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| **Author** | **Reviewer** | **Approver** |
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**Exercise: Prompt Engineering Fundamentals — Crafting Effective Prompts for High-Quality Content Generation**

## **1. Objective**

* Understand foundational principles of prompt engineering for large language models (LLMs).
* Practice crafting, refining, and evaluating prompts for different content generation scenarios.
* Experience using AI tools to iteratively improve prompt quality and output relevance.

## **2. Problem Statement**

Generating high-quality content with AI models requires more than simply asking questions—it depends on the clarity, structure, and specificity of prompts.  
This challenges you to develop, experiment with, and refine prompts for various generation tasks. You will learn how wording, instructions, and constraints impact AI responses, and how iterative prompting leads to better results.

## **3. Inputs / Shared Artifacts**

* Can use own topics and generate outputs.
* You may use any LLM-powered chat interface (e.g., ChatGPT, Gemini, Claude, your internal tools) for experimentation.
* You may select any scenario such as marketing content, technical summaries, social posts, or creative writing.
* You must self-document your prompt iterations and outputs.

## **4. Expected Outcome**

* A collection of at least **three distinct prompt scenarios**, each with:
  + Initial draft prompt
  + At least two iterations (with changes) and outputs
  + Final version of the prompt and the improved AI-generated content
* Short documentation or reflection on:
  + How prompt changes improved output
  + Lessons learned about specificity, structure, and instructions in prompt engineering

## **5. Concepts Covered**

* **Prompt Engineering:** Formulating, iterating, and optimizing prompts for clarity and intent.
* **LLM Behavior:** Understanding how input phrasing and constraints affect output quality.
* **Evaluation:** Assessing and documenting AI output to refine future prompt strategies.

## **6. Example: Step-by-Step Instructions**

*(Topic Example: Generating a FAQ Section for a Product Website*  
 *For practice only. Invent your own topics and scenarios for your assignment.)*

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| **Step** | **Description** |
| **Step 1** | **Define Your Content Scenario:**  Example: "Generate an FAQ section for a new fitness tracking smartwatch." |
| **Step 2** | **Draft an Initial Prompt:**  Example: “Write five frequently asked questions and answers about a fitness tracking smartwatch.” |
| **Step 3** | **Evaluate Output & Refine the Prompt:**  Review the first output. Adjust prompt for clarity, detail, and tone. |
|  | Example refinement:  “Write five concise FAQs for a fitness tracking smartwatch, focusing on battery life, compatibility, health features, and water resistance. Make the answers friendly and easy to understand.” |
| **Step 4** | **Further Iterate:**  Add constraints: “Format each question in bold, answers in plain text. Limit each answer to 40 words. Avoid technical jargon.” |
| **Step 5** | **Select Final Prompt & Output:**  Document your initial, intermediate, and final prompts along with their outputs. Write a short reflection: What changes led to improvements? What structures worked best? |

## **7. Final Submission Checklist**

**Supporting Files:**

* Document or file containing:
  + All prompt versions and outputs for each scenario
  + Reflection/summary on what you learned about prompt engineering
  + (Optional) Screenshots of your AI interface during experimentation