1. **Standards (Standards for Creativity)**

In this section, we evaluate the standards for creativity in the generated poems.

The system is expected to generate poems that are creative while reflecting the style of original poets. (*e.g., William Blake, Emily Dickinson and Oscar Wilde*).

**Evaluation:**

* **Poetic Style**: The system uses a Markov Chain model, which generates new text based on word probabilities from existing poems. The standard for creativity here involves how well the genereated poems align with the original ones, which is different for each poet.
  + **William Blake:** His poetry is characterized by vivid imagery, strong moral undertones and symbolic language.
  + **Emily Dickinson:** Known for concise language, frequent use of dashes, and metaphysical themes.
  + **Oscar Wilde:** Wilde's poems often feature aesthetic beauty, classical allusions, and wit.

**Generated Poem Example (William Blake):**

*And God, like a watry weed,*

*And I made a rural pen,*

*And I must seek for mine.*

*I fear that I am black, as if bereaved of light.*

*And gentle sleep the sleep of death,*

*And gently hear the voice of sorrow breathed from the hollow pit.*

*And all must love the human form divine: Love, Mercy, Pity, Peace.*

* **Evaluation**: The generated poem exhibits thematic and structural similarities to William Blake’s original poems, using symbolic language ("God, like a watry weed") and moral exploration ("I fear that I am black, as if bereaved of light"). The standard for Blake's style seems well-represented, although the system occasionally produces disjointed lines that deviate from Blake's usual narrative flow.

1. **Process (Process of Generation)**

The process involves how the system goes about generating poems. It’s important to evaluate how effectively the system integrates the inspiring set (original poems) into the Markov Chain and how well it generates coherent outputs and also performing plagiarism checks and generating visual arts.

**Evaluation**:

* **PoemFetcher**: Successfully loaded and computed statistics for poems from different poets:
  + Emily Dickinson: 362 poems, with amean length of 57.34 words and 4,373 unique words.
  + Oscar Wilde: 372 poems, mean length of 87 words and 5,914 unique words.
  + William Blake: 424 poems, mean length of 92.57 words and 6,403 unique words.

PoemFetcher code example:

* **Markov Chain:** The system used a Markov Chain model with a state size of 2 to generate the poem. This allowed for the generation of new text while maintaining coherence from the original poems.

Example usage of generation:

Poem generation example:

*For he is not bold.*

*He does not die.*

*Wouldn't the Angels -- lone.*

*Put me in the night in disguise.*

*What can it be! And when he goes.*

* **Art Generator**: The system leverages the Stable Diffusion pipeline to create visual art corresponding to the generated poems. This is done by passing the generated poem or key phrases from the poem as prompts to the Stable Diffusion model. The resulting images reflect the themes, style, or mood of the poem.

Example of art generation:

* Plagiarism Detection: The system identifies potentially plagiarized sections from the original poems.

Plagiarism Example:

* Analysis: The system successfully handles the fetching, generation, and plagiarism detection processes. The plagiarism score is relatively low, showing the system is generating mostly original content, though some phrases still closely mirror the original poems.

1. **Expertise (Evaluation of Expertise in the System)**

This section examines how well the system captures the style and expertise of the poets.

**Evaluation:**

* **Poetic Style**: The generated poem captures key elements from each poet’s style, such as the dashes and spiritual references in Emily Dickinson’s works, or the metaphorical and repetitive lines found in William Blake’s poetry.

For example:

* + **Emily Dickinson**: "Wouldn't the Angels -- lone."
  + **William Blake**: "Descend O little cloud?"
* **Plagiarism**: The plagiarism check shows a few lines that are too similar to the originals, such as the section from “The Angel”.

**Plagiarism Example**:

* **Analysis**: While the system captures the expertise of each poet in terms of style and theme, there are still areas where it replicates specific phrases too closely. This can be improved by adjusting the model or adding more sophisticated filters for detecting and avoiding plagiarism.

1. **Comparison (Comparing System Outputs with Human-Created Content)**

In this section, we compare the generated poems with the original works of the poets.

**Evaluation**:

* Original Poem (Oscar Wilde – The Ballad of Reading Gaol):

*He does not die a death of shame,*

*But lives and dies a bitter life,*

*Of sin and woe, and foul disgrace.*

* Generated Poem and generated art:

*For he is not bold.*

*He does not die.*

*Wouldn't the Angels -- lone.*

*Put me in the night in disguise.*

* Comparison: The generated poem mirrors Wilde’s original in terms of its repetitive structure and morbid themes, particularly in the line "He does not die." However, it introduces enough variation to be seen as distinct from the original, despite the detected plagiarism.
* Analysis: The comparison shows that the generated poem aligns well with the original poets’ themes and styles, though there are moments where the system replicates phrases too closely.

1. **Self-Assesment (Reflecting on the System’s Creativity)**

In this section, we reflect on the overall effectiveness and creativity of the system.

**Reflection:**

* **Strengths**: The system successfully generates poems that reflect the styles of Emily Dickinson, Oscar Wilde, and William Blake. In addition to generating creative, stylistically consistent poems, the system successfully integrates visual representations using the Art Generator. The images generated by the Stable Diffusion model enhance the understanding and appreciation of the poems by adding a visual dimension. This is particularly effective in capturing the symbolic and aesthetic elements present in poems by William Blake and Oscar Wilde.

The plagiarism score is low, indicating that the majority of the content is original.

The use of a Markov Chain with a state size of 2 ensures coherence while maintaining creativity.

* **Limitations**: The plagiarism check reveals a few areas where the generated text is too similar to the original. Additionally, the system occasionally produces repetitive lines, such as "Though the morning air," indicating that the model might benefit from further refinement. While the visual art generated enhances the poetic experience, there are occasional mismatches between the abstractness of the poems and the concreteness of the images produced by the Art Generator. In some cases, the visual output doesn’t fully align with the deeper symbolic meaning of the poems.
* **Improvements**: Future work could involve experimenting with different Markov Chain configurations or integrating a more advanced language model to reduce the likelihood of replication and improve the depth of the generated poems. Future work could involve refining the Art Generator to produce more realistic images that better capture the complexity of the poetry. Additionally, experimenting with different art styles and prompts could lead to more accurate visual representations.

**Conclusion:**

The SPECS analysis reveals that the system is effective in generating creative, original poems inspired by William Blake, Emily Dickinson, and Oscar Wilde.

While the system occasionally replicates phrases from the original poems, the overall plagiarism score is low, and the generated content is largely unique.

With further refinement, the system could generate even more varied and sophisticated poems.