[4705] Natural Language Processing Spring 2019
Homework 3 Programming Submission Guidelines

You should submit a single file named '<uni>_HW3.zip'. Please use Python3 to complete this homework (or use a shebang). When unzipped with 'unzip ', your folder should produce a directory '<uni>_HW3' that contains the following files:

```
-- parser.py // Entry Point of Source Codes
-- parse_train.RARE.dat
-- q5_prediction_file
-- q5_eval.txt
-- parse_train_vert.RARE.dat
-- q6_prediction_file
-- q6_eval.txt
-- readme.txt
-- eval_parser3.py
-- pretty_print_tree3.py
```

If you choose to submit more than once, don't worry about the -1, -2, etc. that Canvas appends to the end of your file name.

Parser.py is a wrapper file for this homework assignment. By running parser.py with the command line arguments shown below, we will execute each part of the programming homework. Hard code any inputs into your code. We suggest using `os.system()` to run terminal commands from inside the wrapper file.

You can structure your code however you like as long as we can run it with parser.py. Writing several functions inside of parser.py or creating individual files for each question are both acceptable. You can even create subdirectories for your own organization as long as we can run the commands written below.

For questions 5 and 6, write your report and any observations in your readme. You should note the performance of your model. Observations can include high level thoughts about why your code was successful, what you think caused your model to behave a certain way, or how you think you could improve your model.

Question 4
Relevant files:

- `parser.py`
- `parse_train.RARE.dat`
- `parse_train.dat`

Command we will run:

```
python3 parser.py q4 parse_train.dat parse_train.RARE.dat
```

Question 5
Relevant files:

- parser.py
- q5_prediction_file
- q5_eval.txt
- parse_train_RARE.dat
- parse_dev.dat
- parse_dev.key
- eval_parser.py

Commands we will run:

- `python3 parser.py q5 parse_train.RARE.dat parse_dev.dat q5_prediction_file`
- `python3 eval_parser3.py parse_dev.key q5_prediction_file > q5_eval.txt`

Question 6

Relevant files:

- parser.py
- q6_prediction_file
- q6_eval.txt
- parse_train_vert.RARE.dat
- parse_train_vert.dat
- parse_dev.dat
- parse_dev.key
- eval_parser.py

Commands we will run:

- `python3 parser.py q4 parse_train_vert.dat parse_train_vert.RARE.dat`
- `python3 parser.py q6 parse_train_vert.RARE.dat parse_dev.dat q6_prediction_file`
- `python3 eval_parser3.py parse_dev.key q6_prediction_file > q6_eval.txt`