Travel Buddy

1. Testing Scope

The testing scope for the "Travel Buddy" web application encompasses the validation of core functionalities, ensuring seamless integrations, and verifying upcoming features in future updates. The focus will be on functional, usability, performance, and security aspects of the platform.

Core Features to be Tested:

- **Destination Exploration**: Validate that users can browse destinations and access detailed information about attractions, accommodations, and amenities.

- **Trip Planning Tools**: Ensure functionality for creating, editing, and managing itineraries, including activities and transportation.

- **Accommodation Booking**: Confirm smooth integration with accommodation providers for searching and booking options.

- **Activity Discovery**: Verify that users can discover various activities at their selected destinations.

- **User Profiles**: Ensure users can create and manage profiles, saving trip details and preferences.

Upcoming Features:

- **Interactive Maps**: Test the interactive map feature for visualizing travel plans.

- **Social Integration**: Validate features that allow users to connect with friends and share experiences.

- **Weather Forecast Integration**: Ensure real-time weather services function correctly.

- **Currency Converter Integration**: Confirm the accuracy of currency conversion functionalities.

2. Testing Objectives

The primary objectives of the testing strategy are to:

- Ensuring all application features function as intended for a smooth user experience.

- Identifying defects or inconsistencies in the user interface and backend integrations.

- Validating system performance under normal and peak loads.

- Ensuring compliance with security standards to protect user data and transactions.

- Providing a reliable timeline for future feature rollouts.

Features to be Tested

- **Destination Exploration:**

- Search functionality
- Filtering options
- Destination details
- From and To dates

- **Trip Planning:**
  - Itinerary creation and management
  - Adding activities, accommodations, and transportation
  - Customization options

- **Accommodation Booking:**
  - Integration with external providers
  - Search and filter functionality
  - Booking process

- **Activity Discovery:**
  - Activity listings
  - Filtering options
  - Activity details

- **User Profiles:**
  - Account creation and management
  - Saving preferences and past trips

- **Integrations:**
  - Weather forecast
  - Currency converter

Responsible Parties

The below names are my assumptions

- **Test Lead:** Surya
- **Test Engineers:** paul, chandu,shiva
- **Developers:** Rishi
- **Product Owner:** Anitha

Test Environment Setup

- **Hardware:**
  - servers, workstations, network devices

- **Software:**

  - Operating systems: Windows, macOS, Linux

  - Browsers: Chrome, Firefox, Safari, Edge

  - Development tools: [e.g., IDEs, version control systems]

  - Testing tools: [e.g., Selenium, JMeter]

  - Testing on various screen resolutions to cover responsiveness.

- **Test Data**:

  - Dummy user profiles, destinations, itineraries, activities, accommodations, weather data, and currency rates for a comprehensive test scenario.

- **Third-Party Integration Setup**:

  - Integrate third-party APIs for weather, accommodation providers, and currency conversion tools in the test environment.

Testing Approaches

- **Functional Testing:** Verify the correct functionality of each feature.

  - Verify that each feature operates correctly. Focus on individual functionalities such as destination exploration and trip planning through both manual and automated testing.

- **Non-Functional Testing:**

  - **Performance Testing:**

    - Conduct load testing to ensure application stability under expected traffic volumes.

  - **Security Testing:**

    - Validate secure login mechanisms and protect user data through vulnerability scans.

  - **Usability Testing:** Assess ease of use from a user perspective.

- **Integration Testing:** Ensure seamless integration of third-party APIs for weather, accommodation, and currency converter.

- **Regression Testing:** Confirm that new changes do not introduce defects into existing functionalities.

- **User Acceptance Testing (UAT)**: Involve a small group of end-users to validate real-world scenarios and overall user experience.

