

**Software Requirements Specification (SRS) For Travel Adventure Agency**





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# 1. Introduction:

## 1.1 Purpose:

The purpose of this Software Requirements Specification (SRS) document is to provide a comprehensive understanding of the requirements and functionalities for the development of "Travel Adventure Agency." This project aims to create an online platform, accessible via TravelTreasureTrove.com, which connects adventure-seeking travelers with exciting and diverse adventure tours and activities.

## 1.2 Scope:

Travel and Adventure Agency Website TravelTreasureTrove.com.The TravelTreasureTrove.com website aims to create an immersive online platform that caters to travel enthusiasts seeking adventure experiences, travel products, and unique tour packages. Our website will inspire and assist users in planning unforgettable adventures, from exhilarating activities. Our website offers a diverse range of travel resources, from destination guides and travel tips to adventure-related content, aiming to fuel the wanderlust and adventurous spirit of its audience. Our website serves as a digital gateway for adventurers seeking to plan, share, and relive their remarkable travel experiences. The platform will enable users to register, search for adventure tours, view tour details, make bookings, manage reservations, provide reviews, and access relevant information regarding adventure itineraries, inclusions, and more.

## 1.3 Overview (Travel Adventure Agency):

The "Travel Adventure Agency" project, operating under the domain TravelTreasureTrove.com, aims to provide a one-stop platform for adventure enthusiasts to discover, plan, and book various adventure tours and activities. This web application will cater to different user roles, including travelers and administrators. Travelers can browse through a diverse range of adventure tours, view detailed information, book tours, and share their experiences through reviews. Administrators will have access to a comprehensive dashboard for managing tours, user accounts, and overall system operations.

The core functionalities of the platform include user authentication, tour browsing and booking, payment processing, user profiles, tour reviews, and administrative management. The emphasis is on delivering an intuitive user interface, ensuring a seamless user experience, and maintaining the security and privacy of user data.

# 2. Functional Requirements:

## 2.1 User Registration and Authentication:

* **Description:** Users should be able to create a new account by providing necessary details. Registered users should be able to securely log in to their accounts.
* **Requirements:**
* Collect user's full name, email address, password, and other relevant information during registration.
* Ensure email verification for account activation.
* Authenticate users using their email and password.
* Implement password reset functionality for forgotten passwords.

## 2.2. Browsing and Searching Adventure Tours:

* **Description:** Allow users to browse a list of available adventure tours. Enable users to search for specific adventure tours based on their preferences.
* **Requirements:**
* Display a curated list of adventure tours on the homepage.
* Provide filters for sorting and categorizing tours based on location, activity type, duration, and price.
* Implement a search bar allowing users to search by keywords, destinations, or activity types.
* Display relevant search results with clear tour details.

## 2.3 Viewing Adventure Tour Details:

* **Description:** Present detailed information about each adventure tour to users. Allow users to initiate a booking for a specific adventure tour.
* **Requirements:**
* Display tour itinerary, inclusions, exclusions, pricing, availability, and reviews.
* Include images and videos to provide a visual representation of the tour.
* Provide a "Book Now" button for users to start the booking process from the tour details page.
* Redirect users to the booking page with pre-filled tour information.

## 2.4 Booking Adventure Tours:

* **Description:** Allow users to choose the desired tour date. Enable users to confirm and reserve the adventure tour
* **Requirements:**
* Present a calendar or date picker for users to select available dates for the tour.
* Provide a summary of the booking details for review.
* Prompt users for necessary booking information (e.g., number of participants, contact details).

## 2.5 Payment Processing:

* **Description:** Integrate a secure payment gateway for processing tour payments.
* **Requirements:**
* Integrate popular payment gateways supporting various payment methods (credit cards, PayPal, etc.).
* Ensure encrypted and secure payment transactions.

## 2.6 User Profiles and Preferences:

* **Description:** Allow users to manage their profiles and preferences.
* **Requirements:**
* Provide options to edit personal information, change passwords, and update communication preferences.

## 2.7 Reviews and Ratings for Adventure Tours:

* Description: Allow users to submit reviews for adventure tours they have experienced.
* Requirements:
* Enable users to rate the tour and provide written feedback.
* Display user reviews on the respective tour pages.

## 2.8 Adventure Journey and Inclusions:

* **Description:** Present a detailed itinerary for each adventure tour.
* Display what is included and excluded in each adventure tour package.
* **Requirements:**
* Provide a day-by-day breakdown of the tour activities, locations, and highlights
* Clearly list the services, activities, meals, and items covered in the tour price.

