++++++++++++++++++ Lab 001 ++++++++++++++++++

++++++++++++++++++ 2154638 ++++++++++++++++++

CSCM70

CODE:

```
% CSCM 70 ----------- LAB 01  -----------
% CSCM 70 ----------- 2154638 -----------
% ====================================================================

% Example 1 ----->-> Matrix Multiplication <-<-----  ##START##
A = [2 3 -1; 1 0 1; 1 0 2] % assigned the matrix value to A
B = [0 1 -1; -1 1 2; 3 0 1] % assigned value to B
C = [0 1 2] % assigned value to C
v = C' % Got C Transpose in "v"

% We got all are values now we multiply and get the result in another
% variable
% -> Now perform Multiplication as per question.

D = A * B
E = B * A
F = A * v
G = B * A * v
% Example 1 ----->-> Matrix Multiplication <-<-----  ##END##

% ------------------------------------------------------------

% Example 2 ----->-> Linear Equations <-<-----  ##START##
% ->  Ax =(1 2 3)' &
% ->  By = (1 0 3)'
% ->  Find x and y
% -- A & B we know!! ->
A = [2 3 -1; 1 0 1; 1 0 2] % assigned the matrix value to A
B = [0 1 -1; -1 1 2; 3 0 1] % assigned value to B

P = [1 2 3]'
Q = [1 0 3]'

K = [1 2 3]
L = [1 0 3]
% ->  Ax = P That means:
% ->   x = P * inv(A)
% ->  By = Q
% ->   y = Q * inv(B)

x =  A\P
y =  B\Q
% Example 2 ----->-> Linear Equations <-<-----  ##END##

% ============================================================
```

OUTPUT : COMMAND WINDOW

```
Lab_sheet_1


A =

    2    3   -1
    1    0    1
    1    0    2


B =

    0    1   -1
   -1    1    2
    3    0    1


C =

    0    1    2


v =

    0
    1
    2
```

D =

-6	5	3
3	1	0
6	1	1

E =

0	0	-1
1	-3	6
7	9	-1

F =

1
2
4

G =

-2
9
7

A =

2	3	-1

```
   1    0    1
   1    0    2
```

B =

```
   0    1   -1
  -1    1    2
   3    0    1
```

P =

```
   1
   2
   3
```

Q =

```
   1
   0
   3
```

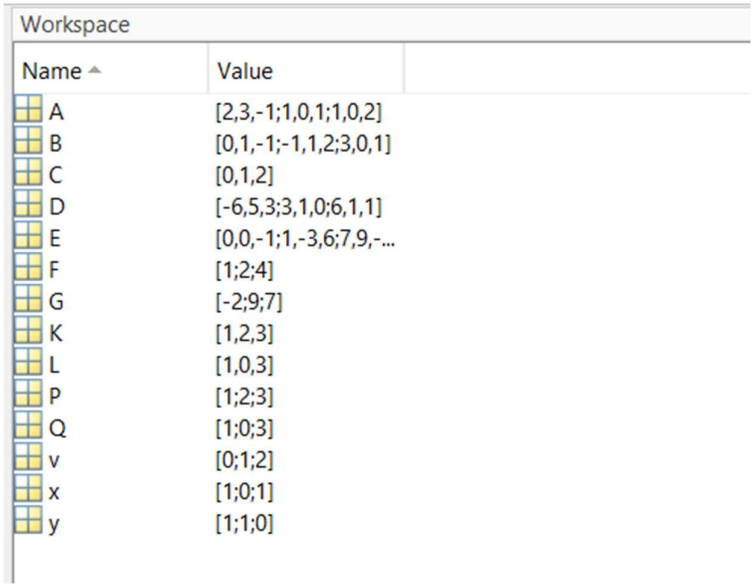
K =

```
   1    2    3
```

L =

```
    1     0     3


x =

    1
    0
    1


y =

    1
    1
    0

diary 'lab_01_Complete_Window'
Lab_sheet_1
```

WORKSPACE


Workspace
Name
Value
A
[2,3,-1;1,0,1;1,0,2]
B
[0,1,-1;-1,1,2;3,0,1]
C
[0,1,2]
D
[-6,5,3;3,1,0;6,1,1]
E
[0,0,-1;1,-3,6;7,9,-...
F
[1;2;4]
G
[-2;9;7]
K
[1,2,3]
L
[1,0,3]
P
[1;2;3]
Q
[1;0;3]
v
[0;1;2]
x
[1;0;1]
y
[1;1;0]