AI Sales Agent Documentation

Tech Stack : **Streamlit, Google's Gemini API, Python, DuckDuckGo Search, phidata framework**

1. Problem Statement

Objective: Build an AI sales assistant to help users:

- Retrieve real-time product information (price, stock, features).
- Compare products based on user criteria.
- Provide market insights (trends, availability).

Challenges Addressed:

- Manual product searches are time-consuming.
- Lack of dynamic comparison tools.
- Limited real-time stock/trend visibility.

2. Approach

Workflow:

1. **User Input:** The user interacts with the Streamlit chat interface.
2. **Streamlit App:** Manages session state and forwards queries to the AI agent.
3. **AI Agent (Gemini)**: Processes the query using:
    - Product Catalog for static data (price, stock).
    - DuckDuckGo Search for dynamic trends/availability.
4. **Response Generation:** Returns formatted answers with alerts (e.g., low stock).

Key Components

1.Product Catalog:

- Static database with product details.

2.AI Agent (Gemini):
- Guided by a strict system prompt to avoid hallucinations.
- Integrated with DuckDuckGo for market trends.

3.Retry Logic:
- Ensures API reliability using tenacity. Retry

4.**Streamlit Interface**:

- Chat-based UI with session state management.

3. Implementation Highlights

System Prompt Design

```
SALES_SYSTEM_PROMPT = """
You are a sales assistant. Follow these rules:
1. NEVER invent products outside the catalog.
2. Alert users if stock < 5.
3. For comparisons, use tables with price, features, and trend scores.
4. If unsure, say "I don't know."
"""
```

Agent Initialization

```
from dotenv import load_dotenv
import google.generativeai as genai

def get_sales_agent():
    load_dotenv()
    genai.configure(api_key=os.getenv("GEMINI_API_KEY"))
    return genai.GenerativeModel(model_name="gemini-pro")
```

4. Functionality Demo

Feature 1: Product Query

User Input: "Tell me about the Wireless Bluetooth Headphones."
AI Response:

- Price: $89.99

- Features: Noise cancellation, 20hr battery, USB-C

- **Alert**: "Only 2 units left in stock!"

Feature 2: Product Comparison

User Input: "Compare drones under $1000."
AI Response:

Product	Price	Features	Trend Score
DJI Mavic Air 2	$999	4K Video, 34min flight	9.0
Autel EVO Lite+	$899	6K Video, Obstacle Avoidance	8.2

Appendix

Code setup

1. Install dependencies:

   pip install streamlit google-generativeai python-dotenv tenacity

2. Add a .env file:

   GEMINI_API_KEY="your_api_key_here"

Run the App

   streamlit run sales_agent.py