Prompt Engineering for Developers

Section 1: Fundamentals of Prompt Engineering

➢ What is Prompt Engineering?
➢ Why Prompt Engineering matters in today's AI-driven world
➢ Evolution of AI and Large Language Models (LLMs)
➢ Key differences: GPT, Copilot, Gemini, Claude, Bard

Section 2: Types of Prompts

➢ Zero-shot prompting
➢ Few-shot prompting
➢ Chain-of-thought prompting
➢ Role-based prompting
➢ Instruction-based prompting
➢ Contextual & multi-turn prompts

Section 3: Best Practices & Guidelines

➢ Principles of effective prompting
➢ Handling ambiguous queries
➢ Iterative prompt refinement
➢ Avoiding bias in prompts

Section 4: Responsible AI Usage

➢ Ethics in AI prompt usage
➢ Data privacy & security concerns
➢ Industry regulations & compliance

![CREDO SYSTEMZ - Simplifying IT]

Section 5: Prompt Engineering for Developers

➢ Coding with AI
➢ Writing prompts for code generation (Python, Java, JS, etc.)
➢ Debugging & error fixing using AI prompts
➢ Optimizing algorithms and refactoring with AI assistance

Section 6: Automation & Integration

➢ Prompting for API design and integration
➢ Using AI in DevOps
➢ GitHub Copilot & IDE integrations

Section 7: Advanced Developer Use-Cases

➢ Creating reusable code prompt templates
➢ AI-assisted documentation
➢ Code comments
➢ Building mini-tools and prototypes with AI