

**LANGKAH LANGKAH MENGUBAH GAMBAR KE CITRA
KEABUAN,BINER,KOTRASS,DAN BRIGHTENES**

DI COMMAND PROMPT & GUI

Untuk memenuhi salah satu tugas

Mata kuliah pengolahan citra digital

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KELAS : PTIK C

NIM : 200209502021

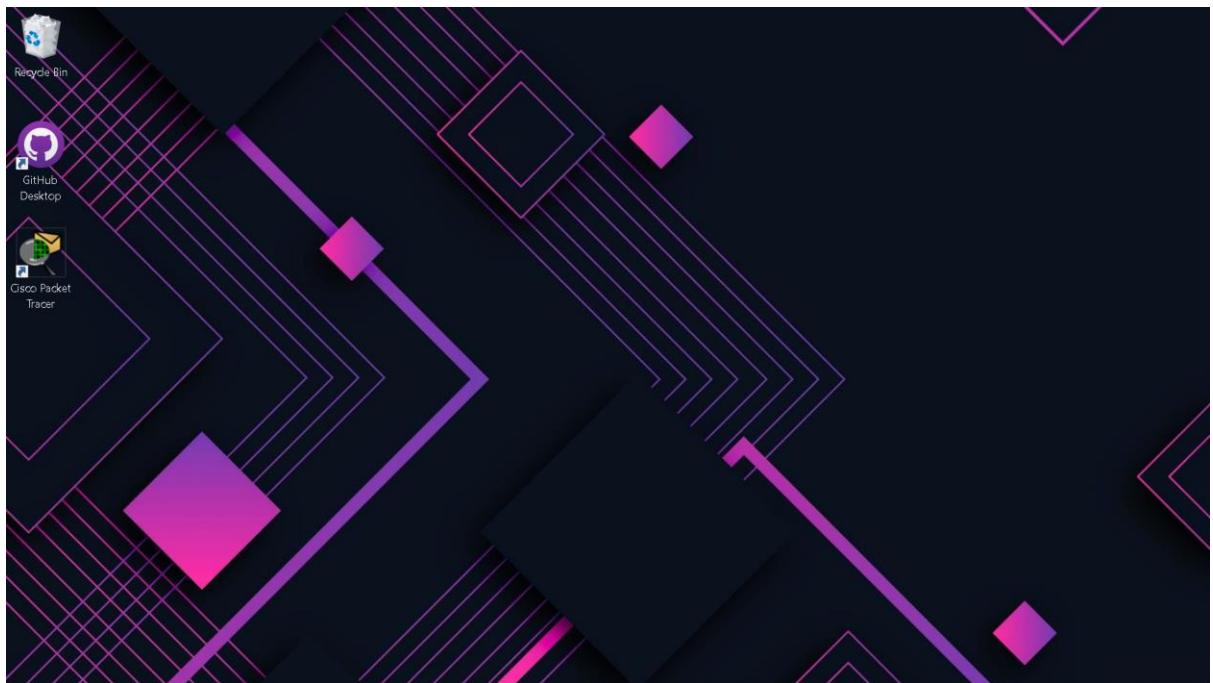
JURUSAN TEKNIK INFORMATIKA DAN KOMPUTER

UNIVERSITAS NEGERI MAKASSAR

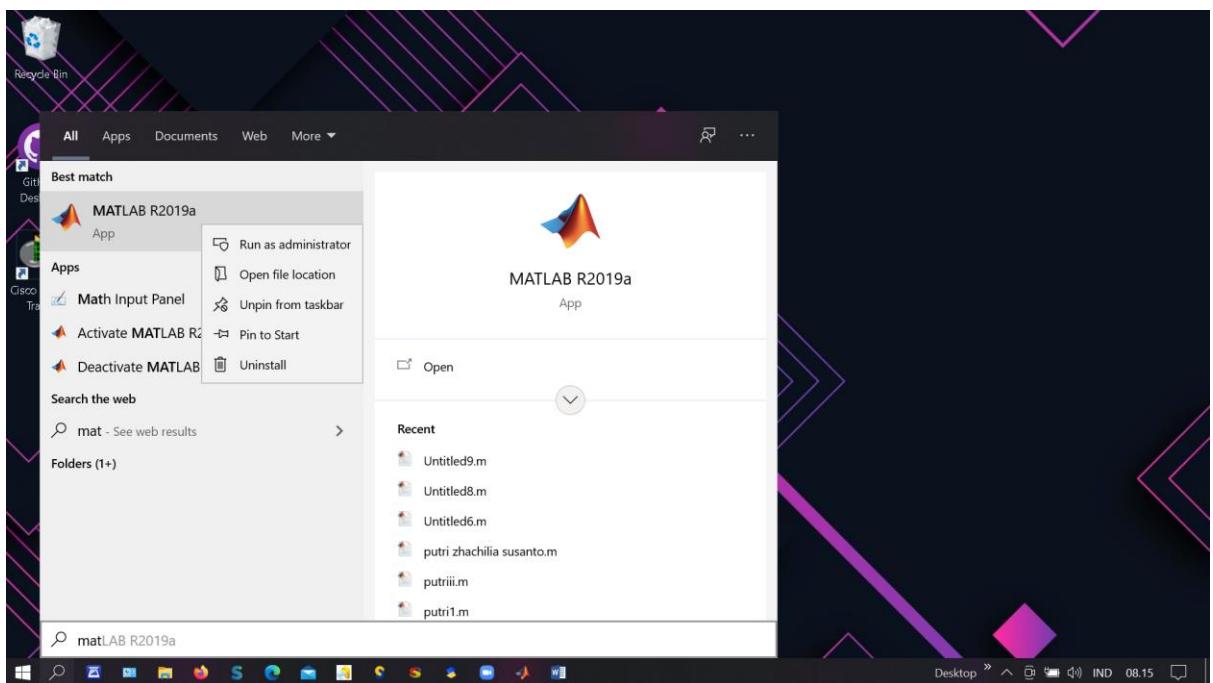
2020

COMMAND PROMPT

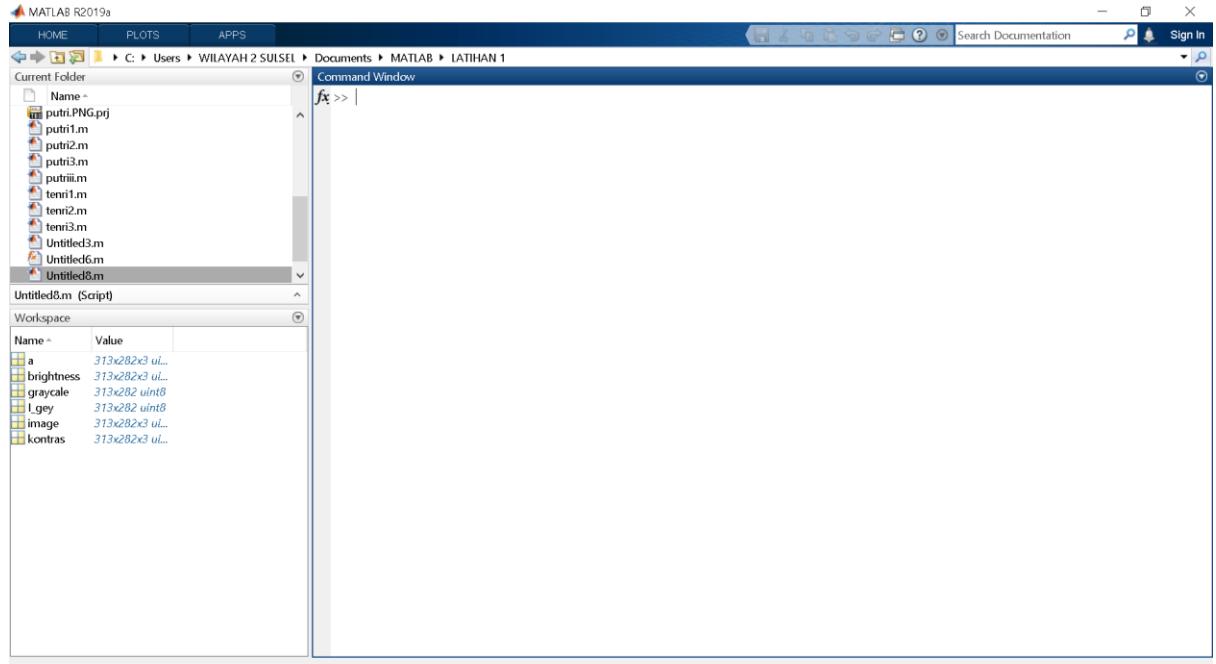
- Tampilan Awal



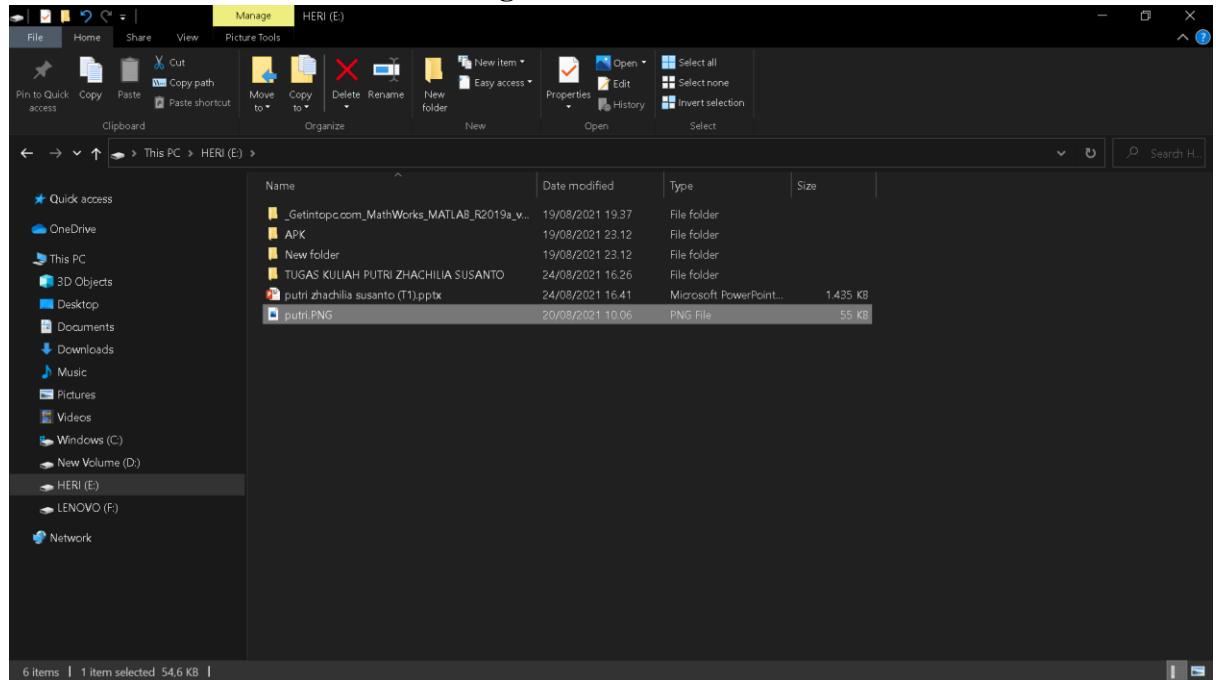
- Kemudian cari di pencarian Laptop untuk membuka Aplikasi Matlab kemudian Run



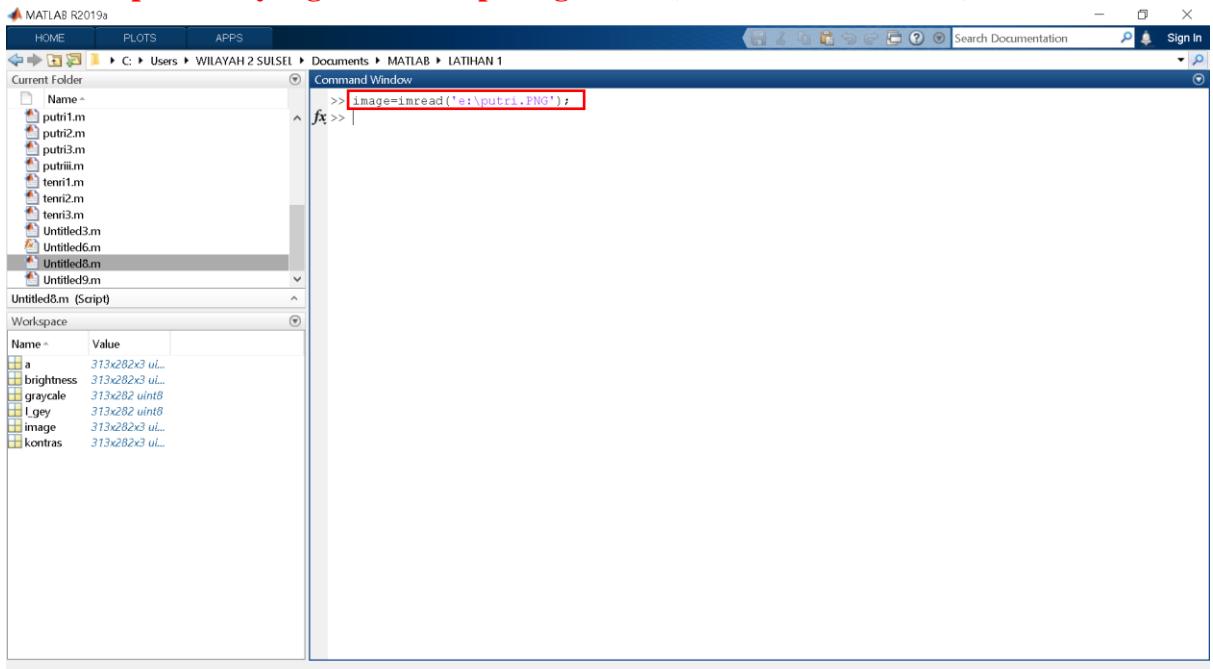
- Tampilan Awal Dari Matlab



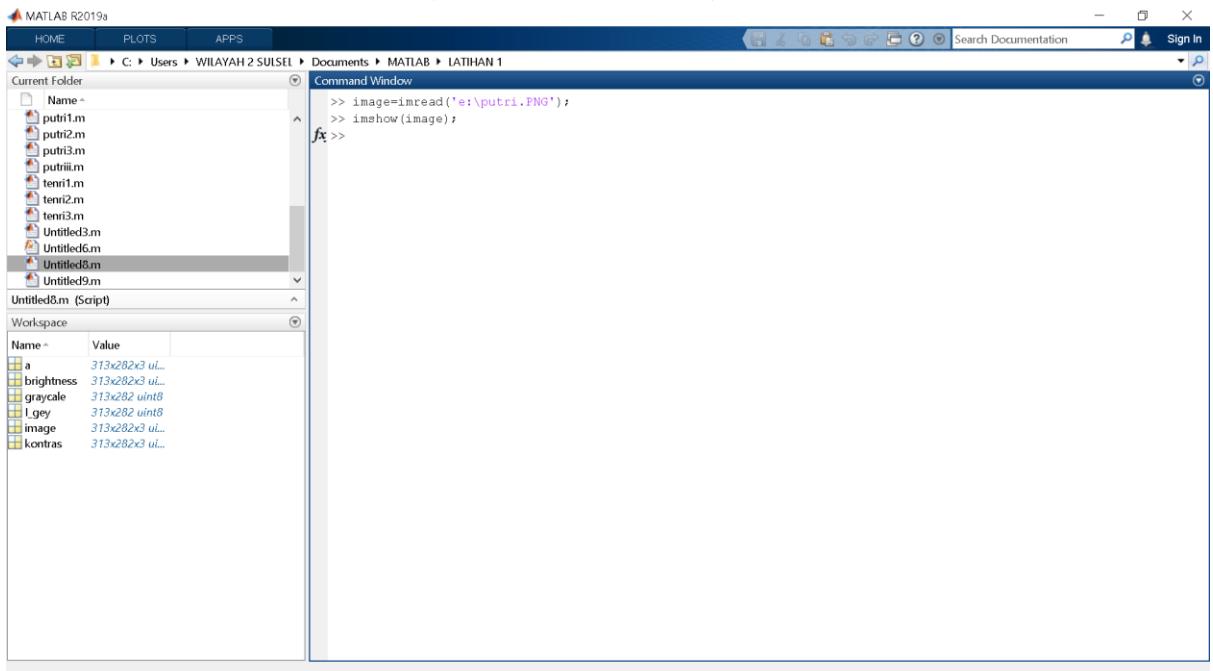
- Kemudian Pilih Gambar Untuk Mengubah ke citra keabuan dll.