Action Items and Timeline (assumption)

Action Item	Responsible Party	Target Date	Comments
Define Test Plan	Test Lead	Week 1	Comprehensive test plan covering all aspects.
Set Up Test Environment	DevOps	Week 2	Ensure all integrations are available.
Functional Testing (Phase 1)	QA Team	Week 3 – Week 4	Cover destination exploration, trip tools, profiles.
Integration Testing (APIs)	QA Team	Week 4 – Week 5	Test weather and booking integrations.
Performance Testing	QA Team	Week 5 – Week 6	Simulate heavy load conditions.
Security Testing	Security Testing Team	Week 6	Perform vulnerability assessment and penetration.
Regression Testing (Phase 1)	QA Team	Week 6 – Week 7	After first set of features is validated.
Functional Testing (Phase 2)	QA Team	Week 7 – Week 8	Test upcoming features like social integration.
User Acceptance Testing (UAT)	End-User Group	Week 8	Validate user scenarios and acceptance.
Final Regression Testing (Post UAT)	QA Team	Week 9	Ensure system stability before release.
Release to Production	PM / DevOps	Week 10	Rollout application post final validation.

Additional Considerations

- **Upcoming Features:** Consider testing the upcoming features (interactive maps and social integration) as they are developed.

- **Cross-Browser Testing:** Ensure compatibility across different browsers and devices.

- **Accessibility Testing:** Verify that the application is accessible to users with disabilities.

- **Mobile Testing:** If the application has a mobile version, include mobile testing in the plan.

By following this test plan and addressing the outlined objectives, we can ensure the quality and reliability of the Travel Buddy web application.

Test cases & Test scenarios

1. Destination Exploration

Test Scenario 1.1: Browsing and Searching Destinations

- **Test Case 1.1.1**: E Users should be able to explore the list of destinations without needing to log in.

- **Test Case 1.1.2**: The search feature must allow users to find destinations using various parameters, such as name, country, or type of experience.

- **Test Case 1.1.3**: Users should be able to filter destinations by categories like "Adventure," "Romantic," or "Family-friendly.

- **Test Case 1.1.4**: When a user selects a destination, they should be taken to a detailed view that provides comprehensive information about that location.

- **Test Case 1.1.5**: The browsing experience must be responsive across different devices and browsers.

Test Scenario 1.2: Destination Details Page

- **Test Case 1.2.1**: Detailed information about accommodations, local attractions, and amenities should be presented accurately.

- **Test Case 1.2.2**: Users should have access to multiple images of the destination through a carousel or image viewer

- **Test Case 1.2.3**: An embedded map (like Google Maps) must accurately display the location of the destination.

- **Test Case 1.2.4**: All listed amenities should link correctly to external resources or relevant details within the platform

2. Trip Planning Tools

Test Scenario 2.1: Creating a New Itinerary

- **Test Case 2.1.1**: Logged-in users should have the ability to create a new itinerary from scratch.

- **Test Case 2.1.2**: Users must be able to add various destinations to their itinerary seamlessly.

- **Test Case 2.1.3**: Users should be able to add specific activities (like sightseeing tours) along with designated time slots for each day of their trip.

- **Test Case 2.1.4**: Users need to set and adjust travel dates within their itinerary.

Test Scenario 2.2: Editing and Managing Itineraries

- **Test Case 2.2.1**: Users should be able to edit an existing itinerary by adding or removing activities and accommodations.

- **Test Case 2.2.2**: The system must allow users to reorder days, change accommodations, and modify transportation options easily.

- **Test Case 2.2.3**: Users should have the option to save itineraries as drafts or finalize them for booking.

- **Test Case 2.2.4**: If a user wishes to delete an itinerary, they should receive a prompt for confirmation before proceeding.

3. Accommodation Booking

Test Scenario 3.1: Searching for Accommodations

- **Test Case 3.1.1**: Users must be able to search for accommodations based on destination, check-in/check-out dates, and personal preferences.

- **Test Case 3.1.2**: The search results should present accurate information, including images, pricing, and available amenities.

- **Test Case 3.1.3**: Users should have the ability to sort accommodations by criteria such as price, rating, or distance from the destination centre.

Test Scenario 3.2: Booking an Accommodation

- **Test Case 3.2.1** The entire booking process—including room selection, guest details entry, and payment options—must function correctly.

- **Test Case 3.2.2**: The system should seamlessly integrate with external accommodation providers for bookings.

- **Test Case 3.2.3**: After booking, users should receive confirmation via email and SMS notifications.

- **Test Case 3.2.4**: If applicable, booking cancellations and refunds must be processed accurately.

4. Activity Discovery

Test Scenario 4.1: Exploring Activities by Destination

- **Test Case 4.1.1**: Users should be able to browse available activities for specific destinations easily.

