**Travel Buddy**

**Test Plan**

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**Introduction**

This document outlines the test plan for the addition of new features and integrations of the “Travel Buddy” web application, which include:

1. Interactive Map
2. Social Integration
3. Weather Forecast
4. Currency Converter

**Objectives**

* Ensure all new features and integrations function as expected.
* Identify and fix any bugs or issues before release.
* Validate the user experience and interface.
* Ensure security and performance standards are meet.

**Scope**

The scope of this test plan includes functional testing, integration testing, usability testing, performance testing, security testing, and compatibility testing for the above-mentioned features.

**Test Strategy**

1. **Functional Testing**
   * **Objective**: Verify that each feature works according to the requirements.
   * **Approach**: Test each modules and its fields for correct data handling, submission and representation.
   * **Tools**: Manual Testing, Postman
2. **Integration Testing**
   * **Objective**: Ensure the integrations of external APIs and tools.
   * **Approach**: Conduct Integration testing to ensure the correctness of the data workflow between internal, external APIs/tools and frontend of the web application.
   * **Tools**: Manual testing, Postman
3. **Usability Testing**
   * **Objective**: Ensure the forms are user-friendly and intuitive.
   * **Approach**: Conduct UI testing and gather feedback on the interface and ease of use.
   * **Tools**: Manual testing
4. **Performance Testing**
   * **Objective**: Ensure the website performs well under various loads.
   * **Approach**: Simulate different levels of user traffic and measure response times and stability.
   * **Tools**: JMeter, Postman
5. **Security Testing**
   * **Objective**: Identify and fix security vulnerabilities.
   * **Approach**: Conduct vulnerability scanning.
   * **Tools**: OWASP ZAP, Burp Suite.
6. **Compatibility Testing**
   * **Objective**: Ensure the website works across different browsers and devices.
   * **Approach**: Test the website on various browsers(Chrome, Firefox, Safari and Microsoft edge) and devices(desktop, mobiles and tablet) to check for compatibility issues.
   * **Tools**: BrowserStack, CrossBrowserTesting
7. **Regression Testing**
   * **Objective**: Ensure that the new features addition and integrations do not affect the existing features.
   * **Approach**: Test the web application thoroughly to cover all the existing feature test cases and test scenarious by running existing regression test suite.
   * **Tools**: Selenium or Cypress test suite.

**Features to be tested**

**1. Interactive Maps**

* Verify the visualization of travel plans and destination highlights.

**2. Social Integration**

* Verify the feature that enable user to connect with their friends, share their experiences, and discover recommendations from fellow travellers.

**3. Weather Forecast**

* Verify the real-time updates of weather information for selected destinations.

**4. Currency Converter**

* Verify that currency converter tool works correctly and helps in planning travel budgets.

**Test Environment**

* **Browsers**: Chrome, Firefox, Safari, Edge
* **Devices**: Desktop/Laptop, Tablet, Mobile
* **Operating Systems**: Windows, macOS, iOS, Android
* **Server**: Staging server(Test server) and Production server(Live server).

**Resources**

* **Team**: QA Engineers/Testers, QA Lead, Product Manager
* **Tools**: Postman, Jira, JMeter, OWASP ZAP, Burp Suite, BrowserStack, CrossBrowserTesting, Test suites etc.

**Responsibilities**

* **Product Manager**: Final Approvals.
* **Test Lead**: Oversee the testing process, assign tasks and ensure timelines are met.
* **QA Engineers/Testers**: Write and Execute test cases, report bugs and verify fixes.

**Schedule/Time Estimates**

* **Planning**: 1 day
* **Test Case Development**: 2 days
* **Test Execution**: 2 days
* **Bug Fixing and Retesting**: 2 days
* **Final Review and Sign-off**: 2 days

**Entry & Exit Criteria**

* **Entry Criteria:**
* All functional and non-functional requirements for the features are clearly defined and approved.
* Test environment is ready and all hardware and software are available and accessible.
* The test plan and detailed test cases are reviewed and approved.
* **Exit Criteria:**
* All planned test cases are executed, and results are documented.
* All critical and high-priority defects are resolved and retested.
* UAT is completed, and the product manager approve the features for release.
* All test documentation, including test cases, test results, defect logs, and test summary reports, is complete and reviewed.
* Formal sign-off is obtained from all relevant stakeholders, indicating that the testing phase is complete and the features are ready for production.

**Control Procedures**

* **Reviews**

The project team will perform reviews for each Phase. (i.e. Requirements Review, Design Review, Test Plan Review, Test Case Review and Final Test Summary Review).

* **Bug Review Meetings**

Regular scrum meeting will be held to discuss reported defects. The development and testing department will provide status/updates on all defects reported and the test department will provide addition defect information if needed. All member of the project team will participate.

* **Defect Reporting**

When defects are found, the testers will complete a defect report on the defect tracking system. The defect tracking Systems is accessible by testers, developers & all members of the project team. When a defect has been fixed the developer will change the status of the defect to indicate the current state. Once a defect is verified as FIXED by the testers, the testers will close the defect report.

* **Bug Reporting Template** 
  1. Bug Title: [Short descriptive title of the bug]
  2. Severity/Priority: [Low/Medium/High]
  3. Description: [Detailed description of the bug, including steps to reproduce]
  4. Expected Behaviour: [What should have happened]
  5. Actual Behaviour: [What happened]
  6. Screenshot/Video: [Attach any relevant screenshots or videos]
  7. Environment: [Browser version, OS, etc.]
  8. Additional Notes: [Any additional information or observations]

**Deliverables**

* **Product Manager:** Approvals and reviews
* **Test Lead:** Test plan, Test Completion Report
* **Testers:** Test cases, Test Execution Report, Bug Report

**Approvals**

|  |  |  |
| --- | --- | --- |
| **Name** | **Signature** | **Date** |
| **1.** |  |  |
| **2.** |  |  |
| **3.** |  |  |
| **4.** |  |  |
| **5.** |  |  |