PG8:
Install langchain, cohere (for key), langchaincommunity. Get the api key(By logging into Co here and obtaining the cohere key). Load a text document from your google drive . Create a p rompt template to display the output in a particular manner.

Soln:

#!pip install langchain langchain-cohere langchain-community

#!pip install gdown

```
import getpass
import os

if not os.environ.get("COHERE_API_KEY"):
    os.environ["COHERE_API_KEY"] = getpass.getpass("Enter API key for
Cohere: ")

from langchain_cohere import ChatCohere

model = ChatCohere(model="command-r7b-12-2024")
```

```
from langchain_core.prompts import ChatPromptTemplate

prompt = ChatPromptTemplate.from_template("Tell me a quote on the
{topic}")
chain = prompt | model

chain.invoke({"topic": "AI"}).content
```

```
import gdown

# Google Drive file ID (Extract from the URL)
file_id = "1BPgmF8od-gvK0GeDyaeAwCrSGpgvwXFN"
file_path = "ai_agents_info.txt"

# Download the file
gdown.download(f"https://drive.google.com/uc?export=download&id={file_i
d}", file_path, quiet=False)

# Read the file
with open(file_path, "r", encoding="utf-8") as file:
    document_text = file.read()

print(document_text)
```

Output :

```
1. Reactive Agents: These agents do not store past experiences and make
decisions solely based on the current situation.
   Examples include chess-playing programs that evaluate only the
present board state.

2. Deliberative Agents: These agents build models of the world and use
planning to achieve their goals.
   They use reasoning mechanisms to determine the best course of
action.

3. Learning Agents: These agents improve their performance over time
using machine learning techniques.
   Reinforcement learning-based robots are an example of learning
agents.

4. Multi-Agent Systems (MAS): A system where multiple AI agents
interact, collaborate, or compete to complete tasks.
   Applications include swarm robotics and distributed AI.

5. Utility-Based Agents: These agents maximize a utility function,
ensuring optimal decision-making.
   They are widely used in economics and game theory.

AI agents are applied in various domains, including healthcare,
finance, robotics, and natural language processing.
Their ability to adapt and learn from data makes them crucial in modern
AI applications.
```

```
from langchain_core.prompts import ChatPromptTemplate

prompt = ChatPromptTemplate.from_template("Extract and list the types
of AI agents as bullet points from the following text:{document_text}")
chain = prompt | model
```

```
print(chain.invoke({"document_text": document_text}).content)
```

```
Output:

Here are the types of AI agents listed from the text:

- Reactive Agents
- Deliberative Agents
- Learning Agents
- Multi-Agent Systems (MAS)
- Utility-Based Agents
```