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Kelas: PTIKC 2020

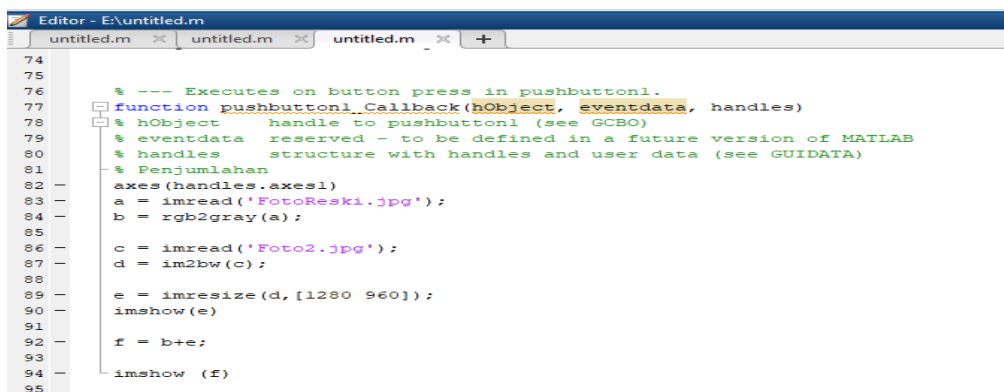
Tugas MK: Pengolahan Citra Digital

Buat program gui matlab pengolahan citra berikut ini

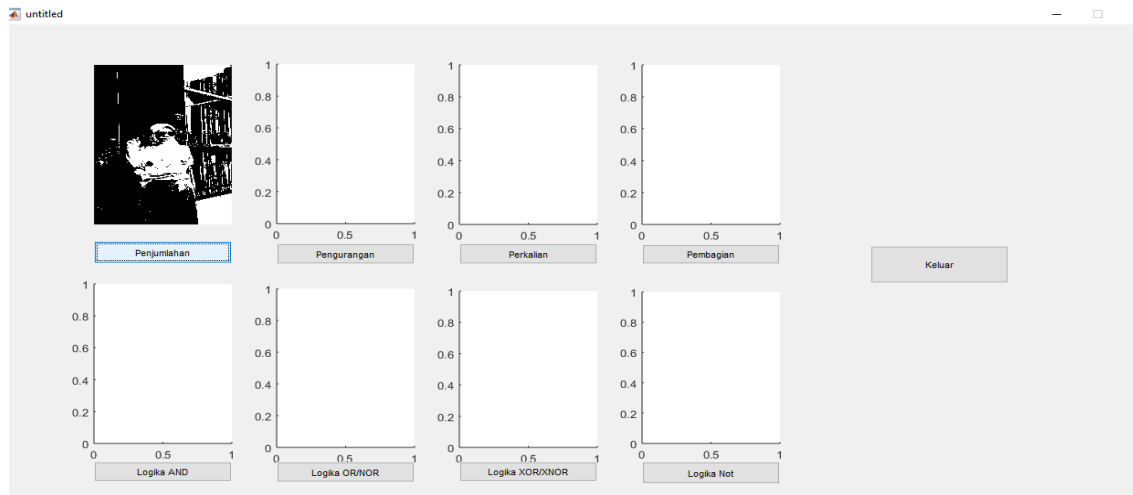
1. Penjumlahan
2. Pengurangan
3. Perkalian
4. Pembagian
5. Logika AND/NAND
6. Logika OR/NOR
7. Logika XOR/XNOR
8. Logika NOT
9. Operasi penskalaan
10. Operasi Refleksi

program gui matlab

1. Penjumlahan



```
74  
75  
76 % --- Executes on button press in pushbutton1.  
77 function pushbutton1_Callback(hObject, eventdata, handles)  
78 % hObject    handle to pushbutton1 (see GCBO)  
79 % eventdata  reserved - to be defined in a future version of MATLAB  
80 % handles    structure with handles and user data (see GUIDATA)  
81 % Penjumlahan  
82 axes(handles.axes1)  
83 a = imread('FotoReski.jpg');  
84 b = rgb2gray(a);  
85  
86 c = imread('Foto2.jpg');  
87 d = im2bw(c);  
88  
89 e = imresize(d, [1280 960]);  
90 imshow(e)  
91  
92 f = b+e;  
93  
94 imshow (f)  
95
```



