Smart AI Shopping Assistant - Python, Machine Learning, Flask, NLTK, APIs

This take-home exercise demonstrates a practical solution leveraging LLMs (Large Language Models) for a realistic AI-driven application.

Project Title: Smart AI Shopping Assistant

Overview:

Developed an AI-powered shopping assistant that uses natural language processing and machine learning to interpret user queries and provide intelligent product recommendations and real-time comparisons.

Key Features:

- Utilized Python, Flask, and NLTK to develop a web-based NLP system capable of understanding user shopping queries.
- Implemented both collaborative and content-based filtering recommendation algorithms.
- Integrated sentiment analysis to personalize suggestions based on user behavior and review patterns.
- Connected to multiple e-commerce APIs to fetch product listings and perform real-time price comparisons.
- Created a user-friendly, responsive web interface to ensure seamless product discovery and shopping experience.

Use of LLMs:

LLMs (such as ChatGPT or similar) were employed to enhance natural language understanding, improve query intent detection, generate user-relevant product search terms, and suggest

responses dynamically based on user input.

Note:

A video demonstration of this project will be provided as required, and the solution will be explained in detail during the interview.

All the best!

Aganitha.