladesh (AIUB)

Department of Computer Science Faculty of Science &Technology (FST) Spring 22-23

Section: B

Software Quality Assurance and Testing

TourHub

A Report submitted By

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**Checked By Industry Personnel**

Name:

Designation:

Company:

Sign:

Date:

Software Test Plan

for

<TourHub >

Version 1.0 approved

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# Revision History

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| --- | --- | --- | --- |
| Revision | Date | Updated by | Update Comments |
| 0.1 | 2024.3.31 | Protick, Hasin Khan | First Draft |
| 0.2 | 2024.04.08 | Nazmul Hossain Arnob | Second Draft |
| 0.3 | 2024.04.11 | Protick, Hasin Khan | Third Draft |
| 0.4 | 2024.04.20 | Nazmul Hossain Arnob | Fourth Draft |
| 0.5 | 2024.04.24 | M Musfiqur Rahman Muin | Fifth Draft |
| 0.6 | 2024.04.27 | Al Asif | Sixth Draft |
| 0.7 | 2024.05.1 | Musfiqur Rahman Muin | Seven Draft |
| 0.8 | 2024.05.10 | Al Asif | Eight Draft |

1. INTRODUCTION

## Background to the Problem

TourHub is a full tour management system in Bangladesh. It is a complete tour guide and support system. Tourism has turned out to be an economic booster contributing to the economic development of many countries over the last few decades. People see holidays as a necessity, and not as luxury in the present scenario. Tourism calls for coordination and cooperation between travel agents, tour operators, and tourists. Tourism has a few major elements − destinations, attractions, sites, accommodation, and all ancillary services

A tour management system (TMS) is a software application designed specifically for the tourist who can easily make a tour plan. It is typically used by tourist. Tourism was mainly being traditional in its early form. With the evolution of cultures, economies, and knowledge, tourism took a different form called sustainable tourism with the aspect of well-planned tour, well-studied destination, and conservation of destination. It involves the management of multitude of activities such as studying tour destination, planning the tour, making travel arrangements and providing accommodation. It also involves marketing efforts to attract tourists to travel to particular destinations. It involves the management of multitude of activities such as studying tour destination, planning the tour, making travel arrangements and providing accommodation. It also involves marketing efforts to attract tourists to travel to particular destinations.

## Solution to the Problem

This system aims to develop an application that manages the procedures and operations of a travel agency and client information. It helps travel companies manage their customers, vehicles, and agents. It simplifies and accuracy the operations of the travel business. The standalone platform simplifies tourist administration by handling agency requests and offering services to customers situated in various locations. Tour management software helps customers quickly book tours online.

1. REQUEIREMNT SPECIFICATION
   1. System Features

### User Login

Functional Requirements

* + - 1. The software shall allow users to login with their given username and password
      2. If the username and/or password has been inserted wrong for more than three times, the random verification code will be generated by the system to retry login.
      3. If the number of login attempt exceed its limit (5 times), the system shall block the user account login for one hour.

Priority Level: High

Precondition: user have valid user id and password

### User registration

Functional Requirements

* + - 1. The software shall allow users to registration with their given Role, first name, last name, email, address, NID, date of birth, phone number and password.
      2. User name, Phone Number and Email will be check for registration. There will be no duplicate Email, Phone number and username.

Priority Level: High

### View All List

Functional Requirements

* + - 1. The software shall allow users to view all the list of the package.

Priority Level: Medium

Precondition: user must be logged in

### Search option

Functional Requirements

* + - 1. The software shall allow users to search other users.
      2. User can search places.

Priority Level: High

Precondition: user must be logged in

### Request Option

Functional Requirements

* + - 1. The software shall allow admin to approve or decline the request of users. Priority Level: High

Precondition: user must be logged in

### Query

Functional Requirements

* + - 1. The software shall allow users to ask about a place to know more information about it.

Priority Level: Medium

Precondition: user must be logged in

### Profile Setting

Functional Requirements

* + - 1. The software shall allow users to edit their own profile.
      2. This term must be done very carefully because user’s all personal information are kept there.

