Maintenance Workshop 4.1

1. Open the COBOL program **MILLARD** and study the code - line by line. Analyze and predict the output, then Compile/Link and Run (COBOLCLG) MILLARD - and from the Job's **SYSOUT** file, review the results and reconcile them with what you expected.

2. **Add Paragraphs** and **PERFORM** statements to MILLARD
   - The only changes you need to make are in the PROCEDURE DIVISION
   - **NOTE - the code in the program version shown here will not work ➜**
     - **When you run it, you'll get an ABEND (S0C7).**
     - Figure out why - and fix the problem so that it goes: EOJ

3. Again Compile/Link and Run MILLARD - and validate that the output your new version produces with the new PERFORMs and Paragraphs is the same as the previous version.

4. Fun Fact: Millard Fillmore had no vice president. So make his wife (Abigail) the VP. Modify the code in the program as follows:
   - Add a new **77-level** variable named: **VP**
   - Update the **ASSIGNMENT-PARAGRAPH** for Abigail the VP.
     Add a new: MOVE statement and DISPLAY statement

- Compile/Link and Run or Debug to verify your work.

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ENVIRONMENT DIVISION.
DATA DIVISION.
WORKING-STORAGE SECTION.
77  NAME        PIC X(20).
77  ADDR        PIC X(40).
77  DATE-WS     PIC X(30).
77  RATE        PIC 9(3)V99.
77  BONUS-RATE  PIC V99.
77  HOURS       PIC 9(3).
77  GROSS-PAY   PIC 9(6)V99.
77  JOB         PIC X(12).
PROCEDURE DIVISION.
    PERFORM ASSIGNMENT-PARAGRAPH.
    PERFORM DISPLAY-DATA-PARAGRAPH.
    PERFORM CONDITIONAL-SELECTION.
    GOBACK.
ASSIGNMENT-PARAGRAPH.
    MOVE  "Millard Fillmore" TO NAME.
    MOVE "61 Brigham Tavern Lane, Duxbury MA" TO ADDR.
    MOVE  "Week of: February 24th, 2020" TO DATE-WS.
    MOVE 19 TO HOURS.
    MOVE 23.50 TO RATE.
    MOVE "PRESIDENT" TO JOB.
CONDITIONAL-SELECTION.
    IF  RATE > 18
        MOVE .25 TO  BONUS-RATE
    ELSE
        MOVE ZERO TO BONUS-RATE.
    IF JOB = "PRESIDENT"
        MOVE .33 TO BONUS-RATE.
    MOVE  "Week of: February 24th, 2020" TO DATE-WS.
DISPLAY-DATA-PARAGRAPH.
    COMPUTE GROSS-PAY = (HOURS * RATE) * (1 + BONUS-RATE).
    DISPLAY "Name: " NAME.
    DISPLAY "Job: " JOB.
    DISPLAY "Address: " ADDR.
    DISPLAY "Today's Date: " DATE-WS.
    DISPLAY "Hours Worked: " HOURS.
    DISPLAY "Hourly Rate: " RATE.
    DISPLAY "Bonus-Rate: " BONUS-RATE.
    DISPLAY "Gross Pay: " GROSS-PAY.
    DISPLAY NAME   " "  ADDR.
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