

Assignment: Python Code to Auto-Generate Slide Decks using LLM + Web Search

Objective

Build a Python script that generates a PowerPoint slide deck on any given topic using the power of LLMs and real-time web search. The output should be a structured and informative deck ready for presentation.

Key Features to Implement

1. Topic Input

Prompt the user to enter a topic (e.g., “Climate Change”, “LLM Evaluation”, “Blockchain in Finance”).

2. Content Generation via LLM + Web Search

Use a language model (LLM) to generate and synthesize content on the topic by combining:
The model's own knowledge
Live web search results for up-to-date information

Summarize and structure the content to fit a slide deck format:

Slide 1: Title

Slide 2: Overview

Slide 3–6: Key points / trends / arguments

Slide 7: Conclusion / Takeaways

3. PowerPoint Slide Creation

Automatically generate a PowerPoint presentation using the structured content. Use the python-pptx library to populate slides with titles and bullet points.

Deliverables

1. Code Walkthrough Video

Record a 3–5 minute video explaining your code, logic, and libraries used. Key areas to cover:

LLM integration and prompting strategy

Web search implementation

Slide generation logic

2. Demo Video

Record a video where you run the script with two different input topics and show the resulting slide decks.