# York University
## Lassonde School of Engineering
## Dept. of Electrical Engineering and Computer Science
## EECS 2031
## Software Tools
## Fall 2018

| **EECS2031** | **Lab Test 1_A** | **Software Tools** |
|---|---|---|
| Friday, Nov. 26$^{th}$ 2018 | | 4:30– 6:30pm |

## Question 1 (6 points)

Write a bash script that displays the number of courses a student is registered in.
The program checks two files
The first file **NameID.txt** which contains students ID and students names. The ID is a 6 digit decimal number, and the name could be on one of three formats.

   i.    First name last name
  ii.    First name middle initial last name
 iii.    First name middle name last name

**Eample**
123456     John Doe
345678     John P. Doe
987654     John Public Doe
Keep in mind that these three names are for three different students.
The second file **NameCourse.txt** is on the form Course number, Student Name

**Example**
EECS2021    John Doe
EECS2021    John P. Doe
EECS2031    John Doe
EECS4201    John Doe
The program reads a student ID without any prompt, and then it displays the number of courses the student is registered in. If the student is not registered in any course displays 0

**CPU %** q21.sh
123456
3
**CPU %**
    Where John Doe (with ID=123456) is registered in 3 courses


    **Submit as 2031 L1A   q21.sh      be sure it is executable**

## Question 2 (4 points)

Write a shell script that accepts no command line arguments. The script reads three integers from the standard input. If the three integers are in an ascending order; it prints the median number and quits
If the three numbers are not in an ascending order, it displays NO and proceeds to read three integers and repeat until three ascending numbers are read; then it displays the median number and quits.

for example
**CPU %** q22.sh
3 3 4
NO
3 6 2
NO
3 4 5
4
**CPU%**


    **Submit as 2031  L1A    q22.sh   be sure it is executable**

## Question 3 (6 points)

Write a bash script that takes no command line arguments and reads one number from the standard input with no prompt. If there is a command line argument, it displays
No command line arguments please, and proceed to read one integer.
If the integer read could be the diagonal of a right angled triangle with the other two sides are integers, then it prints YES, otherwise prints NO on the standard output.

**CPU %** q23.sh 17
No command line arguments please
7
NO
**CPU%**
**CPU %** q23.sh
5
YES
**CPU%**

**Submit    2031 L1A q23.sh    Be sure it is executable**

# Some Functions you might need

|  | Positional Parameters |
|---|---|
| $0 | The name of the script |
| $1 $2 …. $9 ${10} …. | The different positional parameters |
| $* | list of all positional parameters |
| $# | The number of parameters |
| $@ | list of all arguments differs from $* only when in double quotes |
| $? | The exit status of the process |
| $$ | The pid of the current shell (not subshell) |
| $IFS | The input field separator |

```
1.if [ <condition> ]
2.then
3.       statements
4.elif
5.then
6.     statements
7.elif
8.then
9.     statements
10.   else
11.        statements
12.   fi

1.while [ condition ]
2. do
3. ……
4. done
```