NLP Homework 3 README

4/30/20 CISC489-NLP Topics Shanker **Group**: Muhammet Aydin, Max Luu, Brad Altmiller, Miguel Zavala

Question 1 Instructions: Notes:

- All question 1 code is contained in **Main.py**
- The three trained models were trained for 100 iterations and then saved using pickle as:
- *currpos_classifier100Iterations.pickle**, **currword_currpos_prevpos_classifier100Iterations.pickle**,
- *currword_currpos_prevpos_nextword_nextpos_classifier100Iterations.pickle**
- Running Main.py will load all three existing pickle trained models and parse each sentence of 'HW3_test.txt' and print the baseNPs predicted by each model
- The accuracy of each training model was saved in the following text files:
- *currpos_classifier100Iterations_OUTPUT.txt**,
- *currword_currpos_prevpos_classifier100Iterations_OUTPUT.txt**,
- *currword_currpos_prevpos_nextword_nextpos_classifier100Iterations_OUTPUT.txt**
- The printed training model Predicted BaseNPs output were already saved in the following text files:
- *currpos_classifier100Iterations_PredictedBaseNPs.txt**,
- *currword_currpos_prevpos_classifier100Iterations_PredictedBaseNPs.txt**,
- *currword_currpos_prevpos_nextword_nextpos_classifier100Iterations_PredictedBaseNPs.txt**

To run our Question 1 training model code:

```
$  python3 Main.py
```

To create a new training model:

- set ConsecutiveNPChunker's parameter **InputtedClassifier** = **None**
- change ConsecutiveNPChunker's parameter **POSMODELTYPE =** (either: POSMODELTYPES.CURRPOS, POSMODELTYPES.CURRWORD_CURRPOS_PREVPOS, POSMODELTYPE.CURRWORD_CURRPOS_PREVPOS_NEXTWORD_NEXTPOS) This represents which training features you would like to train on
- Set ConsecutiveNPChunker's parameter **iterations** = This represents the number of training iterations

```
#EX: Creating a new training model using currpos for 5 training iterations
newchunker = ConsecutiveNPChunker(train_sents, POSMODELTYPE=POSMODELTYPES.CURRPOS,
iterations=5,InputtedClassifier=None)
getBaseNPsGivenChunkerAndTaggedSentences(newchunker, listOfPOSTaggedSentences)
```

After finished running, the model's predicted baseNPs will be printed and a new pickle file will be created with the name of the model EX: 'currpos_classifier1.pickle' This newly created trained model can then be loaded for future use

Loading existing trained models:

- Set ConsecutiveNPChunker's parameter:
- *InputtedClassifier = loadClassifier('')** EX: InputtedClassifier = loadClassifier('currpos_classifier1.pickle')

Question 2 Instructions:

Question Instructions: