



GLOBETREK

Project Engineering

Supervised By: Ben Kinsella



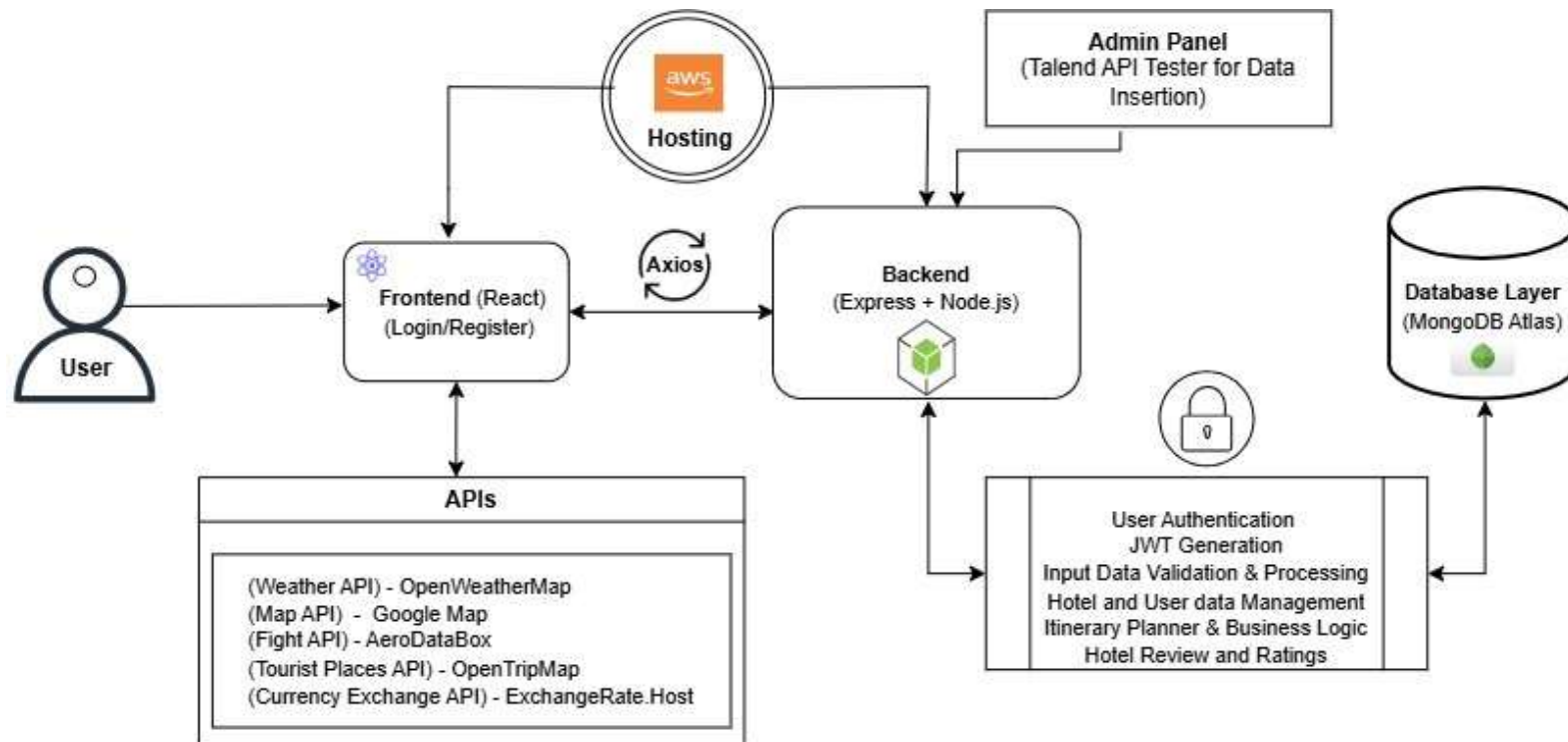
by Parthib Barua



GlobeTrek: Overview

- All-in-one travel platform for managing hotel booking and trip planning
- Aims to simplify and enhance the travel experience for users
- Combine multiple travel tools in one place
- Everything's connected with real time info thanks to smart APIs
- Focuses on user-friendly design and real-world functionality

Architecture Diagram



Features: Hotel Browsing and Reviews

Hotel Sorting

Sort hotels by price for tailored search results.

Bayesian Review System

Reads prior visitor ratings and reviews to ensure reliability.

Photo Gallery

Users view detailed hotel photos to preview their stay.

Profile Dashboard

Track past and upcoming bookings and rate stays with comments.

Features: User Access and Account Security



Registration & Login

Users register with username, email, and password to book hotels.



Password Safety

Passwords hashed with Bcrypt and salted for thread safety.



Token Management

JWT tokens stored in httpOnly cookies, securing user sessions.



