NLP Assiggnment

Movie Recommendation

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Contents

Abstract

This document reflects the progress made on the NLP assignment.
Hereby the github repository where everything is included: **Repository**

1   Goal

Design a **conversational movie recommender app** to enable **casual users in entertainment or leisure contexts** to **receive aimed movie suggestions with natural language input and AI-generated reasoning.**

2   Architecture

I followed the structure suggested on Canvas, which recommended using LangChain as the framework to connect with Ollama, and Streamlit to build and deploy the app.

In the repository there are two files:

- Requirements.txt: Contains all the deliverables needed to run/deploy the app.

- streamlit_app.py: Python file that contains the code.

- NLP Assignment: Document that contains all the details regarding the assignment.

3   Pipeline

1. User enters their movie preferences in the Streamlit form.

2. Prompt is constructed and sent to the local Mistral model using LangChain's Ollama interface.

3. LLM generates 5 personalized movie recommendations.

4. Response is displayed using st.markdown().

3.1   Diagram

```
[User Input via Streamlit]
          |
          ▼
[Prompt Template]
("You are a movie expert... Recommend 5 movies...")
          |
          ▼
[LangChain → Ollama (Mistral Model)]
          |
          ▼
[LLM Response: List of 5 movies + explanations]
          |
          ▼
[Streamlit Output: st.markdown()]
```

Figure 1: Diagram