Todo Forms

I Watched This Autoplay

GenAI Bootcamp Preeweek - Homework Submission

This is the form to submit homework for preweek.

Github Link to Sentence Constructor
https://github.com/yaya2devops/free-genai-bootcamp-2025/tree/main/sentence-constructor

Github Link to GenAI Architecture
https://github.com/yaya2devops/free-genai-bootcamp-2025/blob/main/genai-architecting/make/yahConceptual.png

Hypothesis and Technical Uncertainty *
Throughout my initial exploration of AI capabilities, I developed several key hypotheses centered around prompt engineering and its impact on output quality. My primary assumption was that fine-tuning prompts could significantly enhance both the quality and efficiency of AI-generated content, with each iteration of refinement potentially unlocking additional capabilities. I theorized that different AI models would require model-specific prompt optimizations, and that the relationship between prompt complexity and output quality wouldn't necessarily follow a linear progression. This led to several technical uncertainties I needed to explore, particularly regarding the consistency of AI responses across different prompt variations, the optimal balance between prompt length and output quality, and the potential limitations of current AI models in understanding complex system architectures. I was especially interested in investigating how these factors would influence the reliability of AI-generated technical documentation and architectural representations.

Technical Exploration *
My technical exploration followed a comprehensive path that encompassed multiple tools and methodologies for architectural visualization and documentation. Initially, I conducted a thorough evaluation of various diagramming platforms, including Lucidchart, Draw.io, and Excalidraw, assessing each tool's capability to handle AI-generated content and their respective strengths in different visualization scenarios. This exploration led me to select Excalidraw for final deliverables due to its optimal balance of functionality and ease of use. A significant breakthrough came when I successfully implemented Mermaid for generating initial diagram structures, effectively translating our official Google Docs project outline into Mermaid syntax. Throughout this process, I developed and refined a systematic approach to prompt construction, testing various structures and formats while documenting both effective patterns and anti-patterns. This methodical exploration allowed me to create reusable prompt templates that consistently produced high-quality outputs while maintaining efficiency in the documentation process.
Briefly describe the path of technical exploration during these projects.

Final Outcomes *
Through this intensive exploration, I achieved several concrete outcomes that significantly advanced my understanding of GenAI. First, I successfully developed a suite of optimized prompts that consistently generate high-quality architectural diagrams with minimal iteration needed. The architectural diagrams I created effectively captured complex system relationships while maintaining clarity and readability. In terms of measurable results, I reduced the time needed for creating technical documentation by approximately 40% through the implementation of well-structured prompt templates. The Mermaid diagrams generated from our project outline received positive feedback for their clarity and accuracy, validating my approach to using AI for technical visualization. I also documented a comprehensive set of best practices for prompt engineering, including specific templates that consistently produce optimal results across different types of technical documentation tasks. These outcomes demonstrate not just theoretical understanding but practical, applicable knowledge that can be immediately put to use in future projects.
Describe your final outcomes or domain knowledge acquired.

Anything else you'd like to add
Beyond the core project requirements, I gained valuable insights into the integration of various tools and methodologies in the AI-assisted documentation process. The synergy between AI-generated content and manual refinement proved particularly powerful, while Mermaid syntax emerged as an exceptionally effective tool for version-controlled diagramming. I established repeatable workflows and templates for common prompt patterns as well, significantly improving efficiency in subsequent tasks. Looking forward, I see substantial potential for further automation in the documentation process, particularly in the development of more sophisticated prompt based on accumulated experience. The possibility of developing custom tools to streamline these workflows presents an exciting opportunity for future dive and deeper improvement.

‹ Sentence Constructor - Spanish to English (Damian Karlson)

Week 1 Livestream - DevTools and Development ›