



Version number	Date	Contributors
V1.0	13-07-2024	Ahmed Raza Khan Aswab Khalid
V2.0	24-07-2024	Ahmed Raza Khan Aswab Khalid

TABLE OF CONTENTS

1. INTRODUCTION.....	3
2. OBJECTIVES.....	3
3. SCOPE.....	4
3.1 FEATURES TO BE TESTED.....	4
3.2 FEATURES NOT TO BE TESTED.....	4
4.APPROACH.....	4
4.1 TESTING STRATEGY	5
4.1.1 FUNCTIONAL TESTING.....	5
4.1.2 USABILITY TESTING.....	6
4.1.3 PERFORMANCE TESTING.....	6
4.2 OVERALL APPROACH.....	6
5. PASS/FAIL CRITERIA.....	6
6. SUSPENSION & RESUMPTION CRITERIA.....	7
7. TEST DELIVERABLES.....	7
8. TESTING TASKS.....	7
9. ENVIRONMENTAL NEEDS.....	8
10. RESPONSIBILITIES.....	8
11. SCHEDULE.....	9
12. RISKS & MITIGATION.....	9
13 APPROVAL.....	9

Pakistan Railway Test Plan

1. Introduction

This test plan outlines the strategy and approach for validating the functionality, performance, usability, and security of the Pakistan Railway system. The primary objective is to ensure that the system meets all specified requirements, operates without defects, and delivers a robust, intuitive, and secure platform for all users. By conducting thorough and systematic testing, we aim to identify and address any potential issues prior to the system's release, thereby guaranteeing its readiness and reliability for public use.

2. Objectives

1. Verify the main functionalities of the Pakistan Railway system work as expected.
2. Validate the system's performance under various conditions like (Various Devices, Various networks, various browsers)
3. Verify the responsiveness of the website.

3. Scope

3.1 Features to be tested:

- Home Page
- Train Search and Schedule
- User Registration
- User Login
- Ticket Booking and Cancellation

- Payment Processing
- User Profile Management
- Contact Us Page

3.2 . Features not to be tested:

1. Online Apply for Train Passes:

Reason: This feature involves complex verification steps and external dependencies that are out of the current testing scope.

2. Real-time Tracking:

Reason: Effective real-time tracking requires live data which is not feasible for testing in a controlled environment.

3. Career Page:

Reason The Career Page is a separate entity from the primary system being tested and does not fall within the scope of the current testing process.

4. Performance and Reliability:

Reason: Simulating load or stress testing on a live system is not feasible. Performance and reliability tests typically require controlled environments.

5. Database Operations:

Reason: Without access to the database, testing involving data interactions and database-related functionalities cannot be performed.

6. APIs:

Reason: Since there is no access to the APIs, any testing related to API interactions or functionality is not possible.

7. Admin and Other Non-Public Pages:

Reason: Access restrictions prevent testing of admin and other non-public pages, which are not available for testing.

8. Security:

Reason: Security testing that involves simulating attacks or vulnerabilities on a live system cannot be conducted, as it could potentially compromise the system's safety and integrity.

4. Approach

4.1 Testing Strategy:

4.1.1 Functional Testing:

- ❖ **Home Page:** Verify that all elements (links, images, text) are correctly displayed and functional.
- ❖ **Train Search and Schedule:** Check that all search and schedule functionalities work as expected.
- ❖ **User Registration and Login:** Ensure that users can register, login, and logout successfully.
- ❖ **Ticket Booking and Cancellation:** Verify that users can book and cancel tickets.
- ❖ **Payment Processing:** Ensure that payment processing works correctly.

- ❖ **User Profile Management:** Verify that users can manage their profiles.

4.1.2 Usability Testing:

- Ensure that the system is user-friendly and easy to use.

4.1.3 Performance Testing:

- Validate the system's performance under various conditions like (Various Devices, Various networks, various browsers)

4.2 Overall Approach:

- Prepare test scenarios and test cases based on application features.
- Execute test cases manually and log defects.

5. Pass/Fail Criteria

Pass Criteria:

- All critical test cases must pass.
- No high-severity defects are open.
- Medium and low-severity defects are logged and acknowledged.

Fail Criteria:

- Any critical or high-severity defects are found.
- Key functionalities do not perform as expected.

6. Suspension and Resumption Criteria

Suspension Criteria:

- Testing will be suspended if critical defects block further testing or the test environment is unavailable.

Resumption Criteria:

- Testing will resume once the critical defects are resolved, and the test environment is restored.

7. Test Deliverables

1. Test Plan Document
2. Test Cases and Scenarios
3. Test Data
4. Defect Reports
5. Test Summary Reports

8. Testing Tasks

1. **Requirement Analysis:** Understand and analyse the requirements.
2. **Test Case Development:** Create detailed test cases and scenarios.
3. **Test Environment Setup:** Configure hardware and software needed for testing.
4. **Test Execution:** Perform manual and automated tests.
5. **Defect Reporting:** Log defects with detailed information.
6. **Test Summary Reporting:** Summarise and document test results.

9. Environmental Needs

1. Access to the Pakistan Railway system.
2. Web browser (latest versions of popular browsers like Chrome, Firefox).
3. Test Data.

4. Excel for test case management and bug tracking.
5. Internet connection should be strong.
6. Hardware: Smartphones, tablets, computers.

10. Responsibilities

- **Test Manager:** Monitor the testing process, ensure resources are available.
- **Test Lead:** Manage the test team, coordinate activities.
- **Test Engineers:** Create and execute test cases, log defects.

11. Schedule

Activity	Date Deadline	Time Deadline
Test Planning	24th July 2024	11PM
Test Case Development	24th July 2024	5PM
Test Execution	25th July 2024	5PM
Defect Fixing	26th July 2024	11AM
Test Report Submission	26th July 2024	1:30PM

12. Risks and Mitigation

Risk: Delays in test environment setup.

Mitigation: Prepare alternative environments in advance.

Risk: Critical defects discovered late in the cycle.

Mitigation: Early and continuous testing, prioritising critical functionalities.

13. Approval

- **QA Team Lead:** Ensures the testing plan aligns with project goals and timelines.
- **Client/Product Owner (if applicable):** Approves the testing scope and ensures it aligns with their requirements.

Signature QA Team Lead

Signature Client / Product Owner
