Travel Buddy

Test Plan:

1. **Scope:**

   - Testing the key features of the Travel Buddy application: destination exploration, trip planning, accommodation booking, activity discovery, and user profiles.

   - Upcoming features include interactive maps, social integration, weather forecast, and currency converter.

2. **Objectives:**

   - Ensure all features work as expected and meet user requirements.

   - Verify and Validate that the application is user-friendly, intuitive and bug-free.

3. **Test Environment:**

   - **Browsers**: Google Chrome (v95+), Firefox (v90+), Safari (v14+), Microsoft Edge
   - **Operating Systems**: Windows 10, macOS (latest), Android (v9+), iOS (v13+)
   - **Devices**: Desktop, tablet, mobile devices
   - **Test Data**: Mock user accounts, destinations, itineraries, accommodation options, and activities for testing purposes.

4. Features to be Tested:

   - **Destination Exploration:** Verify that destination details load correctly.

   - **Trip Planning Tools:** Check that users can create, edit and manage itineraries.

   - **Accommodation Booking:** Ensure proper integration with accommodation providers.

- **Activity Discovery:** Confirm activities are accurately displayed.

- **User Profiles:** Test user profiles including preferences and past trips.

1. **Testing Approach:**

   - **Functional Testing:** Verify that features work as expected.

   - **Exploratory Testing:** Use unscripted testing to find problems that are concealed.

   - **Regression Testing:** Ensure no new issues are introduced after bug fixes.

2. **Action Items:**

   - Assign responsible testers for each feature.
   - Set up the test environment by 25 October 2024
   - Execute functional tests by 28 October 2024
   - Perform Exploratory tests by 28 October 2024
   - Perform regression tests by 4 November 2024

7. Timelines

Task	Start Date	End Date
Test Plan Preparation	October 22, 2024	October 24, 2024
Test Environment Setup	October 25, 2024	October 26, 2024
Functional Testing	October 28, 2024	November 1, 2024
Bug Reporting	Ongoing	November 3, 2024
Regression Testing	November 2, 2024	November 5, 2024
Final Test Report Submission	November 6, 2024	November 7, 2024

8. Responsible Parties

- **Lead Tester**: Hemant

- **Functional Testers :** Kishor, Sravan, Bhalan

- **Exploratory Testers**: Shruthi, Praful

- **Regression Testers**: Kishor, Sravan, Bhalan

9. Risks & Mitigations

Risk	Likelihood	Impact	Mitigation
Delay in third-party API responses	Medium	High	Use fallback mechanisms or default data for API downtime.
Performance issues on older devices	Medium	Medium	Optimize platform for older browsers and devices.
Integration errors with booking providers	Low	High	Run thorough integration tests and implement backup booking flow.

Bug Reporting:

Bug Title: Destination page doesn't load images

Description: When browsing destinations, the page fails to load images. Occurs in both Chrome and Firefox.

Severity: Medium

Priority : Medium

Steps to Reproduce:

1. Open Travel Buddy in Chrome or Firefox.

2. Navigate to the "Explore Destinations" section.

3. Click on any destination.

4. Observe that images are missing.

Environment: Chrome 115, Firefox 120, Windows 10

Expected Behaviour: All images should load on the destination page.

Actual Behaviour: Blank boxes are displayed where images should be.

Screenshot/Video: Issue_Video

Additional Notes: This occurs only when logged out. When logged in, images load correctly.

Exploratory Testing Report

Objective:
The goal of exploratory testing was to go beyond predefined test cases and uncover any hidden or unanticipated issues that may impact the user experience in real-world scenarios. The focus was placed on newly integrated features (weather forecast, currency converter)

Focus Areas:

1. **Weather Forecast Integration**:

   o Assessed real-time weather data accuracy for multiple destinations under different network conditions (high-speed vs. slower connections).

   o Simulated both domestic and international users to identify any regional data discrepancies.

   o Tested cross-device functionality to ensure consistent weather data display across desktop and mobile.

2. **Currency Converter**:

   o Focused on the accuracy and consistency of real-time currency conversions, especially under fluctuating market conditions.

   o Tested interaction between currency conversion and trip budgeting tools, checking if the results impact suggested travel expenses appropriately.

   o Investigated how the converter responds to sudden currency changes (like during market volatility) and whether users are warned about potential inaccuracies.

Key Test Scenarios and Findings :

1. **Weather Forecast** :

   o **Scenario**: A user checks the weather for a European destination from the US on a slower network.

     ▪ **Observation**: Weather data was accurate, but there was a noticeable delay on slower connections. No visual cue indicated that the data was still loading.

- **Recommendation**: Introduce a loading spinner or "refresh" option, as well as a timestamp indicating when the weather data was last updated.

