



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

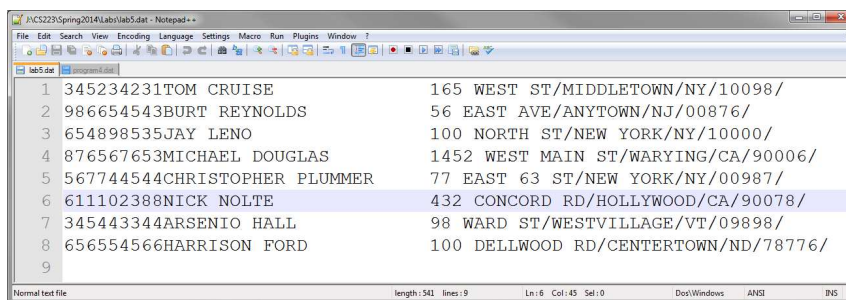
- Write COBOL codes to implement the following arithmetic equation using Arithmetic Verbs ADD, SUBTRACT, MULTIPLY and DIVIDE. You must retain the value of A, B, C, D, and F. You CANNOT use COMPUTE statement. At most one additional identifier.

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

## 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



1	345234231	TOM CRUISE	165 WEST ST/MIDDLETOWN/NY/10098/
2	986654543	BURT REYNOLDS	56 EAST AVE/ANYTOWN/NJ/00876/
3	654898535	JAY LENO	100 NORTH ST/NEW YORK/NY/10000/
4	876567653	MICHAEL DOUGLAS	1452 WEST MAIN ST/WARYING/CA/90006/
5	567744544	CHRISTOPHER PLUMMER	77 EAST 63 ST/NEW YORK/NY/00987/
6	611102388	NICK NOLTE	432 CONCORD RD/HOLLYWOOD/CA/90078/
7	345443344	ARSENIO HALL	98 WARD ST/WESTVILLAGE/VT/09898/
8	656554566	HARRISON FORD	100 DELLWOOD RD/CENTERTOWN/ND/78776/
9			