

CSC 254 Project I

Scanner Generator

Due Date: Wednesday, September 24th, 11:59pm.

You are to implement a *DFA minimizer* that converts a regular expression into an NFA, converts the NFA into a DFA, and then minimizes the DFA.

The minimizer produced will then be used to execute the minimized DFA on a number of strings. For each string, it should print the list of states the minimized DFA goes through, and then print either "accept" or "reject".

Any lines of debugging or trace information your program prints should start with the character %. When testing your program, all these lines will be stripped from your program.

Getting Started

To get the materials for this project, type the following line:

```
cp -r ~cs254/proj1 ~/proj1
```

to copy over the files. You need to set the CLASSPATH environment variable in your .cshrc file. Add in .cshrc the following line:

```
setenv CLASSPATH ./:/usr/local/bin:/u/cs254/Java
```

Look at the file proj1/proj1.txt for more detailed directions and hints.

The only code you will need to modify is the TG.java file. You will make use of the Transition Graph class defined and implemented in tGraph.java. You should make use of data abstractions found in the Java class libraries. Look at the file proj1.txt or README for more detailed directions and hints.

Submission Instructions

The DFA minimizer project is due at 11:59pm. You can turn in your TG.java file using the TURN_IN program.

```
alias TURN_IN ~cs254/bin/TURN_IN
```