

Itiner-Ease

Explore with ease—your itinerary, your way.



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Team Biography



Crystal Rivas is a second degree seeking student in Computer Science at ODU with a background in math education. Her expertise in problem solving drives the transition and aims to develop innovative and impactful solutions.



Stephen Usselman is a senior at ODU majoring in computer science. He is looking to pursue a career as a Software Developer after university.

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William Mbandi is a senior at ODU majoring in computer science with a minor in cyber security. Wants to work as a Software Developer after he graduates.

Team Biography



William Poston is a senior at ODU majoring in computer science with a minor in data science. After school, he dreams of being an AI prompt engineer.



Jandra D. Arias Tavaréz is a second degree seeking student at ODU working on her bachelor in Computer Science. She aspires to work as a Software Developer after graduating.



Fredrick Terling is a senior at ODU majoring in Computer Science. He is currently hoping to get his foot in the door for most tech job opportunities but dreams of being a Game Developer and ultimately a Game Producer.

Background

We all want our trips and vacations to be stress free, but planning out your itinerary is anything but. In fact 22% of U.S adults say planning and booking the trip is the most frustrating part of the whole trip.

However, if you think finding that special spot online is worth all that added stress and work you're not alone. 1 in 3 Americans say that finding unique things to do is one of the most enjoyable aspects of trip planning.

What exactly is the most frustrating part about planning the trip then? 37% of people in that same survey said that it was finding the most affordable option.



Problem Statement

We all want our trips to be fun and memorable, but the amount of planning it takes to do so can take both the fun out of the equation and sour the experience overall. Planning is also the only way to get your trip tailored to your interests and keep your costs within the budget, so it becomes a necessary chore before you can possibly go on any sort of trip.

Users/Customers/Stakeholders



- Users
 - International and Domestic Travelers
 - Recent transplants
- Customers
 - Restaurants
 - Attractions
 - Parks
- Stakeholders
 - Hotels
 - Airlines
 - Government Tourism Departments

Problem Characteristics

Choice Overload

- Consumers are given simply way too many options with no easy way to narrow them down.
- Even after you choose one option you find yourself having to make many more choices over the duration of your trip.

Personalized Experience

- Whether planning it themselves or otherwise, individuals are lead to the most popular locations and attractions, not necessarily the ones the consumer would most prefer.
- Finding that great local spot or hole in the wall location can be a major highlight of any trip.

