

Practical 6 :-

Task 1 :- Prompt Categorization

Categorize the following prompts into types (Instructional, Conversational, Visual, etc.) and

explain your reasoning:

1. "Generate a logo for a tech startup using neon colors."

- Type: Visual / Creative Generation

- Reasoning:

This prompt is asking for the creation of a visual asset — a logo. The key phrase “generate a logo” makes it clear that the output should be a design or image rather than text or explanation. The mention of “neon colors” adds a stylistic constraint, making it more specific and guiding the creative direction.

- Typical output:

The expected result would be one or more logo designs or digital mockups in neon color palettes, possibly with variations to choose from.

2. "Explain blockchain to a 5-year-old."

- Type: Instructional / Educational (Simplified Explanation)

- Reasoning:

This is clearly instructional because it asks the AI to *teach* or *explain* something complex in very simple terms. The challenge here lies in

adapting a technical concept like blockchain to the understanding level of a 5-year-old. This means using analogies, simple vocabulary, and relatable examples rather than technical jargon.

- Typical output:
A short, story-like or analogy-driven explanation, such as comparing blockchain to a notebook where everyone writes things down and no one can erase it.
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3. "You are a UX designer. Suggest improvements to this app layout."

- Type: Role-based Expert Advice / Analytical Critique (Potentially Visual Context)
- Reasoning:
This prompt sets a persona — the AI is asked to “be” a UX designer. That immediately frames the output as expert analysis and recommendations. The task is to review an existing app layout (if provided) or at least consider it conceptually, then suggest practical improvements based on UX principles like usability, accessibility, or navigation flow.
- Typical output:
A structured critique with specific recommendations, such as improving button placement, adding visual hierarchy, or enhancing color contrast for accessibility. If a mockup is provided, the output could also include visual redesign suggestions.

Task 2 :-

1. Original: "Generate a logo for a tech startup using neon colors."
Refined: "Create a minimalist logo for a tech startup called NeonTech"

using electric blue and pink neon tones with a sleek, modern icon."

2. Original: "Explain blockchain to a 5-year-old."

Refined: "Explain blockchain to a 5-year-old using a fun story about friends sharing a notebook where no one can erase what's written."

3. Original: "You are a UX designer. Suggest improvements to this app layout."

Refined: "As a UX designer, suggest 5 improvements for this banking app layout focusing on navigation, accessibility, and color contrast."

Task 3 :-

Prompt Design Exercise Design 5 original prompts for different domains:

1. ChatGPT (Text-based)

Prompt:

"Act as a career coach. Help a recent college graduate interested in data science create a 3-month learning roadmap, including online courses, projects, and portfolio tips."

Month 1: Basics

- Learn: Python (Kaggle, Coursera), Statistics (Khan Academy), Data Visualization (Matplotlib, Seaborn)
 - Project: Exploratory Data Analysis on a Kaggle dataset
 - Portfolio: Upload project on GitHub with clear visuals
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Month 2: Machine Learning

- Learn: ML basics (Andrew Ng's ML Course, Kaggle ML)
 - Project: Predictive modeling (e.g., house prices, customer churn) using Scikit-Learn
 - Portfolio: Deploy a simple ML app using Streamlit
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Month 3: Advanced & Portfolio

- Learn: SQL, basic cloud tools, optional deep learning (fast.ai)
 - Project: End-to-end project with real-world data
 - Portfolio: 2–3 projects on GitHub, LinkedIn post, optional personal website
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2. DALL-E (Image-based)

Prompt:

"Create a high-resolution illustration of a futuristic eco-city with vertical gardens, flying cars, and solar-panel rooftops under a glowing sunset sky."



3. SORA (Video-based Prompt)

Prompt:

"Generate a 20-second video showing the journey of a single drop of water—from falling as rain on a mountain, flowing through a river, being used in a city, and finally returning to the ocean. Cinematic, realistic visuals with a soft ambient soundtrack."

<https://pollo.ai/v/cmf1df8sh06y7b2nprfou2lrs?source=share>

4. Coding / Logic

Prompt:

"Write a Python script that takes a list of student names and grades, calculates the average score, and prints students who scored above average."

```
# List of students with names and grades
students = [
    ("Alice", 85),
    ("Bob", 72),
    ("Charlie", 90),
    ("David", 65),
    ("Eva", 78)
]

# Calculate the average score
grades = [grade for _, grade in students]
average_score = sum(grades) / len(grades)

# Print the average
print(f"Average Score: {average_score:.2f}")

# Print students who scored above average
print("Students scoring above average:")
for name, grade in students:
    if grade > average_score:
        print(f"{name} - {grade}")
```

5. Education / Training

Prompt:

"Design a 10-question interactive quiz to help high school students learn about the solar system, with multiple-choice answers and explanations for each correct answer."

Solar System Interactive Quiz

Q1. Which planet is known as the “Red Planet”?

- a) Venus
- b) Mars
- c) Jupiter
- d) Saturn

Correct Answer: b) Mars

Explanation: Mars appears red due to iron oxide (rust) on its surface.

Q2. What is the largest planet in our solar system?

- a) Earth
- b) Jupiter
- c) Saturn
- d) Neptune

Correct Answer: b) Jupiter

Explanation: Jupiter is the biggest planet, with a diameter of about 143,000 km.

Q3. Which planet is closest to the Sun?

- a) Venus
- b) Mercury
- c) Earth
- d) Mars

Correct Answer: b) Mercury

Explanation: Mercury is the first planet from the Sun and has the shortest orbit.

Q4. What causes day and night on Earth?

- a) Earth's orbit around the Sun
- b) Earth's rotation on its axis
- c) The Moon's revolution around Earth
- d) The Sun's rotation

Correct Answer: b) Earth's rotation on its axis

Explanation: As Earth rotates, different parts face the Sun (day) or away from it (night).

Q5. Which planet has the most extensive ring system?

- a) Neptune
- b) Jupiter
- c) Saturn
- d) Uranus

Correct Answer: c) Saturn

Explanation: Saturn's rings are made of ice and rock particles, making them highly visible.

Q6. What is the main gas in the Sun?

- a) Hydrogen
- b) Helium
- c) Oxygen
- d) Carbon

Correct Answer: a) Hydrogen

Explanation: The Sun is mostly hydrogen, which undergoes nuclear fusion to produce energy.

Q7. Which planet is often called Earth's "twin" because of its size and composition?

- a) Mars
- b) Venus
- c) Mercury
- d) Neptune

Correct Answer: b) Venus

Explanation: Venus and Earth have similar sizes, masses, and compositions.

Q8. What is the name of the fifth planet from the Sun?

- a) Saturn
- b) Jupiter
- c) Mars
- d) Neptune

Correct Answer: b) Jupiter

Explanation: Jupiter is the fifth planet and the largest one in our solar system.

Q9. Which dwarf planet was once considered the ninth planet?

- a) Ceres
- b) Pluto

- c) Eris
- d) Haumea

Correct Answer: b) Pluto

Explanation: Pluto was reclassified as a dwarf planet in 2006 by the IAU.

Q10. What keeps the planets in orbit around the Sun?

- a) Planetary rotation
- b) Solar winds
- c) Gravity
- d) Magnetic fields

Correct Answer: c) Gravity

Explanation: The Sun's gravity pulls the planets, keeping them in orbit.