Priority Level: High

Precondition: user have valid user id and password

### Logout

Functional Requirements

* + - 1. The software shall allow users to log out from the site. Priority Level: High

Precondition: user must be logged in

### Link Check

Functional Requirements

* + - 1. The software shall allow users to access all that are visible in their page. Priority Level: Medium

### Home Page

Functional Requirements

* + - 1. The software shall allow users to view the same home page. Priority Level: High

### Help Session

Functional Requirements

* + - 1. The software shall allow users to get help from the tech expert.
      2. This part needs to be very active and helpful. Priority Level: High

### Chat

Functional Requirements

* + - 1. The software shall allow users to chat with the expert.

Priority Level: Medium Precondition: user must be logged in

### Change Password

Functional Requirements

* + - 1. The software shall allow users to change their password.
      2. This is the security and this needs to be very strong. Priority Level: High

Precondition: user have valid user id and password

### Ads Browsing

Functional Requirements

* + - 1. The software shall allow users to click on the ads and redirect to the package.

Priority Level: Low

Precondition: user have valid user id and password

* 1. System Quality Attributes

**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.

**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.

**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 canceled.

Every room will have a security camera put near it.

1. 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 as a result of other testing efforts. For example:

PC based spreadsheet analysis applications using Reassigned Sales data. Because these applications are completely under the control of the customer and are outside the scope of this project. The necessary data base format information will be provided to the customers to allow them to extract data. Testing of their applications is the responsibility of the application maintainer/developer.

1. TESTING APPROACH

**4.1**Testing Levels

* + - To determine the appropriate testing level of Selenium for a tourism management system (TMS), it is important to consider the scope and complexity of the TMS, as well as the level of quality and risk required for the system.
    - At a minimum, functional testing should be performed using Selenium to ensure that the TMS meets the requirements and specifications provided by the stakeholders. This can include testing the user interface, data input and output, and various functions and features of the TMS.
    - In addition to functional testing, other testing levels may be necessary depending on the complexity of the TMS and the level of risk associated with its use. These can include integration testing, performance testing, and security testing, among others.
    - Overall, the testing level of Selenium for a TMS should be determined based on a thorough analysis of the system's requirements, risks, and quality standards, and should be tailored to ensure that the TMS meets the needs of its stakeholders and users.
  1. Test Tools

At the industry level, there are a number of different test tools that can be used to test a ‘TourHub’ software application. Some examples of these tools include:

1. Automated testing tools: These tools can be used to automate the testing process, allowing developers to quickly and efficiently test the software.
2. Load testing tools: These tools can be used to simulate high levels of usage on the software, to ensure that it can handle large amounts of data and traffic without crashing or experiencing other issues.
3. Security testing tools: These tools can be used to test the security of the software, to ensure that it is protected against potential threats and vulnerabilities.
4. User experience testing tools: These tools can be used to test the user experience of the software, to ensure that it is intuitive and easy to use.

Overall, the use of test tools is an essential part of the software development process, as they help developers to ensure that the software is functioning properly and meets the necessary requirements.

At the industry level, there are many different software applications that can be used to test a 'Donate Money for Needy People' software application. Some common examples of testing software that may be used in this context include:

1. Selenium: This is an open-source automated testing tool that is commonly used for web application testing.
2. JMeter: This is a performance testing tool that can be used to assess the performance of a software application under different load conditions.
3. Burp Suite: This is a security testing tool that is commonly used to test the security of web applications.
4. User Zoom: This is a user experience testing tool that can be used to assess the usability, accessibility, and overall user satisfaction with a software application.
5. Postman: This is a popular software tool that is used for testing and developing APIs (Application Programming Interfaces). It allows users to create, test, and share APIs, as well as collaborate with others on API development.
6. Microsoft Project: This is a powerful bug tracking and project management tool that is widely used in the software industry. It provides a range of features and capabilities, including the ability to create and manage issues, track progress, and integrate with other tools and platforms.

Overall, there are many different software applications that can be used to test a 'Donate Money for Needy People' software application at the industry level. The specific tools that are used may vary depending on the specific needs and goals of the project.

* 1. Meetings

A software testing meeting is a meeting where individuals involved in the testing of a software application come together to discuss the progress of the testing, any issues that have been identified, and any necessary next steps. This may include discussing the results of the testing, identifying any defects or flaws in the software, and determining how to address these issues. The goal of the meeting is to ensure that the software is functioning properly and meets all of the necessary requirements before it is released to the public. During the software testing meeting, attendees may include the project manager, senior test engineer (test lead), junior test engineer, testing manager, and database analyst, among others. These individuals may provide updates on the testing process, discuss any issues that have been identified, and provide input on how to address these issues. The meeting may also involve reviewing and discussing test results, as well as discussing any necessary changes or modifications to the software. Overall, a software testing meeting is an important part of the software development process, as it allows individuals involved in the testing to come together and collaborate on ensuring the success of the project.

