CSCI 360

Assignment 1

50 points

This assignment is in three parts:

Part A

Write a program that does the following:

- Declare a fullword LEFT with the value 127.
- Declare a fullword RIGHT with the value 59.
- Subtract RIGHT from LEFT. To do this, simply load these numbers into registers and use an SR.
- Add RIGHT to LEFT. To do this, load the two numbers into registers (a different pair of registers) and use an AR.
- Now use an XDUMP to dump out the registers and look at the register values to see your SUM.

Part B

Modify the program from Part A as follows:

- Declare two consecutive fullwords of storage called SUM and DIFF.
- Store (ST) the difference (LEFT minus RIGHT) into DIFF.
- Store (ST) the sum (LEFT plus RIGHT) into SUM.
- XDUMP that area of storage (containing SUM and DIFF) using XDUMP. You can use XDUMP to print the values in storage by using the label followed by the length of the field like this:

      XDUMP SUM,8

  or maybe as two lines:

      XDUMP SUM,4
      XDUMP DIFF,4

- Look at the XDUMP output and verify your arithmetic is correct.

Part C

Now rewrite your program using explicit addressing. This means on the L and ST, take out your labels and fill in the addresses of the various fullwords. You can get these addresses from the program listing of part B (in a column at the left).

Other Notes

Hint: Start with the JCL and the trivial little program we had in the lab training exercise. Take out the two SR lines and put in what you need.

Be sure your name and the assignment number (including Part A, B or C) is included in the documentation for each file.

Turn in all three programs (from Parts A, B and C) and the output file from Part C.