## 2. Pengurangan

```

Editor - E:\untitled.m
untitled.m x untitled.m x untitled.m x +
116
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94
% --- 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)

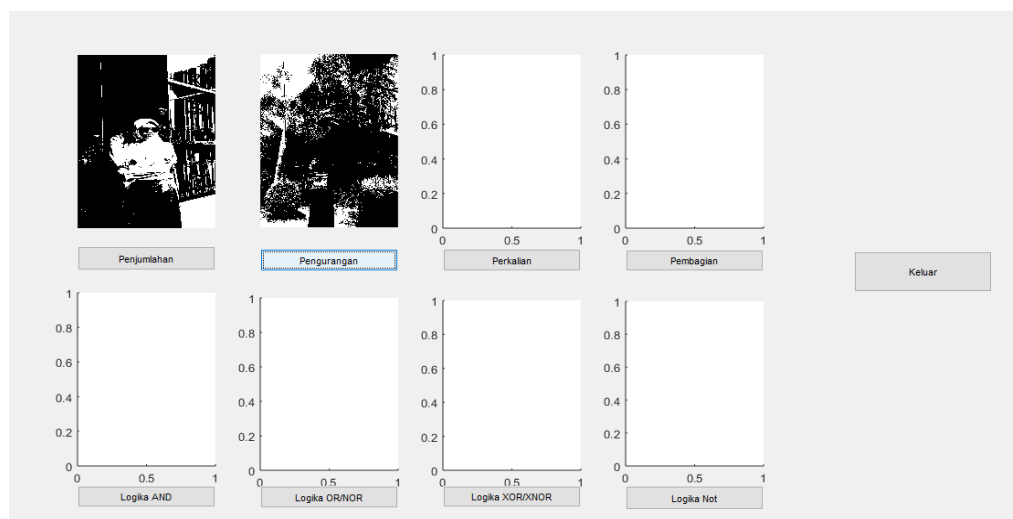
%Pengurangan
axes(handles.axes2)
a = imread('FotoReski.jpg');
b = im2bw(a);

c = imread('Foto2.jpg');
d = im2bw(c);

e = imresize(d,[1280 960]);
imshow(e)

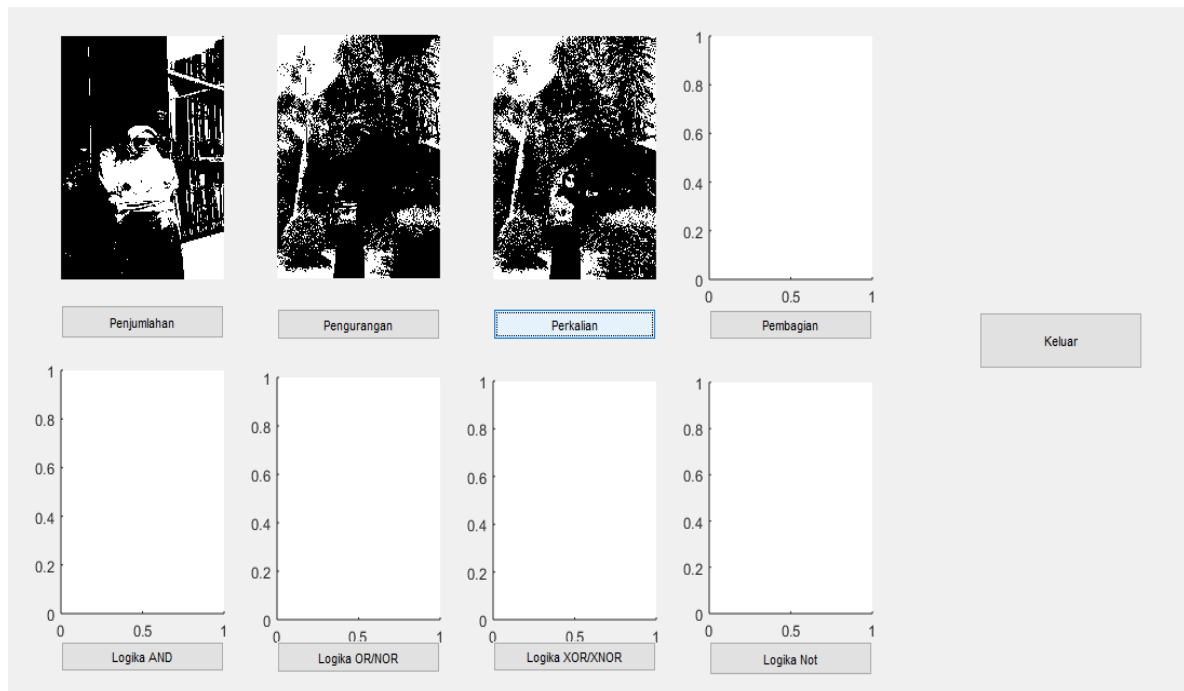
f = b-e;
imshow(f)

