CECS 424
Assignment 2
Total: 43 Points

General Instruction

- I recommend that you type your answers to exercise questions by using a word processor (Microsoft word, LibreOffice writer, LaTeX, etc.).

- If your programs could not be executed on a command line environment, **zero** grade will be given for the programs.

- Submit PDF, java, cpp, py and js files via BeachBoard (Not email or in class).

1. (15 points) Chapter 2.6 – Exercise 2.1 (f): use the following expressions only

   i. A character

   ii. The empty string

   iii. Parenthesis

   iv. Concatenation

   v. 'or'

   vi. Kleene star. (Please use superscript star symbols, $\star$)

2. (28 points) Write a Java, C++, Python, JavaScript programs (without external library) that determines whether a given stream of characters is a financial quantity or not.

   i. The file names of the source codes should be `Assn2.java`, `Assn2.cpp`, `Assn2.py`, and `Assn2.js`.

   ii. The programs should read the input file name from the command-line arguments passed to the program. (`args[]`, `argv[]`, `sys.argv[]`, and `process.argv`).

   iii. The program should read each line from an input file and print out its evaluation.

   iv. You can use **any regular expression** which is allowed in the programming languages.

   v. Execution commands should be:

   ```
   javac Assn2.java; java Assn2 a2_input.txt
   g++ Assn2.cpp -o Assn2; ./Assn2 a2_input.txt
   python Assn2.py a2_input.txt
   node Assn2.js a2_input.txt
   ```

   vi. For MacOS, Linux users, you may need to run `dos2unix` to remove `carriage return` symbols in the `a2_input.txt`.

   vii. Expected output for the provided `a2_input.txt`.

```
Matched: $**2,345.67
Not Matched: $0,123.45
Not Matched: $*1,23.56
Matched: $*1,234,567.90
```

Note. Your programs will be tested with a different test file.