Compiler Design
Projects 2

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• C_0 Implementation with Java (or Python)

• Compilation and Execution

• Input File (Set of Production Rules) Name: rule.txt

• Rule format will be as follows:

rule.txt

```
R1
E>E+T
R2
E>T
R3
T>T*F
R4
T>F
R5
F>(E)
R6
F>x
```

- C_0 Implementation with Java (or Python)
  - Compilation and Execution
    - Output: The set of newly generated sets and the corresponding items
    - Output format: "output.txt"
    - Output format example:

```
I0
[S->.E] [E->.E+T] [E->.T] [T->.T*F] [T->.F] [F->.(E)] [F->.x]
I1
[A->E.] [E->E.+T]
I2
[E->T.] [T->T.*F]
I3
[T->F.]
…
I11
[F->(E).]
```

- Grading Criteria (out of 100%)
  - Implementation (60%)
    - Accuracy Test with Sample Cases
    - Function Organization
    - Comments
  - Documentation (40%)
    - Function Explanation
      - What is this for? What are the input arguments? What should be return results?
    - Flow Chart (https://en.wikipedia.org/wiki/Flowchart)