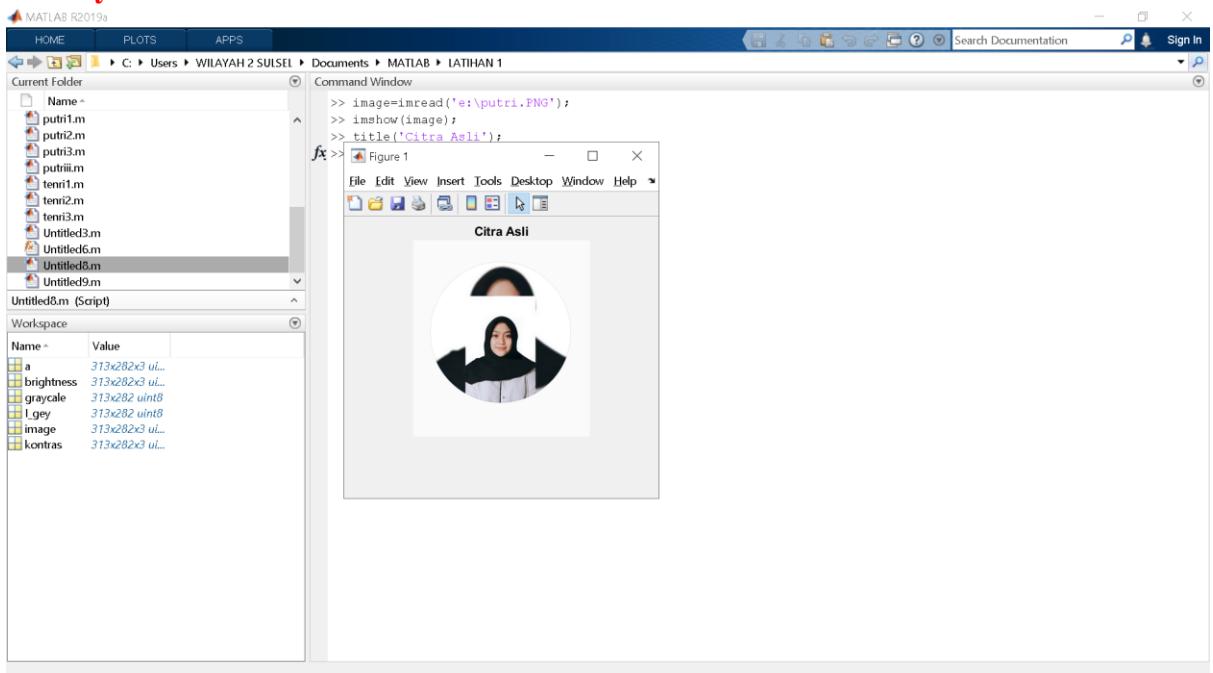
- Masukan perintah yang sesuai ada pada gambar (Perhatikan Gambar)



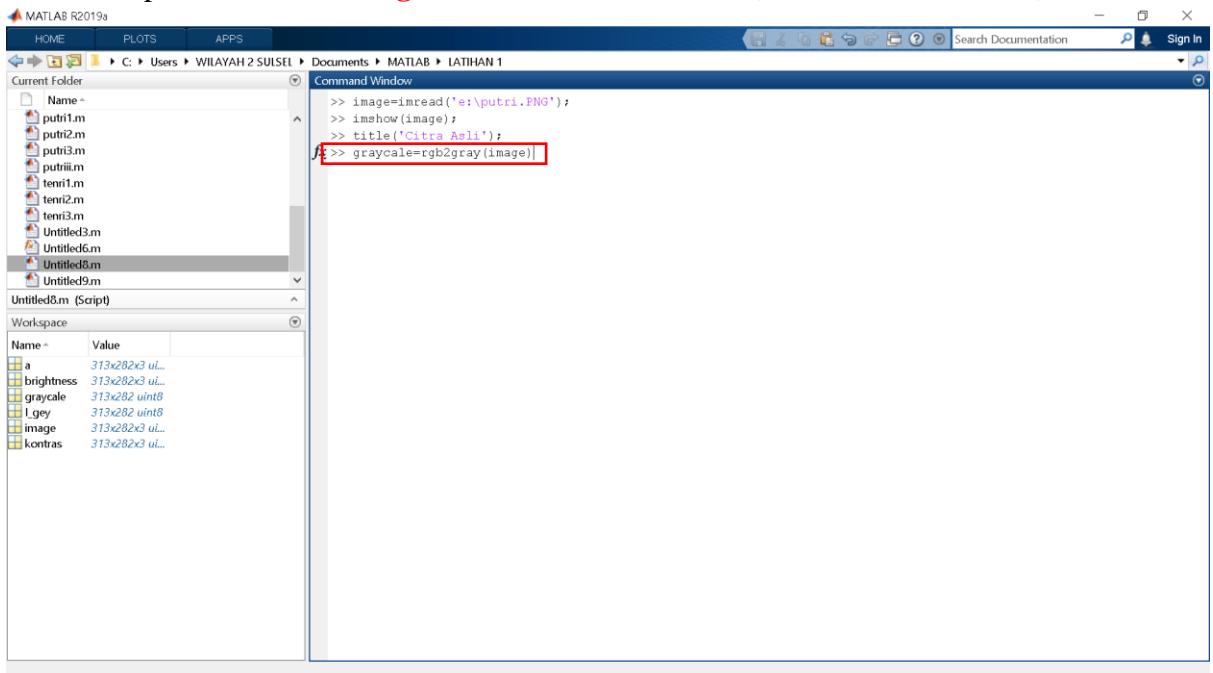
- Kemudian masukkan Perintah (Perhatikan Gambar)



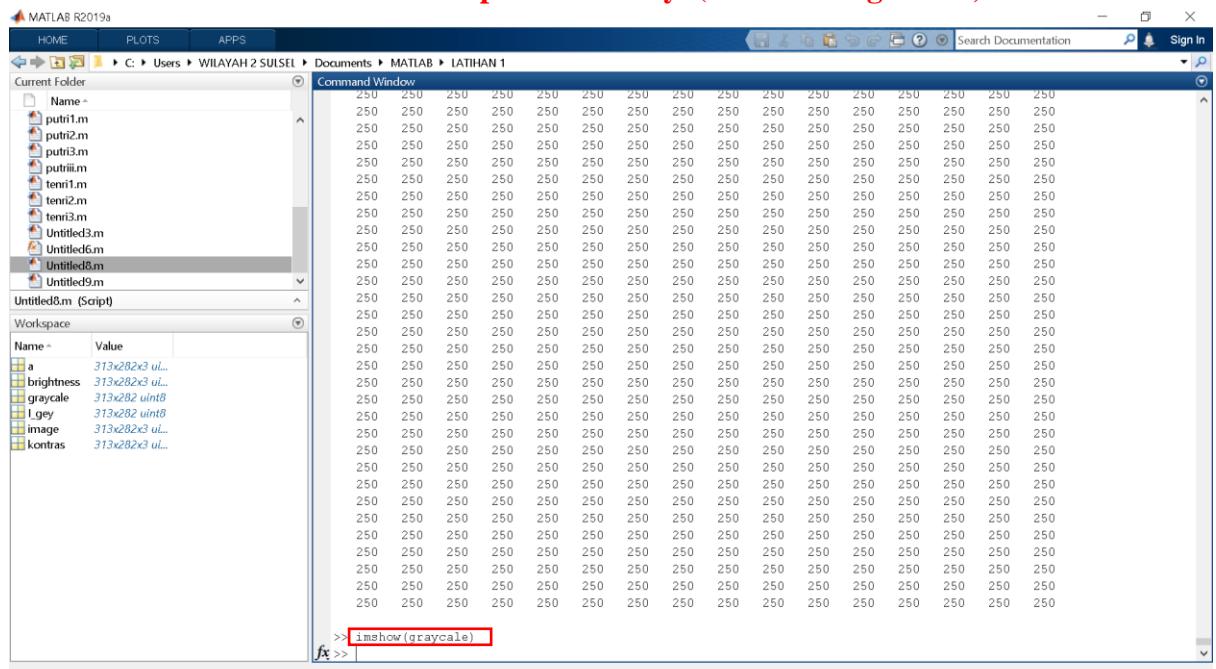
- **Hasilnya**



- masukkan perintah untuk mengubah Ke Citra Keabuan (Perhatikan Gambar)



- Masukkan Perintah untuk Menampilkan Hasilnya(Perhatikan gambar)



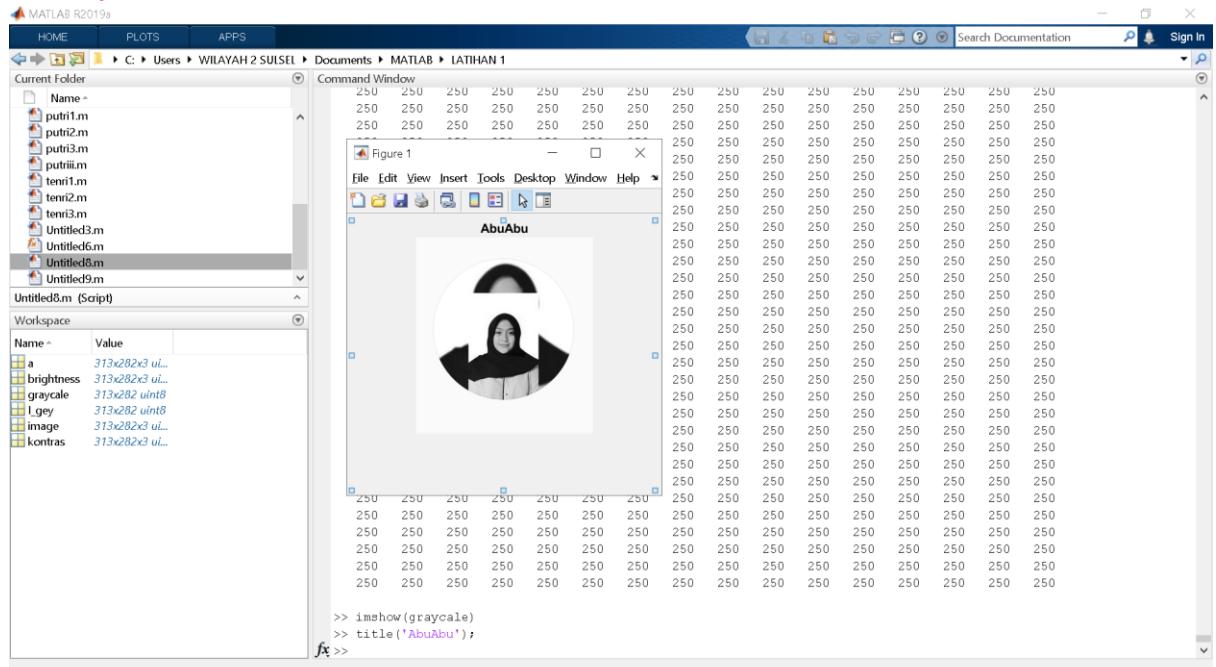
The screenshot shows the MATLAB R2019a interface. The Command Window displays a grayscale image represented by a 25x25 matrix of values ranging from 250 to 255. The command `>> imshow(grayscale)` is visible at the bottom of the window, with the cursor positioned over it.

```

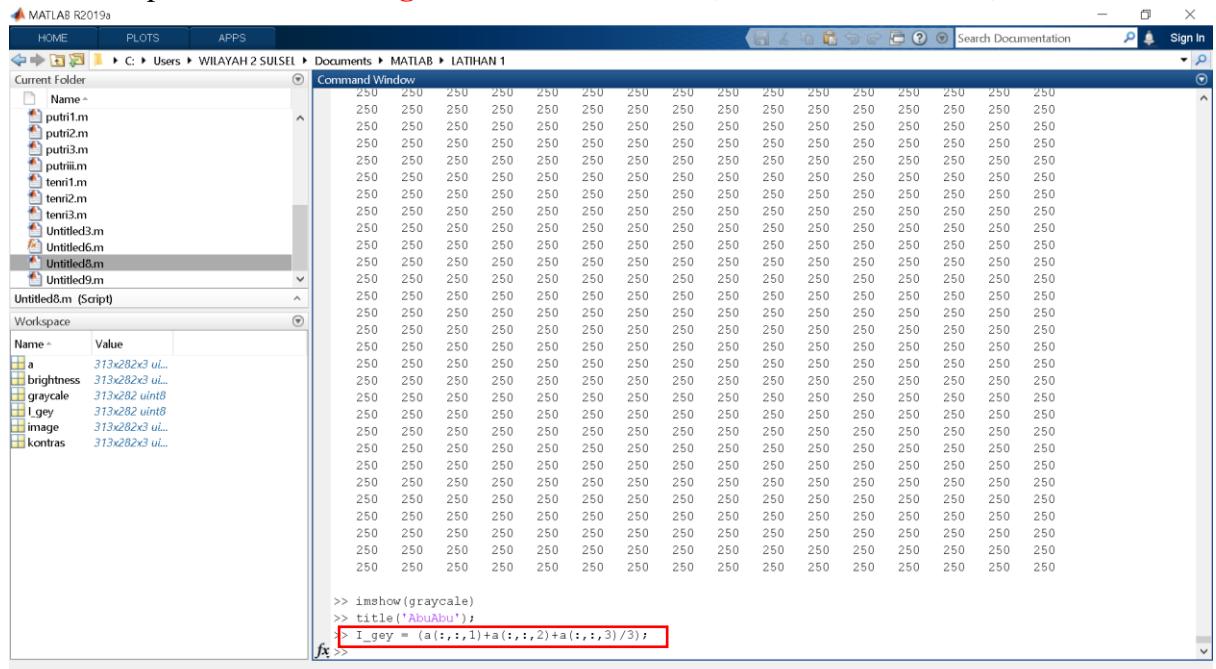
>> imshow(grayscale)

```

- Hasilnya



- masukkan perintah untuk mengubah Ke Citra Biner (Perhatikan Gambar)



The screenshot shows the MATLAB R2019a interface. The Command Window displays the following code:

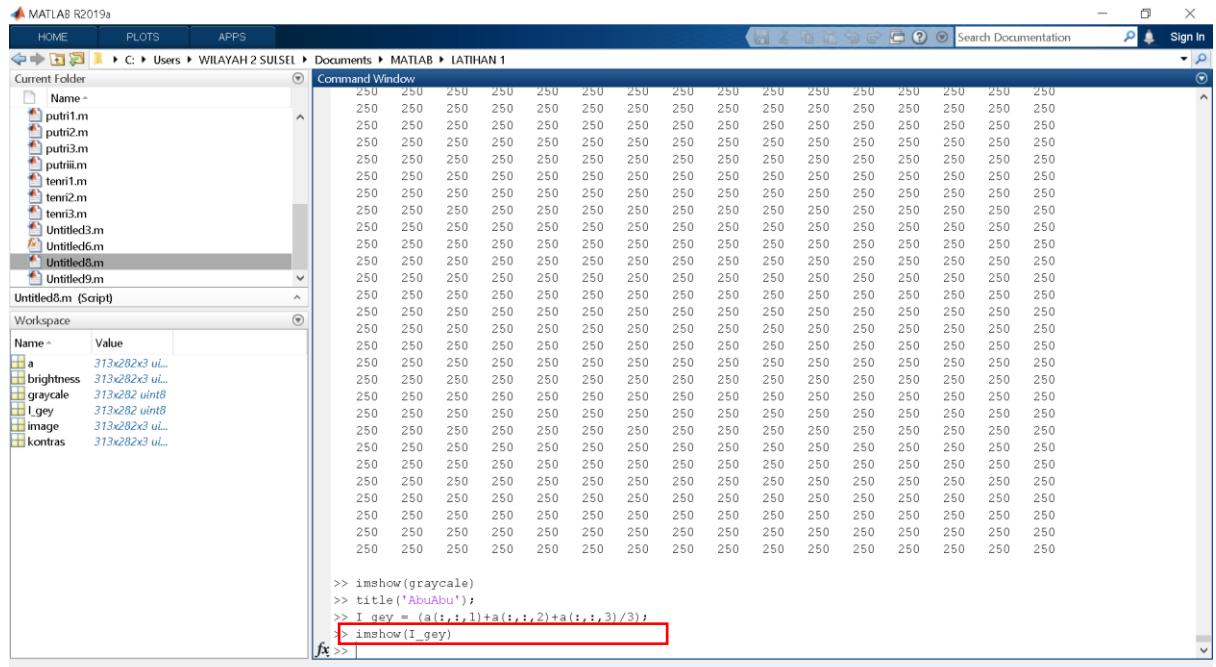
```

>> imshow(grayscale)
>> title('AbuAbu');
>> I_grey = (a(:,:,1)+a(:,:,2)+a(:,:,3))/3;
fx>>

```

The workspace contains variables: a, brightness, grayscale, I_grey, image, and kontras.