## 2.9 Notifications and Alerts:

* Description: Notify users of their successful tour bookings.
* Requirements:
* Send email notifications to users confirming their booking details.

## 2.10 Adventure Tour Management for Admin:

* **Description:** Provide an admin dashboard for managing adventure tours and user-related data.
* **Requirements:**
* Allow admins to add, edit, or remove adventure tours.
* Enable admins to view and manage user accounts, bookings, and reviews.

# 3. Non-Functional Requirements:

## 3.1 Performance:

* **Description:** Ensure quick page load times for improved user experience.
* **Requirements:** Optimize images, scripts, and server response times to achieve fast loading.

## 3.2 Reliability and Availability:

* **Description:** Ensure the platform is available and accessible with minimal downtime.
* **Requirements:** Implement redundant server setups and conduct regular maintenance to minimize downtime.

## 3.3 Security and Privacy:

* **Description:** Ensure all user data is encrypted to maintain data privacy and security.
* **Requirements:** Use SSL/TLS for secure data transmission. Hash sensitive information like passwords.

## 3.4 Usability and User Experience:

* **Description:** Design an intuitive and user-friendly interface to enhance user experience.
* **Requirements:** Conduct usability testing to refine the UI and ensure ease of navigation.

## 3.5 Scalability:

* **Description:** Design an architecture that can scale with increased user load.
* **Requirements:** Implement a scalable cloud infrastructure that can handle a growing user base and increased traffic.

## 3.6 Compliance and Legal Requirements:

* **Description:** Ensure compliance with data protection regulations and laws.
* **Requirements:** Adhere to GDPR, CCPA, or other relevant data protection regulations.

## 3.7 Technology Stack:

* **Description:** Specify the technology stack to be used for development.
* **Requirements:** Choose appropriate programming languages, frameworks, databases, and hosting platforms based on project requirements.

# 4. Use Case Diagram:

## 4.1 Actors:

* **Guest User:**

**Description:** A user who is not registered on the platform.

* **Registered User:**

**Description:** A user who has registered and logged into the platform

* **Admin**

**Description:** An administrator overseeing the adventure tours and platform operations.

## 4.2 Use Cases:

* **Register User:**

**Description:** Allows a guest user to register and create a new account.

**Include:**

Provide User Information

Verify Email

* **Login:**

**Description:** Enables a registered user to log in to their account.

* **Browse Adventure Tours:**

Description: Allows users to browse and search for adventure tours.

**Include:**

Filter Tours

Display Tour List

* **View Tour Details:**

**Description:** Allows users to view detailed information about a specific adventure tour.

* **Book Tour:**

**Description:** Enables a user to book a selected adventure tour.

**Include:**

Select Tour Date

Reserve Tour

* **Make Payment**

Description: Allows a user to make a payment for a booked adventure tour.