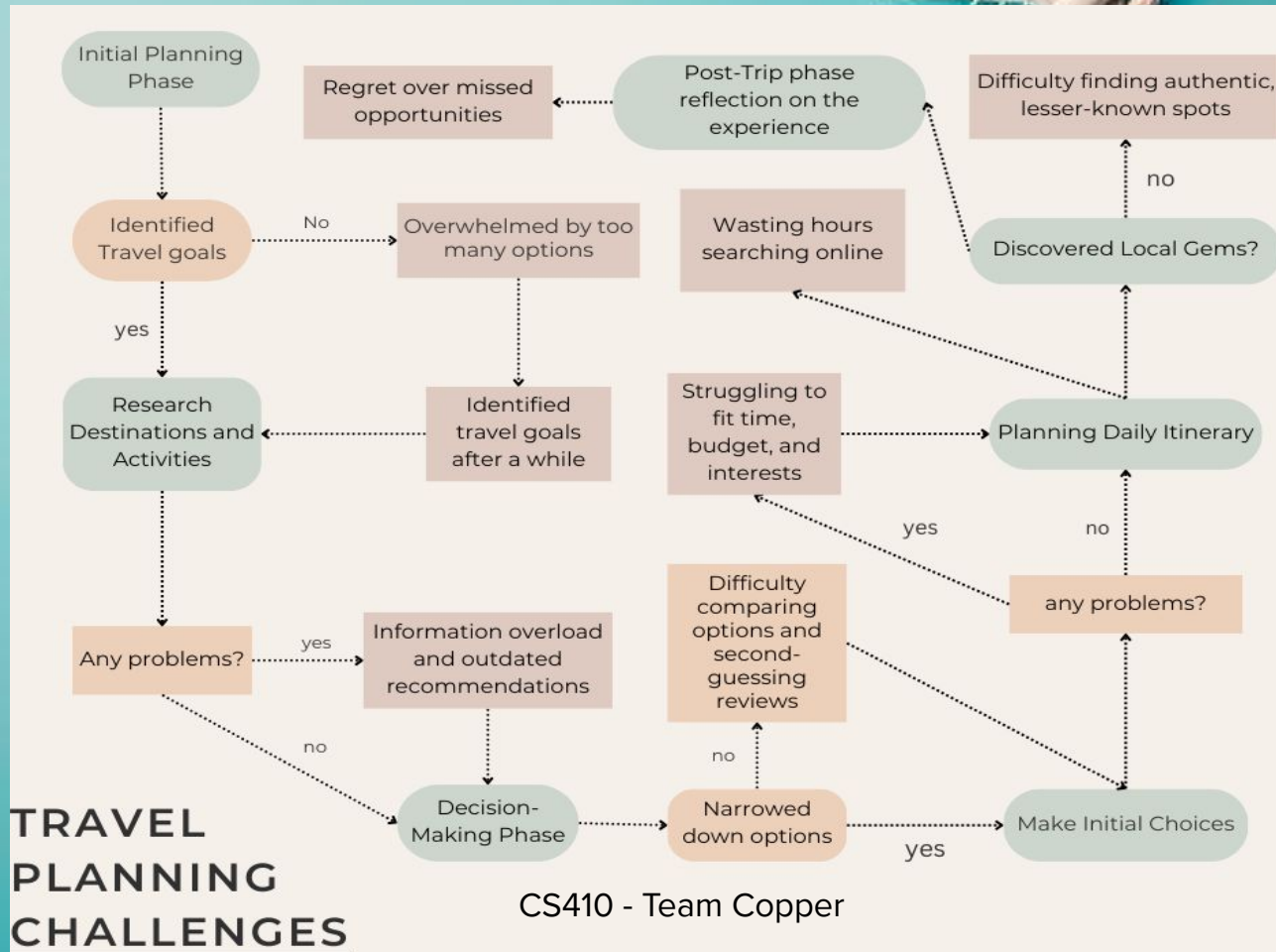
Maximizing Value and Satisfaction

- Staying within budgetary constraints while still filling each day with interesting activities can be a major concern.

Unified Planning

- Most people are looking to travel together and need a system to make and exchange travel plans together.

Current Process Flow



TRAVEL
PLANNING
CHALLENGES

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Solution Characteristics



- **Personalized Itinerary Generation:** Users receive tailored activity, restaurant, and event recommendations based on preferences.
- **Real-Time Itinerary Adjustments:** Plans change-users can modify their schedule dynamically based on weather, availability, or spontaneous decisions.
- **Privacy Focused Design:** Users control location tracking and data collection with opt-in/opt-out features.

Solution Characteristics



- **Hidden Gems & Local Focus:** Prioritizes user-generated content to highlight lesser-known attractions, especially in smaller towns.
- **Group Planning Features:** Enables group collaboration by allowing friends or family to vote on activities, suggest changes, and share itineraries.

