Model Development Phase Template

Date	12 February 2026
Team ID	LTVIP2026TMIDS79636
Project Title	AutoSage App Using Gemini Flash
Maximum Marks	10 Marks

Initial Model Training Code, Model Validation and Evaluation Report

In this project, no custom model training is performed. Instead, a pre-trained generative AI model is integrated and used for recipe blog generation. The focus of this phase is on model selection, configuration, prompt design, and output evaluation, rather than training from scratch.

Initial Model Training Code (5 marks):

Model Selection and Initialization

The **Gemini Flash (models/gemini-2.5-flash)** model is selected for the **AutoSage** project due to its ability to process both image and text inputs, fast response time, and suitability for real-time applications.

The model is accessed using the Google GenAI SDK, and it is initialized securely using an API key stored in environment variables. The application sends a vehicle image along with a structured prompt to the model, which generates vehicle-related insights.

Since the model is already pre-trained, no training loop, loss function, or optimizer is required.

```python
# Configure Gemini API Key

genai.configure(api_key=os.getenv("GOOGLE_API_KEY"))



# Load Google Gemini API and get response

def get_gemini_response(input_prompt, image):

    model = genai.GenerativeModel('models/gemini-2.5-flash')
    response = model.generate_content([input_prompt, image[0]])
    return response.text
```

Model Validation and Evaluation Report (5 marks):

Model	Summary	Training and Validation Performance Metrics
Gemini 2.5-flash	Pre-trained generative language model optimized for fast text generation	Pre-trained multimodal generative AI model capable of understanding images and generating structured text responses