COL216

Lab Assignment 3

Reading Input and Writing Output

Introduction

The objective of this exercise was to augment the program of assignment 2 with convenient input/output.

Work Done in Lab

We used the “UsefulFunctions.s”, “Assn2.s” files and used the .global and .extern commands to link functions across files. We assigned a space of 400 bytes in memory and we used SWI 0x6a to read the file’s contents into the assigned space and since the the SWI 0x6a directive was reading line by line, after every expression we printed the output of the expression to stdout and append a newline character and it looped back to the beginning of the code to carry out the instructions once again. The code keeps running till it encounters the EOF character. If the file doesn’t exist, then an error is printed.

Issues:

Since reading from stdin directly isn’t supported in ARMSIM 1.9, we read the input from the file whose name is mentioned at the end of the code and the text file is present in the same directory as the code.

Sample Input:

Input: 3+(21*(2*(52-(25*2))-3)) Output: 24

Input: 31+(21*(2*(52-(25*2))-3)) Output: 52

Input: (2-5) Output: -3

Input: (5*2) Output: 10