* **Manage User Profile**

**Description:** Enables a user to manage their profile information and preferences.

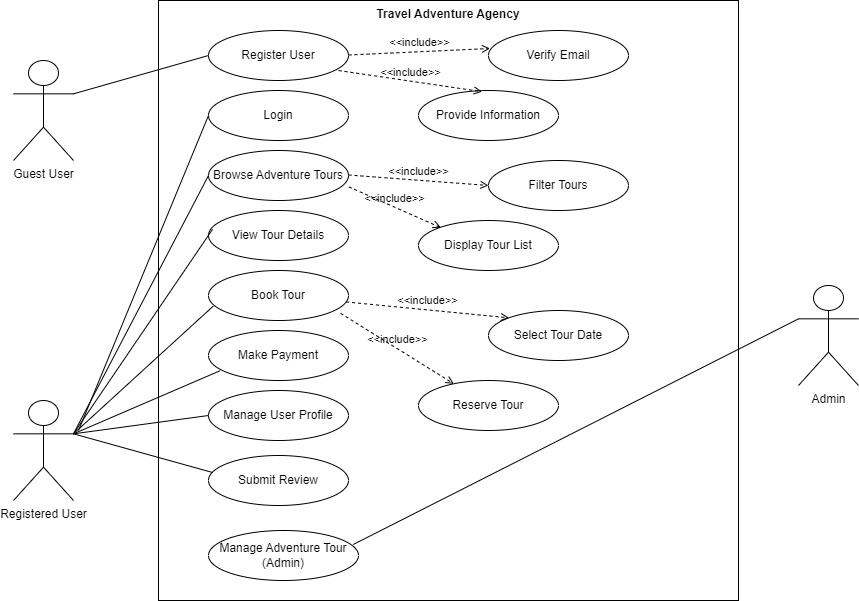
* **Submit Review:**

**Description:** Allows a user to submit a review for a completed adventure tour.

* **Manage Adventure Tour (Admin)**

**Description:** Allows an admin to manage adventure tours, including creation, editing, and removal

**Fig 4.2 Use Case Diagram of Travel Adventure Agency**

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# 5. Usage Scenarios:

## 5.1 Use Case (Register User):

|  |  |
| --- | --- |
| Use Case Title | Register User |
| Use Case ID | UC01 |
| Actions | * Guest user navigates to the registration page. * Guest user provides their full name, email, password, and other required information. * Guest user submits the registration form |
| Description | Allows a guest user to register and create a new account. |
| Alternative Path | If the provided email is already registered, an error message is displayed, prompting the user to use a different email |
| Preconditions | The guest user is not already registered in the system. |
| Post conditions | User data is stored in the system database, and the user is now registered and can log in. |
| Exceptions | Technical issues during registration, such as a server error, prevent successful registration. |

## 5.2 Use Case (Browse Adventure Tours):

|  |  |
| --- | --- |
| Use Case Title | Browse Adventure Tours |
| Use Case Id | UC03 |
| Actions | * User logs in or accesses the site as a guest. * User selects the "Browse Tours" option. * User applies filters like location, activity type, or duration to narrow down the search. |
| Description | Allows users to browse and search for adventure tours. |
| Alternative Paths | User skips filters and proceeds directly to view all available tours. |
| Pre-Conditions | The user is logged in or is a guest user. |
| Post-Conditions | The user is presented with a list of adventure tours based on their preferences and applied filters. |
| Exceptions | The system fails to retrieve tour data due to a database issue, displaying an error message. |

## 5.3 Use Case (Book Tour):

|  |  |
| --- | --- |
| Use Case Title | Book Tour |
| Use Case Id | UC05 |
| Actions | * User views the details of a specific adventure tour. * User selects the desired tour date and clicks on "Book Now." * User enters necessary booking information and confirms the booking. |
| Descriptions | Enables a user to book a selected adventure tour. |
| Alternative Paths | User cancels the booking process after selecting a tour. |
| Pre-condition | The user is logged in. |
| Post-condition | The user's booking information is saved in the system, and the tour availability is updated. |
| Exception | The payment transaction fails during the booking process, and the booking is not completed. |

## 5.4 Use Case (Manage Adventure Tour (Admin)):

|  |  |
| --- | --- |
| Use Case Title | Manage Adventure Tour (Admin) |
| Use Case ID | UC09 |
| Actions | * Admin logs in and accesses the admin dashboard. * Admin selects the "Manage Tours" option. * Admin chooses to either edit an existing tour or add a new one. |
| Descriptions | Allows an admin to manage adventure tours, including creation, editing, and removal. |
| Alternative Paths | Admin decides to add a new tour instead of editing an existing. |
| Pre-condition | The admin is authenticated and has appropriate permissions. |
| Post-condition | The tour information is updated, or a new tour is added to the system |
| Exceptions | Admin encounters a system error while attempting to edit tour details, and the changes are not saved. |

## 5.5 Use Case (Login):

|  |  |
| --- | --- |
| Use case Title | Login |
| Use case id | UC01 |
| Actions | * User navigates to the login page. * User enters their registered email and password. * User clicks on the "Login" button. |
| Descriptions | Enables a registered user to log in to their account. |
| Alternative Paths | If the user enters an incorrect password, an error message is displayed, and the login process is halted |
| Pre-condition | User is a registered user of the system |
| Post-condition | User is successfully logged into their account and gains access to their dashboard |
| Exceptions | Technical issues during login (e.g., server error) prevent successful login |

## 5.6 Use Case (View Tour Detail):

|  |  |
| --- | --- |
| Use Case Title | View Tour Detail |
| Use Case ID | UC02 |
| Actions | * User selects an adventure tour from the list. * User clicks on the "View Details" button. |
| Descriptions | Allows users to view detailed information about a specific adventure tour. |
| Alternative Paths | User chooses not to view details and returns to the list of adventure tours. |
| Pre-condition | User is logged in or is a guest user. |
| Post-condition | User is presented with comprehensive information about the selected adventure tour. |
| Exceptions | The system encounters a technical issue, preventing the display of tour details. |