- Masukkan Perintah untuk Menampilkan Hasilnya(Perhatikan gambar)



The screenshot shows the MATLAB R2019a interface. The Command Window displays the following code:

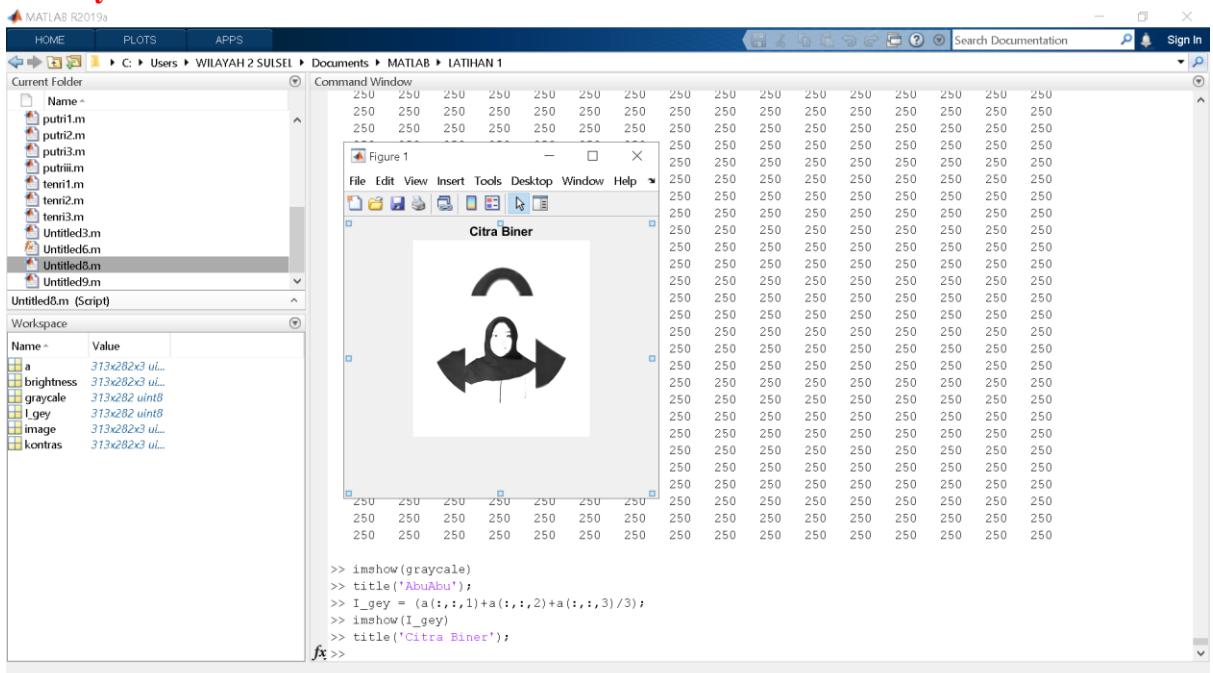
```

>> imshow(grayscale)
>> title('AbuAbu');
>> I_grey = (a(:,:,1)+a(:,:,2)+a(:,:,3))/3;
>> imshow(I_grey)
fx>>

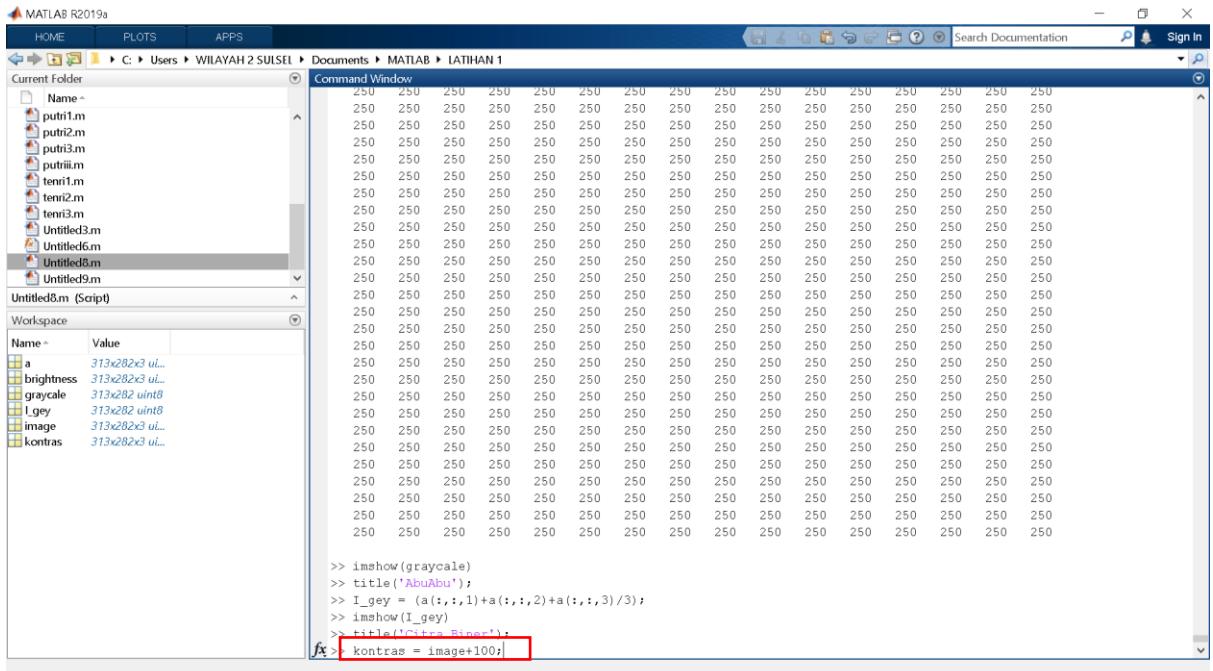
```

The workspace contains variables: a, brightness, grayscale, I_grey, image, and kontras.

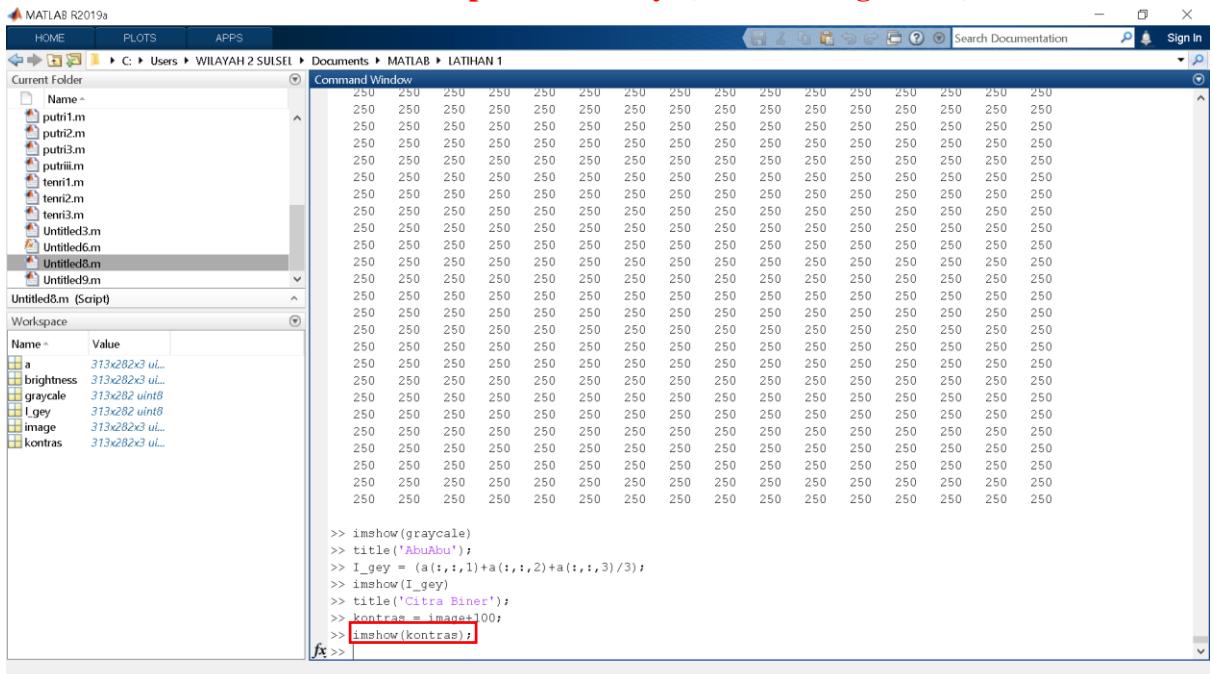
- **Hasilnya**



- masukkan perintah untuk mengubah Ke Citra Kontrass (Perhatikan Gambar)



- Masukkan Perintah untuk Menampilkan Hasilnya(Perhatikan gambar)



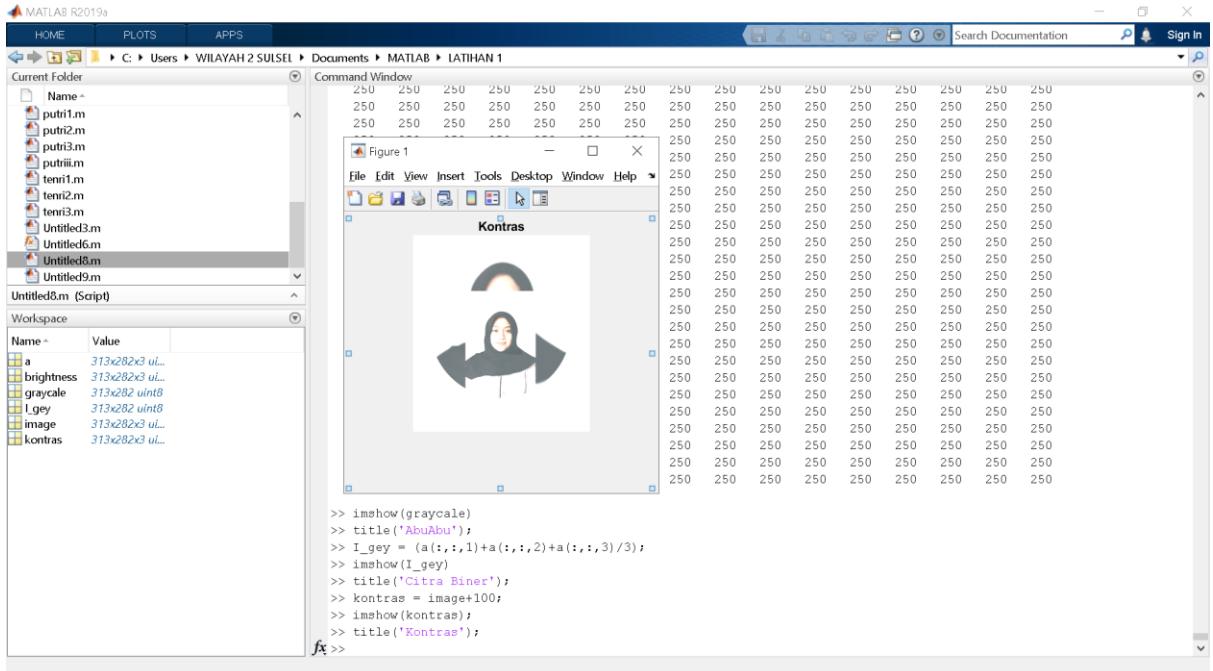
```

MATLAB R2019a
HOME PLOTS APPS
C:\Users\WILAYAH 2 SULSEL\Documents\MATLAB\LATIHAN 1
Search Documentation Sign In
Current Folder Command Window
Name Value
a 313x282x3 uint8
brightness 313x282x3 uint8
graycale 313x282 uint8
I_grey 313x282 uint8
image 313x282x3 uint8
kontras 313x282x3 uint8

>> imshow(graycale)
>> title('AbuAbu');
>> I_grey = (a(:,:,1)+a(:,:,2)+a(:,:,3))/3;
>> imshow(I_grey)
>> title('Citra Biner');
>> kontras = image+100;
>> imshow(kontras);
fx >

```

- Hasilnya



```

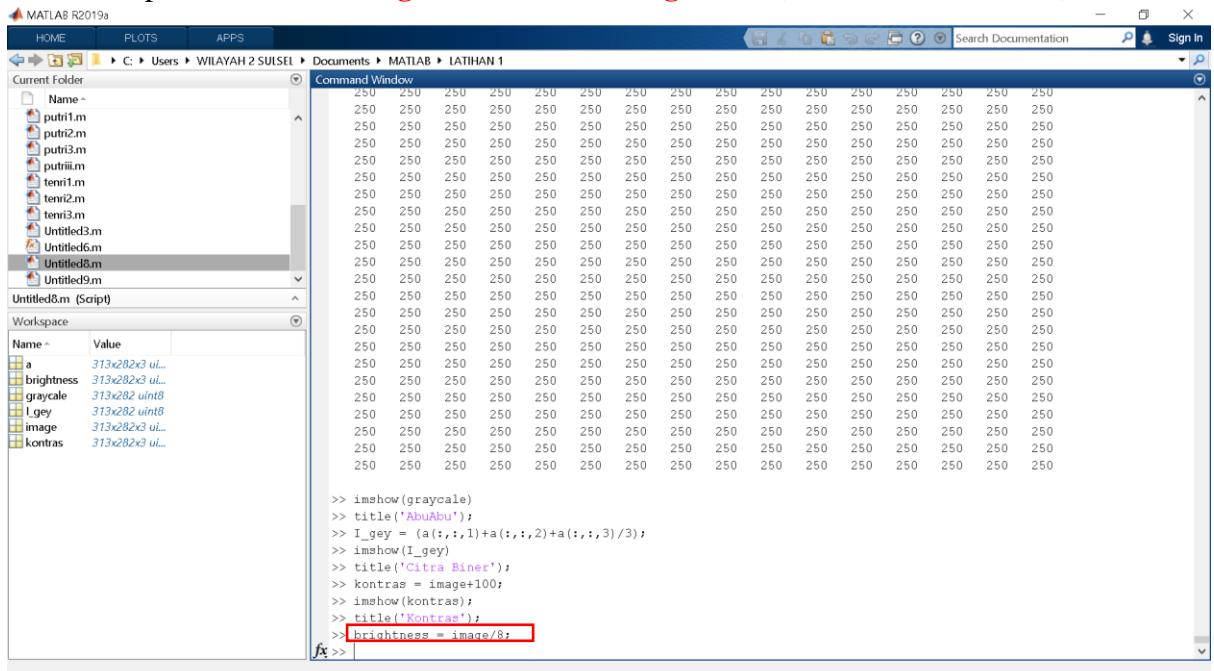
MATLAB R2019a
HOME PLOTS APPS
C:\Users\WILAYAH 2 SULSEL\Documents\MATLAB\LATIHAN 1
Search Documentation Sign In
Current Folder Command Window
Name Value
a 313x282x3 uint8
brightness 313x282x3 uint8
graycale 313x282 uint8
I_grey 313x282 uint8
image 313x282x3 uint8
kontras 313x282x3 uint8

>> imshow(graycale)
>> title('AbuAbu');
>> I_grey = (a(:,:,1)+a(:,:,2)+a(:,:,3))/3;
>> imshow(I_grey)
>> title('Citra Biner');
>> kontras = image+100;
>> imshow(kontras);
>> title('Kontras');
fx >

```

The figure window displays a binary image titled 'Kontras'. The image shows a person wearing a dark hoodie and a headband, with a bright circular area at the top. The background is white.

