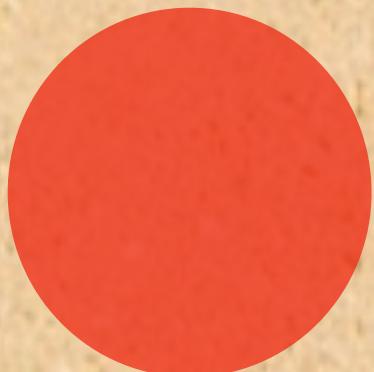
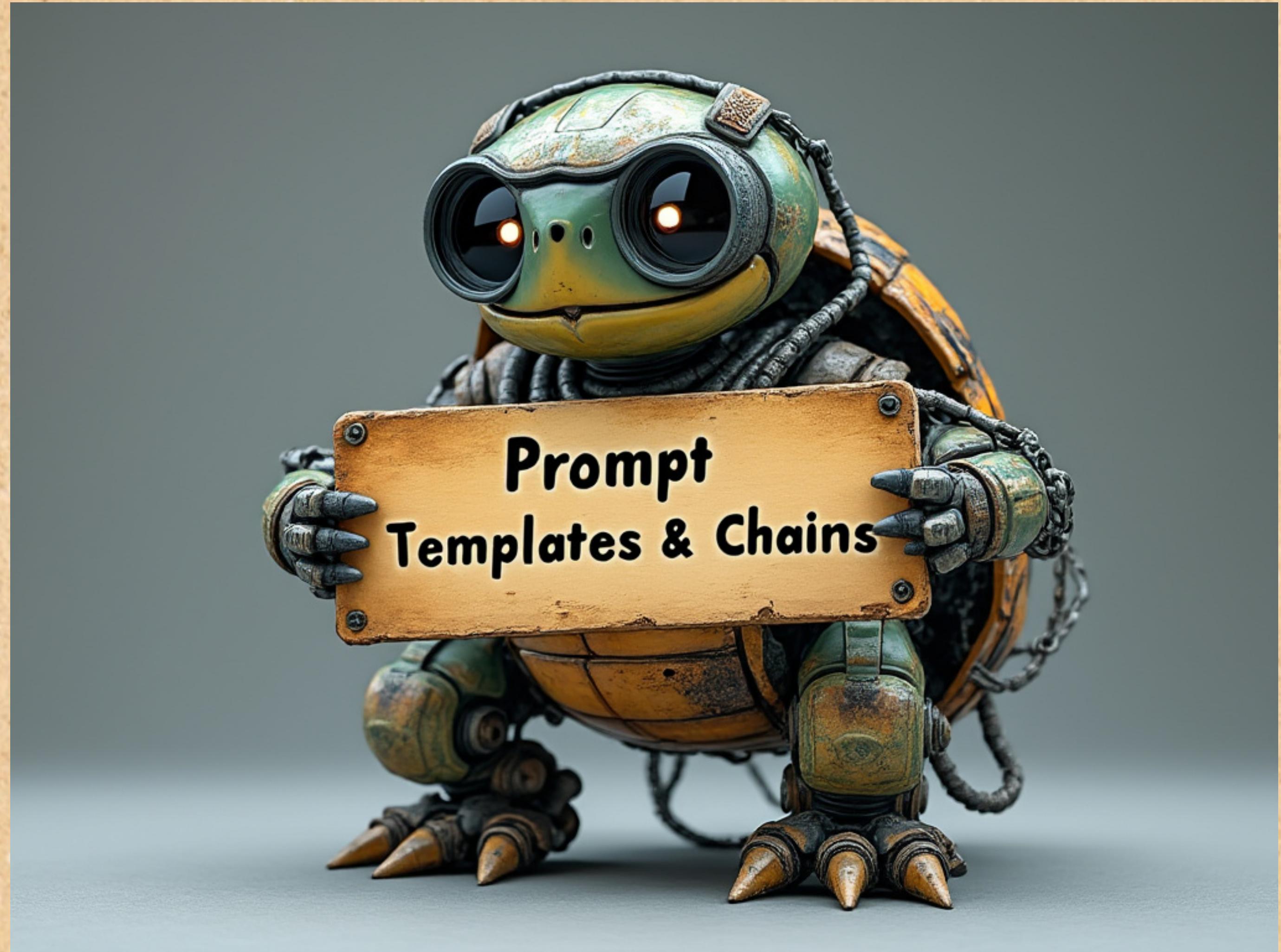


## **Module 1 - Topic 3**

### **3.3 Prompt Templates and Chains**





# What are Prompt Templates?

- **Definition:** Predefined format used to guide LLMs in generating responses. It allows for dynamic input while maintaining a consistent structure.
- **Purpose:**
  - Simplifies the process of creating prompts by using placeholders for variable content.
  - Enhances the quality of responses by providing context and specific instructions.

