**Introduction**

**1.1 Purpose**  
The purpose of the Moffat Bay project is to develop a website for managing lodge reservations. This website will allow customers to view lodge information, attractions, and make reservations. Customers must register and log in to book a vacation. The system will store reservation details in a MySQL database and provide functionality for customers to view and manage their reservations.

**1.2 Terminology**

* **Lodge**: The accommodation offered on the Moffat Bay website.
* **Reservation**: A booking made by a customer to stay at the lodge.
* **Customer**: A user who registers on the website to make reservations.
* **Admin**: A user with special access to manage reservations and customer information.

**1.3 User Personas**

1. **Sarah, the Vacation Planner**
   * **Role:** Planner for family vacations.
   * **Demographics:** Age 30-45, enjoys planning family trips, tech-savvy.
   * **Goals:** Easily find information about the lodge, book a vacation, and manage reservations.
   * **Frustrations:** Complicated booking processes, lack of clear information.
2. **John, the Outdoor Enthusiast**
   * **Role:** Adventurer looking for lodge stays.
   * **Demographics:** Age 25-40, interested in outdoor activities, prefers quick booking.
   * **Goals:** View attractions, book a stay with specific requirements, and view past reservations.
   * **Frustrations:** Difficulty finding activity information, managing multiple reservations.
3. **Emma, the Lodge Manager**
   * **Role:** Manages lodge bookings and customer interactions.
   * **Demographics:** Age 35-50, experienced in hospitality management.
   * **Goals:** Access to reservation details, manage customer information, view summary reports.
   * **Frustrations:** Inefficient management tools, lack of integration with reservation systems.

**1.4 User Stories**

**For Persona 1 (Sarah):**

1. **As Sarah, I want to view lodge information on the landing page so that I can decide if it’s suitable for my family vacation.**  
   *Acceptance Criteria:* The landing page should include information about the lodge, such as amenities, photos, and a brief description.  
   *Story Points:* 3
2. **As Sarah, I want to register an account so that I can book a vacation.**  
   *Acceptance Criteria:* Registration page should have fields for email address, first name, last name, telephone, and password. Password should be at least 8 characters long with one uppercase and one lowercase letter. The registration form should validate these requirements and store user information securely.  
   *Story Points:* 5
3. **As Sarah, I want to book a vacation with specific dates and room preferences so that I can plan my trip effectively.**  
   *Acceptance Criteria:* Booking page should allow selection of room size, number of guests, and check-in/check-out dates. It should calculate the total cost based on the number of guests and room size. The form should submit the reservation details to the database.  
   *Story Points:* 8

**For Persona 2 (John):**

1. **As John, I want to view attractions on the website so that I can plan activities during my stay.**  
   *Acceptance Criteria:* Attractions page should list available activities such as hiking, kayaking, whale watching, and scuba diving with descriptions and images.  
   *Story Points:* 4
2. **As John, I want to log in to manage my reservations and view booking history.**  
   *Acceptance Criteria:* Login page should allow John to enter his email address and password. Successful login should create a session for John to access his reservation history and management features.  
   *Story Points:* 5
3. **As John, I want to search for past reservations by ID or email so that I can easily find my booking details.**  
   *Acceptance Criteria:* Reservation lookup page should have a search field for reservation ID or email address. It should display a summary of the reservation including room size, number of guests, and dates.  
   *Story Points:* 6

**For Persona 3 (Emma):**

1. **As Emma, I want to view all current reservations so that I can manage bookings efficiently.**  
   *Acceptance Criteria:* Emma should have access to a page displaying all current reservations, including customer details, room size, and dates. This should be accessible through an admin panel.  
   *Story Points:* 7
2. **As Emma, I want to view a summary of customer information and reservation details so that I can address customer inquiries.**  
   *Acceptance Criteria:* Emma should be able to click on a reservation to view detailed customer and booking information, including contact details and special requests.  
   *Story Points:* 6
3. **As Emma, I want to manage customer accounts and update reservation statuses so that I can ensure accurate and up-to-date information.**  
   *Acceptance Criteria:* Emma should be able to update reservation statuses, modify customer details, and handle booking changes through the admin interface.  
   *Story Points:* 8

**1.5 Work Estimations (To-Do List)**

1. **Design Landing Page:** Create wireframes and HTML/CSS for the landing page.  
   *Estimated Time:* 8 hours
2. **Develop Registration and Login Pages:** Implement user registration and login functionalities, including form validation and password hashing.  
   *Estimated Time:* 12 hours
3. **Implement Booking Functionality:** Develop the reservation page with form selection, validation, and MySQL data submission.  
   *Estimated Time:* 15 hours
4. **Create Reservation Lookup Page:** Develop functionality to search and view past reservations by ID or email.  
   *Estimated Time:* 10 hours
5. **Set Up Database:** Design and create tables for users and reservations, including encryption for passwords.  
   *Estimated Time:* 6 hours