- **Test Case 4.1.2**: Users need the ability to filter activities by type—such as adventure, sightseeing, or cultural experiences.

- **Test Case 4.1.3**: Users should be able to add selected activities directly into their travel itinerary.

- **Test Case 4.1.4**: Confirm users can add activities to their itinerary.

Test Scenario 4.2: Booking Activities

- **Test Case 4.2.1**: Users must have the ability to book activities directly from their details page.

- **Test Case 4.2.2**: Bookings should sync automatically with the user's existing itinerary.

- **Test Case 4.2.3**: The system must integrate smoothly with payment gateways for processing activity bookings.

- **Test Case 4.2.4**: Any cancellations or modifications of booked activities need to be managed efficiently.

5. User Profiles

Test Scenario 5.1: Profile Creation and Management

- **Test Case 5.1.1**: Users should easily create a profile using their email address, name, and password.

- **Test Case 5.1.2**: The system must allow users to update their personal information and preferences at any time.

- **Test Case 5.1.3**: Users need the capability to save favourite destinations, past trips, and travel preferences within their profiles.

- **Test Case 5.1.4**: Users should be able to view their booking history and itinerary details directly from their profile page.

Test Scenario 5.2: User Login and Security

- **Test Case 5.2.1**: Users must be able to log in using valid credentials without issues

- **Test Case 5.2.2**: The password reset functionality should work correctly for users who forget their passwords.

- **Test Case 5.2.3**: If two-factor authentication is implemented, it must function effectively for added security.

- **Test Case 5.2.4**: The system needs secure session management practices in place, including automatic logout after periods of inactivity

6. Upcoming Features

Test Scenario 6.1: Interactive Maps

- **Test Case 6.1.1**: Users should be able to visualize their travel itineraries on an interactive map easily.

- **Test Case 6.1.2**: Clicking on points of interest on the map must provide additional details about those locations.

- **Test Case 6.1.3**: Map features such as zooming, panning, and layering need to work smoothly across various devices.

- **Test Case 6.1.4**: Destination highlights shown on the map must accurately reflect real-world locations.

Test Scenario 6.2: Social Integration

- **Test Case 6.2.1**: Users should have the ability to connect with friends through platforms like Facebook or Twitter seamlessly.

- **Test Case 6.2.2**: Users need an easy way to share their trips or experiences on social media channels directly from the app.

- **Test Case 6.2.3**: The system should allow users to view recommendations from friends and add them easily to their itineraries.

- **Test Case 6.2.4**: Privacy settings regarding profile sharing and trip visibility must be clear and manageable by users.

7. Integrations

Test Scenario 7.1: Weather Forecast

- **Test Case 7.1.1**: Users need access to real-time weather updates for selected destinations during their trips.

- **Test Case 7.1.2**: Weather updates must be accurate regardless of different time zones that users may encounter during travel.

- **Test Case 7.1.3**: The application should account for weather changes that might affect planned activities (e.g., cancellations due to bad weather).

- **Test Case 7.1.4**: Users need access to weather forecasts covering the entire duration of their trip.

Test Scenario 7.2: Currency Converter

- **Test Case 7.2.1**: The currency converter tool should be easily accessible from both itinerary planning and booking sections of the app.

- **Test Case 7.2.2**: Conversion rates provided by the tool must always be current and accurate for user convenience.

- **Test Case 7.2.3**: The application needs support for multiple currencies based on different regions where users may travel.

- **Test Case 7.2.4**: The currency converter must integrate well with any budget planning tools available in the app.

8. User Experience (UX)

Test Scenario 8.1: Navigation and Responsiveness

- **Test Case 8.1.1**: Verify smooth navigation across the application for logged-in and guest users.

- **Test Case 8.1.2**: Test the application's responsiveness on various screen sizes and devices.

- **Test Case 8.1.3**: Ensure that error messages (e.g., 404 page not found, incorrect form submission) are user-friendly.

- **Test Case 8.1.4**: Confirm that loading times are optimized for browsing destinations and booking flows.

Bug Report Template for Travel Buddy Web Application

Detailed bug reports for the "Travel Buddy" web-based application, covering various severities and priorities. Below are the assumptions made for each report.

