

# AI ALIA – An Initiative by SOFTECH

## Professional Learning Solutions

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### Course Information

Course Title: Prompt Engineering

Module: Prompting Techniques – Part 2

Exercise Type: Scenario-Based Assessment

Difficulty Level: Beginner

Estimated Completion Time: 30 Minutes

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### Learning Objectives

After completing this exercise, the learner will be able to:

- Understand Role Prompting Power
  - Step-by-Step Prompting Challenge
  - Technique Comparison – Real-World Decision
  - Advanced Hands-On Challenge: Combine Techniques
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### EXERCISE QUESTIONS

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#### Exercise 1:

##### Scenario:

You are building an AI assistant for exam preparation.

A student says:

“Explain photosynthesis.”

But you want to test how role prompting changes output.

##### Task:

Write 3 different prompts using role prompting:

- 1 Act as a school teacher explaining to 8th-grade students.
- 2 Act as a university biology professor.
- 3 Act as a science YouTube educator who makes learning fun.

After generating responses, students must:

Compare tone

Compare depth

Compare vocabulary

Identify which role produced the clearest explanation

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### Exercise 2:

#### Scenario:

You are building an AI financial advisor.

User says:

“Help me reduce my monthly expenses.”

You want to compare:

A normal direct prompt

A step-by-step reasoning prompt

#### Task:

- 1 Write a simple direct prompt.
- 2 Write a step-by-step prompt that instructs the AI to:

Analyze categories separately

Identify spending patterns

Suggest reductions

Provide a final summary

After generating both outputs, students must:

Compare structure

Compare clarity

Compare usefulness

Explain which technique gave better reasoning

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### Exercise 3:

#### Scenario:

A startup founder asks:

“Should I start an online clothing store?”

You want to test 3 prompting techniques:

Basic prompt

Role prompt (Act as a business consultant)

Step-by-step reasoning prompt

#### Task:

Write 3 separate prompts using:

- 1 Basic version
- 2 Role-based version
- 3 Step-by-step analytical version

Then analyze:

Which output feels most professional?  
Which gives structured reasoning?  
Which is most actionable?  
Why did the results differ?

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**Exercise 4:**

**Scenario:**

You are designing an AI career mentor.

User says:

“I want to switch careers but I’m confused.”

**Task:**

Write one powerful prompt that combines:

Role prompting (choose appropriate expert role)

Step-by-step reasoning

Output format control (numbered steps)

2 follow-up clarifying questions at the end

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**🚩 Response Area**

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Answer 1:

AI-ALIA.COM

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Answer 2:

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Answer 3:

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Answer 4:

### Evaluation Rubric

Criteria	Excellent	Good	Needs Improvement
Concept Clarity	Clear & well-articulated	Adequate	Limited
Prompt Structure	Fully structured	Partially structured	Weak
Practical Application	Professional & usable	Acceptable	Needs refinement
Analytical Thinking	Insightful	General	Basic