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**NLP**

**HW Assignment #1 – Stock Market Question Answering System**

**Programming Language: Java**

**Files Description**

--src

--FileParser.java

--POSFileReader.java

--Questions.java

--Answer.java

--Makefile

-build.xml

--run.sh

--README.pdf

FileParser.java--This is the main file. It takes two files as arguments – POS file and Questions file. It writes the output to a file named **outputAnswer.txt** in the current directory. It first reads the POS file and then parses each Question from the Question file one by one and writes the output to the output file.

POSFileReader.java—This class is called by the main class FileParser to read the POS file and create an ArrayList of Strings containing each line as separate element of the arraylist. It also creates a free text ArrayList to output the line and line number in the output file along with the answer. The two arraylists, one for POS Lines and the other one for free text lines both are used for finding the answers for the questions from the question file.

Questions.java— This file is called by the main class FileParser to parse the question from the Questions file using regular expressions and it helps in understanding what the question is actually about.

Answer.java— After the question and the noun from the Question file is identified the Answer class is call by the main class to extract the answer for the questions. This file contains all the regular expressions and code to extract the answer from the Arraylists created from the POS file.

Makefile—This file is used to compile the code using ant.

build.xml—This file is used by ant to compile the code.

run.sh—This shell script is used to run the code.

README.pdf—This file explains about the code and QA System.

**QA System—**

**Special features—**

**How To Run**

1. To compile the code-

$ make

1. Change the mode of shell script-

$ chmod +x run.sh

1. Run the code with two arguments –

$ ./run.sh posfile.txt question.txt

The file outputAnswer.txt will be created in the current directory and will contain the answers.