**MAFD 4202 - LAB 4**

This lab uses one large nested IF statement. We are NOT using PERFORMed paragraphs within the nested IF/ELSE. It is a requirement to use regular COBOL statements within the IF/ELSE.

INPUT DATA FILE LAYOUT

NO. NAME SALES COMM. MIN. MAX.

RATE COMM. COMM.

COL. 1-2 3-10 11-14 15-16 17-19 20-23

10 Jim 4000 10 300 600

17 Beth 5000 20 500 1000

21 Tom 6000 20 500 1325

30 Sally 207 20 50 100

31 Gerry 7999 5 600 700

39 Cindy 3751 19 400 600

1. In order to reduce some of the keying effort, part of the lab has been prepared for you. You should have a look at this file, but it your choice whether to use it all, part of it, or ignore it altogether and write your own code.
2. You must use PERFORM for the printing of the headings and totals.
3. For this lab you are permitted to use COMPUTE as appropriate.
4. The program is to process the data, calculate the salesperson earned and paid commission and for each salesperson print out the following:
   1. Salesperson's No.
   2. Salesperson's Name
   3. Minimum Commission
   4. Maximum Commission
   5. Commission Rate **with a % sign** (i.e. 10%).
      1. This is accomplished by printing % as a literal.
   6. Earned Commission
   7. Paid Commission  
        
      Calculations are to be made as accurately as possible such that the salesman's final earned commission is calculated to the nearest dollar. **All printed values are to the nearest dollar (so use ED wisely).**
5. To produce the report shown below:
   1. print your name etc., a report title (SALES COMMISSION REPORT), column headings and the underlining. (See last page)
   2. You **do not** have to replicate the number of spaces in the headings detail line precisely. You will only need to have the heading match up with the detail items.
6. Print 5 lines per page, each page should start with column headings. ONLY the first page will have the report header. You do not need to print page numbers.
7. Use one nested IF/ELSE sentence for the following commission calculations. Use of **PERFORMED paragraphs is not permitted in this part of the program**.
   1. Calculate the EARNED Commission as follows:  
        
      If the Sales is <= 5000, Earned = Sales \* Rate  
        
      If the Sales is > 5000, Earned = Sales \* Rate + a bonus of 12.5% of the amount over $5000.   
        
      Here are a couple of sample calculations:  
        
      JIM gets 10% of his $4000 in sales = earned of $400  
        
      TOM gets 20% of his $6000 in sales = $1200 + 12.5% of (6000 – 5000) =1200 + 125 = $1325
   2. Calculate the PAID commission as follows:
      1. If the sales are **more** than $5000 then PAID = EARNED unless Earned is > MAX. If Earned is > Max then PAID = MAX. Note that they CAN earn less than their minimum and **no check** is to be made on it. Count and print out with a title (see next page), the number of salespersons in the sales over $5000 category who earn more than their maximum. Check *Gerry*.
      2. If Sales <= 5000 then PAID = EARNED unless Earned is < MIN. If Earned is < Min then PAID = MIN. They can earn more than their maximum and **no check** is made on it. Count and print out with a title (see next page), the number of salespersons in the no bonus category who earn less than their minimum. Check *Sally*.
   3. The program is to accumulate and print out the total commission earned and paid to all salespersons.

In order to understand the logic of this program, I suggest you manually calculate the answers shown below. When you do get output I suggest that you check your calculations for salesman PHIL.

EDITING as follows:

i) Use Z and , for all except paid.

ii) Use $ , and \* (asterisk) for paid.

iii) Use a floating $ sign and , for the totals.

**Turn in: A 7z or Zip archive of your VS2017 Project**

SALES COMMISSION REPORT

NO. NAME SALES MIN MAX RATE EARNED PAID

--- ---- ----- --- --- ---- ------ ----

10 Jim 4,000 300 600 10% 400 $\*\*400

17 Beth 5,000 500 1,000 20% 1,000 $1,000

21 Tom 6,000 500 1,325 20% 1,325 $1,325

30 Sally 207 50 100 20% 41 $\*\*\*50

31 Gerry 7,999 600 700 5% 775 $\*\*700

NO. NAME SALES MIN MAX RATE EARNED PAID

--- ---- ----- --- --- ---- ------ ----

39 Cindy 3,751 400 600 19% 713 $\*\*713

…more lines and pages…

TOTALS $4,254 $4,188

NUMBER WITH BONUS MORE THAN MAX 1

NUMBER WITH NO BONUS LESS THAN MIN 1