- masukkan perintah untuk mengubah Ke Citra Brightenes (Perhatikan Gambar)



The screenshot shows the MATLAB R2019a interface with the Command Window active. The code in the window is as follows:

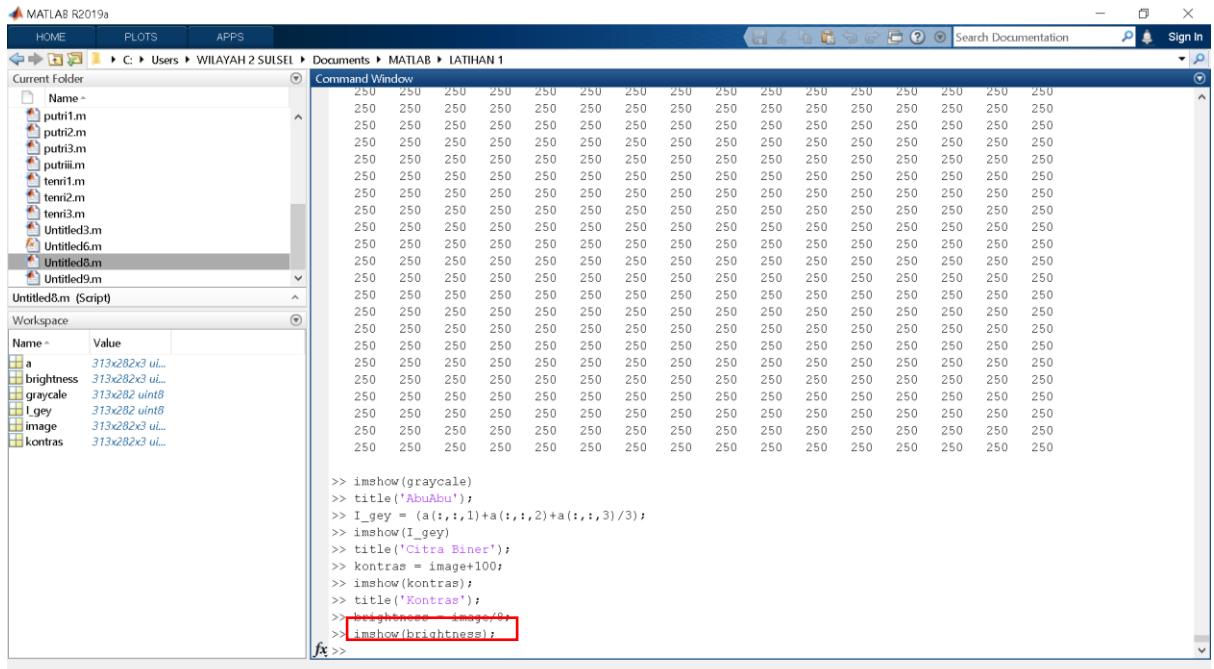
```

>> imshow(grayscale)
>> title('AbuAbu');
>> I_grey = (a(:,:,1)+a(:,:,2)+a(:,:,3))/3;
>> imshow(I_grey)
>> title('Citra Biner');
>> kontras = image+100;
>> imshow(kontras);
>> title('Kontras');
>> brightness = image/5;
>> imshow(brightness);
fx >

```

The line `brightness = image/5;` is highlighted with a red rectangle.

- Masukkan Perintah untuk Menampilkan Hasilnya(Perhatikan gambar)



The screenshot shows the MATLAB R2019a interface with the Command Window active. The code in the window is as follows:

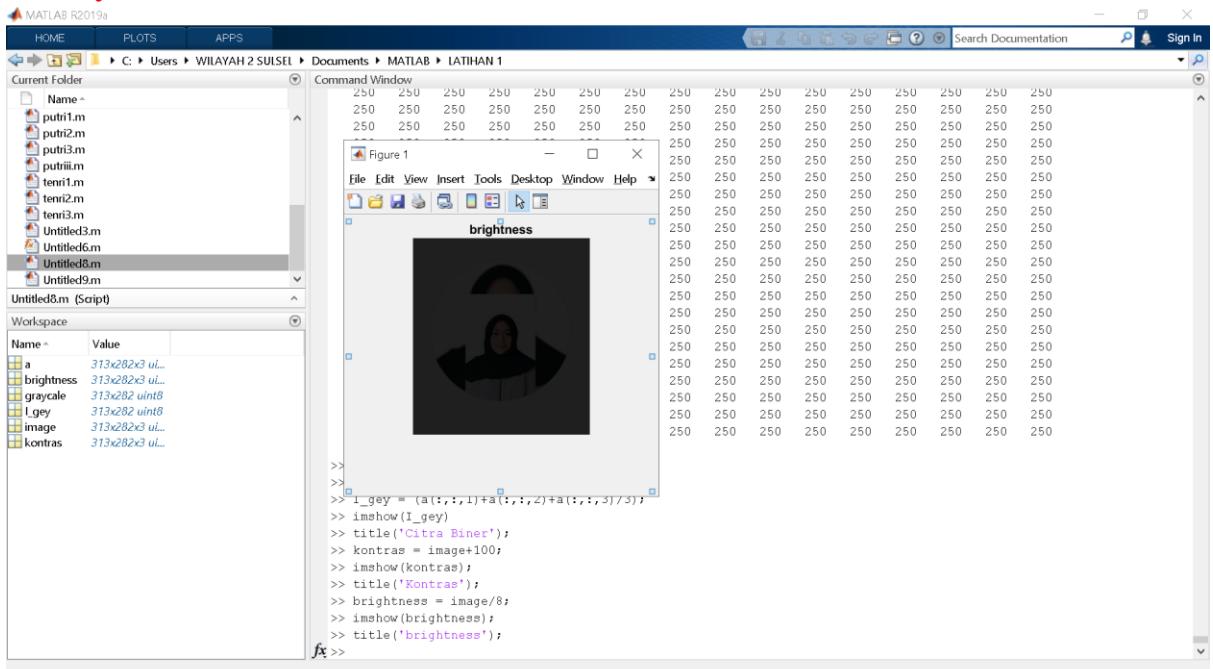
```

>> imshow(grayscale)
>> title('AbuAbu');
>> I_grey = (a(:,:,1)+a(:,:,2)+a(:,:,3))/3;
>> imshow(I_grey)
>> title('Citra Biner');
>> kontras = image+100;
>> imshow(kontras);
>> title('Kontras');
>> brightness = image/5;
>> imshow(brightness);
fx >

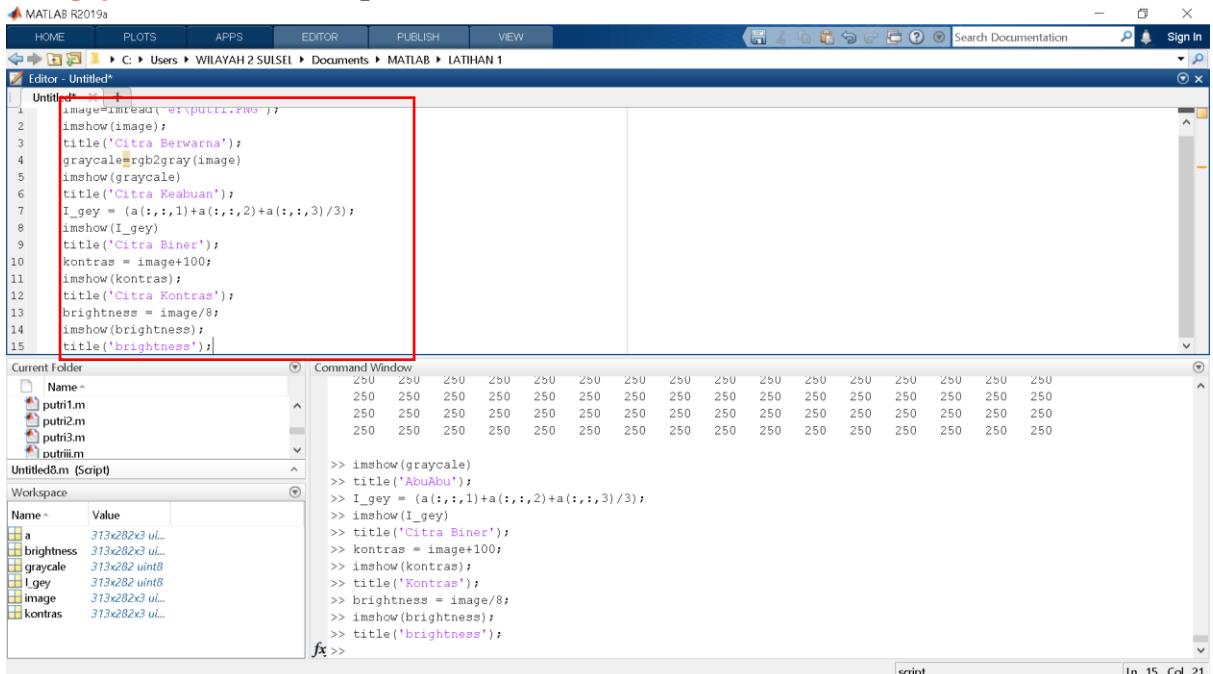
```

The line `imshow(brightness);` is highlighted with a red rectangle.

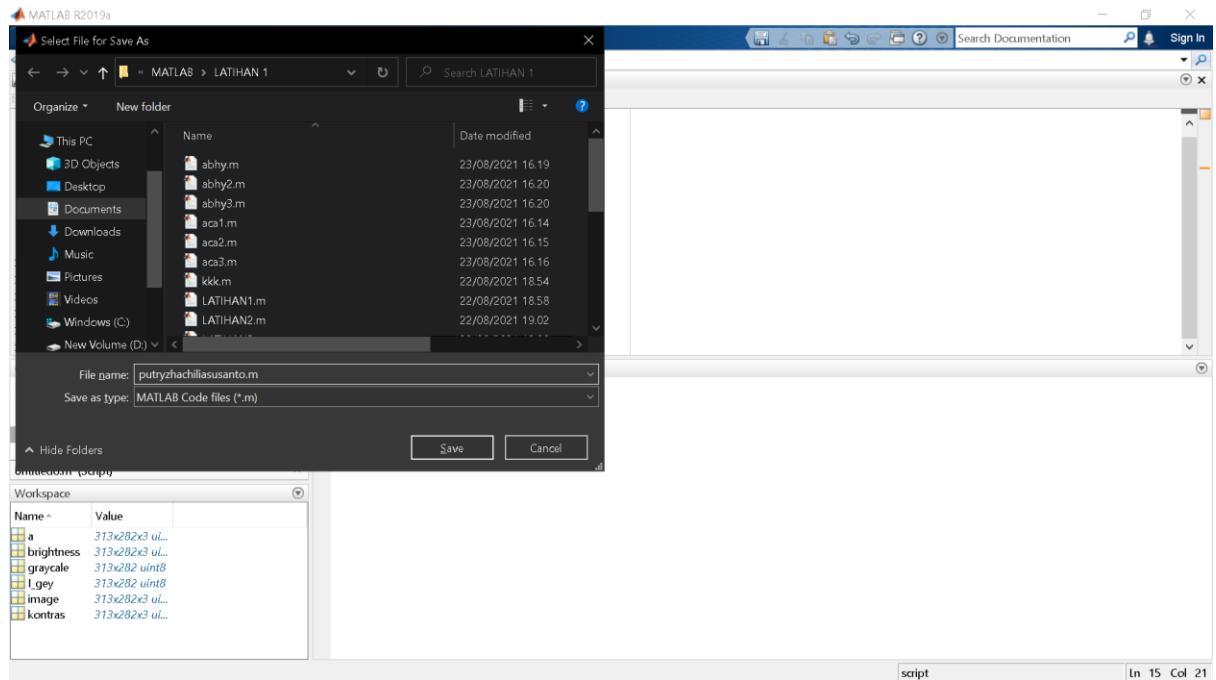
- **Hasilnya**



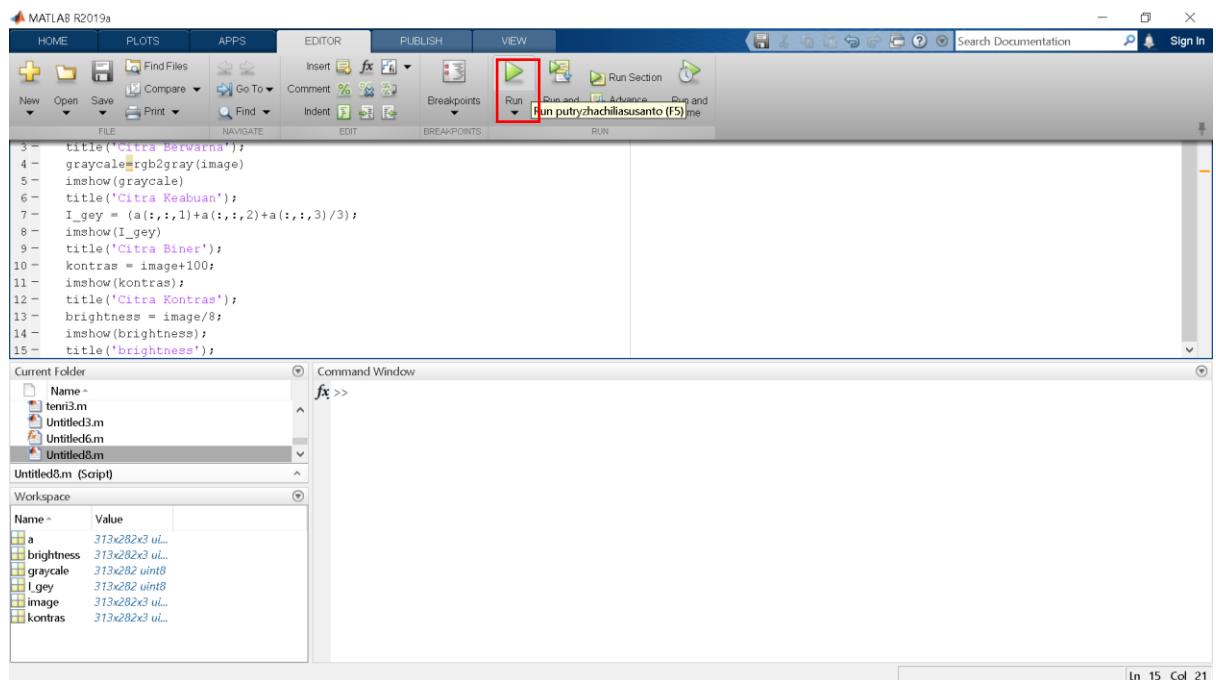
- **Menguji coba di New Script Masukkan Perintah Sesuai Di Gambar**