Bug Report 1: Booking Confirmation Email Not Sent

- **Bug Title**: Booking Confirmation Email Not Sent After Completing Booking

- **Severity**: High

- **Priority**: High

- **Description**: Users do not receive a booking confirmation email after completing their accommodation booking, which can create confusion about their booking status..

- **Steps to Reproduce**:

    1. Browse a destination.

    2. Select accommodations.

    3. Complete the booking process.

    4. Check the registered email inbox for a confirmation email.

- **Expected Behavior**: A confirmation email should be sent to the user upon successful booking.

- **Actual Behavior**: No confirmation email is received after booking.

- **Environment Details**:

    o Browser: Chrome 128.0, Firefox 131.0

    o OS: Windows 11

    o Build Version: 2.1.0

- **Attachments**: Screenshot showing the booking completion message but no email in the inbox.

- **Additional Notes**: Multiple users have reported this issue, and it affects confidence in the booking system. The email configuration and SMTP server logs should be checked.

Bug Report 2: Incorrect Currency Conversion in Budget Planner

- **Bug Title**: Incorrect Currency Conversion in Budget Planner

- **Severity**: High

- **Priority**: Low

- **Description**: When users attempt to use the currency converter in the budget planner, incorrect exchange rates are applied. This could cause users to miscalculate their travel expenses.

- **Steps to Reproduce**:

  1. Navigate to the budget planner.

  2. Select the currency converter tool.

  3. Input a currency to convert (e.g., USD to EUR).

  4. Check the conversion result.

- **Expected Behavior**: The currency conversion should match the latest exchange rate.

- **Actual Behavior**: The converted amount is incorrect compared to real-time exchange rates.

- **Environment Details**:

  o Browser: Safari 17.0

  o OS: macOS Ventura 13.0

  o Build Version: 2.1.0

- **Attachments**: Screenshot showing the incorrect conversion.

- **Additional Notes**: Issue might be due to outdated exchange rate data. Consider adding a real-time currency conversion API.

Bug Report 3: Destination Image Not Loading

- **Bug Title**: Destination Images Not Loading in Destination Exploration

- **Severity**: Low

- **Priority**: Low

- **Description**: Images of destinations fail to load in the "Explore Destinations" section. Users see placeholders instead of destination photos, which detracts from the user experience.

- **Steps to Reproduce**:

    1. Navigate to the "Explore Destinations" section.

    2. Scroll through the list of available destinations.

    3. Observe that some destination images do not load.

- **Expected Behavior**: All destination images should load correctly.

- **Actual Behavior**: Some images do not load, leaving empty placeholders.

- **Environment Details**:

    o Browser: Edge 116.0

    o OS: Windows 10

    o Build Version: 2.0.8

- **Attachments**: Screenshot showing missing destination images.

- **Additional Notes**: Issue occurs intermittently, possibly related to image server performance.

Bug Report 4: Missing "Favorite Destinations" Feature in User Profiles

- **Bug Title**: Missing "Favorite Destinations" Feature in User Profiles

- **Severity**: Low

- **Priority**: High

- **Description**: Users cannot save favorite destinations to their profiles, though the UI suggests that this feature is available. Clicking the "Add to Favorites" button does not add the destination to the user's profile.

- **Steps to Reproduce**:

    1. Navigate to a destination.

    2. Click "Add to Favorites."

    3. Check the user profile for the saved destination.

- **Expected Behavior**: The destination should be added to the user's favourites list in their profile.

- **Actual Behavior**: No destination is added to the favourites section.

- **Environment Details**:

- o Browser: Firefox 118.0

- o OS: Ubuntu 22.04

- o Build Version: 2.1.0

- **Attachments**: None.

- **Additional Notes**: The UI needs improvement to reflect whether the action was successful. This issue negatively impacts user engagement with the platform.

Exploratory Testing Report for "Travel Buddy"

Date of Testing: October 5, 2024
Tester: Surya

Everything below are my created and imagained by my assumuptions

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1. Testing Approach Overview

In this exploratory testing session, I aimed to evaluate the key functionalities and usability of the Travel Buddy web application, which assists users in planning trips, discovering destinations, and booking accommodations. The exploratory testing approach allowed me to freely explore different features of the platform, uncover issues, and simulate user behaviour. My goal was to assess the overall experience without adhering to predefined test cases, which gave me the flexibility to identify areas that might not be caught through structured testing.