## 5.7 Use Case (Make Payment):

|  |  |
| --- | --- |
| Use Case Title | Make Payment |
| Use Case ID | UC03 |
| Actions | * User initiates the booking process and selects a tour. * User provides necessary booking details. * User proceeds to payment and selects a preferred payment method. * User completes the payment by providing payment details. |
| Descriptions | Allows a user to make a payment for a booked adventure tour. |
| Alternative Paths | User cancels the payment process before completion. |
| Pre-condition | User has a booked adventure tour and is ready to make the payment |
| Post-condition | Payment is successfully processed, and the booking is confirmed. |
| Exceptions | The payment transaction fails due to insufficient funds or technical issues. |

## 5.8 Use Case (Manage User Profile):

|  |  |
| --- | --- |
| Use Case Title | Manage User Profile |
| Use Case ID | UC04 |
| Actions | * User navigates to their profile settings. * User updates personal information, password, or communication preferences. * User saves the changes. |
| Descriptions | Enables a user to manage their profile information and preferences. |
| Alternative Paths | User decides not to make any changes and cancels the process. |
| Pre-condition | User is logged into their account. |
| Post-condition | User's profile information and preferences are updated and saved |
| Exceptions | Technical issues prevent the user from saving the changes. |

## 5.9 Use Case (Submit Review):

|  |  |
| --- | --- |
| Use Case Title | Submit Review |
| Use Case ID | UC05 |
| Actions | * User selects a completed adventure tour. * User clicks on the "Submit Review" button. * User provides a rating and writes a review. * User submits the review. |
| Descriptions | Allows a user to submit a review for a completed adventure tour. |
| Alternative Paths | User decides not to submit a review and cancels the process. |
| Pre-condition | User has completed an adventure tour. |
| Post-condition | The user's review is saved and displayed on the tour's review section. |
| Exceptions | Technical issues prevent the user from successfully submitting the review. |

# 6. Adopted Methodology:

## 6.1 Agile Methodology (Scrum):

**Methodology Overview:** Agile methodology, particularly the Scrum framework, is a widely adopted approach in the software development industry. It is iterative, flexible, and focuses on collaboration, adaptability, and delivering incremental, high-quality software

**Key Components of Scrum:**

* **Sprints:** Short, time-bound development cycles (usually 2-4 weeks) where a set of prioritized features are completed.
* **Product Backlog:** A prioritized list of features, enhancements, and bug fixes maintained by the Product Owner.
* **Sprint Planning:** At the beginning of each sprint, the team selects items from the product backlog to work on during the sprint.
* **Daily Standup (Scrum**): A daily 15-minute meeting where team members discuss their progress, plans, and any obstacles they're facing.
* **Sprint Review:** A meeting at the end of each sprint where the team demonstrates the completed work to stakeholders
* **Sprint Retrospective**: A meeting at the end of each sprint where the team reflects on their performance and identifies areas for improvement.

**Reasons for Choosing Agile (Scrum) for "Travel Adventure Agency" Project:**

* **Iterative Development:** The nature of the project, involving frequent changes in user requirements and evolving technology, aligns well with Agile's iterative approach. The ability to respond to changes quickly is crucial in the dynamic travel industry.
* **Customer-Centric**: Agile methodologies emphasize customer collaboration and feedback. In the travel sector, understanding and meeting customer expectations is pivotal, making Agile a suitable choice.
* **Adaptability:** The adventure travel industry may witness shifts in trends or user preferences. Agile adaptability allows the team to pivot and incorporate changes seamlessly.
* **Faster Time to Market:** Delivering a minimum viable product (MVP) early and then iterating based on user feedback enables the project to reach the market faster, which can be beneficial for a travel-related service.
* **Continuous Improvement**: The regular sprint retrospectives in Scrum provide a platform for the team to reflect on their processes and make improvements, ensuring optimal performance as the project progresses.
* **Cross-Functional Teams:** In Agile, teams are cross-functional, enabling a collaborative approach and leveraging the diverse skill sets necessary for early identification and mitigation of risks, ensuring the project stays on track and within the defined scope.

# 7. Work Plan

Here is the Gannt chart of Travel Adventure Agency.