Local Storage

Only username and email stored in frontend, enhancing security.



Features: APIs

Live Location & Weather

Real-time maps fused with weather updates for user convenience.

Flight Booking & Status

Book flights and view departure and arrival updates at airports.

Currency Exchange

Get the most recent currency exchange rates for seamless travel.

Nearby Attractions

Search and navigate to tourist spots via integrated map features.



Technology Stack and Hosting

Frontend

- **React**
- **React Router DOM** – for routing
- **React Hooks** – useState, useEffect, etc
- **React Context API**- for state management
- **useFetch** – for handling API calls
- **React Native & React Navigation** – for mobile-friendly design/navigation

Backend

- **Node.js**
- **Express**
- **Mongoose** – ODM for MongoDB

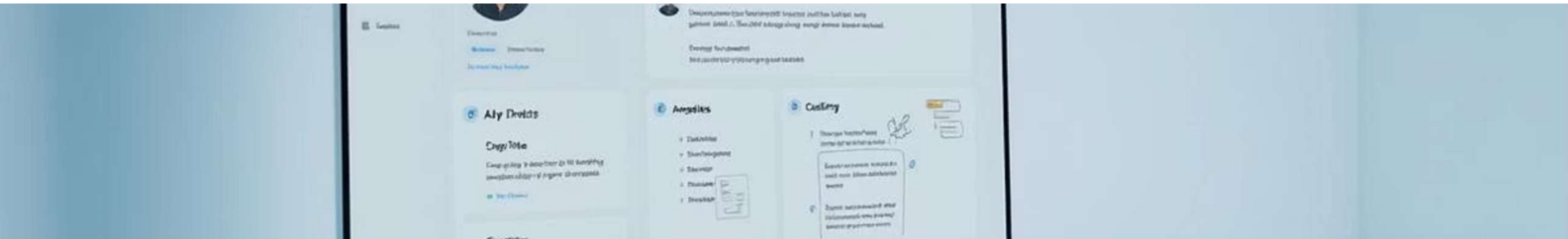
Database

- **MongoDB Atlas** – cloud database solution

Hosting & Deployment

- **Amazon EC2 (t3.medium)** – hosting the backend/server



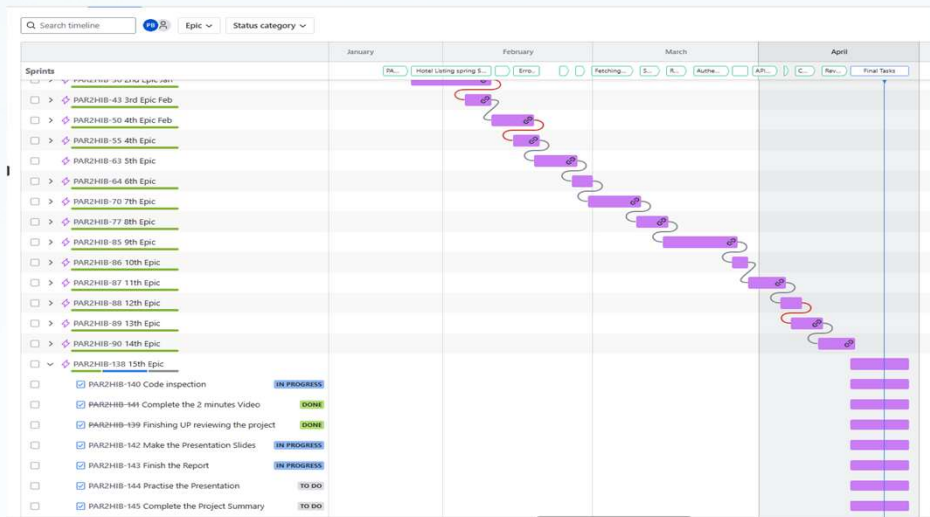


Project Management and Design

1

Planning & Tracking

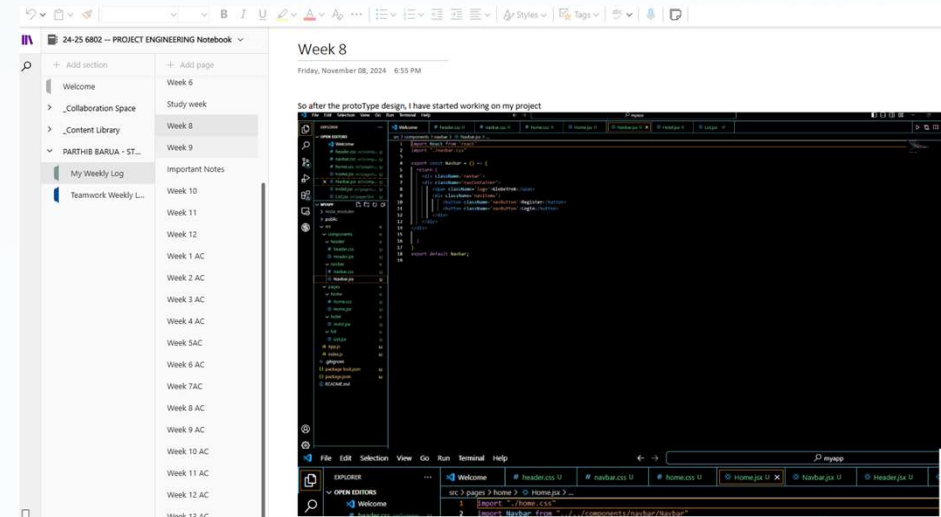
Used JIRA to manage tasks from research to development progress.

