## **Travel Planner Project Documentation**

# 1. Project Overview

The Travel Planner is a full-stack web application designed to help users plan their trips by searching for destinations and discovering nearby places of interest. The app integrates with third-party APIs like Google Maps services to provide detailed travel information. Users can input a destination and receive details about popular places as well as nearby tourist attractions.

### 2. Features

- **Search Destinations:** Users can search for a destination and get a list of popular places.
- **Nearby Places**: Automatically fetches and displays nearby tourist attractions based on the selected destination.
- **Responsive UI:** A clean, responsive interface built with React for a seamless user experience.

# 3. Technologies Used

#### Frontend:

- **React.js** For building the user interface.
- **Axios** To make HTTP requests to the backend APIs.
- **CSS** For styling the application.

#### Backend:

- Golang (Go) For building a RESTful API.
- Gorilla Mux For routing HTTP requests.
- Google Maps API For fetching destination and nearby places data.
- Currency Exchange API To handle real-time currency conversion.

### **Development Tools:**

- **Postman** For API testing.
- Visual Studio Code As the primary code editor.
- Git & GitHub For version control and repository management.

# 5. Setup and Installation

### **Prerequisites:**

- Node.js & npm For running the React frontend.
- Golang For building the backend server.
- MongoDB As the database.
- Google Maps API Key

# 6. Step-by-Step Installation:

#### Clone the Repository:

```
git clone https://github.com/yourusername/travel-planner.git
cd travel-planner
```

#### 1. Setup Backend:

```
Navigate to the backend directory:
```

```
cd backend
```

#### Install Go modules:

```
go mod tidy
```

#### Run the server:

```
go run main.go
```

#### 2. Setup Frontend:

```
Navigate to the frontend directory:
```

```
cd frontend
```

#### Install dependencies:

npm install

#### Run the React app:

npm start

### 7. Environment Variables:

Create a .env file in the **backend** directory with the following:

GOOGLE\_MAPS\_API\_KEY=your\_google\_maps\_api\_key PORT=8000

For the frontend, create a .env file:

REACT\_APP\_BACKEND\_URL=http://localhost:8000

# 8. Testing:

### **Backend Testing:**

Use **Postman** to test API endpoints:

1. Fetch Destination Details:

GET http://localhost:8000/places?destination=Paris

2. Fetch Nearby Places

**GET** <a href="http://localhost:8000/nearby?destination=Paris">http://localhost:8000/nearby?destination=Paris</a>

### **Frontend Testing:**

npm start

Enter a destination in the search bar and verify if the places and nearby attractions are displayed correctly.

# 7. Future Improvements

- **User Authentication:** Add user login/signup to save personalized trip plans.
- Itinerary Planner: Allow users to create detailed itineraries.
- Weather Integration: Show weather forecasts for selected destinations.
- **Pagination:** Handle paginated responses from Google Maps API for more results.

## 8. Screenshots:

- Travel Planner











