**EXP 2: Test and compare how different models respond to naïve prompts (broad or unstructured) versus basic prompts (clearer and more refined) across multiple scenarios. Analyse the quality, accuracy, and depth of the generated responses.**

**AIM:**

To differentiate between naïve (unstructured) and basic prompting (clear and refined) and compare them by using various scenarios. Analyse the generated responses.

**PROCEDURE:**

1. Give a naïve prompt of any scenario to a LLM model and record its given response as a result.
2. Give a basic (refined) prompt of any scenario to a LLM model and observe its generated response.
3. Compare both the responses given by each prompts given. (naïve and basic)
4. Analyse which prompt gives defined, accurate and quality information.

**EXAMPLE:**

|  |  |  |
| --- | --- | --- |
| **CRITERIA** | **NAÏVE PROMPT RESPONSE** | **BASIC PROMPT RESPONSE** |
| Prompt | Explain velocity | Describe the concept of velocity in physics, including its definition, the role it plays in the universe, and how it affects objects on Earth? |
| Response | Velocity is a vector quantity that describes the rate of change of an object's position in a specific direction. Unlike speed, which only considers how fast something is moving, velocity also includes the direction of motion.  Here’s a breakdown of key concepts:   * Magnitude: This is the speed of the object, which tells you how fast the object is moving. * Direction: Velocity includes the direction in which the object is traveling (e.g., 60 km/h north).   Formula of velocity is:  Velocity = Displacement/time | In physics, **velocity** is defined as the rate at which an object changes its position in a particular direction. It is a **vector quantity**, meaning it has both magnitude (speed) and direction.  **Role of Velocity in the Universe:**  Velocity plays a crucial role in describing the motion of objects throughout the universe, from subatomic particles to entire galaxies. In the vast scales of space and time, the concept of velocity helps in understanding and predicting the movement of celestial bodies, the expansion of the universe, and the interactions between objects under the influence of forces such as gravity.   * **Planetary Orbits**: The velocity of planets around the sun keeps them in stable orbits. If the velocity of a planet changes, its orbit will either change shape or cause the planet to spiral inward or outward. * **Light and Relativity**: The speed of light, a constant velocity in a vacuum (approximately 299,792,458 meters per second), is a fundamental limit in the universe. Einstein’s theory of relativity explores how velocity, particularly at speeds approaching that of light, affects time, space, and mass. |
| Quality | Not defined in a well manner. Basic and lacks information. | Informative, well defined, covers various aspects. |
| Accuracy | Correct but vague. | Accurate with well-explained scientific principles**.** |
| Depth | Minimal explanation of the given topic | In-depth exploration with precise example |

**CONCLUSION:**

In conclusion, this analysis highlights the significant impact that basic prompt clarity has on the quality and depth of AI-generated responses. A well-structured prompt not only produces a more accurate and informative answer but also encourages deeper exploration of the concept, moving beyond a simple definition. Whereas, in naïve prompt we don’t get proper information and lacks accuracy. The approach utilized here exemplifies the "zero fitting" pattern, showcasing how thoughtful prompt design contributes to better outcomes in AI communication.