Daniel Bielejeski and Ricky Rodriguez

Project 1

CISC 340

Assembler Overview

The assembler works by first taking in one or two files. The first is the input instructions and the second is an optional output file. It reads in the input file and then uses strtok() to break each line into pieces. As it goes through each line it places any labels into a hashtable from the glib.

Getting the hashtable to work required more work than it was worth and if we were to do it again I would recommend against using a hashtable. When it worked it was easy to get the labels from. After going through each line once, it places all the values from each line into a 2D array with the row being the line number and the column being the instruction.

Following placing into an array it converts each line into machine code and then either prints that out or places it into the output file.

Handles a variety of exceptions including duplicate labels, undeclared labels, labels same as command and more.