**Description:**

This document presents an exploration of Wikipedia data using word embeddings and Recurrent Neural Networks (RNNs). The goal is to extract information from Wikipedia articles related to topics such as Artificial Intelligence, Neural Networks, and Deep Learning. The extracted information is then used to create word embeddings and train RNN models for both word-level and character-level prediction tasks.

**Results:**

1. **Data Extraction:**
   * Wikipedia articles on "Artificial Intelligence," "Neural Networks," and "Deep Learning" are retrieved and concatenated into a single corpus.
   * The length of the concatenated corpus is calculated.
2. **Text Preprocessing:**
   * The corpus is tokenized into words.
   * Stop words and punctuation are removed from the tokenized text.
   * Word embeddings are generated using GloVe word vectors for words in the corpus.
3. **Word-level RNN Model:**
   * A Simple RNN model is trained to predict the next word in a sequence of word embeddings.
   * The model is evaluated using a portion of the data reserved for testing.
   * The model summary is provided, detailing the architecture and parameters.
4. **Word-level Prediction:**
   * Using the trained word-level RNN model, predictions for the next word given a seed word (e.g., "intelligence") are made.
   * Cosine similarity is used to find the word in the vocabulary most similar to the predicted word.
5. **Character-level RNN Model:**
   * Another Simple RNN model is trained for character-level prediction.
   * This model predicts the next character in a sequence of characters.
   * Evaluation of the model is performed, and the test loss is reported.
6. **Character-level Prediction:**
   * Using the trained character-level RNN model, predictions for the next character given a seed character (e.g., "i") are made.
7. **Improved RNN Model:**
   * An enhanced RNN model with an additional layer is trained for both word-level and character-level prediction tasks.
   * The model architecture is described, and training results are provided.
8. **Overall Evaluation:**
   * The performance of all trained models is summarized.
   * Training and test losses are reported for each model.