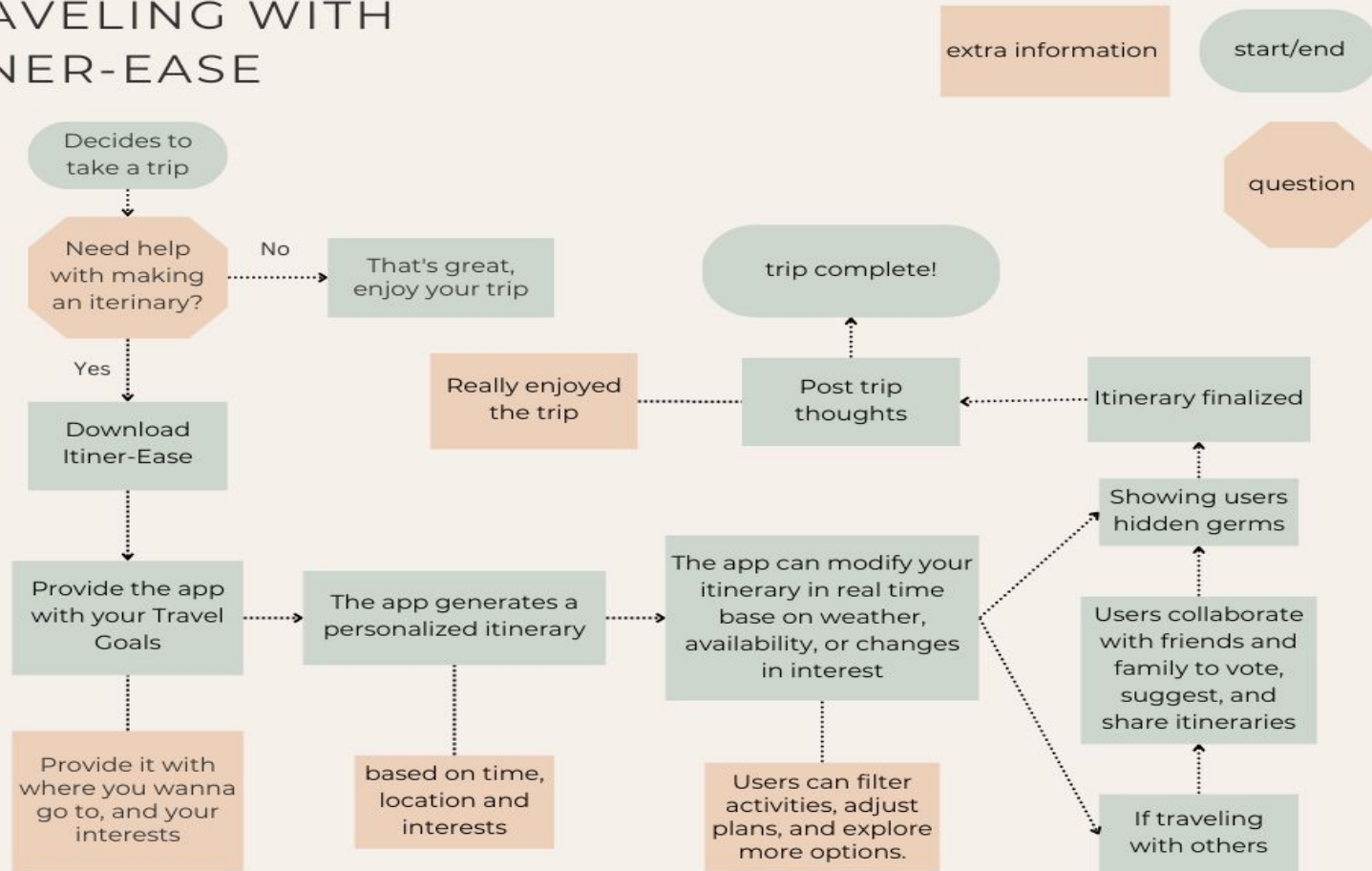
Solution Objective



We will develop Itiner-Ease, a mobile application designed to simplify and personalize itinerary planning for travelers, new residents, and spontaneous adventurers. Itiner-Ease will allow users to generate custom itineraries based on their location and preferences. Users can filter activities, discover hidden gems, and adjust plans in real time while maintaining privacy controls. Unlike existing solutions, Itiner-Ease will emphasize user-generated content to improve recommendations in small towns.

Solution Process Flow

TRAVELING WITH ITINER-EASE



What it Will Do

- **Personalized Itineraries:** Generate personalized itineraries based on user interests, time and location.
- **Built-in Local Discovery:** It will help users discover “hidden gems” especially in small towns.
- **Opt-in/out Data Options:** It will allow users to opt-in or out of tracking user data that is used is used to location and interest tracking.
- **Local Explorer Rewards:** It will allow users to accumulate rewards overtime if users decide to participate in activities such as reviews or recommendations and other contributions.

What it Will Not Do

- **It will NOT Store precise Data:** as mentioned previously, users can opt-out what data they share but it will focus on aggregate data and not precise data history.
- **It will NOT give generic recommendations:** a lot of existing things like google maps & trip advisor often give very basic suggestions and/or are heavily sponsored/advertise things that are often not even conveniently located.
- **It will NOT require trip confirmations & bookings:** if anything Itiner-ease should help people plan out their trips without having everything already set in stone especially since travel plans change frequently.

Competition Matrix

Feature	Itiner-Ease	 wanderlog	 Tripadvisor	 Google Maps	 TripIt <small>from Concur</small>	 eventbrite	 Meetup
Personalized Itinerary	✓	✓			✓		
Privacy Controls	✓	✓				✓	✓
Filter-Based Activity	✓		✓			✓	✓
Itinerary Adjustments	✓				✓		
User Generated Local Content	✓		✓	✓		✓	✓
Hidden Gems & Local Focus	✓					✓	
Group Planning	✓	✓			✓		✓

Major Functional Components

Presentation Layer

Platforms

- Desktop
- Mobile
- Website

User Interfaces

- Search & Recommendations
- Map & Navigation
- Share Itinerary with others
- User Reviews & Ratings
- Notifications & Alerts

