CS 2230 Spring 2015 **Lab5 (5 points)** Dr. Lily Chang

1. STRING statement

   ▪ Write a STRING statement to combine names into FULL-NAME, with last name first followed by a comma, and then the first and middle name.

   ```
   05  FIRST-NAME  PIC X(30) VALUE 'TOM'.
   05  MIDDLE-NAME PIC X(30) VALUE 'MICHAEL'.
   05  LAST-NAME   PIC X(30) VALUE 'CRUISE'.
   05  FULL-NAME   PIC X(40).
   ```

2. UNSTRING statement

   ▪ Write an UNSTRING statement to decompose FULL-ADDR into multiple fields.

   ```
   05  FULL-ADDR PIC X(60) VALUE '165 WEST ST/MIDDLETOWN/NY/10098/'.
   05  STREET    PIC X(20).
   05  CITY      PIC X(10).
   05  STATE     PIC X(2).
   05  ZIP       PIC X(5).
   ```

3. INSPECT statement

   ▪ count the zeros: 05 NUMBER1 PIC 9(5) VALUE 10050.
   ▪ replace all zeros to spaces in NUMBER1
   ▪ count leading zeros: 05 NUMBER2 PIC 9(5) VALUE 00157.
   ▪ replace all '/' by '-' in: 05 TEL-NO PIC X(12) VALUE '608/342/5515'.
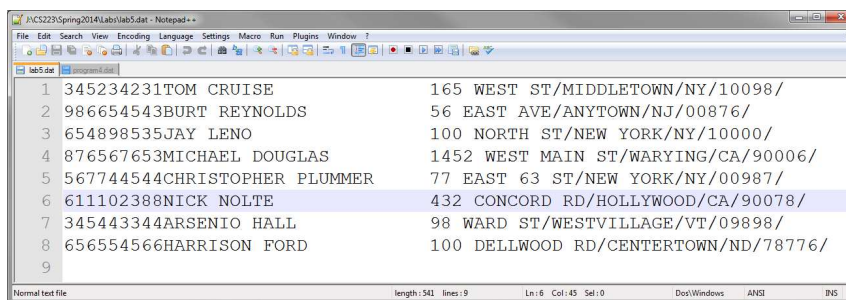
4. Arithmetic verbs: ADD, SUBTRACT, MULTIPLY, DIVIDE

   ▪ Write COBOL codes to implement the following arithmetic equation using Arithmetic Verbs ADD, SUBTRACT, MULTIPLY and DIVIDE. You must retain the value of A, B, C, D, and F. You CANNOT use COMPUTE statement. At most one additional identifier.

   $$RESULT = \frac{A^3 + B}{C - D} - F$$

5. SORT statement

   ▪ Sort the input file **lab5.dat** based on the social security number in ascending order. Output file name: **lab5_sorted.dat**.

Input file record layout (80 bytes)		
Field	**Size**	**Type**
Social Security No	9	Alphanumeric
Name	24	Alphanumeric
Address	47	Alphanumeric