**EXP NO:04 Scenario-Based Report Development Utilizing Diverse Prompting Techniques**

**AIM:**

The goal of this experiment is to design and develop an AI-powered system for renewable energy system to deliver load to urban areas, focusing on load supply, delivery efficiency, and customer satisfaction. Prompts will guide the research, simulation, data collection, and reporting process using diverse AI prompting techniques.

**Prompts for the Experiment:**

1. Defining the Problem Scope:

**Direct Prompt**: “What are the key challenges in designing renewable energy delivery system for urban areas?"

**Iterative Prompt: “**Refine the identified challenges for better clarity in the context of high-density areas."

1. Exploring Renewable system’s navigation and Optimization:

**Exploratory Prompt: "**How can AI algorithms optimize to avoid obstacles and reduce supply time?”

**Scenario-Based Prompt**: "If a renewable energy system encounters unexpected weather changes, what AI strategies could be employed to reroute efficiently?"

1. Understanding User Experience:

**Empathy-Based Prompt:** "What features of a renewable energy system would enhance customer satisfaction?"

**Counterfactual Prompt:** "What if the RES system had lags and privacy concerns were addressed completely—how might this impact user for adoption?"

1. Data Collection for Training AI Models:
   1. **Data-Focused Prompt:** "What types of data are essential for developing RES system?"
   2. **Clarifying Prompt:** "What sources can provide real-time distribution and weather data for urban RES system?”
2. Performance Analysis:
   1. **Critical Prompt**: "How can the system's delivery accuracy and speed be evaluated effectively?"
   2. **Analogy-Based Prompt:** "How does the optimization of Renewable energy system compares to traditional logistics models?"
3. Report Creation:
   1. **Summarization Prompt:** "Summarize the experiment's findings on the efficiency of AI-driven RES systems."
   2. **Exploratory Prompt:** "What are the future research opportunities in AI-powered RES systems?"

**CONCLUSION:**

The experiment successfully designed an AI-powered renewable energy system for urban load delivery, focusing on supply efficiency and customer satisfaction. By leveraging diverse prompting techniques, it identified challenges, optimized delivery processes, and highlighted the role of AI in creating adaptive, efficient, and user-centered energy solutions.