**NLU Assignment 1 Report**

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**getDeps** takes a sentence as an input and by using the **doc** object from SpaCy, I extract tokens by parsing from the sentence. Then I achieve path from token to its root as a list of lists. After going through all tokens, I created all dependency paths by going through ancestors of the tokens and inverted the list to make ‘ROOT’ at the beginning for all.

**extractSubtree** takes a sentence as an input aswell. After creating **doc** object from the input and having tokens, I created a subtree from the tokens. Going through all the tokens, subtree related to the token is generated by going through its descendents.

**subTreeCheck** takes a sentence and a list of words as an input. Checks weather the given list of words are in the input sentence’s subtree or not. If it is available in subtree the function returns True and False otherwise.

**findHead** function simply takes a span (part of a sentence) as a input and returns the head of this span.

**extractSpans** function takes a sentence as an input. This function goes through every token’s descendents and returns the subject (nsubj), indirect object(iobj) and direct object (dobj) related to it.

***Test Output:***

