## Assignment 8 – Internal Subroutines 100 points

This program is a rewrite of your Assignment 7 program but with use of an internal subroutine to process the integers, on at a time, as read from the input records. First, copy your ASSIGN7 PDSE member and name it ASSIGN8.

Note that the output for this assignment should **match** that which you created for Assignment 7.

## **Internal Subroutine PROCNUM**

Inside the read loop, add 1 to the record counter and immediately call an internal subroutine named PROCNUM to process the integer on the input record. Pass the internal subroutine the parameters described below.

## **Parameters Required for PROCNUM**

- 1) input buffer
- 2) print line field into which you XDECO the integer
- 3) print line field into which you move the type of number phrase, i.e., NEGATIVE, POSITIVE, or ZERO.
- 4) smallest variable
- 5) largest variable
- 6) sum of the integers field

## **Notes**

- 1. ALL processing of the integer must be removed from the main routine (caller) and included in the subroutine PROCNUM.
- 2. Once again, use extended mnemonics for all branches from this point on.
- 3. Document your code! You need a doc box at the top with both names as well as adequate line doc.
- 4. You may use your own data for testing but please be sure to turn in the assignment with the following numbers listed.
- 5. The only storage required for the subroutine will be an appropriately-sized save area for all of the caller's registers preceded, of course, by an LTORG for the subroutine.
- 6. DO NOT access any storage in the caller's storage area by name, only via the parameters!
- 7. Use register 11 to return to the caller.

As before, submit you single .txt file on Blackboard for grading.