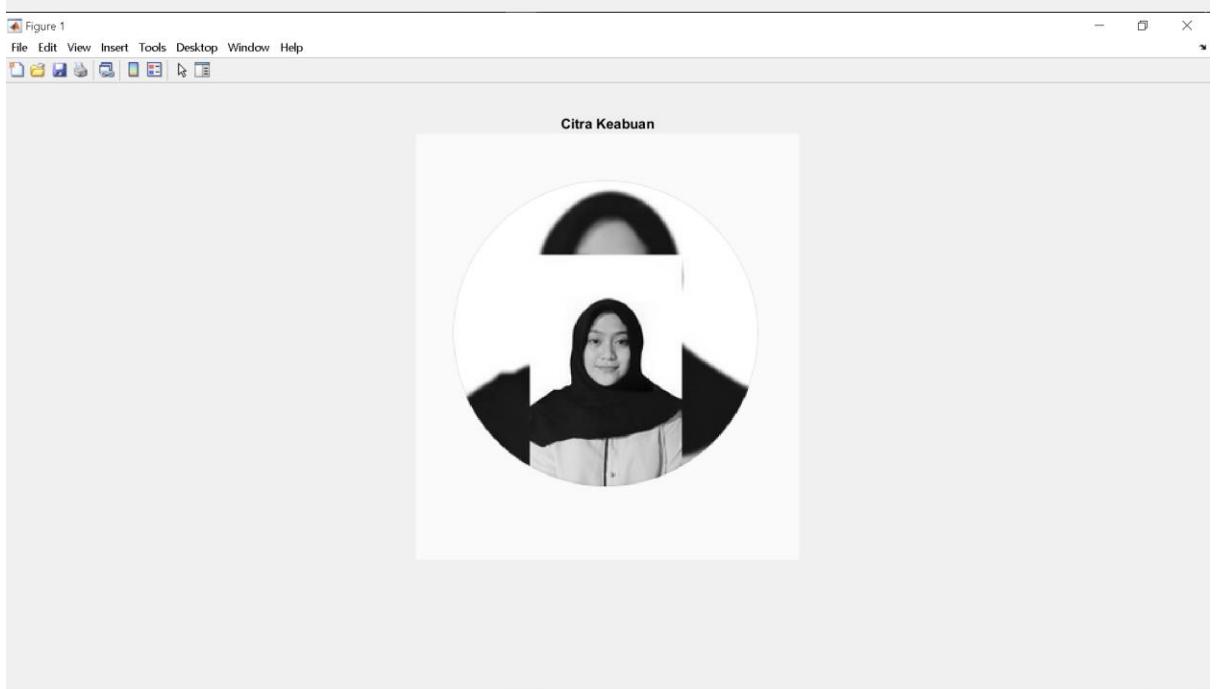
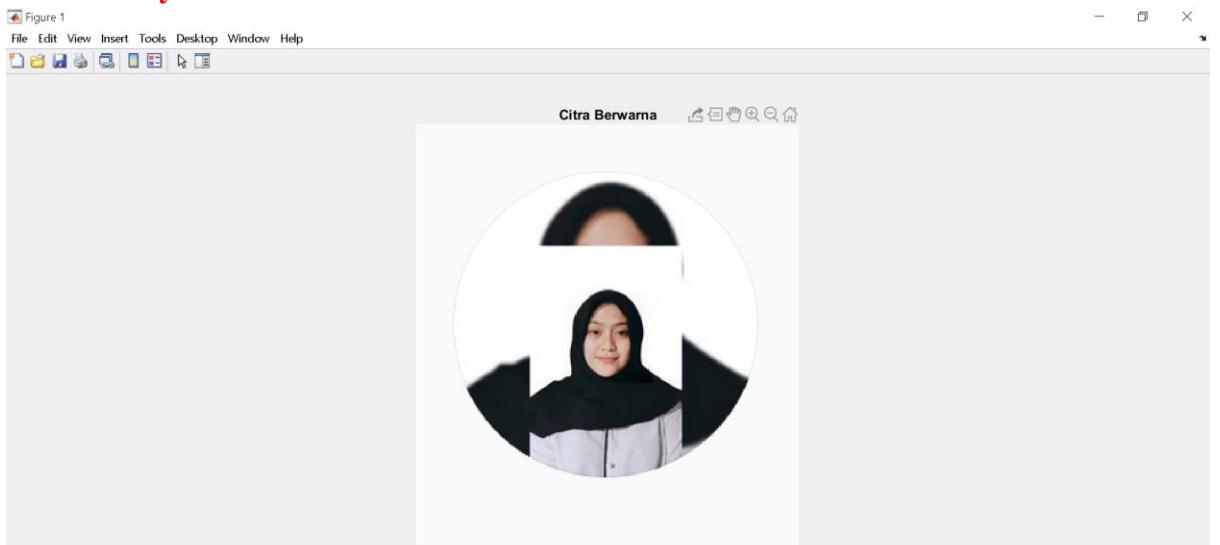
- **Lalu Save File**

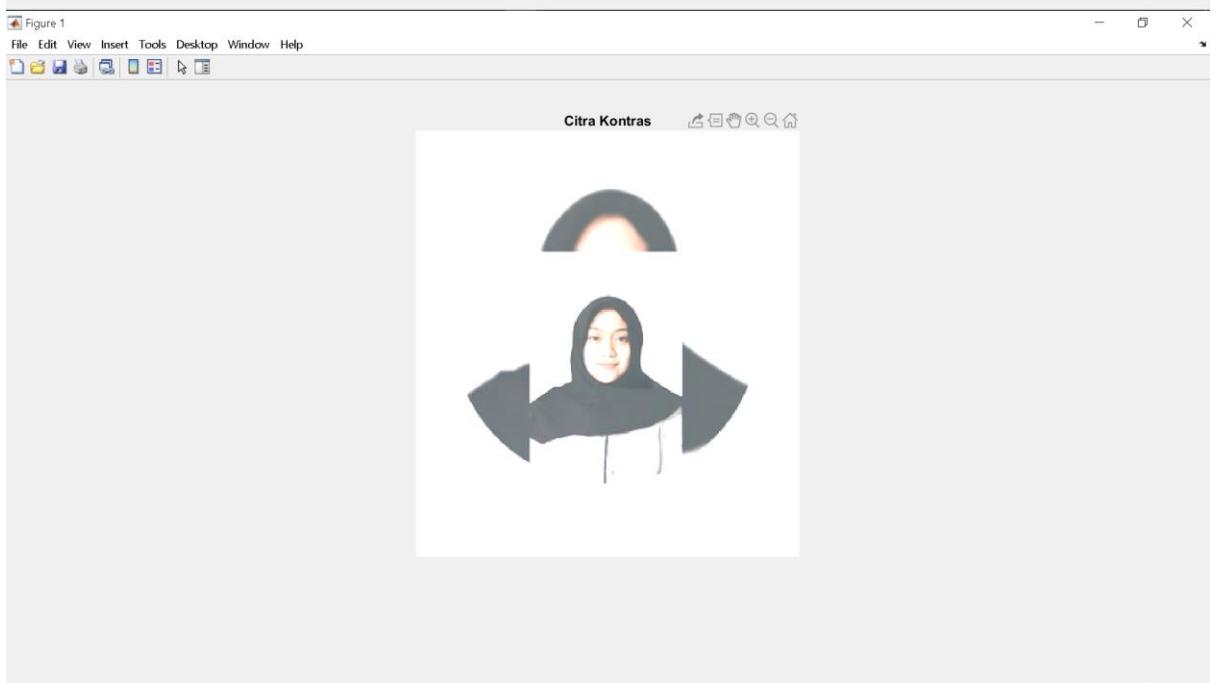
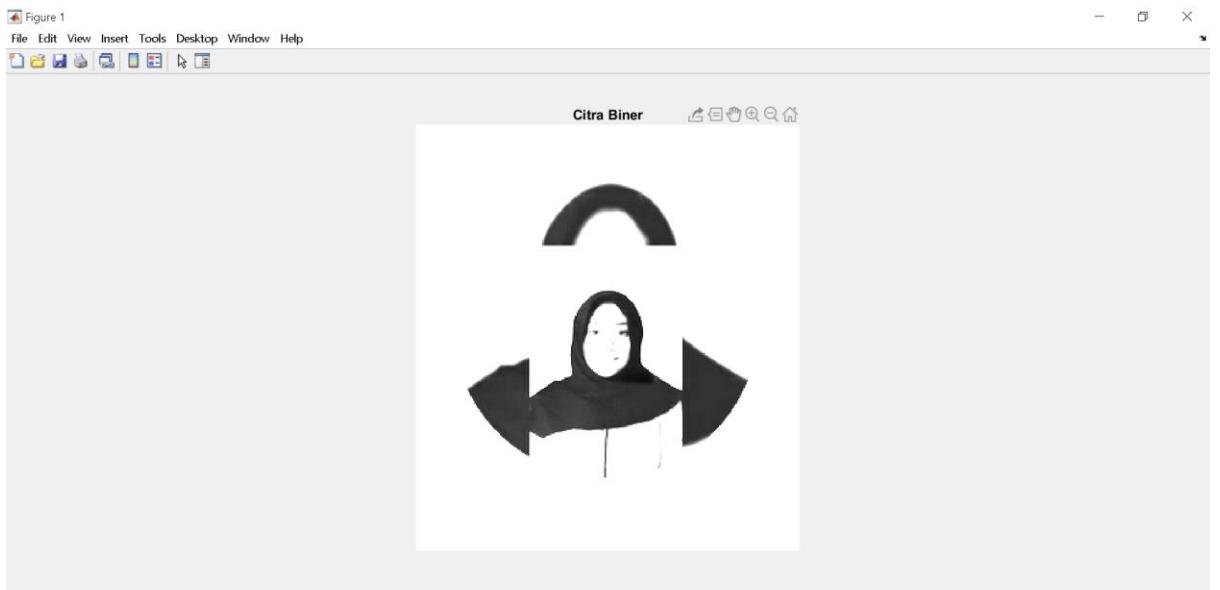


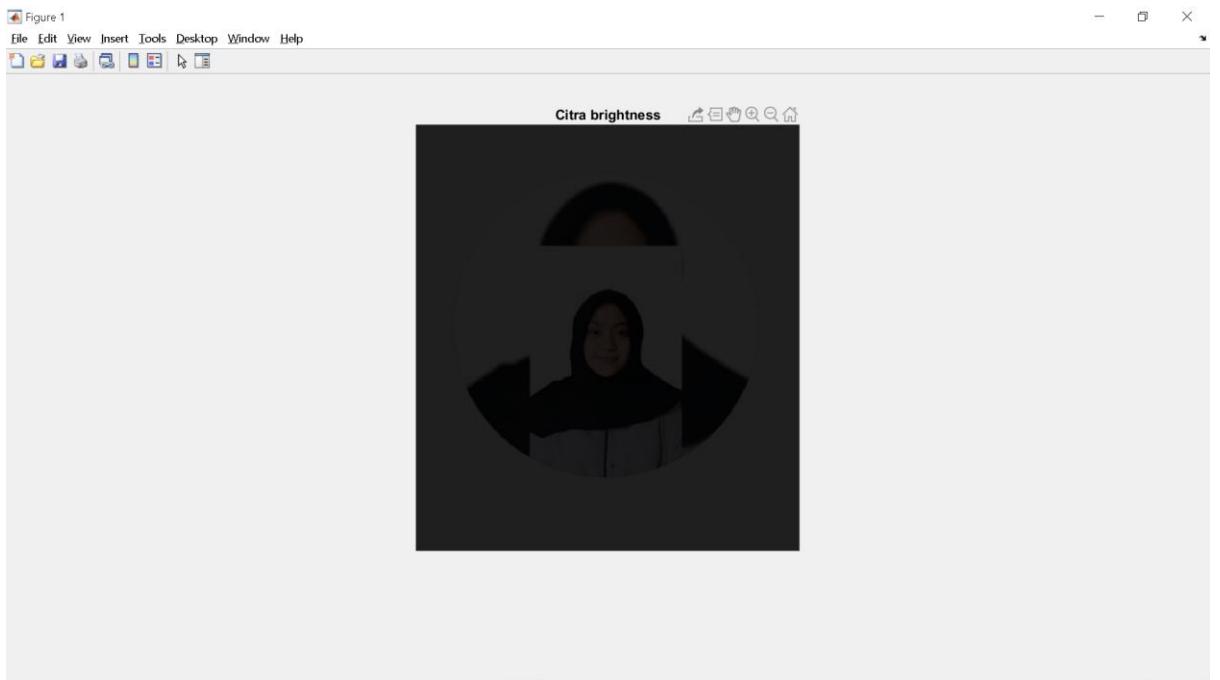
- **Lalu Klik RUN**



- **Dan Hasilnya**





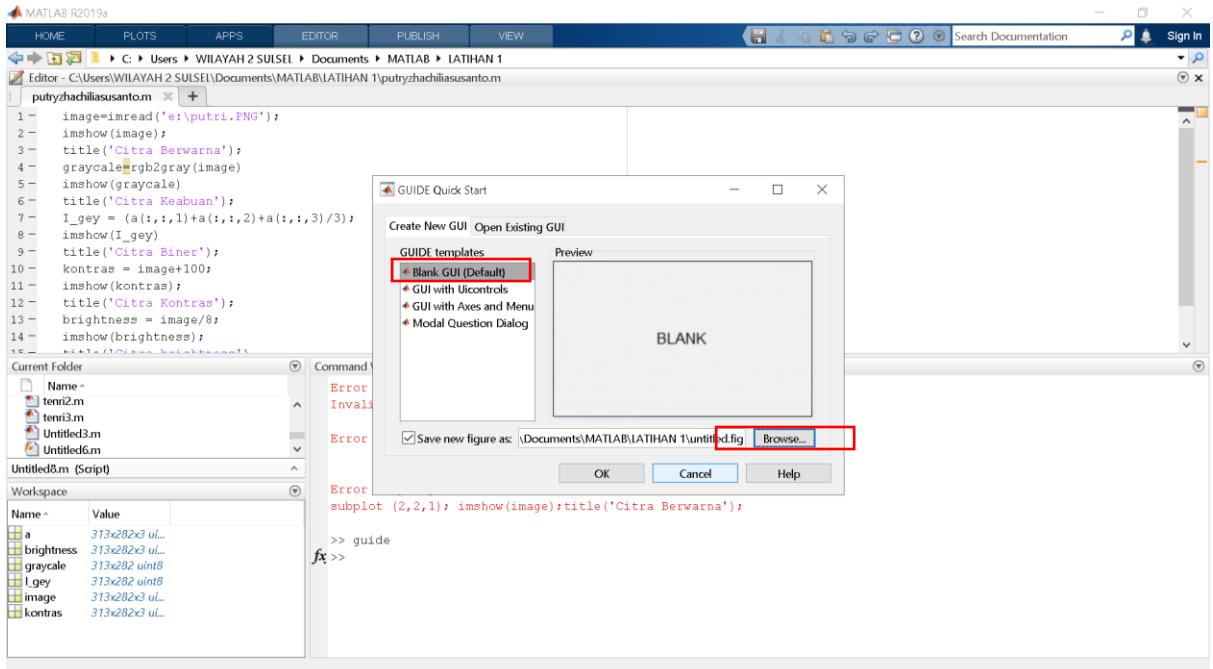


GUI

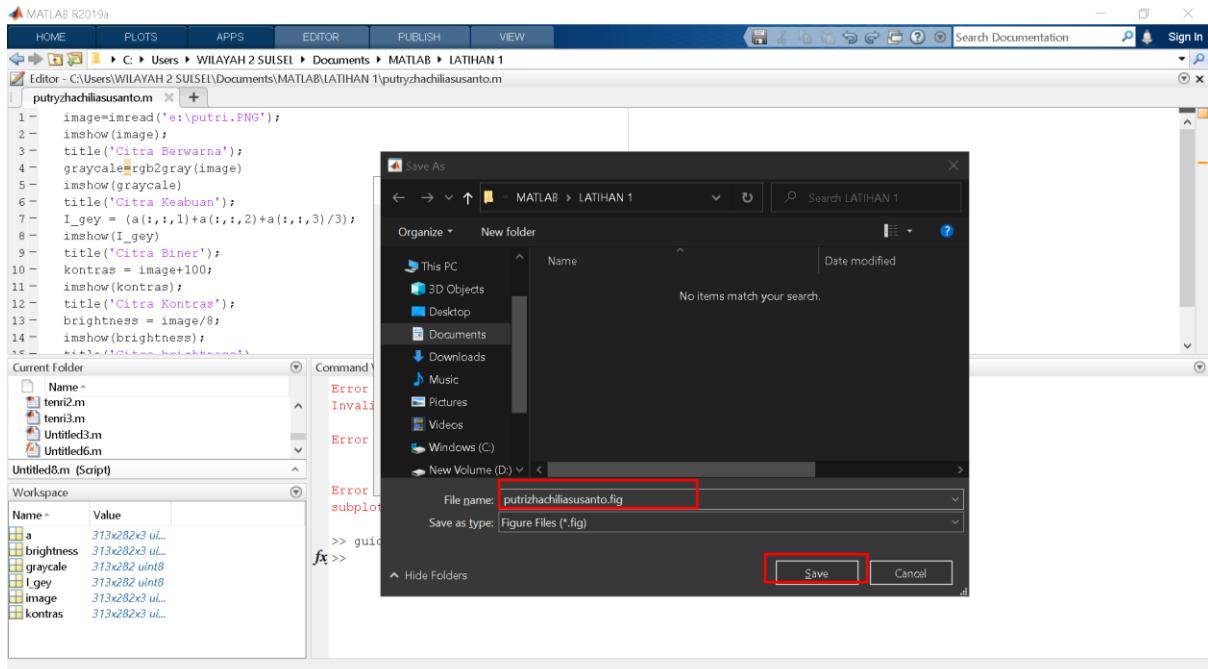
- Masukkan Perintah Untuk Masuk Di tampilan gui (Perhatikan Gambar)



