Exercise: Decomposing Complex Tasks and Intent Classification in AI Prompts

# 1. Split Complex Tasks

Example:

- Scenario: You need the AI to generate a detailed report on the impact of artificial intelligence on different industries.

- System Prompt: "Break down the request into smaller tasks and provide detailed sections for each industry (e.g., healthcare, finance, manufacturing)."

- User Prompt:

Task: Generate a detailed report on the impact of artificial intelligence on different industries.

Your Turn:

- Write a prompt that asks the AI to break down a complex task of developing a marketing strategy for a new product launch. Ensure the AI splits the task into smaller, manageable sections such as market research, target audience identification, and content creation.

# 2. Intent Classification

Example:

- Scenario: You have several customer service queries that need to be categorized for efficient handling.

- System Prompt: "Classify the following queries into a primary and secondary category using the provided categories."

- User Prompt:

Query: "How do I reset my password?"

Your Turn:

- Write a prompt that asks the AI to classify a query about "upgrading a subscription plan" into the appropriate primary and secondary categories. Use the categories provided in the lecture notes.

# 3. Breakdown Text

Example:

- Scenario: You want the AI to write an ebook for beginners learning Python.

- System Prompt: "Break down the ebook into chapters and sections, starting with an introduction to Python and then detailing each section."

- User Prompt:

Task: Write an ebook for beginners learning Python.

Your Turn:

- Write a prompt that asks the AI to break down the task of creating a blog series on "The Future of Remote Work" into detailed blog post topics and outlines. Ensure each post builds on the previous one.

# 4. Practical Application Steps

Exercise:

1. Decompose Complex Queries:

- Scenario: You receive a broad request to develop a comprehensive training program for a team of data scientists.

- Your Task: Write a prompt that asks the AI to break down this request into detailed modules, including topics like data preprocessing, model development, and deployment.

2. Use Intent Classification:

- Scenario: A user asks, "Can you help me understand why I was charged twice last month?"

- Your Task: Write a prompt that asks the AI to classify this query into the correct primary and secondary categories.

3. Provide Detailed Responses:

- Scenario: You need the AI to write an in-depth article on "The Impact of Blockchain on Supply Chain Management."

- Your Task: Write a prompt that asks the AI to break down this broad topic into specific sections, such as "Introduction to Blockchain," "Use Cases in Supply Chain," and "Future Trends."

# Reflection

- Consider how breaking down tasks and classifying queries affected the quality of the AI's responses.

- Reflect on how you can apply these techniques in your work to improve the effectiveness of AI-generated content.