1. TEST CASES/TEST ITEMS

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Name: TourHub | | | Test Designed by: Protick, Hasin Khan | | |
| Test Case ID: TH\_101 | | | Test Designed date: 16/04/2024 | | |
| Test Priority (Low, Medium, High): High | | | Test Executed by: Protick, Hasin Khan | | |
| Module Name: User Registration | | | Test Execution date: 26/04/2024 | | |
| Test Title: Fill up registration form | | | | | |
| Description: Test registration form by giving input to all the fields and must give unique username, email and phone number. | | | | | |
| Precondition (If any): | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Go to Registration Page 2. Complete all Input fields. 3. Click Register button | (First name, Last Name, Username,  Email,  Date of Birth, Gender, Phone number, Address,  Password) | Registration Successful and Redirect to Login page | | As expected, | Pass |

Post Condition: User data will go to database and redirect to login page

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Name: TourHub | | | Test Designed by: Nazmul Hossain Arnob | | |
| Test Case ID: TH\_102 | | | Test Designed date: 16/04/2024 | | |
| Test Priority (Low, Medium, High): High | | | Test Executed by: Al Asif | | |
| Module Name: User Login | | | Test Execution date: 26/04/2024 | | |
| Test Title: Fill up login form | | | | | |
| Description: Test login form by giving input to unique username and password. | | | | | |
| Precondition (If any): user must register | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Go to Login Page 2. Complete all Input fields. 3. Click Login button | User name: admin Password: admin123 | Login Successful and Redirect to Home  page | | As expected, | Pass |
| Post Condition: User data will go to database and redirect to home page | | | | | |

|  |  |
| --- | --- |
| Project Name: TourHub | Test Designed by: Musfiqur Rahman Muin |
| Test Case ID: TH\_103 | Test Designed date: 18/04/2024 |
| Test Priority (Low, Medium, High): High | Test Executed by: Nazmul Hossain Arnob |
| Module Name: Add List | Test Execution date: 27/04/2024 |
| Test Title: Add package to list | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description: Test add seller admin need to give all the details that are asked. | | | | |
| Precondition (If any): user must log in | | | | |
| Test Steps | Test Data | Expected Results | Actual Results | Status (Pass/Fail) |
| 1. Go to Add Seller Page 2. Complete all Input fields. 3. Click Submit button | (First name, Last Name, Username,  Email,  Date of Birth, Gender, Phone number, Address, Password) | Add Successful and Redirect to Seller  page | As expected, | Pass |
| Post Condition: User data will go to database and redirect to seller page | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Name: Dream House | | | Test Designed by: Protick, Hasin Khan | | |
| Test Case ID: DH\_104 | | | Test Designed date: 18/04/2024 | | |
| Test Priority (Low, Medium, High): Medium | | | Test Executed by Al Asif | | |
| Module Name: Post Added | | | Test Execution date: 27/04/2024 | | |
| Test Title: Post comment | | | | | |
| Description: Test post added form by giving required format input | | | | | |
| Precondition (If any): User must login | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Click News and Event 2. Complete the field with valid data. 3. Click Post button | Write something in the comment section | Uploaded Successfully | | As expected, | Pass |

Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Name: Dream House | | | Test Designed by: Protick, Hasin Khan | | |
| Test Case ID: DH\_105 | | | Test Designed date: 18/04/2024 | | |
| Test Priority (Low, Medium, High): High | | | Test Executed by: Protick, Hasin Khan | | |
| Module Name: Edit Profile | | | Test Execution date: 27/04/2024 | | |
| Test Title: Update user profile | | | | | |
| Description: Test edit user profile information | | | | | |
| Precondition (If any): User must login | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Click Profile navbar. 2. Edit the field with valid data. 3. Click Update button | Enter phone Number | Updated Successfully | | As expected, | Pass |
| Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database. | | | | | |

