

Assignment: Building a Recipe Generator

Assignment Content

Project Title: Building a Recipe Generator

Objective: To create a simple AI prompt that generates cooking recipes based on given ingredients.

This task helps students learn prompt structuring for producing creative and practical AI outputs.

1. Prompt Design (Using GPT Model)

Prompt 1 (Zero-shot):

Give me a recipe using chicken, tomatoes, and garlic.

Output:

A basic chicken tomato garlic curry with no specific details or cooking steps.

Analysis:

Good for quick generation but lacks depth or accuracy. The output varied each time and lacked consistency.

Prompt 2 (Few-shot):

Example 1:

Ingredients: Eggs, Onion, Tomato

Recipe: Make a tomato-onion egg bhurji.

Now you try:

Ingredients: Chicken, Tomatoes, Garlic

Recipe:

Output:

Step-by-step chicken curry recipe with method and appropriate cook time.

Analysis:

Improved structure and detail. More reliable outputs but still generic.

Prompt 3 (Chain-of-Thought):

Think step by step:

Ingredients: Chicken, Tomatoes, Garlic

Step 1: Think of a recipe that uses these.

Step 2: List preparation steps.

Step 3: Suggest spices and cooking time.

Output:

- Suggested 'Garlic Tomato Chicken Curry'
- Gave a 5-step process with optional garnishing
- Even added cooking tips

Analysis:

Excellent detail and structure. Suitable for learning prompt logic for complex outputs.

Comparison Table

Prompt Type	Accuracy	Structure
Zero-shot	Low	Loose
Few-shot	Medium	Structured
Chain-of-Thought	High	Detailed

Conclusion

Among all techniques, Chain-of-Thought prompting gave the best results for generating a usable and realistic recipe. Few-shot prompting was also effective for structured responses. Zero-shot is good for casual or one-off use cases.