2. Key Areas of Focus

During testing, I concentrated on the following core areas of the application:

1. **Destination Exploration**: I reviewed how well users can browse destinations and explore detailed information, such as local attractions, accommodations, and amenities.

2. **Trip Planning Tools**: I tested the platform's trip planning features, which allow users to create and edit itineraries, and manage transportation, accommodations, and activities.

3. **Accommodation Booking**: I explored the booking process, checking how users search for and reserve accommodations via third-party integrations.

4. **Activity Discovery**: I assessed how users can discover and add activities to their trips, ensuring the functionality of exploring different experience categories.

5. **User Profiles**: I verified how the platform handles user profiles, including saving favorite destinations and managing past trip data.

3. Test Scenarios

The following scenarios were covered during the exploratory session:

- **Scenario 1: Browsing Destinations**
  I navigated through a range of destinations and checked the detailed information provided

for each one. I also tested the destination filtering options based on regions and types of attractions.

- **Scenario 2: Creating and Editing Itineraries**
  I created a travel itinerary involving multiple destinations and added transportation, accommodation, and activity options. I then made edits to the itinerary and tested the ability to delete specific items.

- **Scenario 3: Searching and Booking Accommodations**
  I searched for available accommodations in a selected destination and tested the booking integration with external providers, simulating a room booking process.

- **Scenario 4: Discovering Activities**
  I browsed the activities available at several destinations, filtering by category (e.g., sightseeing, adventure), and added some activities to the itinerary.

- **Scenario 5: Managing User Profiles**
  I created a user profile and tested the functionality of saving preferences, such as favorite destinations and past trips. I logged out and back in to verify if the preferences persisted.

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4. Issues Identified

During the course of testing, I encountered several issues, which I've categorized below:

1. **Slow Load Times on Destination Pages**

   o **Issue**: Browsing through the destinations was slower than expected, especially when filters were applied.

   o **Severity**: Medium

   o **Recommendation**: Implement caching or optimize queries to improve performance when users are browsing and filtering destinations.

2. **Itinerary Deletion Not Fully Functional**

   o **Issue**: When deleting items (activities or accommodations) from an itinerary, the items would initially disappear but reappear upon refreshing the page, indicating that the deletion wasn't fully processed.

   o **Severity**: High

   o **Recommendation**: Ensure that deletions are properly synced between the user interface and backend data systems.

3. **Broken Links for Accommodation Bookings**

   o **Issue**: Some external links to accommodation booking providers resulted in 404 errors or unresponsive pages.

   o **Severity**: High

   o **Recommendation**: Regularly verify the external integrations to ensure that all links are active and functioning.

4. **Inconsistent Filtering in Activity Search**

   o **Issue**: The activity filtering system occasionally returned results outside the chosen category, such as displaying sightseeing tours when I had filtered for adventure activities.

   o **Severity**: Medium

   o **Recommendation**: Refine the filtering algorithm to ensure that users receive relevant results based on the selected category.

5. **User Preferences Not Persisting**

   o **Issue**: After saving preferences (such as favorite destinations), these preferences didn't appear to be saved properly and were not available upon revisiting the profile.

   o **Severity**: Low

   o **Recommendation**: Review and correct the mechanism for saving and retrieving user data from profiles.

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5. Key Insights Gained

Several important insights emerged during the testing session, giving a clearer view of the user experience and potential areas for enhancement:

- **User Experience**: While the interface is generally clean and user-friendly, performance issues, particularly with slow page load times, could detract from the overall experience. Improving responsiveness would significantly enhance user satisfaction.

- **Critical Integration Points**: External integrations, such as accommodation booking, play a vital role in the user experience. Ensuring that these links function consistently is critical for maintaining user trust in the platform.

- **Data Consistency**: The issues around itinerary deletion and user profile preferences highlight potential gaps in data management. Ensuring data integrity between the user interface and the backend is essential to maintain accuracy and prevent user confusion.

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6. Conclusion

This exploratory testing session revealed several key areas for improvement in Travel Buddy, particularly in performance, integration management, and data consistency. Addressing these issues will be important for ensuring that users have a smooth and efficient experience when planning trips, booking accommodations, and managing itineraries. By acting on the recommended improvements, Travel Buddy can continue to grow as a reliable and user-friendly platform for travellers.