

Car Listing Application LLM prompt

“User Input (streamlit gui):

You are a software developer, and you are required to create a web app using langgraph and streamlit for car listing.

Prompt check node:

The user inputs a car's image alongside its description in text. This input is checked for malicious content. The input is rejected if it is unsafe and the system should raise an error, while if it is safe, the input is then sent to GPT-4o mini for feature extraction.

Feature extraction node:

The OpenAI agent acts as a car sales expert who will identify important information for car listing details, such as Car type, brand, motor size, any defects, and any other details the model identifies as an expert and return only the features and their values as only raw JSON without any further explanation or formatting, matching the example structure for token optimization.

Image extraction node:

Implement a dummy function in the image extraction node that will randomly select the car type from these options ['sedan','SUV','hatchback','truck','coupe'] in that node, which will be modified later by a Computer Vision Specialist.

Email Sender node:

Use SendGrid API to send the JSON and uploaded image to the designated Gmail address, and ensure both the JSON data and the image are attached properly.

This is how the system should flow 'Prompt Check → Feature Extraction → Image Extraction → Email Sender'

Example input and output:

Blue Ford Fusion produced in 2015 featuring a 2.0-liter engine. The vehicle has low mileage with only 40,000 miles on the odometer. Equipped with brand-new all-season tires manufactured in 2022. The car's windows are tinted for added privacy. Notably, the rear bumper has been replaced after a minor collision. Priced at 1 million L.E.

Output:

```
"car": {  
  "body_type": "sedan",  
  "color": "Blue",
```

```
"brand": "Ford",
"model": "Fusion",
"manufactured_year": 2015,
"motor_size_cc": 2000,
"tires": {
  "type": "brand-new",
  "manufactured_year": 2022
},
"windows": "tinted",
"notices": [
  {
    "type": "collision",
    "description": "The rear bumper has been replaced after a minor collision."
  }
],
"price": {
  "amount": 1000000,
  "currency": "L.E"
}
}
```