Full Stack Development Project

Documentation

AutoSage – AI Vehicle Expert Application (Gemini Flash)

1. Introduction

Project Title: AutoSage – AI Vehicle Expert Application

Team ID: LTVIP2026TMIDS51576

Date: 28 February 2026

Team Members: (Add your team members and roles)

2. Project Overview

Purpose: AutoSage helps users choose and maintain vehicles using AI recommendations.

Key Features:

• AI vehicle recommendation using Gemini Flash

• Vehicle comparison

• Maintenance tips

• Eco -friendly vehicle finder

• Voice/text queries

3. Architecture

Frontend: Developed using HTML, CSS, and JavaScript for user interaction.

Backend: Implemented using Python Flask to process user queries and interact with Gemini Flash API.

Database: SQLite/Firebase used to store user q ueries and history.

4. Setup Instructions

Prerequisites: Python 3.10+, pip, internet connection, Gemini API key

Installation Steps:

• Clone the repository

• Install required libraries using pip install flask google -generativeai

• Create .env file and add G EMINI_API_KEY

• Run python app.py

5. Folder Structure

templates/: HTML pages

static/: CSS and JavaScript files

app.py: Backend server code

6. Running the Application

Run the backend server: python app.py

Open browser: http://127.0.0.1:5000

7. API Documentation

POST /ask: Sends user query to Gemini Flash and returns response

8. Authentication

API key stored securely in environment variables (.env file).

9. User Interface

Simple web interface where user enters vehicle query and receives AI response.

10. Testing

Tested with multiple queries and performance checks to ensure stable responses.

11. Screenshots or Demo

Add screenshots of homepage, query input, and AI response page.

12. Known Issues

AI response depends on internet connectivity and API availa bility.

13. Future Enhancements

• Mobile app development

• Showroom locator

• Insurance recommendation

• EMI calculator