# Prompt Templates

- Write an email to boss with subject 'salary hike' in formal tone.
- Write an email to friend with subject 'inviting to birthday' in informal tone.

# Prompt Templates

Write an email to boss with subject 'salary hike' in formal tone.

Write an email to friend with subject 'inviting to birthday' in informal tone.



Write an email to {addressed\_to} with the subject {subject} in {tone} tone.

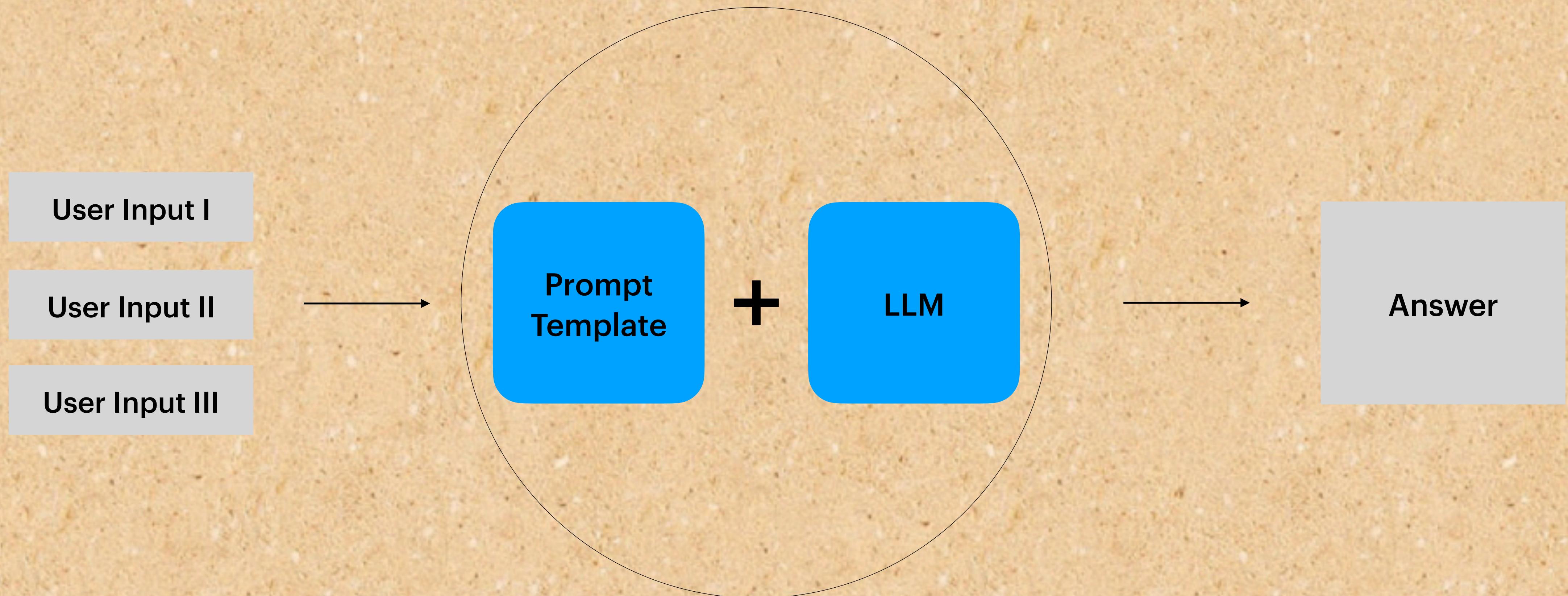
# Let's dive into code!

```
...  
  
from langchain import PromptTemplate  
  
tweet_template = "Give me {number} tweets on {topic}"  
  
tweet_prompt = PromptTemplate(template = tweet_template,  
                               input_variables = ['number', 'topic'])  
  
tweet_template.format(number=5, topic = "Road Safety")
```

# What are Chains?

- **Definition:** Sequences of operations that connect multiple actions or components, enabling complex workflows.
- **Purpose:**
  - Streamlines the process of linking LLMs with other tools or data sources.
  - Facilitates the execution of multi-step tasks, enhancing functionality.

# Chains



# Let's dive into code!

```
from langchain import LLMChain

tweet_chain = tweet_prompt | gpt4_model

response = tweet_chain.invoke({"number" : 5,
                               "topic" : "Wars in Middle East"})

print(response.content)
```