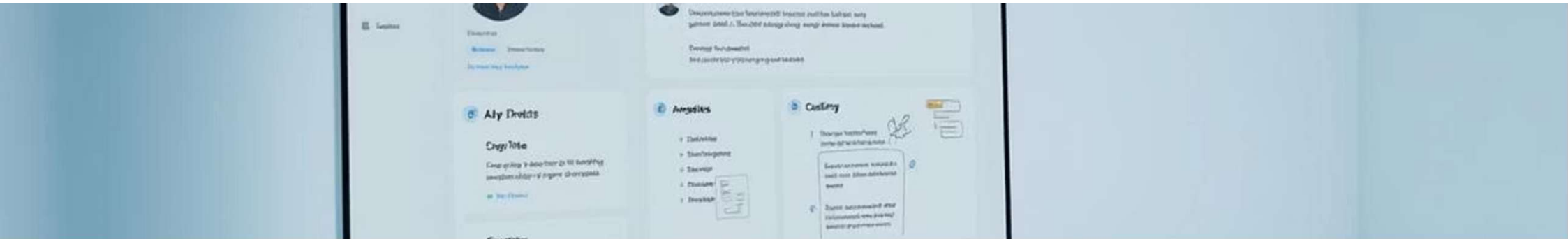


2

Documentation

OneNote captured weekly research and notes.



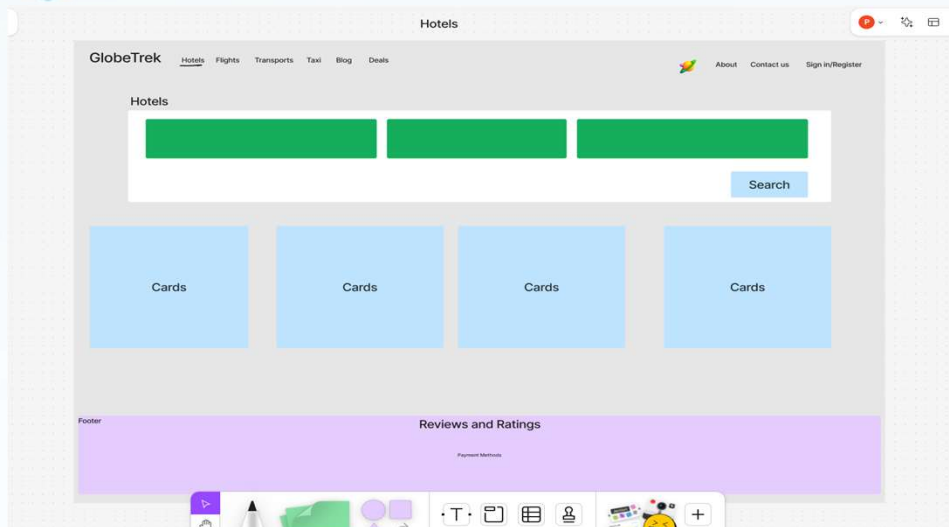


Project Management and Design

3

Design Prototyping

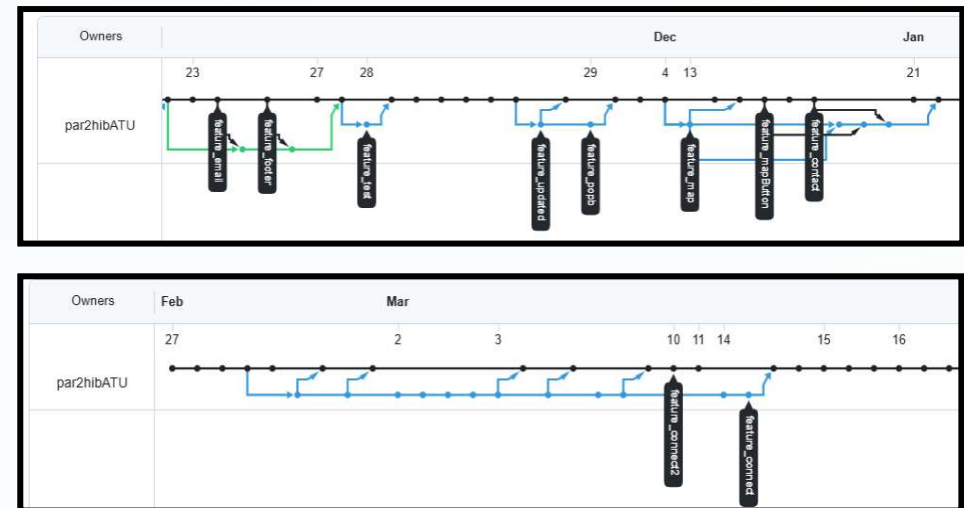
Figma was used for UI design and prototyping before development.