```



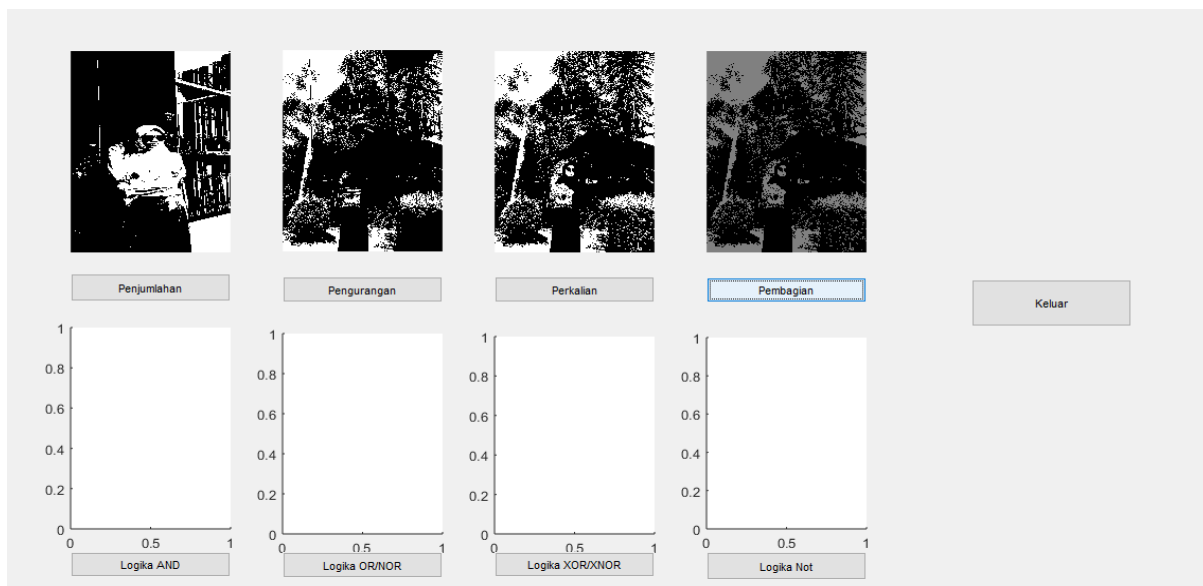
### 3. Perkalian

```
Editor - E:\untitled.m
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114
115 - imshow (f)
116
117 % --- Executes on button press in pushbutton3.
118 function pushbutton3_Callback(hObject, eventdata, handles)
119 % hObject    handle to pushbutton3 (see GCBO)
120 % eventdata  reserved - to be defined in a future version of MATLAB
121 % handles    structure with handles and user data (see GUIDATA)
122
123 % Perkalian
124 axes(handles.axes3)
125 a = imread('FotoReski.jpg');
126 b = im2bw(a);
127
128 c=b.*2;
129
130 imshow (c)
131
132
```



#### 4. Pembagian

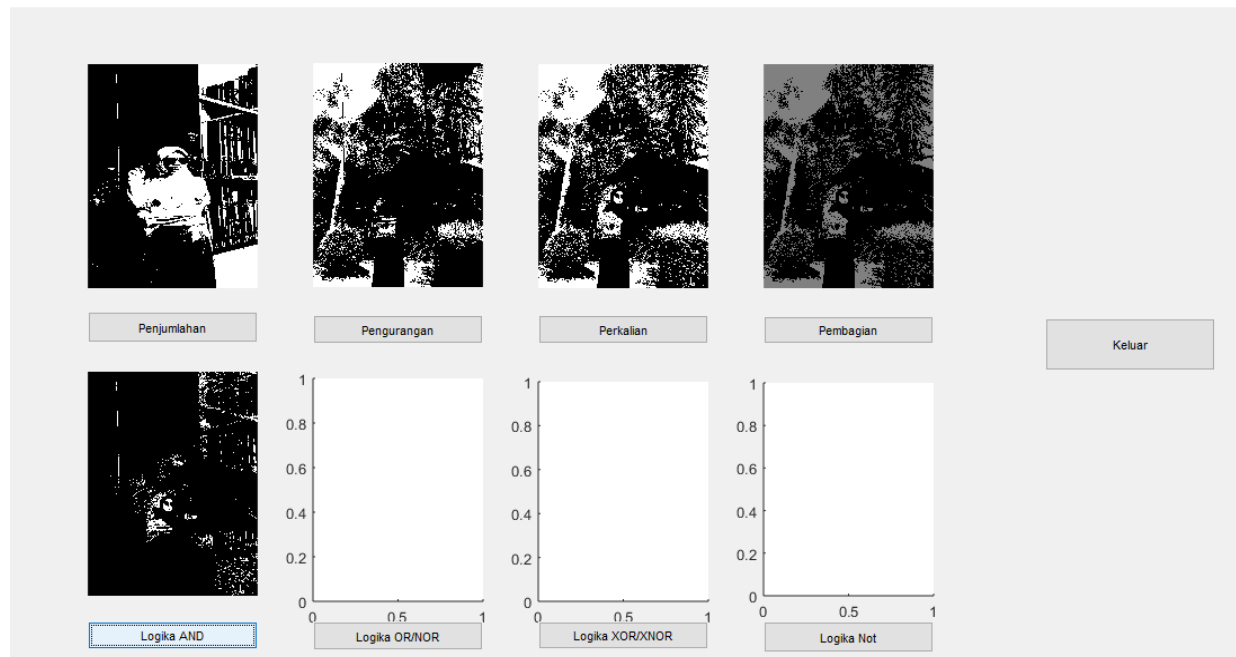
```
Editor - E:\untitled.m
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127
128 - c=b.*2;
129
130 - imshow (c)
131
132
133 % --- Executes on button press in pushbutton4.
134 function pushbutton4_Callback(hObject, eventdata, handles)
135 % hObject handle to pushbutton4 (see GCBO)
136 % eventdata reserved - to be defined in a future version of MATLAB
137 % handles structure with handles and user data (see GUIDATA)
138
139 % Pembagian
140 axes(handles.axes4)
141 a = imread('FotoReski.jpg');
142 b = im2bw(a);
143
144 c=b./2;
145
146 - imshow (c)
147
```



