**CSCI 360-1 Assignment 1 – Your First Mainframe Program Fall 2017**

**10 points**

Before you begin this assignment, you must first allocate the data set described in the document named *Allocating Your Assignment PDSE* found in the folder named Working on the Marist Mainframe and Using and Editing in ISPF in Blackboard's Notes, Manuals & Slides.

For 10 points, create and edit a new member of your Assignments PDSE and name the new member ASSIGN1. You can start editing referring to the document named *Editing in ISPF* in the same folder mentioned above.

Type the JCL (Job Control Language) and Assembly language program below that begins with the line:

//KC03nnnA JOB ,'your name here',MSGCLASS=H

and ends with the line with only two forward slashes into your PDSE member named ASSIGN1. When you have finished and made the editing change to it described in red in the "doc box" below, you will have what's known as a "job" that can be submitted for execution on the Marist University mainframe. By the way, please do not type the text in red or the line that says "Note that this documentation box does not go past column 65!" into your finished program.

//KC03nnnA JOB ,'your name here',MSGCLASS=H

//JSTEP01 EXEC PGM=ASSIST

//STEPLIB DD DSN=KC00NIU.ASSIST.LOADLIB,DISP=SHR

//SYSPRINT DD SYSOUT=\*

//SYSIN DD \*

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\* ASSIGNMENT 1 - YOUR FIRST MAINFRAME PROGRAM \*

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\* DATE DUE: 09/01/2017 \*

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\* **Replace KC03nnn above with your KC-ID assigned to you by** \*

\* **your instructor. DO NOT LEAVE OUT THE CAPITAL LETTER A AT** \*

\* **THE END OF YOUR KC-ID! Also, put your name in all capital** \*

\* **letters in the first line where it says 'your name here'.** \*

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\* Note that this documentation box does not go past column 65! \*

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MAIN CSECT

USING MAIN,15 ESTABLISH ADDRESSABILITY ON REGISTER 15

SR 3,3 ZERO REGISTER 3 FOR TOTAL

SR 4,4 ZERO REGISTER 4 FOR COUNTER

XDUMP

BR 14 RETURN TO CALLER

END MAIN

/\*

//

It is extremely important that you not save any blank lines before or after what is presented above. The columns on each line and where things appear here are also extremely important.

Type the word save or SAVE on the command line and press Enter frequently so that you will not lose any of your work if you accidentally sign yourself off.

Assembly language, henceforth known as "Assembler," is a very unforgiving language that requires close attention to detail. The lines of the job above that begin with at least one forward slash (/) are lines of JCL and are not Assembler code.

We will use the same JCL for all of our programming assignments and in our examples for the remainder of the semester. There will be minor changes with lines of information added to the end of the job but that will come later. The JCL above surrounds the Assembler program and is used on the mainframe to tell the operating system what type of work you are trying to perform. In this case, we're assembling an Assembly language program and executing it.

In summary, the first line of this JCL tells the mainframe operating system, z/OS, that it is **your** job with your KC-ID. The word JOB tells z/OS that the first line is the beginning of a new "job." Note the required space between JOB and the comma. Inside the single quotes (apostrophes which we will call "ticks" or "tick marks"), you can put up to 20 characters of your choice. For this class, please put your first and last name or, if too long, your first initial, a period, and your last name. The MSGCLASS=H tells the Marist system where to route your job's output when it finishes. H is the "held" class.

The line with EXEC PGM=ASSIST tells the Marist system that you want to execute the load module named ASSIST. A load module is essentially the "executable" on the mainframe. ASSIST is a learning version of the mainframe Assembler that assembles, or "compiles," your program and actually executes it too.

When you are done typing and are ready to run your job and view the results, first save your work and then type sub or SUB on the command line and press Enter. You can then refer to the document named *Viewing Results in SDSF* in the same Blackboard section and folder mentioned above.

When you are done, you must then use mar\_ftp.exe to download a .txt file version of your job output from Marist. Refer to the document named *Using mar\_ftp.exe to Download Marist Job Output* in the same Blackboard section and folder mentioned above.

Once you have the .txt file downloaded to your own laptop or PC, open the .txt file and review it from top to bottom to make sure ALL of the output is there. When you are satisfied, submit a copy of the .txt file on Blackboard by the time and date it is due.