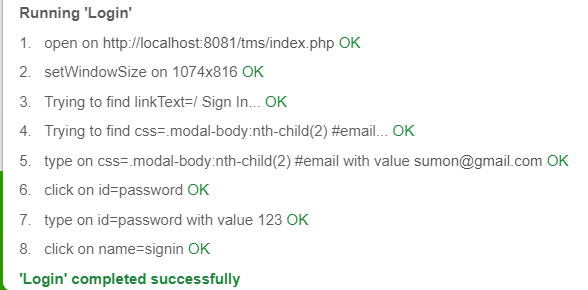
|  |  |
| --- | --- |
| Project Name: Dream House | Test Designed by Nazmul Hossain Arnob |
| Test Case ID: DH\_106 | Test Designed date: 18/04/2024 |
| Test Priority (Low, Medium, High): High | Test Executed by: Al Asif |
| Module Name: Logout | Test Execution date: 28/04/2024 |
| Test Title: logout from user profile | |
| Description: Test logout from system | |

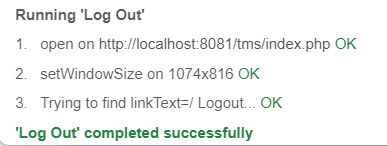
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Precondition (If any): User(Renter) must login | | | | |
| Test Steps | Test Data | Expected Results | Actual Results | Status (Pass/Fail) |
| 1. Click logout button at top of navbar. |  | Logged out | As expected | Pass |
| Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database. | | | | |

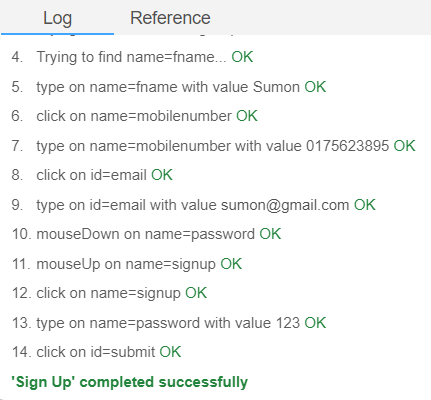
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Name: Dream House | | | Test Designed by: Al Asif | | |
| Test Case ID: DH\_106 | | | Test Designed date: 18/04/2023 | | |
| Test Priority (Low, Medium, High): High | | | Test Executed by Protick, Hasin Khan | | |
| Module Name: Request Approval | | | Test Execution date: 28/04/2023 | | |
| Test Title: Approve a seller request | | | | | |
| Description: approve seller from request | | | | | |
| Precondition (If any): User must login | | | | | |
| Test Steps | Test Data | Expected Results | | Actual Results | Status (Pass/Fail) |
| 1. Click Seller navbar 2. Click Seller Request button 3. Click Accept or decline button. | Accept | Accept | | Not as expected | Fail |
| Post Condition: User is validated with database and successfully login to account. The account session details are logged in the database. | | | | | |

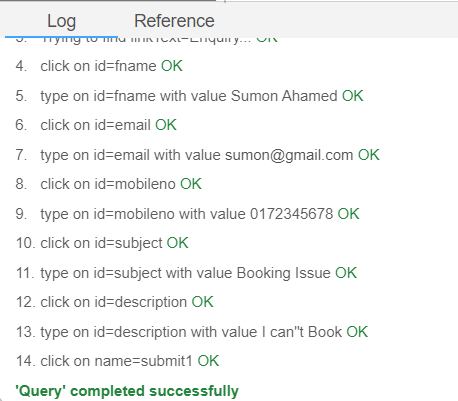
1. ITEM PASS/ FAIL CRITERIA

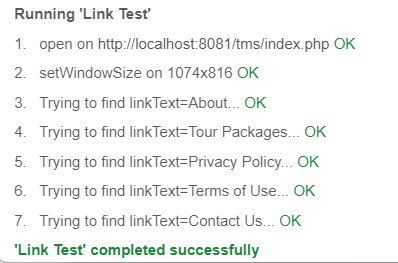
The test process will be completed once the initial set of distributors have successfully sent in reassigned sales data for a period of one month and the new EDI data balances with the old ZIP/FAX data received in parallel. When the sales administration staff is satisfied that the data is correct the initial set of distributors will be set to active and all parallel stopped for those accounts.

