

Test Plan Document on Online Shopping Web Application

Web Application Live Link: <https://bicyclekeeper-8b86d.web.app/>

1. Introduction

The purpose of the test plan is to set the scope, approach, resources, and schedule for all testing for the BiCycle Keeper project. The plan lists the products that need to be tested, the features that need to be tested, the types of testing that need to be done, the people who are in charge of testing, the resources and time frame needed to finish testing, and the risks that come with the plan.

1.1 Scope

A Scope Management process determines what work is required to be done and ensures that the project includes only the work to complete the project.

1.1.1 In Scope

All the features of the website BiCycle Keeper which were defined in software requirement specs need to be tested

Module Name	Applicable Roles	Description
New Account	Seller, Buyer	Buyers can create a new account to purchase a suitable bicycle. The seller can create a new account to sell their unused bicycle.
Login	Seller, Buyer, Admin	Log in with the proper email and password to use the features.
Dashboard	Seller, Buyer, Admin	Controlling the available features.
Delete Account	Admin	Admin Can Delete an account.

Edit Account	Seller, Buyer	Editing Product or Personal Details.
Approve transactions	Admin	Admin can approve the transactions.

1.1.2 Out of Scope

These features are not tested because they are not included in the software requirement specs

- User Interfaces
- Hardware Interfaces
- Software Interfaces
- Database logical
- Communications Interfaces
- Website Security and Performance

1.2 Quality Objective

The test objectives are to verify the functionality of the website biCycle Keeper, the project should focus on testing online shopping such as Account Management, Product Showcasing, Transactions...etc. to guarantee all these operations can work normally in the real business environment.

1.3 Roles and Responsibilities

The project should use outsourced members as the tester to save the project cost.

No.	Member	Tasks
1.	Test Manager	Manage the whole project. Define project directions. Acquire appropriate resources.
2.	Test	Identifying and describing appropriate test techniques/tools/automation architecture. Verify and assess the Test Approach. Execute the tests, Log results, and Report the defects. Outsourced members.

3.	Developer in Test	Implement the test cases, test program, test suite, etc.
4.	Test Administrator	Builds up and ensures test environment and assets are managed and maintained. Support Tester to use the test environment for test execution.
5.	SQA members	Take charge of quality assurance. Check to confirm whether the testing process is meeting specified requirements.

2. Test Methodology

2.1 Overview

2.2 Test Levels

In the project biCycle Keeper, there're 3 types of testing that should be conducted.

- Integration Testing: Individual software modules are combined and tested as a group.
- System Testing: Conducted on a complete, integrated system to evaluate the system's compliance with its specified requirements.
- API testing: Test all the APIs create for the software under test.

2.3 Bug Triage

The goal of Bug Triage is to evaluate, prioritize and assign the resolution of defects. The team needs to validate the severities of the defect, make changes as per need, finalize the resolution of the defects, and assign resources. Mainly used in agile project management.

2.4 Suspension Criteria and Resumption Requirements

If the team members report that there are 40% of test cases failed, suspend testing until the development team fixes all the failed cases.

2.5 Test Completeness

- Specifies the criteria that denote successful completion of a test phase.
- The run rate is mandatory to be 100% unless a clear reason is given.
- The pass rate is 80%, achieving the pass rate is mandatory

2.6 Project task and estimation and schedule

Task	Members	Estimate Effort
Create the test specification	Test Designer	170 working-hour
Perform Test Execution	Tester, Test Administrator	80 working-hour
Test Report	Tester	10 working-hour
Test Delivery		20 working-hour
Total		280 working-hour

Schedule to complete these tasks

Task	Members	Starting Date	Finishing Date
Create the test specification	Test Designer	05-04-2023	05-05-2023
Perform Test Execution	Tester, Test Administrator	06-05-2023	20-05-2023
Test Report	Tester	21-05-2023	24-05-2023
Test Delivery		25-05-2023	30-05-2023

3. Test Deliverables

Test deliverables are provided below

Before the testing phase:

- Test plans document.
- Test cases documents.
- Test Design specifications.

During the testing:

- Test Tool Simulators.
- Test Data
- Test Trace-ability Matrix – Error logs and execution logs.

After the testing cycle is over:

- Test Results/reports
- Defect Report
- Installation/ Test procedures guidelines
- Release notes

4. Resource & Environment Needs

4.1 Testing Tools

No.	Resources	Descriptions
1.	Server	Need a Database server that installs MySQL server The web server which installs Apache Server
2.	Test Tools	Develop a Test tool that can auto-generate the test result to the predefined form and automated test execution. Such as Bugzilla.
3.	Network	Setup a LAN Gigabit and 1 internet line with a speed of at least 5 Mb/s
4.	Computer	At least 4 computer run Windows 10, Ram 8GB, CPU 3.8GHZ

4.2 Test Environment

It mentions the minimum hardware and software requirements that will be used to test the Application.

The following software is required in addition to client-specific software.

- Windows 10 and above
- Office 2021 and above
- MS Exchange
- JDK 1.8 and above.
- Eclipse IDE 2022-01 and above etc.