**Assignment 1: Zero-shot vs Few-shot Prompting**

**Objective:** Understand the difference between zero-shot and few-shot prompting.

**Task:** Sentiment analysis of a sentence to classify the sentence into positive or negative sentence.

**Zero-short Prompting:**

**Prompt:** Determine if the following sentence is positive or negative:  
 **‘**I love my new phone.’

**Output:** The sentence "I love my new phone" is positive. The word "love" indicates a strong positive feeling, and the overall tone is enthusiastic.

**Observations:**

* Zero-shot prompting requires no examples, so it’s quick and efficient. However, the model may interpret the task in multiple ways or produce varied explanations.
* Zero-shot prompting allows the model to tackle a wide variety of tasks without requiring any examples beforehand. This makes it especially useful in situations where you don’t have labelled training data or when you need quick, one-off responses.

**Few-short Prompting:**

Prompt: Example:

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Example 1: "I am happy today." → Positive

Example 2: "I am sad today." → Negative

Now classify: "The movie was amazing."

**Output:** Using the examples provided, I classify "The movie was amazing." as Positive.

**Observations:**

* Few-shot prompting provides structure through examples, improving accuracy and ensuring the model responds in the desired style and format.
* In real-world scenarios, few-shot is better for consistency, especially when you have domain-specific or unusual classification rules.

**Comparison Between zero-short prompting and few-short prompting**.

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| Aspects | Zero-Short Prompting | Few-Short Prompting |
| Accuracy | Correct classification, but explanation was longer. | Correct classification, more concise. |
| Clarity | Needed to rely on model’s own knowledge of sentiment. | Had clear pattern to follow from examples. |
| Consistency | Might vary slightly depending on model’s training. | More consistent because examples guide the format and answer style. |
| Use case | Works well for general, well-known tasks. | Works better when task is specific or requires consistent format. |