

# Array Example :

The screenshot displays the MATLAB R2014a environment. The Editor window shows a script named `array_example.m` with the following code:

```
1 clc
2 clear
3 a = [1 2; 3 4];
4 b = [5 6; 7 8];
5 disp('Array A');
6 disp(a);
7 disp('Array B');
8 disp(b);
9 disp('Transpose Matrix A');
10 disp(a');
11 disp('Inverse Matrix A');
12 disp(inv(a));
13 disp('.* Multiplication');
14 disp(a.*b);
15 disp('.* Multiplication');
16 disp(a*b);
17
```

The Command Window shows the output of the script:

```
Array A
     1     2
     3     4

Array B
     5     6
     7     8

Transpose Matrix A
     1     3
     2     4

Inverse Matrix A
    -2.0000    1.0000
     1.5000    -0.5000

.* Multiplication
     5    12
    21    32

.* Multiplication
    19    22
    43    50

fx >>
```

The Workspace window shows the variables defined in the script:

Name	Value
a	[1,2;3,4]
b	[5,6;7,8]

# Conditional Example :

The screenshot displays the MATLAB R2014a environment. The Editor window shows a script named `condition_example.m` with the following code:

```
1 clc
2 clear
3 num = input('Enter Your Mark : ');
4 if num >= 80 && num <= 100
5     disp('Grade : A+');
6 elseif num >= 70 && num < 80
7     disp('Grade : A');
8 elseif num >= 60 && num < 70
9     disp('Grade : A-');
10 elseif num >= 50 && num < 60
11     disp('Grade : B');
12 else
13     disp('Fail');
14 end
15 % Example 2
16 d = input('Enter Distance : ');
17 if d >= 60 && d <= 100 % distance in metter
18     disp('Intoder is found');
19 elseif d >= 0 && d < 60
20     disp('Bell the alarm');
21 else
22     disp('Nothig to be worry');
23 end
```

The Command Window shows the output of the script:

```
Enter Your Mark : 60
Grade : A-
Enter Distance : 55
Bell the alarm

fx >>
```

The Workspace window shows the variables defined in the script:

Name	Value
d	55
num	60

# Loop Example :

The image shows the MATLAB R2014a interface. The Editor window displays a script named `loop_example.m` with the following code:

```
1 clc
2 clear
3
4 %% for Loop Example
5 % Sum of 1 to 10
6 sum = 0;
7 for i = 1:10
8     sum = sum + i;
9 end
10 disp('Sum of 1 to 10 using for loop : ');
11 disp(sum);
12 %% while Loop example
13 % Display 1 to 4 one by one line
14 n = 1;
15 disp('Display 1 to 4 one by one line using while loop :');
16 while n <= 4
17     disp(n);
18     n = n + 1;
19 end
20
```

The Command Window shows the output of the script:

```
Sum of 1 to 10 using for loop :
55

Display 1 to 4 one by one line using while loop :
1
2
3
4

fx >>
```

The Workspace window shows the following variables:

Name	Value
i	10
n	5
sum	55

The taskbar at the bottom shows several open applications, including [4K Video Downloader], Sonar Pakhi Rupar Pa..., and MATLAB R2014a.