Project Design Phase-I
Solution Architecture

Date	23 October 2023
Team ID	Team-590999
Project Name	Wanderlust: A Personalized Travel Planning and Tracking App
Maximum Marks	4 Marks

Solution Architecture:

- **User Interface (UI)**: This is the front end of the app where users interact with the application. It includes the user interface elements for travel planning, recommendations, and viewing itineraries.
- **Application Layer:** This layer includes the app's core logic and functionalities. It manages user requests, processes data, and communicates with other parts of the architecture.
- **Server Infrastructure:** This is where our app's backend resides. It handles user authentication, business logic, and data processing.
- **Database:** Store user data, travel information, user-generated content, and other application data.
- **API Layer:** This layer connects the frontend and backend, allowing data and functionality to be exchanged between them. APIs provide a way for the app to retrieve and send information to the server.
- **Third-Party Integrations:** Integrate with external services and APIs for features like weather forecasts, maps, and travel recommendations.
- **Caching Layer:** Use caching mechanisms to store frequently accessed data, reducing the load on the database and improving response times.
- **Authentication and Security:** Implement robust security measures to protect user data and privacy. This includes user authentication, encryption, and data access controls.
- **Scalability and Load Balancing:** Ensure that our architecture can scale horizontally by adding more servers or resources as needed. Load balancers distribute traffic evenly to maintain optimal performance.
- **Analytics and Monitoring:** Implement tools for monitoring the app's performance, user behaviour, and security.

Example - Solution Architecture Diagram: