**CSCI 360-1 Assignment 10 – Subprograms and Linkage Fall 2018**

**100 points**

This assignment adds functionality to your Assignment 9 program.

To start, copy your ASSIGN9 PDSE member and name the new PDSE member ASSIGN10. Rename the main CSECT PAYROLL. Don't forget to change the END statement PAYROLL too!

The input data set is still:

DSN=KC02322.CSCI360.DATAFA18(DATA9),DISP=SHR

Each record has the same format as before.

First, remove the calculation of the employee pay from the main program and place the necessary instructions in an external program named CALCPAY. Pass a parameter list referencing the fields necessary to calculate the employee pay according to the following equation:

Employee Pay = Pay Rate \* Hours Worked – Deduction Amount + Bonus Amount

In addition to the four fields read from the input record, you will need to pass a reference to an additional field that will hold the employee pay as calculated by the subprogram. Be sure that each field for which you send a reference is defined as a packed decimal field in the main program storage.

Secondly, remove the calculation of the three averages from the main program and place the necessary instruction in a second external program named CALCAVGS. Pass a different parameter list to this subprogram referencing the fields necessary to calculate the three averages, i.e., number of employees, total deductions, total bonuses, total employee pay, and three additional fields to hold the calculated averages of the deductions, bonuses and employee pay. Once again, only pass references to packed decimal fields. This subprogram will be called once after the end of the loop.

Your report should look identical to that produced by your Assignment 9 program.

Document your program completely according to Chapter 2 of the CSCI 360 Course Notes and submit your single .txt file on Blackboard as before.