Generative AI: Prompt Engineering Basics

Provider: IBM (Coursera, part of Generative AI Fundamentals specialization)
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Overview

This course introduced prompt engineering and showed how effective prompts guide generative AI models to produce relevant outputs. It covered prompt elements, design processes, and best practices, supported by labs in the IBM Generative AI Classroom.

Key Topics Covered

- Elements of a prompt: instruction, context, input, output indicators

- Process: goal setting, drafting, testing, refining, iterating

- Best practices: clarity, precision, context, persona/role play

- Techniques: zero-shot, few-shot, interview pattern, chain-of-thought, tree-of-thought

- Tools: IBM watsonx Prompt Lab, Spellbook, Dust, PromptPerfect

- Hands-on labs using large language models in AI classroom environments

Practical Applications

- Designing prompts for accuracy and reliability

- Using persona-based prompts for role-specific outputs

- Applying zero-shot and few-shot prompting for efficiency

- Leveraging prompt engineering tools for domain-specific tasks

- Iteratively refining prompts to meet business or creative goals

Personal Reflection

This course strengthened my ability to design and refine prompts that optimize AI performance. These skills directly support my cybersecurity and compliance training, where precise and bias-free AI use is essential.