**NLP Assignment 3**

**Mis:** 111903095

**Name:** Shalaka Sunil Pawar

**Goal:** Implement a simple context independent auto-correct algorithm using minimum edit distance and dynamic programming approach.

**Language used:** Python

***Find the Minimum Distance between words:***

1. I have used the Levenshtein Distance to calculate the minimum distance between two words.
2. An “Edit” is defined by either an insertion of a character, a deletion of a character, or a replacement of a character in the word.
3. Initialize an array for storing the minimum distance values.
4. If current character of both the strings are same, the repeat the same steps for remaining characters.
5. If current character of both the strings are different, then find the minimum of the left, upper or diagonal block.
6. The time complexity is O(mxn).

***Find the possible words:***

1. Find the distance for all the words present in the dictionary and the input word.
2. Based on the maximum edit distance find the possible words.
3. Generate the words.