

## WEB X CA- Prerequisites

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**Title: TrippyTally**

### Introduction:

A GEN-AI based full-stack web application that helps users calculate travel expenses between different cities using various modes of transport and type of transport based on users preferences. This project is built using React-vite for frontend, Flask for backend, Gemini API for Gen AI model and MongoDB Atlas as the Database.

### System Requirements:

#### 1. Hardware Requirements:

- Processor: Intel Core i5/AMD Ryzen 5 or higher (dual-core, 2.0 GHz or faster)
- RAM: 8GB minimum, 16GB recommended
- Storage: 256GB SSD with at least 1GB free space for the project
- Network: Stable internet connection for API calls and MongoDB Atlas connectivity

#### 2. Software Requirements:

- Operating System: Windows 10/11, macOS 10.15+, or Linux (Ubuntu 20.04+)
- Code Editor: Visual Studio Code, PyCharm, or any modern IDE
- Version Control: Git 2.25+

### Technology Stack:

#### 1. Frontend:

- Node.js: Version 14.0.0 or higher
- npm: Version 6.0.0 or higher
- React.js: Version 17.0.0 or higher

#### 2. Backend:

- Python: Version 3.8 or higher
- Flask: Version 2.0.0 or higher
- MongoDB Atlas: Free tier or higher

#### 3. DataBase:

- MongoDB Atlas

## Setup Instructions:

### 1. Install Node.js and NPM

Download and install node.js from [Node.js Official Website](#)

Verify: `node -v` `npm -v`

### 2. Install Python

Download and install python from [Python Official Website](#)

Verify: `python --version`

### 3. Create a virtual Environment

`python -m venv venv`

`venv\Scripts\activate`

### 4. Install Flask and other dependencies

`pip install -r requirements.txt`

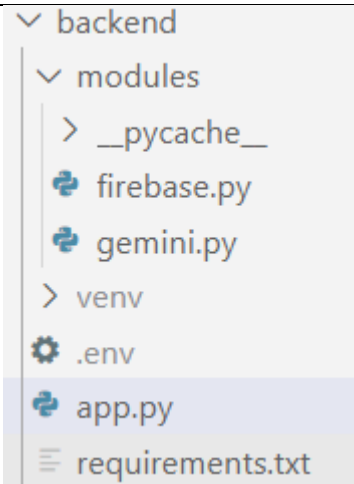
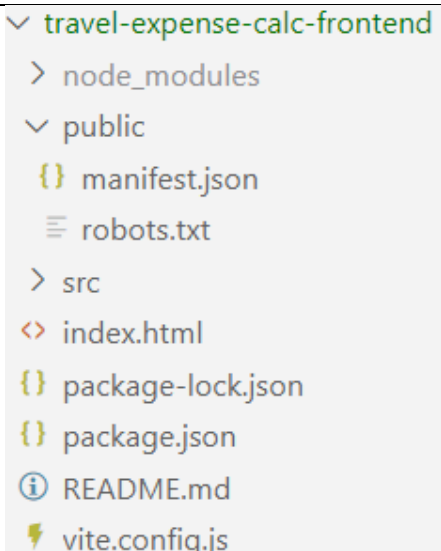
### 5. Generate a Gemini API key

Go to [Google AIStudio](#) and generate API key

### 6. Setup MongoDB

Use MongoDB Atlas for cloud storage or install MongoDB locally.

## Project Structure

Backend	Frontend
 <pre>└─ backend    └─ modules        ├── __pycache__        ├── firebase.py        ├── gemini.py        └─ venv    ├── .env    ├── app.py    └─ requirements.txt</pre>	 <pre>└─ travel-expense-calc-frontend    ├── node_modules    ├── public    │   ├── manifest.json    │   └─ robots.txt    ├── src    ├── index.html    ├── package-lock.json    ├── package.json    ├── README.md    └─ vite.config.js</pre>

## Conclusion:

This document provides necessary information required to install and set-up the TrippyTally project including all the requirements. Ensuring all dependencies have been installed.