Sojourn - The Ultimate Vacation Planner

**Team Members**

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**Problem Statement:** Planning a vacation can be difficult and stressful. There’s so much to keep track of included travel plans, activities, meals, lodging etc. What if there was a more effective way of compiling all the essentials of a vacation based simply from a user filling out a quick survey?

**Abstract (10 sentences):** In this project we aim to create a website/application capable of building a vacation for the end user. When a user wants to go on a vacation all they need to do is fill out a quick survey with some simple questions to gauge what kind of vacation they want to go on. These questions can range from “where do you want to go?”, “what type of lodging do you want”, to “how do you want to get there”. Based on the end user's answers the website will ‘build’ a vacation based on the answers to the questions. The site will find locations, hotels, and activities that match the user’s desired vacation and budget and display them to the user allowing them to finalize the vacation. To cater to the needs of different types of travelers, the website will provide a variety of vacation options, from adventurous getaways to luxury retreats and family-friendly vacations. Each user will create an account allowing the user to save prior vacations and non finalized vacations. The website will also provide users with the ability to customize their vacation itinerary generated by the site, adding or removing activities and adjusting the duration of their stay. The user will also be able to rank their prior vacations on overall satisfaction and enjoyability.

**List of Modules:**

1. Front-end website

2. User Survey

3. Recommendations/ Search Algorithm

4. Logistics

5. Cost

6. User Account

*[Please see the next pages…]*

**Modules Description:**

**Module-1: Front-End**

This module contains the code containing the style and layout of the website. Upon initial activation the user must log in or create an account to preserve previous vacations. After logging in the user will be greeted by the home page where they have a few options. The user can either create a new vacation where they will begin the process by taking a new survey, view previous vacations, or browse locations, activities, flights etc and create a vacation without help from the survey. Some other options on the page include save vacation where the vacation is saved to the user's account to be edited or finalized later, edit vacation where the user can adjust a vacation plan to better fit their needs or finish planning, and finalize where the vacation plan is confirmed and added to the users account.

**Module-2: User Survey**

The goal of this module is to easily narrow down the vacation options for the user by asking pertinent questions. The first question is “Where do you want to go?” This allows the user to enter their desired location if they already have one in mind, otherwise the user is asked follow up questions to reduce the possibilities to ones that correspond with the user’s vacation goals. The next questions ask about the desired climate (hot, cold, or temperate), atmosphere (exploring a bustling city, going on adrenaline-filled adventures, or relaxing with a book, etc.), and country (international or domestic travel). There are also practical questions about transportation (car, plane, cruise), lodging (hotel, Airbnb, hostel, etc.), relative distance from home, how many people are going, and budget (user enters the range).

**Module-3: Recommendations**

This module recommends vacation spots and activities that correlate to the user’s answers from the survey. If the user wants to go somewhere warm and relaxing, then it will recommend a beach. Conversely, if the user wants a cold adventure, then it will recommend a ski resort. If the user wants to explore a city, then a museum or guided city tour will be recommended. Factors such as desired distance from home and budget will also impact the recommended locations. The search algorithm will be responsible for finding keywords in the initial survey and recommending the matching vacations and logistical values (cost, transportation, lodging).

**Module-4: Logistics**

This module aids the user with reservations, which includes lodging, transportation, and activities. For lodging, there will be options depending on the user survey which can then be filtered. For example, if the user wants to stay in a hotel, then there will be filters for the quality of the hotel, amenities (free breakfast, gym, pool, etc.), and budget range.

For transportation, there will be a cost comparison for driving versus flying determined by the average price of a plane ticket compared to the average price of gas times the mileage. If the user decides to fly, then flight options will be displayed. There will also be an option for renting a car at the airport.

For activities, places that offer/require tickets to be bought in advance will be displayed.

**Module-5: Cost**

This module calculates the cost of transportation, lodging, and activities from the previous module. If the cost is greater than the budget, then some cheaper options will be recommended. There is also a budgeting tool that allows the user to enter their estimated costs for food, souvenirs, and other miscellaneous expenses to help the user stay within their budget.

**Module-6: User Account**

This module saves the vacation packages to the user's account for future reference. Survey results are also stored in the users account to tailor their preferences. The user account is needed to login and use the website so the packages can be saved and rated later.