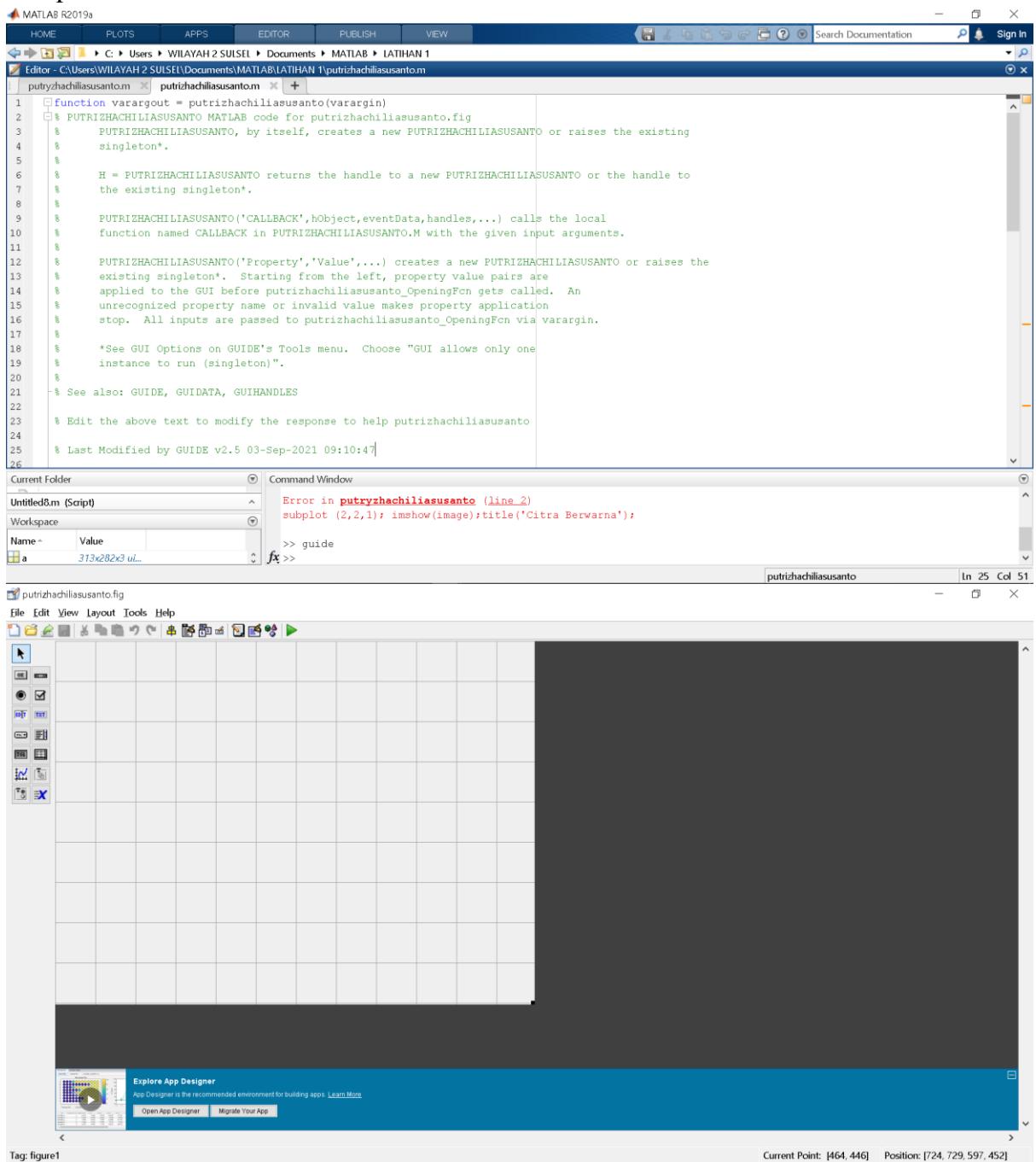
- Klik Blank Gui(Default) Lalu Klik Browser (Perhatikan Gambar)



- Kemudian Save File



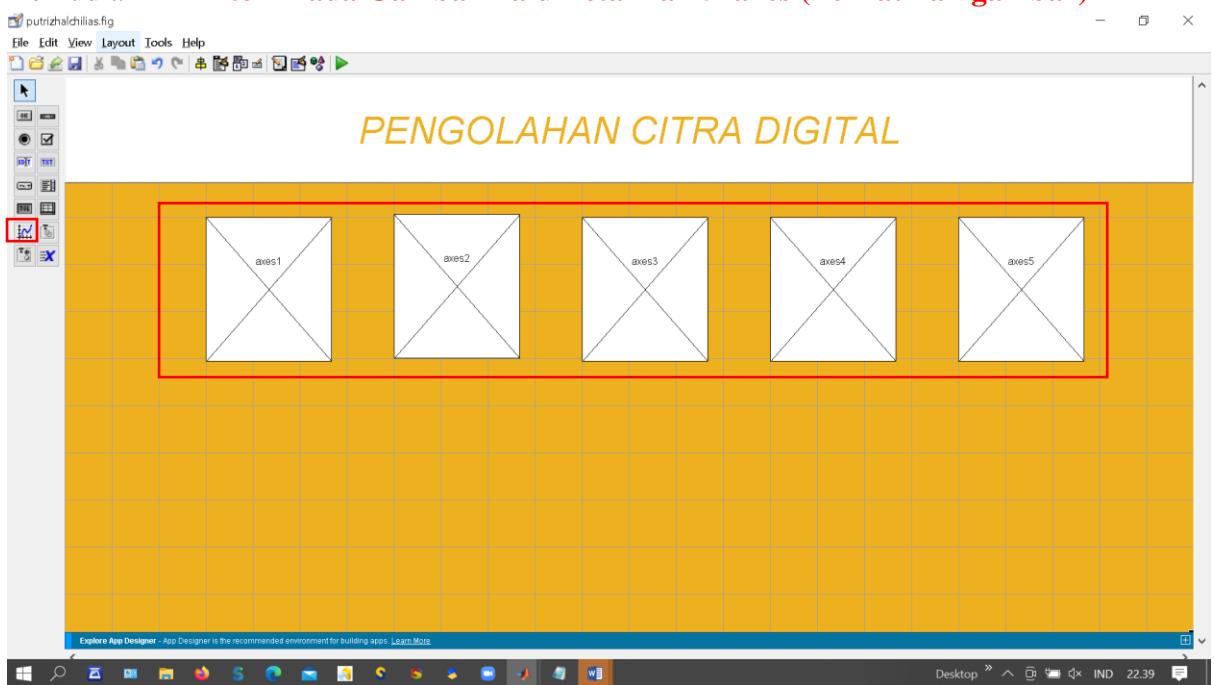
- Tampilan Awal Gui



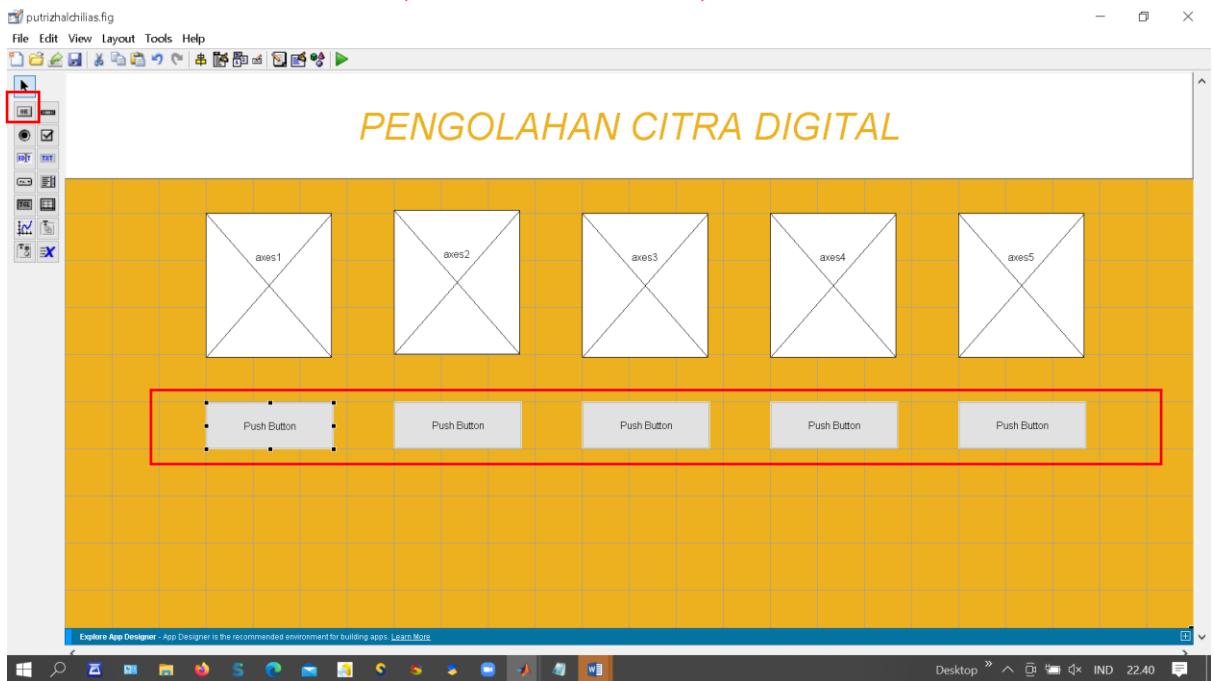
- Kemudian Ubah Warna Latar Dengan Mengklik dua Kali Latar Dan Masukkan String (Pengolahan Citra Digital)



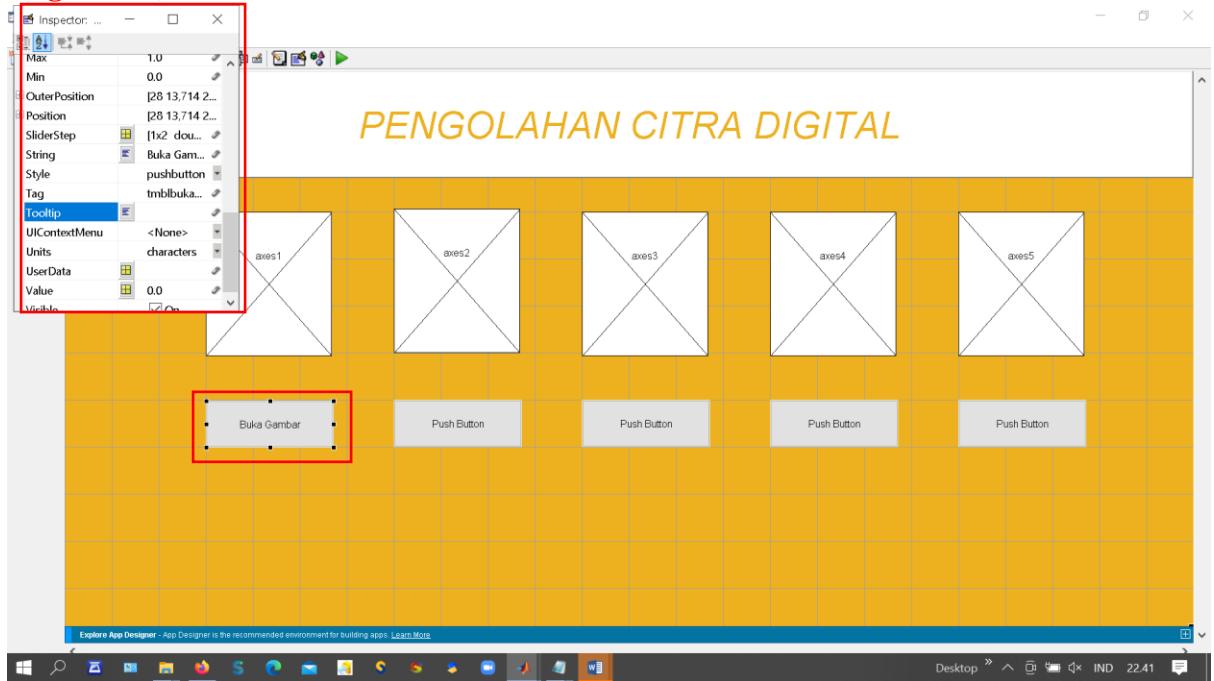
- Kemudian Klik Item Pada Gambar Lalu Letakkan 5 axes (Perhatikan gambar)



- Masukkan Item Push Button (Perhatikan Gambar)



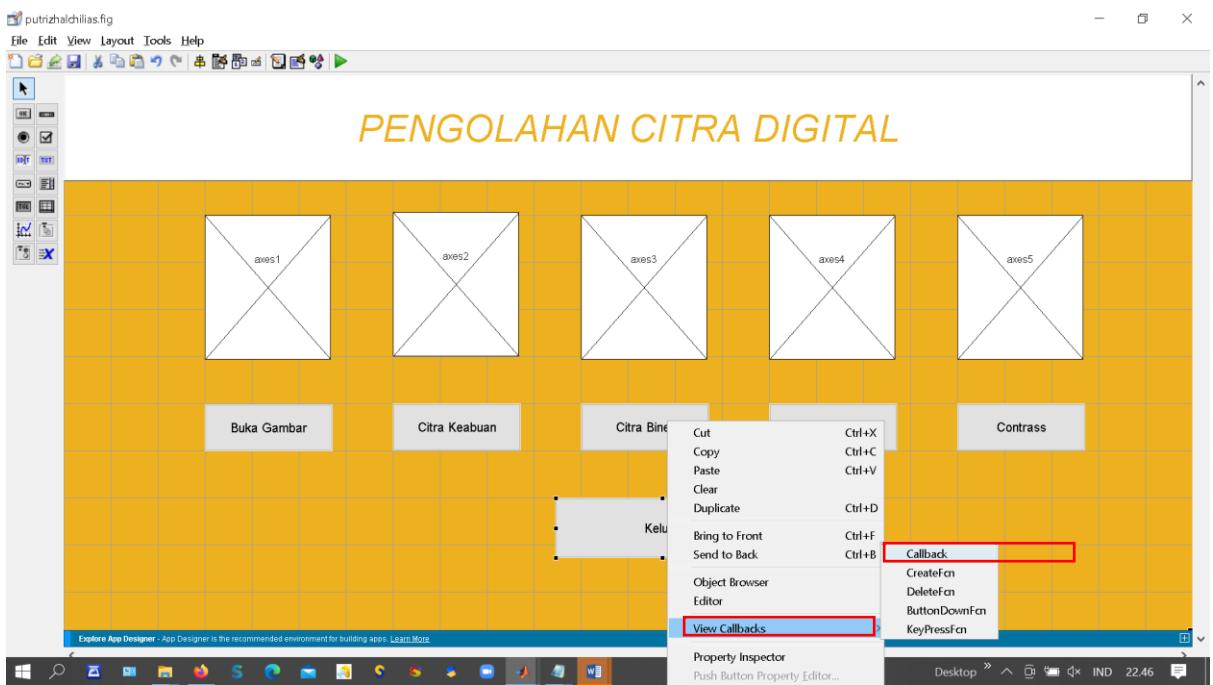
- Kemudian Klik Dua kali pada Push Button 1 dan akan muncul Inspector pada matlab Lakukan hal ini pada Push Button berikutnya (keabuan ,Biner,Kontras & brightenes)