Application Layer

Personalized Itinerary API

- Location Tracking
- Interest Tracking
- Local Discovery

Explorer Reward API

- User Reviews
- Point Based Rewards
- Business Partnerships

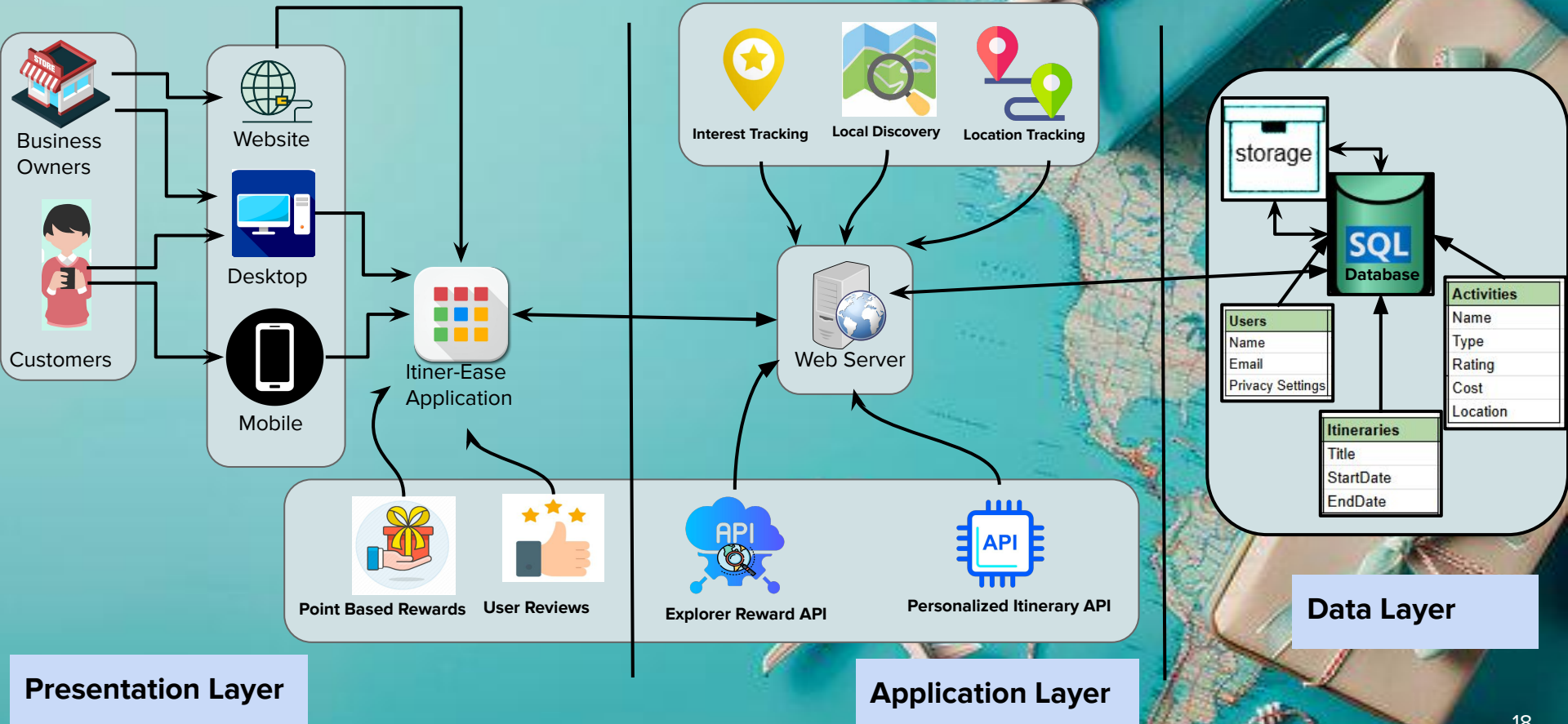
Data Layer

SQL Database Stores

- User Data
- Itineraries
- Activity Data
- User Recommendations

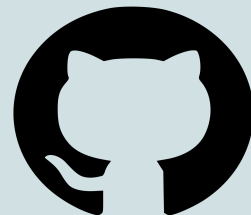
Data Category	Examples
Users	Name, Email, Preferences, Privacy Settings
Itineraries	Itinerary ID, User ID, Title, Date
Activities	Activity ID, Name, Type, Rating, Cost, Location
User Preferences	Categories, Budget Range, Travel Dates
Recommendations	Location, Category, Description

Major Functional Components Diagram



Development Tools

- We have decided to use **Visual Studio Code** as our Integrated Development Environment.
- Our version control will be through open source system **Git** hosted on **GitHub**.
- To host our website and provide seamless integration, we have opted to use **GitHub's Actions and Workflows** feature.



Reference

- <https://press.priceline.com/new-priceline-research-finds-average-traveler-spends-two-full-work-days-to-plan-and-book-trips/>