Nama : Syahroni Bugis
Nim : 1918119

NO	Gambar	Area	Perimeter
1		12943.00	462.983
2		11762.00	505.088
3		15649.00	518.649
4		12662.00	887.331
5		13018.00	899.762
6		13806.00	842.588

7		6096.00	622.921
8		18939.00	1317.16
9		108.00	34.834
10		22829.00	608.388
11		13856.00	707.926
12		13856.00	707.926
13		16502.00	615.377

14		16420.00	658.838
15		16582.00	531.013
16		17569.00	723.094
17		11848.00	606.655
18		26609.00	664.45
19		9958.00	830.275

20		18960.00	544.163

Source Code :

```
function varargout = estrakhp(varargin)
% ESTRAKHP MATLAB code for estrakhp.fig
%      ESTRAKHP, by itself, creates a new ESTRAKHP or raises the existing
%      singleton*.
%
%      H = ESTRAKHP returns the handle to a new ESTRAKHP or the handle to
%      the existing singleton*.
%
%      ESTRAKHP('CALLBACK',hObject,eventData,handles,...) calls the local
%      function named CALLBACK in ESTRAKHP.M with the given input
arguments.
%
%      ESTRAKHP('Property','Value',...) creates a new ESTRAKHP or raises
the
%      existing singleton*.  Starting from the left, property value pairs
are
%      applied to the GUI before estrakhp_OpeningFcn gets called.  An
%      unrecognized property name or invalid value makes property
application
%      stop.  All inputs are passed to estrakhp_OpeningFcn via varargin.
%
%      *See GUI Options on GUIDE's Tools menu.  Choose "GUI allows only
one
%      instance to run (singleton)".
%
% See also: GUIDE, GUIDATA, GUIHANDLES

% Edit the above text to modify the response to help estrakhp

% Last Modified by GUIDE v2.5 28-May-2022 14:19:38

% Begin initialization code - DO NOT EDIT
gui_Singleton = 1;
gui_State = struct('gui_Name',       mfilename, ...
                   'gui_Singleton',  gui_Singleton, ...
                   'gui_OpeningFcn', @estrakhp_OpeningFcn, ...
                   'gui_OutputFcn',  @estrakhp_OutputFcn, ...
                   'gui_LayoutFcn',  [] , ...
                   'gui_Callback',   []);
if nargin && ischar(varargin{1})
    gui_State.gui_Callback = str2func(varargin{1});
end

if nargout
    [varargout{1:nargout}] = gui_mainfcn(gui_State, varargin{:});
else
```

```
    gui_mainfcn(gui_State, varargin{:});
end
% End initialization code - DO NOT EDIT


% --- Executes just before estrakhp is made visible.
function estrakhp_OpeningFcn(hObject, eventdata, handles, varargin)
% This function has no output args, see OutputFcn.
% hObject    handle to figure
% eventdata  reserved - to be defined in a future version of MATLAB
% handles    structure with handles and user data (see GUIDATA)
% varargin   command line arguments to estrakhp (see VARARGIN)

% Choose default command line output for estrakhp
handles.output = hObject;

% Update handles structure
guidata(hObject, handles);

% UIWAIT makes estrakhp wait for user response (see UIRESUME)
% uiwait(handles.figure1);


% --- Outputs from this function are returned to the command line.
function varargout = estrakhp_OutputFcn(hObject, eventdata, handles)
% varargout  cell array for returning output args (see VARARGOUT);
% hObject    handle to figure
% eventdata  reserved - to be defined in a future version of MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Get default command line output from handles structure
varargout{1} = handles.output;


% --- Executes on button press in pushbutton1.
function pushbutton1_Callback(hObject, eventdata, handles)
% hObject    handle to pushbutton1 (see GCBO)
% eventdata  reserved - to be defined in a future version of MATLAB
% handles    structure with handles and user data (see GUIDATA)
[nama_file,nama_folder]=uigetfile('*.jpg; *.png; *.jpeg');

%jika ada nama file yang terpilih maka akan mengeksekusi percabanan ini
if ~isequal(nama_file,0)
    %membaca ctra rgb
    citra=imread(fullfile(nama_folder,nama_file));
    %menampikan citra di axes
    axes(handles.axes1)
    imshow(citra)
    title('citra yang di olah')
    %simpan variabel i d dalam handles agar bisa di simpan
    handles.citra=citra;
    guidata(hObject,handles)
    set(handles.edit13,'string',nama_file)
else
    %jika tidak ada file maka akan kembali
    return
end
```

```
% --- Executes on button press in pushbutton2.
function pushbutton2_Callback(hObject, eventdata, handles)
% hObject    handle to pushbutton2 (see GCBO)
% eventdata  reserved - to be defined in a future version of MATLAB
% handles    structure with handles and user data (see GUIDATA)
ekstrak_citra=handles.citra;
ekstrak_citra=rgb2hsv(ekstrak_citra);
h=ekstrak_citra(:,:,1);
s=ekstrak_citra(:,:,2);
v=ekstrak_citra(:,:,3);
binary_citra=im2bw(s,.25);
binary_citra=imfill(binary_citra,'holes');
binary_citra=bwareaopen(binary_citra,100);
axes(handles.axes2)
imshow(binary_citra)
title('citra binary')
[bonding,long]=bwboundaries(binary_citra,'noholes');
stats=regionprops(long,'ALL')
perimeter=cat(1,stats.Perimeter);
area=cat(1,stats.Area);


set(handles.edit1,'string',num2str(area,'%0.2f'));
set(handles.edit2,'string',perimeter);



function edit1_Callback(hObject, eventdata, handles)



% hObject    handle to edit1 (see GCBO)
% eventdata  reserved - to be defined in a future version of MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit1 as text
%        str2double(get(hObject,'String')) returns contents of edit1 as a
double


% --- Executes during object creation, after setting all properties.
function edit1_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit1 (see GCBO)
% eventdata  reserved - to be defined in a future version of MATLAB
% handles    empty - handles not created until after all CreateFcns
called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end



function edit2_Callback(hObject, eventdata, handles)
```

```
% hObject    handle to edit2 (see GCBO)
% eventdata  reserved - to be defined in a future version of MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit2 as text
%        str2double(get(hObject,'String')) returns contents of edit2 as a
double


% --- Executes during object creation, after setting all properties.
function edit2_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit2 (see GCBO)
% eventdata  reserved - to be defined in a future version of MATLAB
% handles    empty - handles not created until after all CreateFcns
called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end
```