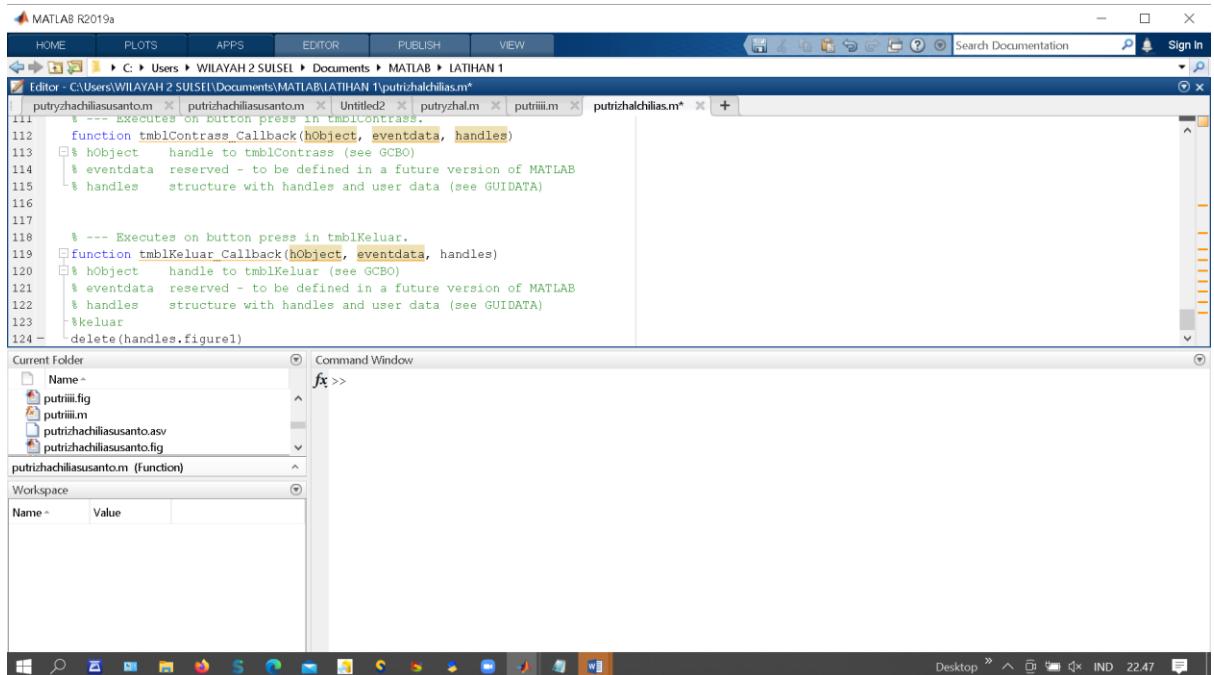
- Kemudian **Masukkan Pada String Dan Tag itu Menjadi Keabuan dst.**



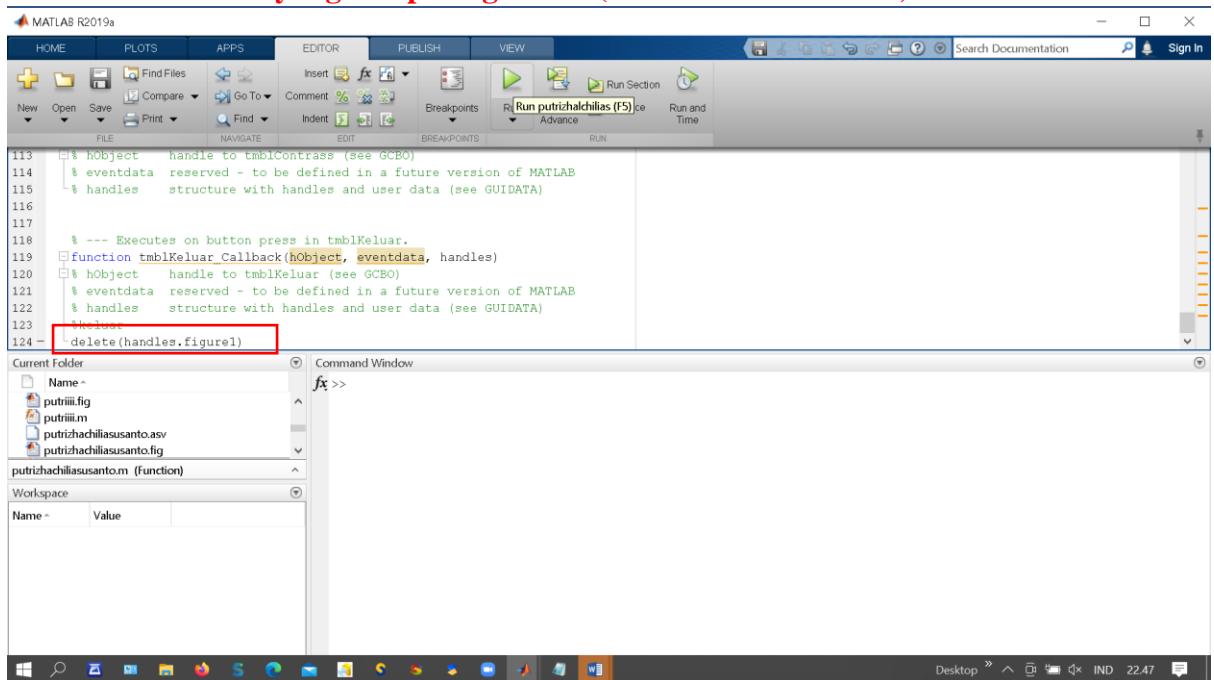
- Kemudian **klik kanan Pada Tombol Keluar lalu klik View Callback lalu callback**



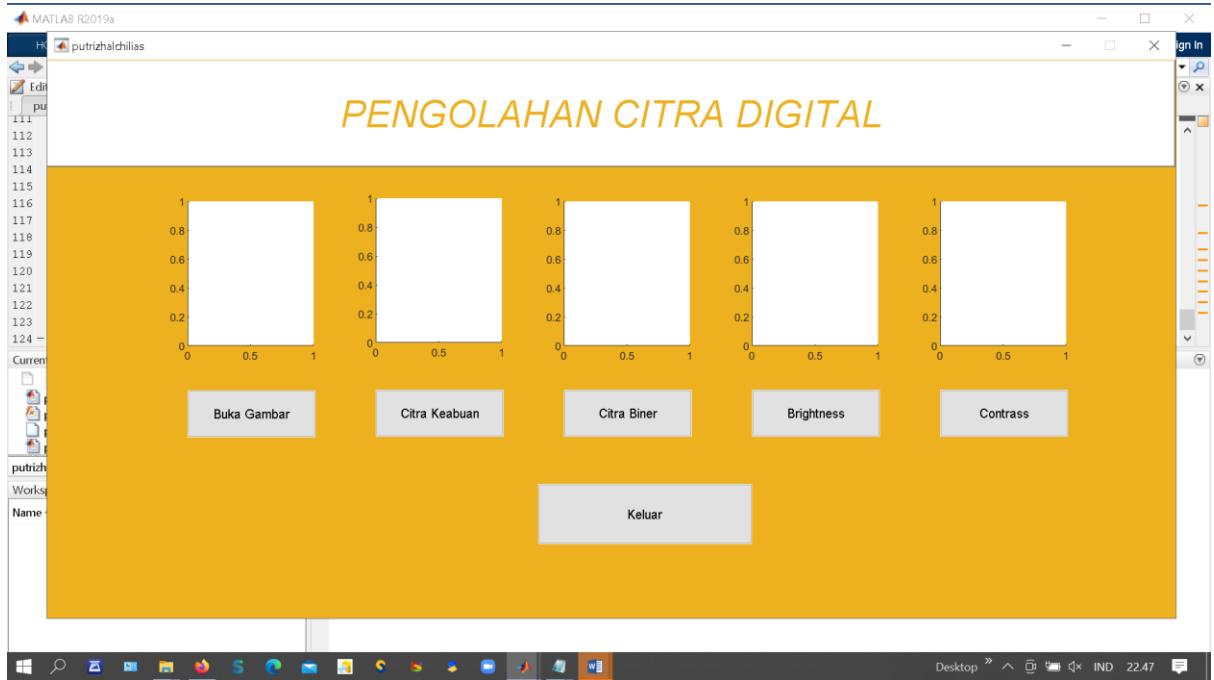
- Dan terarah ke sini ke gui script



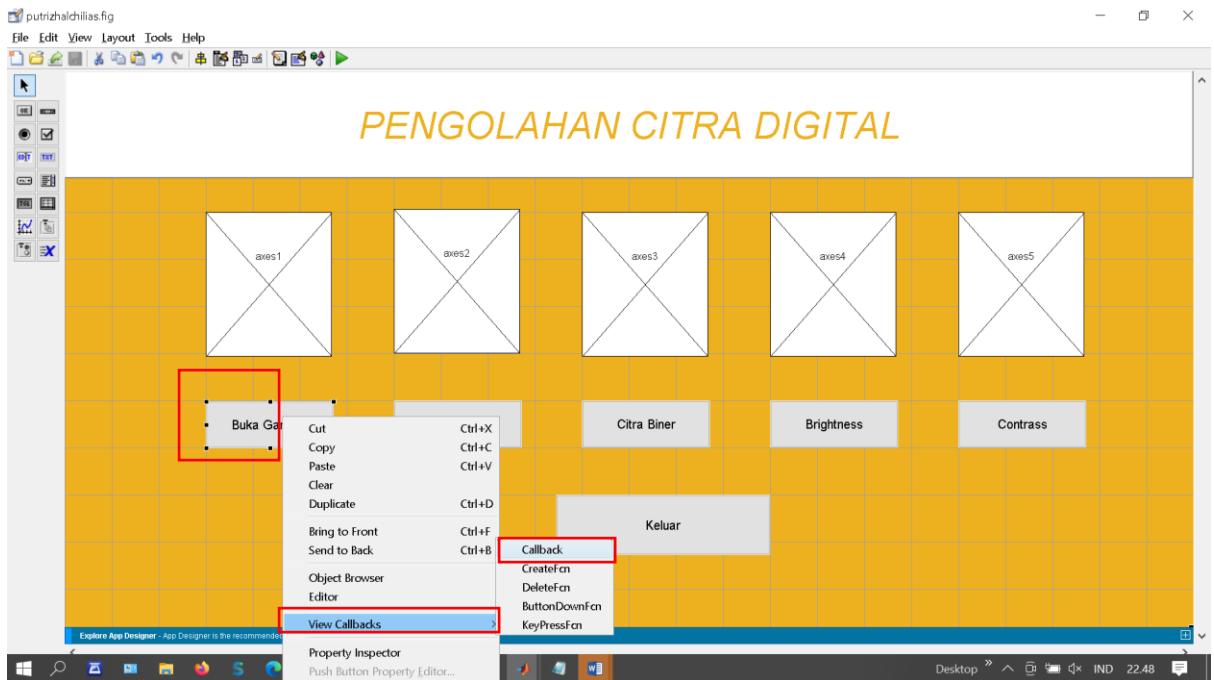
- Masukkan Perintah yang ada pada gambar (Perhatikan Gambar)



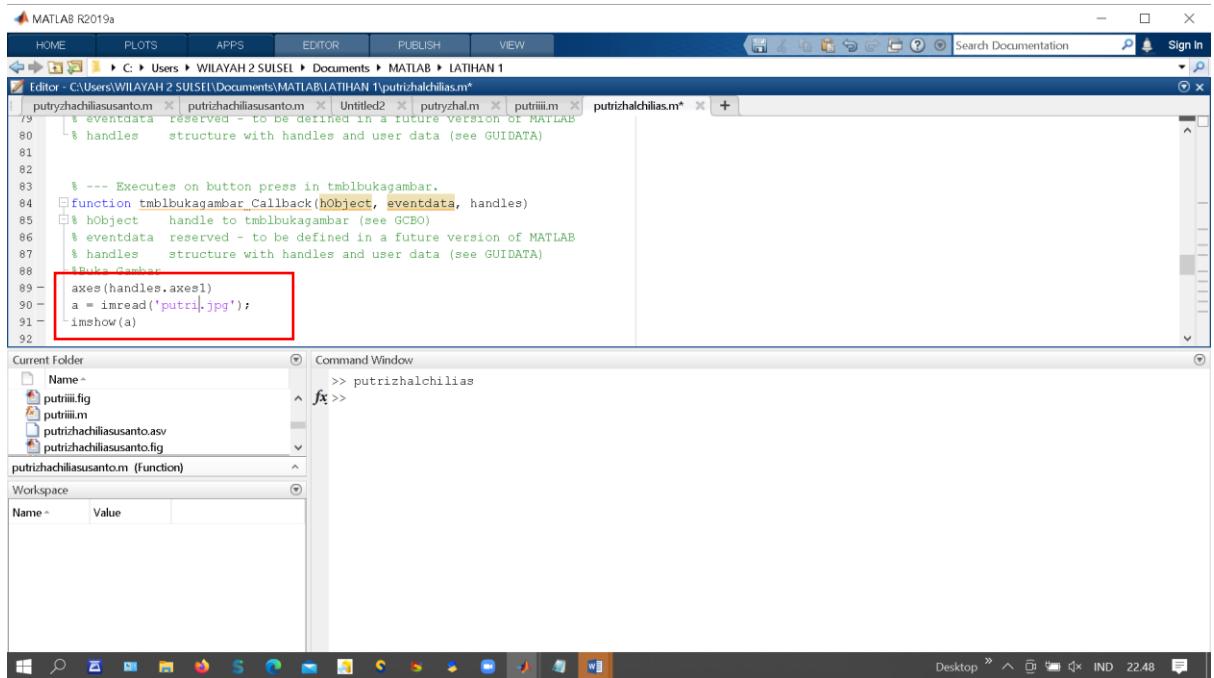
- Klik **Run** lalu akan muncul Seperti pada gambar



- Kemudian **klik kanan Pada Tombol Buka Gambar** lalu **klik View Callback** lalu **callback**



- Masukkan Perintah yang ada pada gambar (Perhatikan Gambar)



```

MATLAB R2019a
HOME PLOTS APPS EDITOR PUBLISH VIEW
C:\Users\WILAYAH 2 SULSEL\Documents\MATLAB\LATIHAN 1\putrizhalchilias.m*
Editor - C:\Users\WILAYAH 2 SULSEL\Documents\MATLAB\LATIHAN 1\putrizhalchilias.m*
putrizhalchiliasusanto.m putrizhalchiliasumant... Untitled2 putrychalm putriium putrizhalchilias.m* +
79 % eventdata reserved - to be defined in a future version of MATLAB
80 % handles structure with handles and user data (see GUIDATA)
81
82
83 % --- Executes on button press in tmblbukagambar.
84 function tmblbukagambar_Callback(hObject, eventdata, handles)
85 % hObject handle to tmblbukagambar (see GCBO)
86 % eventdata reserved - to be defined in a future version of MATLAB
87 % handles structure with handles and user data (see GUIDATA)
88 %Buka_Gambar
89 axes(handles.axes1)
90 a = imread('putri.jpg');
91 imshow(a)
92

