

CARE YOUR CAR

The Streamlit app script provided is designed to analyze car sales conversations, extracting key information and visualizing data. The script includes the following key components:

- **Dependencies:** It utilizes libraries like streamlit, nltk, pandas, matplotlib, and PyMuPDF, along with the transformers library for model processing.
- **System Prompt:** It defines a default system prompt to guide the model in extracting details about customer requirements, company policies, and customer objections from the conversation.

Functions:

- **get_prompt():** Constructs the prompt for the model based on the given instruction and system prompt.
- **generate():** Handles the generation of model output, measures performance, and handles errors.
- **filter_valid_data():** Filters out invalid or empty values from the data.
- **analyze_sentiment():** Analyzes the sentiment of the text using VADER sentiment analysis.

- `extract_information()`: Extracts and parses JSON information from the model's output.

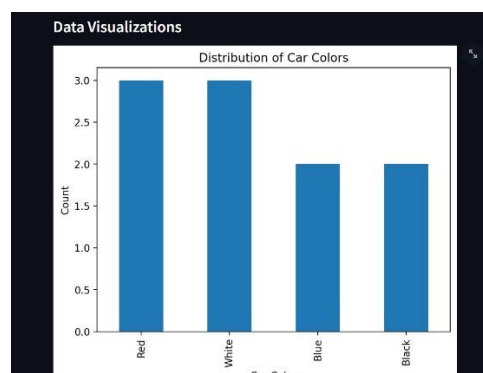
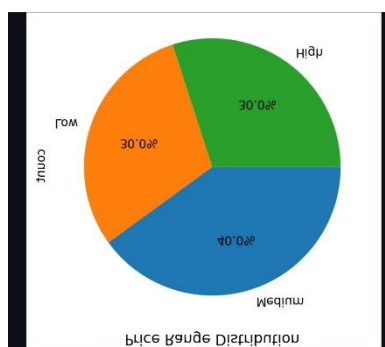
```

Extract Information from sodapdf-converted.pdf

{
  "Customer Requirements": {
    "Car brand name": [
      0: "I-20"
      1: "Venue"
      2: "I-10"
      3: "Eon"
      4: "Alto"
      5: "Swift"
      6: "Tiago"
    ]
    "Car Type": [
      0: "Hatchback"
      1: "SUV"
      2: "Sedan"
    ]
    "Fuel Type": "Petrol"
    "Color": "White"
    "Distance Travelled": []
    "Make Year": []
    "Transmission Type": []
  ]
}

```

- `create_bar_chart()`: Creates bar charts for data visualization.



- `aggregate_data()`: Aggregates data for visualization, including color distribution, price ranges, car types, and objections.
 - `extract_text_from_pdf()`: Extracts text from PDF files for processing.
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- ✓ **Model Loading:** Uses `AutoTokenizer` and `AutoModelForCausalLM` from the transformers library to load a pre-trained model for text generation.
 - ✓ **Streamlit UI:** Provides a user interface to upload conversation files, extract information, view results, and download JSON files. It also performs sentiment analysis and displays visualizations based on the aggregated data.