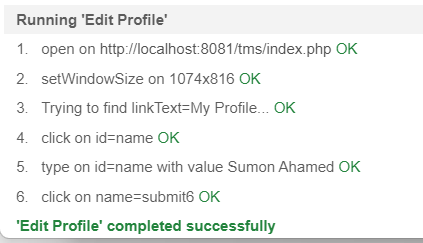


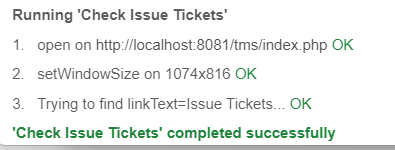


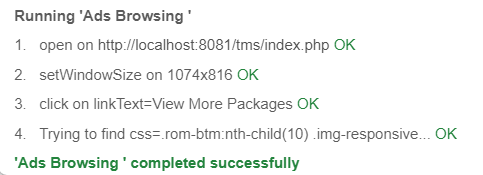


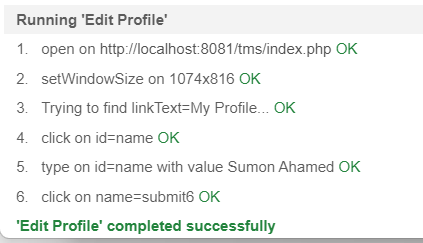


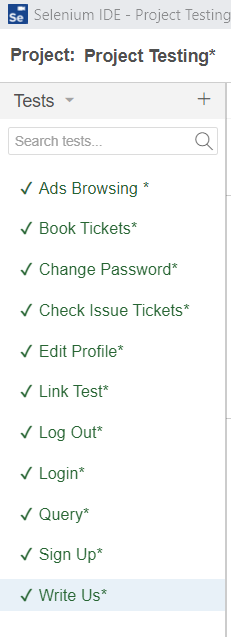


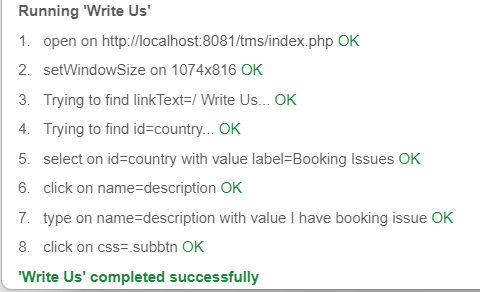












1. TEST DELIVERABLES

* Acceptance test plan
* System/Integration test plan
* Unit test plans/turnover documentation
* Screen prototypes
* Report mock-ups
* Defect/Incident reports and summaries
* Test logs and turnover reports

1. STAFFING AND TRAING 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.

1. RESPONSOBILITES

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Team Manager | Project Manager | Development Team | Test Team | Client |  |
| Acceptance test plan |  |  |  |  |  |
| Integration test plan |  |  |  |  |  |
|  |
| Unit test plans |  |  |  |  |  |
| Screen prototypes |  |  |  |  |  |
| Report mock-ups |  |  |  |  |  |
|  |
| Defect/Incident reports and summaries |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
| Test logs and turnover reports |  |  |  |  |  |
| Screen & Report prototype reviews |  |  |  |  |  |
|  |
| Change control and regression testing |  | | | | |
|  |  |  |  |  |