```

Current Folder

- Name ~
 - putriii.fig
 - putriii.m
 - putrizhalchiliasusanto.asv
 - putrizhalchiliasusanto.fig

putrizhalchiliasusanto.m (Function)

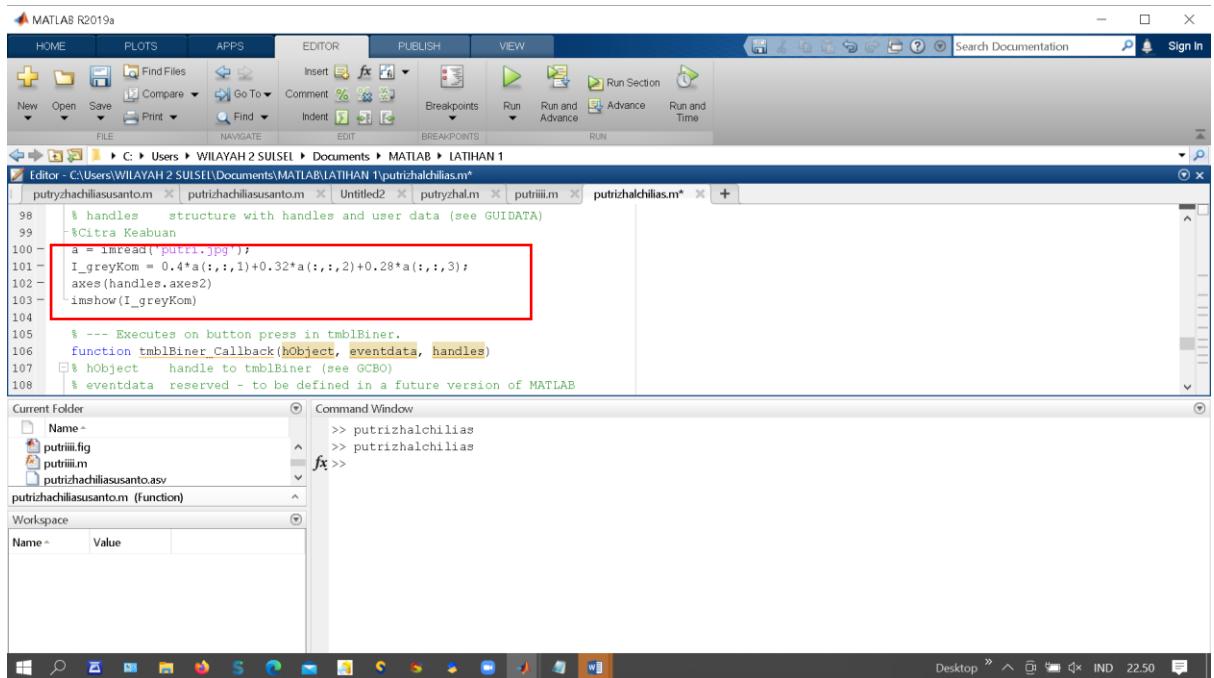
Workspace

Name	Value
------	-------

- Klik Run lalu akan muncul Seperti pada gambar



- Masukkan Perintah Citra keabuan yang ada pada gambar (Perhatikan Gambar)



```

% MATLAB R2019a
% Editor - C:\Users\WILAYAH 2 SULSEL\Documents\MATLAB\LATIHAN 1\putrizhalchilias.m*
% putrizhalchilias.m <--> putrizhalchilias.sas
% putrizhalchilias.m (function)
% putrizhalchilias.sas (function)

% handles structure with handles and user data (see GUIDATA)
% Citra Keabuan
a = imread('putri.jpg');
I_greyKom = 0.4*a(:,:,1)+0.32*a(:,:,2)+0.28*a(:,:,3);
axes(handles.axes2)
imshow(I_greyKom)

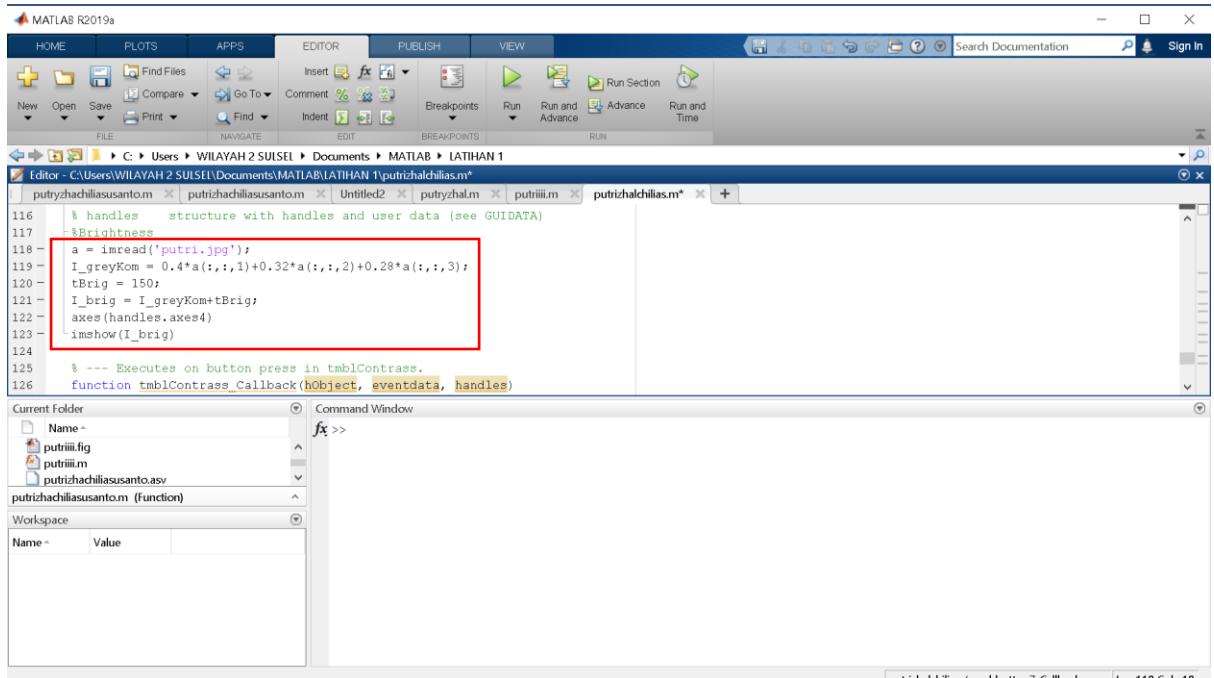
% --- Executes on button press in tmblBiner.
function tmblBiner_Callback(hObject, eventdata, handles)
% hObject handle to tmblBiner (see GCBO)
% eventdata reserved - to be defined in a future version of MATLAB
% handles reserved - to be defined in a future version of MATLAB

```

- Klik Run lalu akan muncul Seperti pada gambar



- Masukkan Perintah Citra Brightenes yang ada pada gambar (Perhatikan Gambar)



The screenshot shows the MATLAB R2019a interface. The code editor window displays a script named `putrizhachillasunto.m`. A red box highlights the following code segment:

```

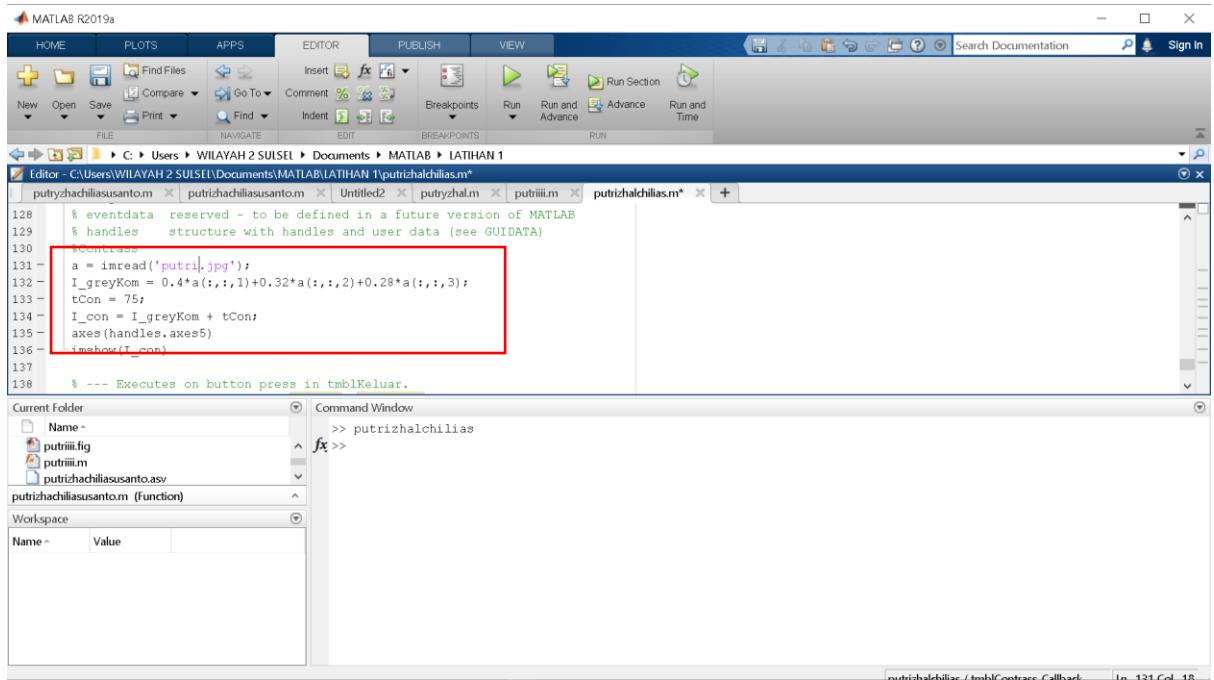
116 % handles structure with handles and user data (see GUIDATA)
117 %Brightness
118 a = imread('putri.jpg');
119 I_greyKom = 0.4*a(:,:,1)+0.32*a(:,:,2)+0.28*a(:,:,3);
120 tBrig = 150;
121 I brig = I_greyKom+tBrig;
122 axes(handles.axes4)
123 imshow(I brig)
124
125 % --- Executes on button press in tmblContrass.
126 function tmblContrass_Callback(hObject, eventdata, handles)

```

- Hasilnya



- Masukkan Perintah Citra Contrass yang ada pada gambar (Perhatikan Gambar)



The screenshot shows the MATLAB R2019a interface with the code editor open. The file being edited is `putrizhachilias.m`. A red box highlights the line of code where the contrast operation is performed:

```

128 % eventdata reserved - to be defined in a future version of MATLAB
129 % handles structure with handles and user data (see GUIDATA)
130 %
131 %<contras>
132 a = imread('putrii.jpg');
133 I_greyKom = 0.4*a(:,:,1)+0.32*a(:,:,2)+0.28*a(:,:,3);
134 tCon = 75;
135 I_con = I_greyKom + tCon;
136 axes(handles.axes5)
137 imshow(I_con)
138 % --- Executes on button press in tmblKeluar.

```

- Hasilnya



- Masukkan Perintah Citra Biner yang ada pada gambar (Perhatikan Gambar)

The screenshot shows the MATLAB R2019a interface. The code editor window displays a script named `putrizhachilias.m` with the following content:

```

110 %Biner
111 a = imread('putri.jpg');
112 I_bw = im2bw(a,0.5);
113 axes(handles.axes3)
114 imshow(I_bw)
115
116 % --- Executes on button press in pushbutton7.
117 function pushbutton7_Callback(hObject, eventdata, handles)
118 % hObject    handle to pushbutton7 (see GCBO)
119 % eventdata reserved - to be defined in a future version of MATLAB
120 % handles    structure with handles and user data (see GUIDATA)
121 %Brightness
122 a = imread('putri.jpg');
123 I_greyKom = 0.4*a(:,:,1)+0.32*a(:,:,2)+0.28*a(:,:,3);
124 tBrig = 150;
125 I brig = I_greyKom+tBrig;
126 axes(handles.axes4)
127 imshow(I brig)
128

```

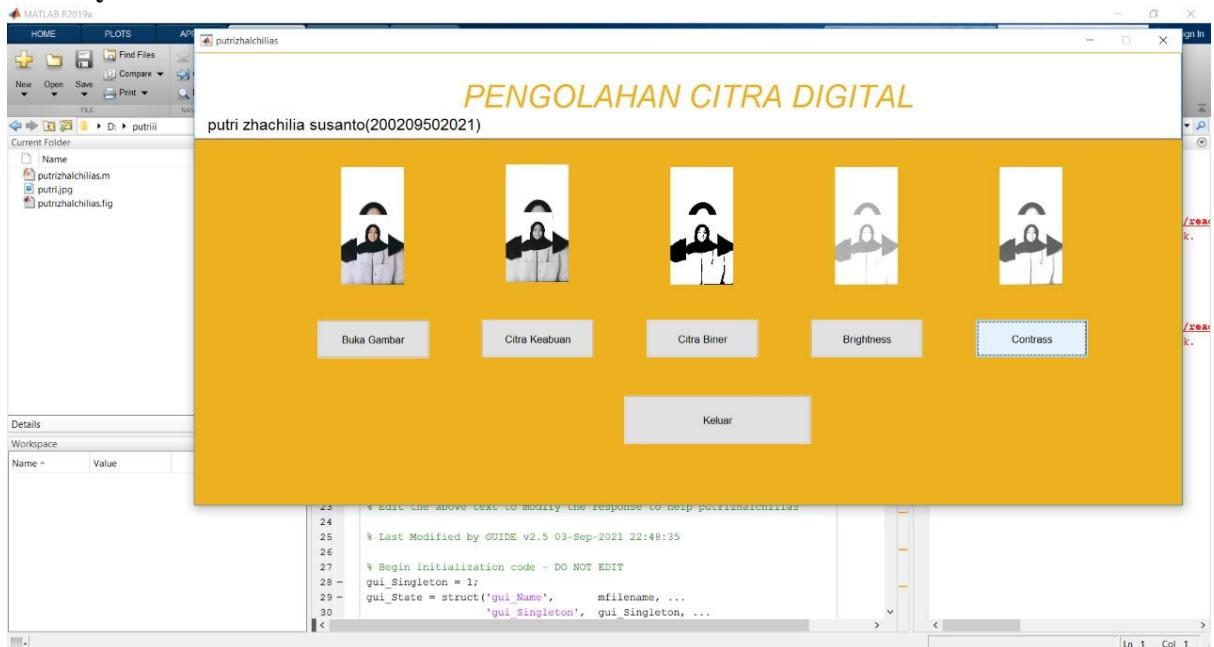
The command window below shows the execution of the script:

```

>> putrizhachilias
>> putrizhachilias
>> putrizhachilias
fx>

```

- Hasilnya



SYNTAX GUI PENGOLAHAN CITRA DIGITAL

```
%keluar
delete(handles.figure1)

%Buka Gambar
axes(handles.axes1)
a = imread('putri.jpg');
imshow(a)

%Citra Keabuan
a = imread('putri.jpg');
I_greyKom = 0.4*a(:,:,1)+0.32*a(:,:,2)+0.28*a(:,:,3);
axes(handles.axes2)
imshow(I_greyKom)

%Biner
global a
I_bw = im2bw(a,0.5);
axes(handles.axes3)
imshow(I_bw)

%Brightness
a = imread('putri.jpg');
I_greyKom = 0.4*a(:,:,1)+0.32*a(:,:,2)+0.28*a(:,:,3);
tBrig = 150;
I brig = I_greyKom+tBrig;
axes(handles.axes4)
imshow(I brig)

%Contrass
a = imread('putri.jpg');
I_greyKom = 0.4*a(:,:,1)+0.32*a(:,:,2)+0.28*a(:,:,3);
tCon = 75;
I con = I_greyKom + tCon;
axes(handles.axes5)
imshow(I con)
```