

PENGOLAHAN CITRA DIGITAL



Disusun oleh :

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Kelas : PTIK C 2020

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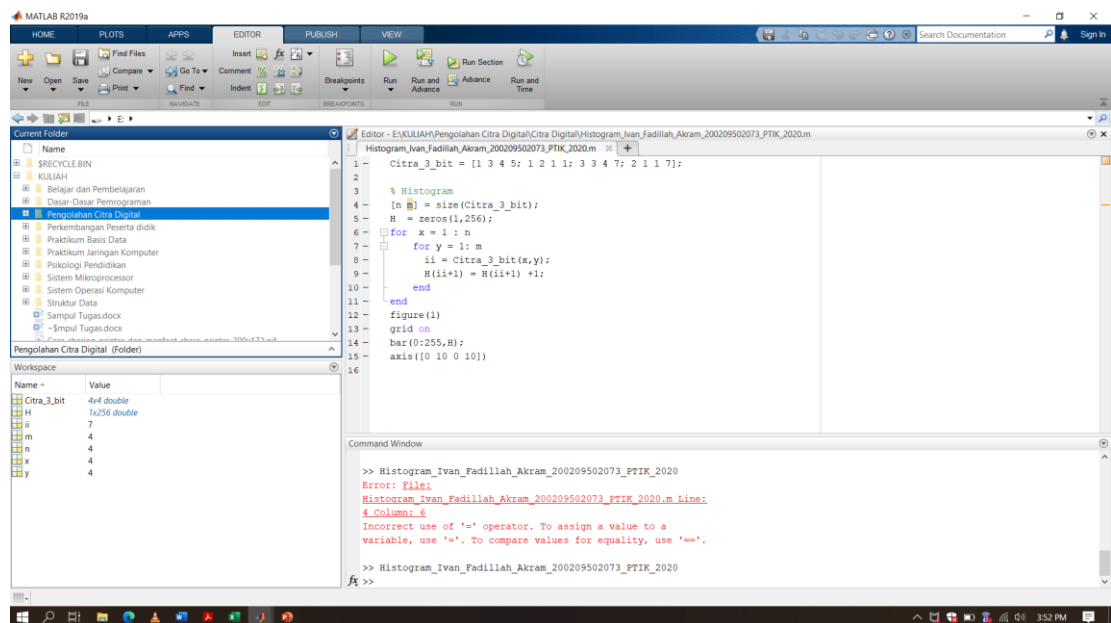
Tugas 3

1. Buat histogram citra 3 bit dibawah ini

1	3	4	5
1	2	1	1
3	3	4	7
2	1	1	7

Jawab:

Syntax di Matlab

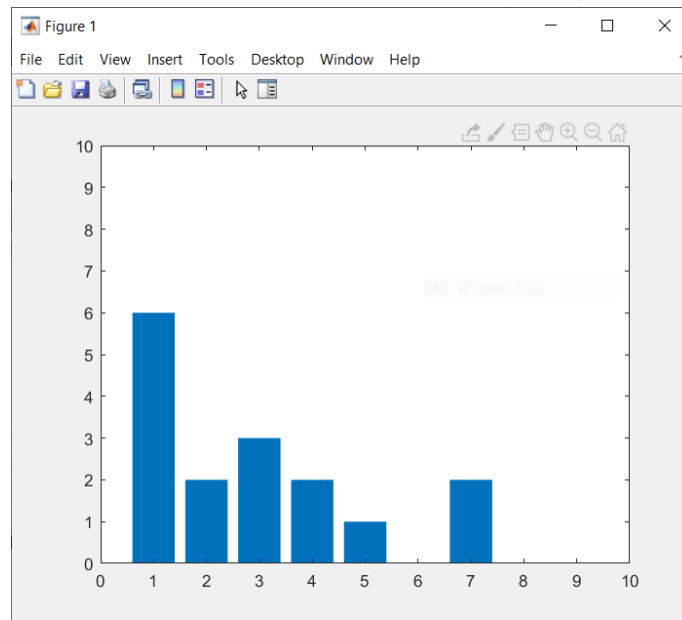


```
1 Citra_3_bit = [1 3 4 5; 1 2 1 1; 3 3 4 7; 2 1 1 7];
2
3 % Histogram
4 [n m] = size(Citra_3_bit);
5 H = zeros(1,256);
6 for x = 1 : n
7     for y = 1 : m
8         ii = Citra_3_bit(x,y);
9         H(ii+1) = H(ii+1) +1;
10    end
11 end
12 figure(1)
13 grid on
14 bar(0:255,H);
15 axis([0 10 0 10])
16
```

