**Chapter 1: Introduction to LangChain and LLMs**

**A Simple Generative App Using LangChain**

This is a simple example of a basic application that uses GPT-4 to generate creative content based on user input. This example demonstrates how easily you can call an LLM. We will dive deeper into these concepts in later chapters, but for now, here is a sneak peek.

**Installation**

First, install the required LangChain and OpenAI modules:

pip install openai==0.28.0 langchain==0.1.20

**Code Walkthrough**

# Import necessary libraries

from langchain.llms import OpenAI

from langchain.chains import LLMChain

from langchain.prompts import PromptTemplate

# Set up your OpenAI API key

LLM\_OPENAI\_API\_KEY = "your\_openai\_api\_key"

llm = OpenAI(api\_key=LLM\_OPENAI\_API\_KEY)

# Define a prompt template for generating creative ideas

prompt\_template = PromptTemplate(

input\_variables=["user\_input"],

template="Generate a creative product idea based on the following industry input: {user\_input}",

)

# User input for the theme

user\_input = "eco-friendly home appliances"

# Initialize the LLMChain with the prompt

chain = LLMChain(llm=llm, prompt=prompt\_template)

# Generate creative content

response = chain.run(user\_input)

# Print the generated idea

print("Creative Story Idea:", response)

This foundational example introduces you to the world of LangChain, where we combine the power of language models with practical programming. In the following chapters, we will explore advanced features, best practices, and real-world applications.