4

Version Control

Code base maintained via GitHub.



Skills Developed and Lessons Learned

Project Planning

Mastered planning from concept to execution.

Technical Proficiency

Improved software skills and worked with diverse tech stacks.

Version Control Skills

Enhanced Git/GitHub expertise managing code efficiently.

Problem Solving

Developed strong approaches to real-world challenges.



Conclusion and Future Directions



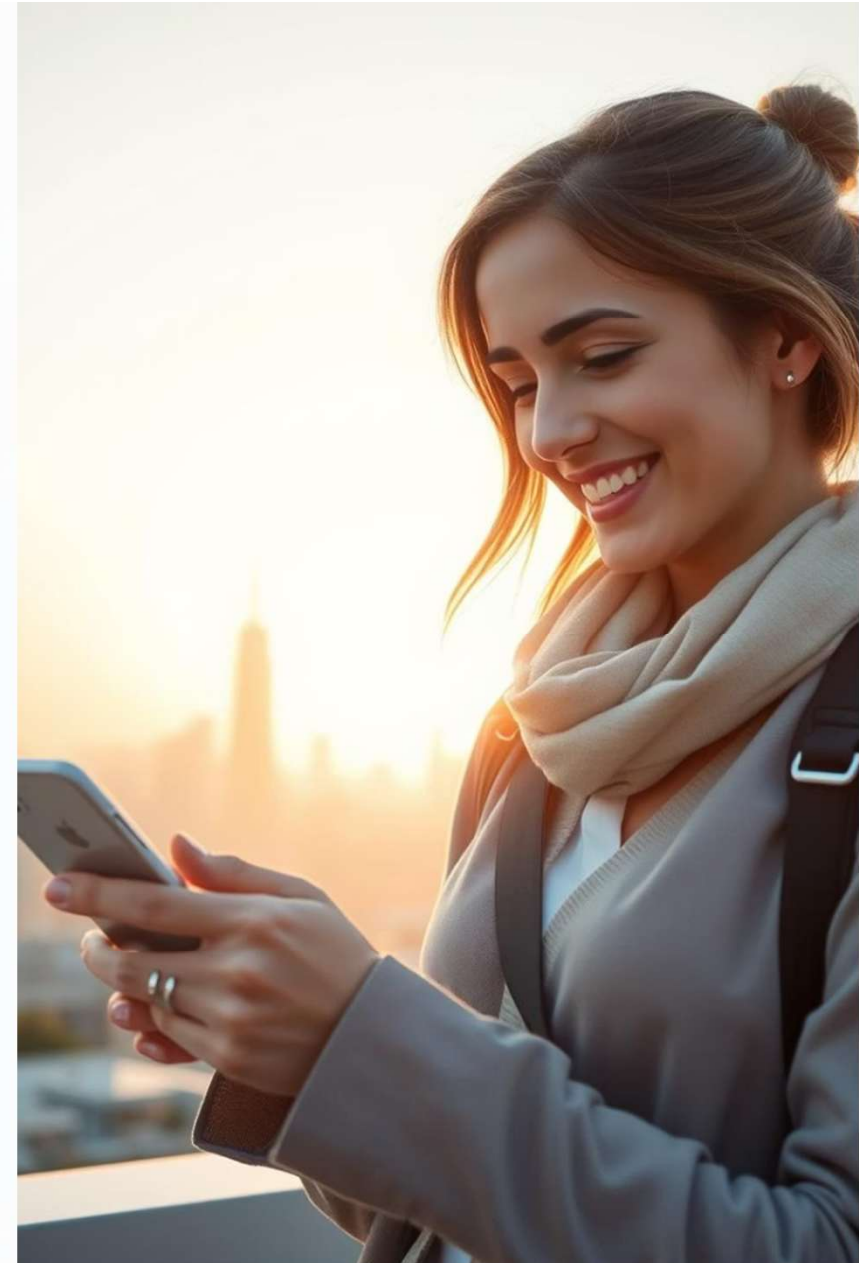
AI Chatbot Integration
Integration



Price Recommendation
Model



Personalized Recommendation



Thank you.



Access the GitHub Codebase Here!