Applied Generative AI : LLM Application Development

Dates: 26 September 2025

Lab **5**: Simple MCP

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Step 1: Activate Virtual Environment

Windows (PowerShell):
```
.\llm\Scripts\activate
```

macOS/Linux:
```
source llm/bin/activate
```

Step 2: Install Required Packages
- Download lab5_requirements.txt from bhattaraprot.com/lab5_requirements.txt
- Make sure the file is saved in your working directory.
- Install the required packages by running:

```
pip install -r lab5_requirements.txt
```

Lab 5:

Step 4: Source Installation

- Download lab5.zip from bhattaraprot.com/lab5.zip

- Extract the contents and place them into

  `llm/src/lab5`

- Navigate into the lab5 folder

- Verify the structure by listing files

  `ls –R or dir`

Lab 5:

Step 4: Run Streamlit

```
python -m streamlit run lab4/ui/streamlit_app_rag_mcp.py
```

Lab 5:

Step 6:

System prompt:

"You are an AI assistant using only live MCP tools (JSON feeds, Brave search, etc.). Answer the user's question strictly from the MCP CONTEXT. If MCP data is missing or incomplete, say "I don't know." Do not invent values. Present results concisely,but add short explanations if helpful. When possible, cite which MCP source (Live feed vs Brave search) supports the answer.).

Lab 5:

Step 7:

"Summarize recent news affecting Thailand's stock market."

"What is today's SET Index compared to last week?"

"Summarize today's market news headlines from Brave Search."

"Combine Brave search and live feed to explain why the SET Index moved today."