

AI ALIA – An Initiative by SOFTECH

Professional Learning Solutions

Course Information

Course Title: Prompt Engineering

Module: Prompt Engineering for Specific Use Cases – Part 1

Exercise Type: Scenario-Based Assessment

Difficulty Level: Beginner

Estimated Completion Time: 30 Minutes

Learning Objectives

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

- Education & Tutoring Prompt
 - Content Creation Prompt
 - Coding & Debugging Prompt
 - Advanced Challenge: Multi-Use Case Comparison
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EXERCISE QUESTIONS

Exercise 1:

Scenario:

You are building an AI tutor for high school students.

A 9th-grade student says:

“I don’t understand quadratic equations.”

You want the AI to:

Explain step-by-step

Use simple language

Include one worked example

Provide 2 practice questions

Encourage the student at the end

Task:

Write a complete tutoring prompt that:

Defines the AI’s role

Specifies student level

Controls explanation depth

Structures the output

After generating output, students must evaluate:

Is the explanation age-appropriate?

Is the example clear?

Are practice questions relevant?

Exercise 2:

Scenario:

You are managing social media for a startup fitness brand.

The client says:

“Create an Instagram post about morning workouts.”

But you want it to:

Be engaging

Include a hook

Have 5 short caption lines

Add 5 relevant hashtags

Keep tone energetic and motivating

Task:

Write a strong content-creation prompt that:

Specifies platform (Instagram)

Controls tone

Defines structure

Includes formatting instructions

After generating output, students must analyze:

Is the hook strong?

Is the tone consistent?

Are hashtags relevant?

Exercise 3:

Scenario:

A beginner programmer writes this Python code and gets an error:

```
numbers = [1, 2, 3, 4]
print(numbers[4])
```

They don't understand the error.

You want the AI to:

Explain what the error is

Explain why it happens

Provide the corrected code

Suggest how to avoid similar mistakes

Task:

Write a debugging-focused prompt that:

Includes the code clearly

Requests structured explanation

Asks for corrected version

Requests prevention tips

After generating output, students must evaluate:

Is the explanation beginner-friendly?

Is the correction accurate?

Are prevention tips practical?

Exercise 4:

Scenario:

Topic: “Time Management”

Students must write 3 separate prompts for:

- 1 Education use case (teach students time management)
- 2 Blog writing use case (SEO-friendly blog post)
- 3 Coding use case (Python script that schedules tasks)

Then compare:

How instructions changed

How structure changed

How output format changed

How tone changed

Response Area

Answer 1:

Answer 2:

Answer 3:

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