1. TESTING SCHEDULE

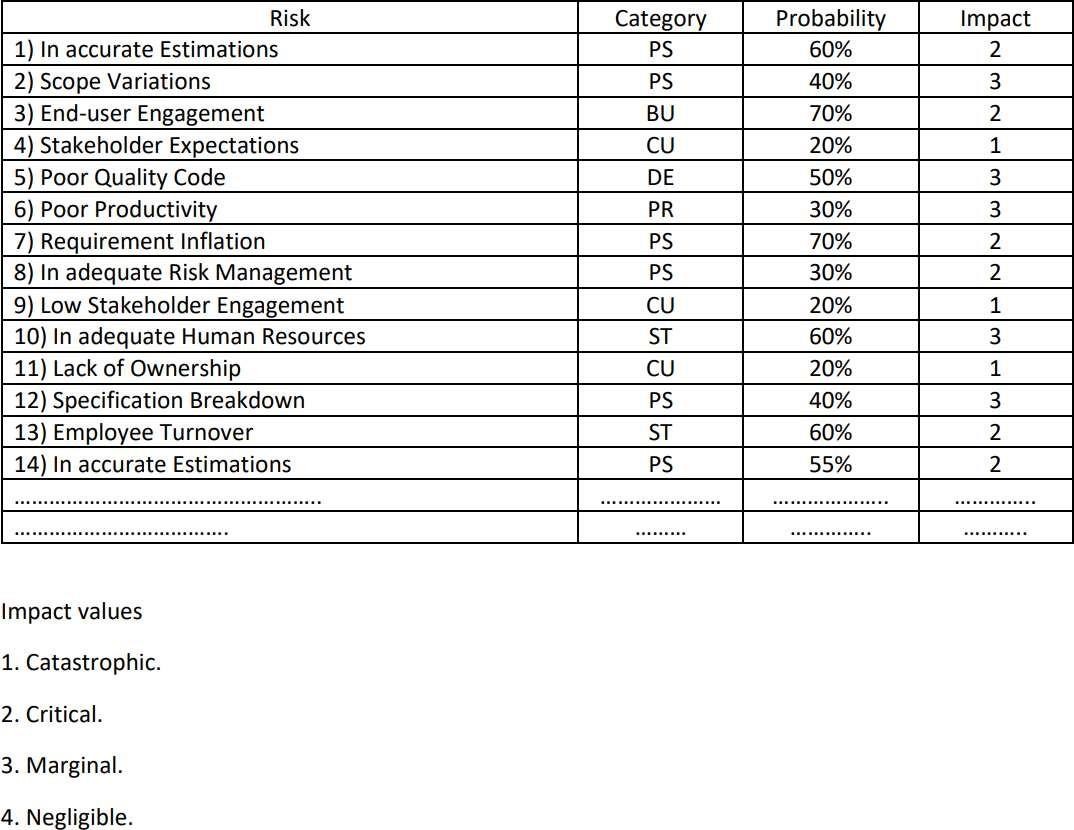
Time has been allocated within the project plan for the following testing activities. The specific dates and times for each activity are defined in the project plan timeline. The persons required for each process are detailed in the project timeline and plan as well. Coordination of the personnel required for each task, test team, development team, management and customer will be handled by the project manager in conjunction with the development and test team leaders. Schedule must be done using any PM tool.

A screenshot of a computer

Description automatically generated

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Week 1-4 | Week 4-5 | Week 5-6 | Week 6-9 | Week 9-10 | Week 10-12 |
| Documantation |  |  |  |  |  |  |
| Design |  |  |  |  |  |  |
| Testing |  |  |  |  |  |  |
| Test Plan |  |  |  |  |  |  |
| Unit Testing |  |  |  |  |  |  |
| Integration Testing |  |  |  |  |  |  |
| System Testing |  |  |  |  |  |  |
| Acceptance Testing |  |  |  |  |  |  |
| Project Completion |  |  |  |  |  |  |
| Feedback |  |  |  |  |  |  |

1. PLANNING RISK AND CONTINGENCIES



Risks can have a big impact on a software development project's success. For instance, risks connected to the timetable can result in delays, which can increase project costs and even generate client displeasure. Inaccurate cost estimates can also result in cost-related hazards, which can have an adverse effect on the project's overall success and cause financial problems.

The success of a project can also be adversely affected by technical debt, which is brought on by subpar code. Other developers may find it challenging to read and comprehend this kind of code, which may make it challenging for them to maintain or modify the code. Additionally, rushed or improperly tested code may include a significant number of errors that degrade overall functionality of the software.

Effective communication with stakeholders is also crucial for the success of a software development project. If stakeholders are not engaged and do not provide feedback and input in a timely manner, it can hinder the progress of the project and impact its overall success.

In order to mitigate these risks and ensure the success of a software development project, it is important to have a thorough understanding of the potential risks and take steps to address them. This can involve conducting thorough testing,

engaging with stakeholders effectively, and implementing risk management strategies to minimize the potential impact of risks on the project.

1. APPROVALS

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| --- | --- |
| Project Manager | Protick, Hasin Khan |
| Developer | Musfiqur Rahman Muin |
| Test Lead | Nazmul Hossain Arnob |
| Test Planner | Al Asif |
| Tester | Protick, Hasin Khan  Musfiqur Rahman Muin  Nazmul Hossain Arnob  Al Asif |
| End User | Atanu Das  Athoy Kanti Roy Kamrul Hasan Koche |