Assignment 2

This assignment introduces you to dynamic programming, an important and recurring technique in natural language processing. There are two parts: 1) given two strings, compute the edit distance; 2) given two strings, compute an alignment.

Write a program (using Python/Java) to implement minimum edit distance algorithm that will output (a) the minimum distance of two strings and (b) how two strings are aligned. Assume, substitution cost: 2, insertion/deletion cost: 1

Inputs will be given by the users.

Example Input: INTENSION, EXECUTION

Output 1: Minimum distance is: 7

Output 2: Here is the alignment:

```
I N T E * N T I O N
| | | | | | | | | |
* E X E C U T I O N
d s s   i s
```

Note: Many codes are available online for edit distance. Please do not use any of these codes. I will check your code through plagiarism detection tool, and if I feel any cheating, I will go by the Institute rules. The motivation behind such simple assignment is to give you ample time to gain hands-on experience on fundamental NLP tools before jumping into relatively hard problems. So please try your best to implement it on your own.

Deadline: 24th Aug EOD