Command Window

```
>> Histogram_Ivan_Fadillah_Akram_200209502073_PTIK_2020
Error: File:
Histogram_Ivan_Fadillah_Akram_200209502073_PTIK_2020.m Line:
4 Column: 6
Incorrect use of '=' operator. To assign a value to a
variable, use '='. To compare values for equality, use '=='.
>> Histogram_Ivan_Fadillah_Akram_200209502073_PTIK_2020
>>
```

Hasilnya:



2. Cari distribusi komulatifnya (grafiknya ditampilkan)

Jawab:

Syntax di Matlab

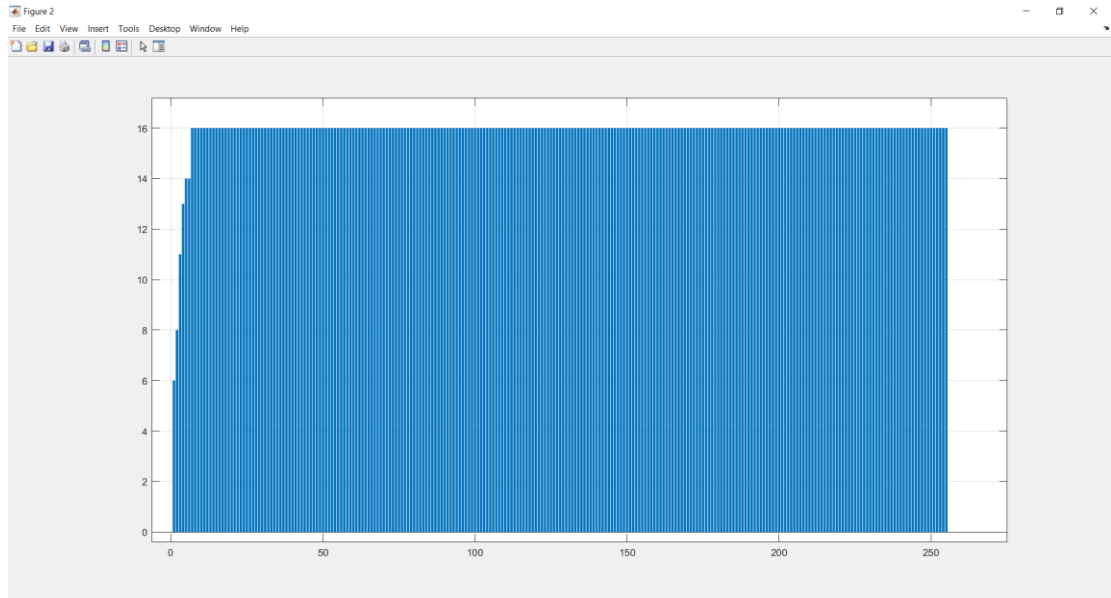
```

5 - H = zeros(1,256);
6 - for x = 1 : n
7 -     for y = 1: m
8 -         ii = citra_3_bit(x,y);
9 -         H(ii+1) = H(ii+1) +1;
10 -     end
11 - end
12 - figure(1)
13 - grid on
14 - bar(0:255,H);
15 - axis([0 10 0 10])
16 -
17 - % Distribusi Komulatif
18 - for w = 1: 256
19 -     c(w) = sum(H(1:w));
20 - end
21 - figure(2)
22 - bar(0:255,c);
23 - grid on
24 - axis([0 10 0 m*n])
  
```

Workspace:

Name	Value
c	1x256 double
citra_3_bit	4x4 double
H	1x256 double
ii	7
m	4
n	4
w	256
x	4
y	4

Hasilnya:



3. Lakukan proses histogram equalisasi (tuliskan matriks citra hasil equalisasinya)

Jawab:

Syntax di Matlab