Edit Distance

Question: Given two words word1 and word2, find the minimum number of steps required to convert word1 to word2.

(Each operation is counted as 1 step.)

You have the following 3 operations permitted on a word:

a) Insert a character

b) Delete a character

c) Replace a character

Solutions:

```
class Solution:
    # @return an integer
    def minDistance(word1, word2):
        m=len(word1)+1; n=len(word2)+1
        dp = [[0 for i in range(n)] for j in range(m)]
        for i in range(n):
            dp[0][i]=i
        for i in range(m):
            dp[i][0]=i
        for i in range(1,m):
            for j in range(1,n):
                dp[i][j]=min(dp[i-1][j]+1, dp[i][j-1]+1, dp[i-1][j-1]+(0 if word1[i-1]==word2[j-1] else 1))
        return dp[m-1][n-1]


Solution.minDistance("Freebirds", "Dinner")
```