**MULTIPLE REGRESSION**

Firstly, I divided the table into three pieces for each course. After that, I put every table’s data into seperate worksheets in an Excel file. Then in order to find the necessary parameters to calculate every students Z-score such as mean value and the standart deviation of the grade distribution for each course, I wrote the ***calculate\_mean*** and the ***std\_deviation*** functions. Using these two functions I defined another function called ***zvalue*** that calculates a given students zvalue in a given course. After that I defined another function ***zvalue\_comparison*** that takes four arguments which are all of the given three courses and the student name. What that function does is it takes the Z-score of the student in all courses, calculates the areas under the normal distribution functions of every course, puts them into a vector called ***result*** and sorts them into descending order with NA’s are in the last. After that, I defined an empty dataframe with ten character vectors with length of three. I set the columnames of this dataframe to names of students. Then, in a for-loop with the function ***zvalue\_comparison,*** I filled the empty database’s columns with the descending order of success in every course for every student(with the vectors returned by ***zvalue\_comparison***).