**Ex.No: 10**

**CONTENT CREATION (REPORTS, ARTICLES, CASE STUDIES, ETC.) USING PROMPT PATTERNS**

**AIM:**

To explore and implement various prompting patterns for generating written content such as reports, articles, and case studies using AI-powered Large Language Models (LLMs).

**EXPLANATION:**

AI content creation relies on **prompt engineering** to guide models in producing coherent, structured, and contextually accurate text. Different prompt patterns influence style, tone, length, and focus of the content.

Common prompting patterns used in content creation include:

1. **Descriptive Prompts** – Request detailed explanations or narratives.
2. **Structured Prompts** – Provide a predefined format or template for content.
3. **Comparative Prompts** – Ask the AI to compare or contrast topics.
4. **Contextual Prompts** – Include background information to generate content aligned with a specific domain or scenario.
5. **Question-Answer Prompts** – Convert content requirements into a series of Q&A for structured output.
6. **Creative Prompts** – Encourage storytelling, brainstorming, or innovative perspectives.

These techniques are useful for generating:

* **Reports**: Academic, technical, or research reports
* **Articles**: Blogs, news articles, or editorial content
* **Case Studies**: Business, medical, or legal case analyses

**ALGORITHM:**

**STEP 1:** Identify the type of content to generate.  
**STEP 2:** Choose the suitable prompting pattern (descriptive, structured, etc.).  
**STEP 3:** Design the prompt to include relevant details, context, or format.  
**STEP 4:** Input the prompt into the AI model.  
**STEP 5:** Review the generated content for coherence, accuracy, and completeness.  
**STEP 6:** Refine the prompt iteratively to improve content quality.  
**STEP 7:** Save or export the generated content in the desired format.

**PROGRAM EXAMPLE (Python using OpenAI GPT):**

# Program to create content using prompt patterns

# Developed by:

# Register Number:

import openai

# Setup API Key

openai.api\_key = "YOUR\_OPENAI\_API\_KEY"

# Example: Structured prompt for creating a report

prompt = """

Create a technical report on the impact of renewable energy.

Structure:

1. Introduction

2. Importance of Renewable Energy

3. Types of Renewable Energy

4. Challenges

5. Conclusion

"""

# Generate content

response = openai.Completion.create(

engine="text-davinci-003",

prompt=prompt,

max\_tokens=500,

temperature=0.7

)

print("--- Generated Report ---")

print(response.choices[0].text.strip())

**Sample Output:**

--- Generated Report ---

1. Introduction

Renewable energy refers to energy sources that are naturally replenished, such as solar, wind, and hydro...

2. Importance of Renewable Energy

It reduces greenhouse gas emissions, decreases dependence on fossil fuels, and promotes sustainable development...

3. Types of Renewable Energy

Solar energy, wind energy, hydroelectric power, biomass, and geothermal energy are the main types...

4. Challenges

High initial costs, technological limitations, and policy barriers are common challenges in adopting renewable energy...

5. Conclusion

The adoption of renewable energy is crucial for environmental sustainability and energy security...

**RESULT:**

The experiment successfully demonstrated content creation using different prompt patterns. Structured prompts produced well-organized reports, while descriptive and creative prompts enhanced narrative quality and readability.

**INFERENCE:**

* Prompt pattern selection directly affects the **format, coherence, and creativity** of AI-generated content.
* Iterative prompt refinement ensures outputs are **accurate, relevant, and contextually appropriate**.
* Structured prompts are especially useful for formal documents like reports and case studies, while creative prompts enhance articles and storytelling.