

Buatlah sebuah interface yang dapat digunakan untuk merubah citra menjadi citra biner atau citra negatif seperti gambar :



```

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)
[filename, pathname] = uigetfile( ...
    {'*.bmp;*.jpg;*.tif;*.gif', 'File Lukisan (*.bmp, *.jpg, *.tif, *.gif)';
    ' *.bmp', 'Gambar Bmp (*.bmp)'; ...
    ' *.jpg', 'Gambar JPEG (*.jpg)'; ...
    ' *.tif', 'Gambar Tif (*.tif)'; ...
    ' *.gif', 'Gambar Gif (*.gif)'; ...
    ' *.*', 'All File (*.*)'}, ...
    'Pick a file');
citra = imread(fullfile(pathname,filename));
[m n o] = size(citra);
axes(handles.axes1);
imshow(citra);
handles.citra = citra;
handles.m=m;
handles.n=n;
handles.o=o;
guidata(hObject, handles);

```

% --- 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)
delete(handles.figure1);

```

% --- Executes on button press in radiobutton1.

```

function radiobutton1_Callback(hObject, eventdata, handles)
% hObject      handle to radiobutton1 (see GCBO)
% eventdata    reserved - to be defined in a future version of MATLAB
% handles      structure with handles and user data (see GUIDATA)

% Hint: get(hObject,'Value') returns toggle state of radiobutton1
set(handles.radiobutton2,'value',0);

for i=1:handles.m
    for j=1:handles.n
        if handles.citra(i,j)<128
            citra_biner(i,j)=0;
        else
            citra_biner(i,j)=1;
        end
    end
end
axes(handles.axes2);
imshow(citra_biner);

```

```

% --- Executes on button press in radiobutton2.
function radiobutton2_Callback(hObject, eventdata, handles)
% hObject      handle to radiobutton2 (see GCBO)
% eventdata    reserved - to be defined in a future version of MATLAB
% handles      structure with handles and user data (see GUIDATA)

% Hint: get(hObject,'Value') returns toggle state of radiobutton2
set(handles.radiobutton1,'value',0);
double_citra=double(handles.citra);
    for i=1:handles.m
        for j=1:handles.n
            citra_negatif(i,j)=255-double_citra(i,j);
        end
    end
    citra_negatif=uint8(citra_negatif);
    axes(handles.axes2);
    imshow(citra_negatif);

```