Project Name: Text Generation with RNN: A Story Generator

Project Overview:

This project uses a Recurrent Neural Network (RNN) with an LSTM layer to generate text based on *Pride and Prejudice*. The model is trained on the first 10,000 characters of the book and generates new text based on a given starting phrase.

Objective:

To create a text generation model that produces coherent text in the style of *Pride and Prejudice* using an RNN trained on character sequences.

Key Features:

- **Data Collection**: Text from *Pride and Prejudice* is cleaned and tokenised.
- **Model Architecture**: The model includes an embedding layer, an LSTM layer, and a dense output layer.
- **Text Generation**: The model generates text using temperature and top-k sampling to introduce variety in the output.
- Usage of other sources like stackOverFlow, YouTube and CahtGpt for the project.

Results:

The model generates reasonably coherent text. With 10 epochs and a small dataset, the output is limited. It successfully mimics the style of the book but would benefit from further training to improve coherence.

Challenges & Future Work:

- More training data and epochs are required for better results.

- Fine-tuning the model and expanding the dataset can improve text quality.

Conclusion: This project demonstrates the use of RNNs for text generation. With additional training, the model could produce more coherent and complex text.