CS 150 Lecture 11 Exercises

Complete each of the exercises below and upload to Canvas before the deadline.

State Filters - A Table of Contents

A state filter is a program that reads (*standard*) input, monitors the input stream and performs an action based on the *state* of the stream. Use the filter program you met in class to write a program named **cecho**. The program should read characters from standard input (**cin**) and write to standard output (**cout**). The state you will monitor is encountering the end-of-line character followed by a capital **'C'**. When you encounter this, then start printing (with the **'C**'). Keep printing until you encounter a newline.

Filter programs are *data-loops*; they exit when you are out of data. That means you normally don't run them interactively, but by using **redirection** from the shell.

When running the program, use **<** to supply the input on the command line and **>** to specify the output file. For this exercise, I want you to read from the text file **alice.txt** and send the output to the file **toc.txt**. You'll need to modify the makefile.

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| *Copy and paste a screenshot of the source code for cecho.cpp* |

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| *Copy and paste a screenshot of toc.txt after building.* |