  - **Scenario**: Switching between destinations quickly on a mobile device.

    - **Observation**: Rapid toggling between destinations caused a temporary freeze in the app. Weather data failed to update for newly selected destinations in some cases.

    - **Recommendation**: Optimize API calls for faster data retrieval and consider caching frequently accessed destinations to reduce the load on external services.

2. **Currency Converter** :

  - **Scenario**: A user switches between currencies while planning a multi-country trip, using volatile currency pairs (e.g., ZAR to USD).

    - **Observation**: Conversion rates were accurate; however, there was no indication of how frequently the rates were refreshed, causing potential inconsistencies during rate fluctuations.

    - **Recommendation**: Display the last updated time for exchange rates and allow users to manually refresh them when needed.

  - **Scenario**: Using the currency converter to estimate the budget for multiple destinations with different currencies.

    - **Observation**: The conversion worked, but the trip budgeting tool sometimes lagged behind in updating trip costs based on the latest conversion results.

    - **Recommendation**: Improve synchronization between the currency converter and the budgeting tool. Real-time updates should trigger automatic recalculations of total trip expenses.

Recommendations :

1. **Weather Forecast**: The integration performs well, but improvements are needed in handling slower networks. Introducing user feedback mechanisms like loading indicators or timestamps will enhance the user experience.

2. **Currency Converter**: While the currency converter accurately reflects exchange rates, there's room to optimize the timing and synchronization of budget calculations. Allowing manual refresh of currency rates would add flexibility for users managing complex itineraries.

Test Cases:

1. Destination Exploration

- **Test Case 1**: Verify that destination details load correctly.

    - **Test Steps**:

        ➢ Navigate to the "Explore Destinations" section.

        ➢ Select a destination from the list.

        ➢ Observe the destination's details (description, images, and amenities).

        - **Expected Result**: Destination details (description, images, and amenities) should load correctly within 2 seconds.
        - **Actual Result:**

- **Test Case 2**: Verify the responsiveness of the destination page.

    - **Test Steps**:

        ➢ Open the destination page on different devices (desktop, tablet, mobile).

        ➢ Check if the layout adjusts to different screen sizes.

    - **Expected Result**: The layout should be responsive and user-friendly on all device sizes.

    - **Actual Result**:

2. Trip Planning Tools

- **Test Case 1**: Verify that users can create and save an itinerary.

    - **Test Steps**:

        ➢ Log in to the Travel Buddy account.

- ➢ Go to the "Create Itinerary" section.

  - ➢ Add destinations, accommodations, and activities.

  - ➢ Save the itinerary.

- **Expected Result**: The itinerary should save successfully and be accessible from the user's profile.

- **Actual Result**:

- **Test Case 2**: Verify that users can edit an existing itinerary.

  - **Test Steps**:

    - ➢ Log in to the Travel Buddy account.

    - ➢ Access a saved itinerary.

    - ➢ Make changes to the destinations or activities.

    - ➢ Save the updated itinerary.

  - **Expected Result**: The changes should be saved successfully and reflected in the itinerary.

  - **Actual Result**:

3. Accommodation Booking

- **Test Case 1**: Verify integration with third-party booking providers.

  - **Test Steps**:

    - ➢ Select a destination and click on "Find Accommodation."

    - ➢ Browse the list of accommodations.

    - ➢ Select an accommodation and attempt to book it.

    - ➢ Verify the redirection and completion of the booking on the third-party provider's site.

  - **Expected Result**: The user should be able to select and book accommodation without any errors or issues.

  - **Actual Result**:

- **Test Case 2**: Verify that booked accommodations are reflected in the itinerary.

  - **Test Steps**:

    - ➢ Book an accommodation.

    - ➢ Go to the "Itinerary" section and check if the accommodation is listed under the appropriate dates.

  - **Expected Result**: The accommodation should appear correctly in the user's itinerary.

  - **Actual Result**:

4. Activity Discovery

- **Test Case 1**: Verify that activities are displayed based on the destination.

  - **Test Steps**:

    - ➢ Select a destination from the "Explore Destinations" page.

    - ➢ Go to the "Discover Activities" section.

    - ➢ Browse the list of available activities.

  - **Expected Result**: Activities relevant to the selected destination should be displayed correctly.

  - **Actual Result**:

- **Test Case 2**: Verify that users can add activities to their itinerary.

  - **Test Steps**:

    - ➢ Select a destination and browse the activities.

    - ➢ Add an activity to the user's travel itinerary.

    - ➢ Save the itinerary and verify that the activity appears under the relevant date.

  - **Expected Result**: The activity should be added to the itinerary without any issues.

  - **Actual Result**: