San Francisco State University

SWE CSC 648

Section-04 Team-05

Milestone 1

03/08/2023

Siddharth Sankar (Team lead)

Muhammed Nafees (Front-end lead)

Hanlei Liu

Dania Dababo (Scrum)

Farah Jamjoum

Yahya Obeid (Github master)

1. **Executive Summary:**

Traveling is an essential aspect of human life. It provides opportunities for personal growth, learning, and adventure. However, planning a trip can be overwhelming and time-consuming. It involves researching destinations, accommodations, transportation, and activities. Therefore, there is a need for an efficient and user-friendly travel planning application that can simplify the process.

TravelMate is a travel planning application that uses GPT-3 AI to provide users with a personalized and optimized travel itinerary. Users can log in to the app and enter details such as the number of people traveling, the duration of the trip, and their preferences. The app then uses GPT-3 AI to analyze the data and generate a summary of each day's activities. The summary includes recommendations for sightseeing, dining, and other activities based on the user's interests and preferences. Additionally, the app provides information on local events and weather forecasts to ensure that users have the best possible experience during their trip.

Travel planning can be a complex and time-consuming process that often leaves travelers feeling overwhelmed and stressed. Existing travel planning applications provide basic information such as flight and hotel bookings, but they lack the personalization and user experience that travelers are looking for. TravelMate offers several advantages over existing travel planning applications. First, it provides users with access to reliable reviews and recommendations from other travelers, which helps them make more informed decisions. Second, the app is user-friendly and easy to navigate, making it accessible to a wide range of users. Third, TravelEase saves users time and reduces the stress of planning by providing a personalized itinerary. Finally, the app is scalable, which means that it can be easily expanded to include new destinations and features.

Users can choose from a list of possible cities/countries and enter their preferences, such as the duration of their stay, budget, and interests. Based on the user's inputs, TravelMate provides a personalized itinerary that includes recommendations for sightseeing, dining, and other activities. Users can access reviews and

recommendations from other travelers to make informed decisions and optimize their travel experience.

Our team consists of 6 software engineering students with minimal software engineering experience. But we hope to learn the necessary skills through this project in order to deliver a functioning and helpful application to our users. We hope to take regular feedback throughout our development period so that we can include most of the features that our users wish to have in a travel planning application. We plan to be a one stop area for all your travel planning needs.Our team is highly motivated and committed to delivering a top-notch travel planning application that exceeds the expectations of our users. We recognize that we have a steep learning curve, but we are eager to learn and grow as software engineers, and we believe that this project will provide us with valuable experience and skills that will help us succeed in our future careers.

1. Personas and User stories:

Persona # 1:

- Laia
- 21 year old female
- Lives in Sacramento
- Soon to be a college graduate and would like to plan a trip abroad before she starts working full time.
- She lives at home and works part time to afford travel expenses
- Her interests include: traveling, aviation, and fashion
- She has only ever traveled in the United States, but would like to visit other countries. She gets overwhelmed of the thought of traveling to other countries because she doesn’t have experience developing travel itineraries

Persona #2:

- David
- 33 year old male
- Lives in New York
- He lives in an apartment with his wife
- Works full time at Company X
- His interest include: biking, trying new foods/restaurants in his area
- He wants to surprise his wife with a trip Spain for their anniversary, but doesnt know what activities/ sight seeing to plan for

Persona #3:

- Sarah
- 27 year old female
- Lives in San Francisco
- Works full-time as a UI/UX designer at a start-up company
- Her interests include: Fashion, gym, and trying new foods
- She has visited Los Angeles, Arkansas, and India and wants to travel more on her time off. She wants something that will make planning trips much easier and have all the information she needs (reviews, hotels, transport, etc.) in one place and also be able to chat with other travelers.

Persona # 4:

- Ricky
- 28 year old male
- Lives in San Francisco
- Works as full-time governmental staff
- He lives at an apartment alone
- His interests include: video games, hand-made models
- All his interest are indoor activity, he wants to get out of the door. Besides, fussy and repetitive work expend too much energy, he needs a easy and short-term journey.

2. **Data Definitions** -

- User Account - Account used by the registered user
    a. Username- email id used by user to login
    b. Password - password used with email to access the website
- Registration - Page that allows the user to create a TravelMate account
- Registered User - User than has a TravelMate account
- Unregistered User - User than doesn't have a TravelMate account
- Destination - Place that the user need help to generate a plan for travelling
- Travel itinerary - Page that is generated by the API after the user input that includes a detailed daily plan for the set duration.
- Day plan - part of the travel itinerary that contains information on what to do on that particular day.
- Description - A detailed plan for each day that gives the user information about what the activities for the day will include. For example, what to pack,price, restaurants,etc.
- Map - Map that routes all the places in the destination together for a structured plan for navigation.
- User Profile- Page that contains the user information and saved destination
- Saved destinations- Page that contains the destinations that are saved in the database by the user for future reference.
- Search function- Allows user to search for the most popular destinations.
- Popular destinations - Page that contains the most searched destinations by the userbase

3. **Initial list of functional requirements –**

Registered User should be able to…

1. Create an account with a username and password (Priroty - HIGH)
    a. Use email id as username
    b. Login
    c. Logout
2. Enter a prompt about their idea for travelling in order to generate the plan (Priroty - HIGH)
    a. Destination
    b. Total number of travellers
    c. Duration (start to end)
3. See the generated plan in detail (Priroty - MEDIUM)
    a. The plan for each day
    b. The plan for each day will include the place, time,weather and description
    c. Map for the routes
4. Browse their own personal “Trips” gallery (Priroty - LOW)
    a. Create new Trips from a list of Cities/Countries
    b. Delete old Trips
    c. Edit the plan for individual days
5. Save their trips to the database for future reference (Priroty - HIGH)
6. Read the reviews of other users for their desired destinations (Priroty - LOW)
    a. Read reviews
    b. Comment on reviews
    c.post their own review about the place
7. See most popular destinations

Unregistered users must be able to…

1. Enter a prompt about their idea for travelling in order to generate the plan (Priroty - HIGH)
    a. Destination
    b. Total number of travellers
    c. Duration (start to end)
2. See the generated plan in detail
    a. The plan for each day
    b. The plan for each day will include the place, time,weather and description
    c. Map for the routes
3. See most popular destination

4. **List of non-functional requirements**

Compatabilty / optimization-

- The application is designed to be used for pc and will be optimized to run on different browsers such as Google Chrome, Safari or Mozilla Firefox.
- Modular UI features will be optimized to give an intuitive experience on mobile devices.
- Targeting for 50 concurrent users on aopplication hosted on the Google cloud program.
- GPT3-AI will be used to take in user input and to generate the travel itenary. Will be dynamic and support and wide array of conditions.

Security and privacy-

- User data such as usernames, passwords, and saved travel itenary will be securly save on mongoDB to ensure privacy and data security.
- To further data security, all passwords will be passed through bycrypt to encrpt the passwords before storing in the MongoDB database.
- Application will be free to use and will not require any monetary inputs from the user such as credit card information.

User Experience / Usability-

- User experience will be aiming to be simple and straight-forward. Will avoid fancy or complex designs to improve ease of use and improve user experience.
- Text will be readable with simple fonts and decent size will be used for characters. Will not sacrifice ease of use for style.
- Customization will be prioritized to delvier the desired response that the users expect. Users may have specific requirements to be included in the plan that will also be prioritized.

Development and documentation-

- The codebase for the application will be stored in the main branch of our github page (https://github.com/CSC-648-SFSU/csc648-01-csc648-04-team-05) for further reference. The process will also be documented in high detail and will be stored in the readme.
- Application will be developed in VScode with proper formatting such as indentation, spacing, and modularity.

5. **Competitive analysis:**

	TravelMate	**Wanderlog**	**Earth Trekkers**
Trip Planning	Provides a detailed plan for each day depending on the user's interests and needs	Allows you to make your own itinerary	Only provides a general route or recommended locations to visit
User-to-user Interaction	Users are allowed to make reviews on trips and chat with other users for more information	Users are able to create guides from their trips for other users and follow profiles	No user interaction
Dynamic planning using AI	The application will develop a plan for you without your input	Users will have to create their own plan for the individual days	Users will have to create their own plan for the individual days
Special conditions	The application will take into consideration of how many people are travelling togethr and plan accordingly	Considers the user only	Considers the user only

TravelMate is a travel planning application that stands out from its competitors such as Wanderlog, Earth Trekkers, and Trip Planning in several ways. Unlike other apps that either provide only a general route or require users to create their own itinerary,

TravelMate offers dynamic planning using AI that develops a personalized plan based on the user's interests and preferences. This takes the burden of planning off the user's shoulders while still allowing them to make adjustments or add their own preferences to the plan. Additionally, TravelMate allows for user-to-user interaction, including the ability to make reviews, chat with other users for more information, create guides from their trips for other users, and follow profiles. This creates a social and collaborative platform that encourages community involvement. Overall, TravelMate's combination of AI-based dynamic planning, user-to-user interaction, and flexibility make it an outstanding travel planning application compared to other alternatives on the market.

6. **High-level system requirements**:

   OS : Ubuntu

   Database : MongoDB

   Server host : Google cloud program

   Sever sided language : Javascript (NodeJS)

   Web Framework : ExpressJS

   Web Server : NodeJs

   Editor : Visual studio code

   Front-end Framework : ReactJS

   API : GPT3 AI

   SSL Cert : Lets Encrypt

   State Management : Redux

7. **Team**:

    Siddharth Sankar (Team lead)
    Muhammed Nafees (Front-end lead)
    Hanlei Liu
    Dania Dababo (Scrum)
    Farah Jamjoum
    Yahya Obeid (Github master)

STUDY PLAN

We are using MERN stack for building our application. Based on the roles assigned to each member, we have formed this study plan to be resourceful in our particular area-

REACT - to be finished by 03/08/2023
Muhammed Nafees
Hanlei Liu
Dania Dababo
Farah Jamjoum
Yahya Obeid

GITHUB- to be finished by 02/14//2023
Muhammed Nafees
Hanlei Liu

Dania Dababo
Faraj Jamjoum
Yahya Obeid

NODEJS / EXPRESSJS- to be finished by 03/22/2023
Siddharth Sankar
Muhammed Nafees
Hanlei Liu
Dania Dababo
Yahya Obeid

MONGODB-to be finished by 03/22/2023
Yahya Obeid
Hanlei Liu

Google cloud/nginx- to be finished by 03/29/2023
Siddharth Sankar
Yahya Obeid

8. **Checklist**: for each below item, you must answer with only one of the following: DONE; or ON TRACK (meaning it will be done on time, and no issues perceived); or ISSUE (you have some problems, and then define what is the problem with 1-3 lines)

- Team found a time slot to meet outside of the class - **DONE**

- Scrum Master shares meeting minutes with everyone after each meeting - **DONE**

- Github master chosen - **DONE**

- Everyone sets up their local development environment from the team's git repo- **DONE**.

- Team decided and agreed together on using the listed SW tools and deployment server- **DONE**

- Team ready and able to use the chosen back/front-end frameworks- **ON-TRACK**.

- For each technology (front/back-end/DB/cloud) , team decides who will lead the study of each technology and what will be the specific goal of the study within one month from the M1 announcement- **DONE**.

- Team lead ensured that all team members read the final M1 and agree/understand it before submission- **DONE**