## 5. Logika AND

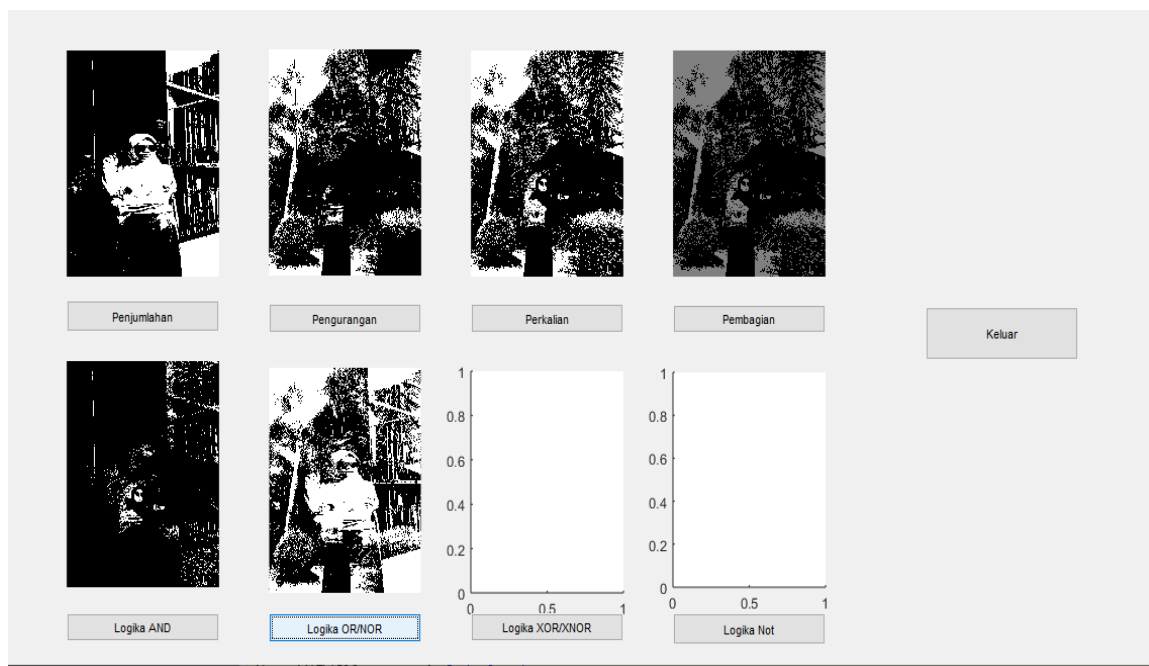
```
147
148
149 % --- Executes on button press in pushbutton5.
150 function pushbutton5_Callback(hObject, eventdata, handles)
151 % hObject    handle to pushbutton5 (see GCBO)
152 % eventdata  reserved - to be defined in a future version of MATLAB
153 % handles    structure with handles and user data (see GUIDATA)
154
155 % AND
156 axes(handles.axes5)
157 a = imread('FotoReski.jpg');
158 b = im2bw(a);
159
160 c = imread('Foto2.jpg');
161 d = im2bw(c);
162
163 e = imresize(d,[1280 960]);
164 imshow(e)
165
166 f = and(b,e);
167
168 imshow (f)
169
```

ntitled



## 6. Logika OR/NOR

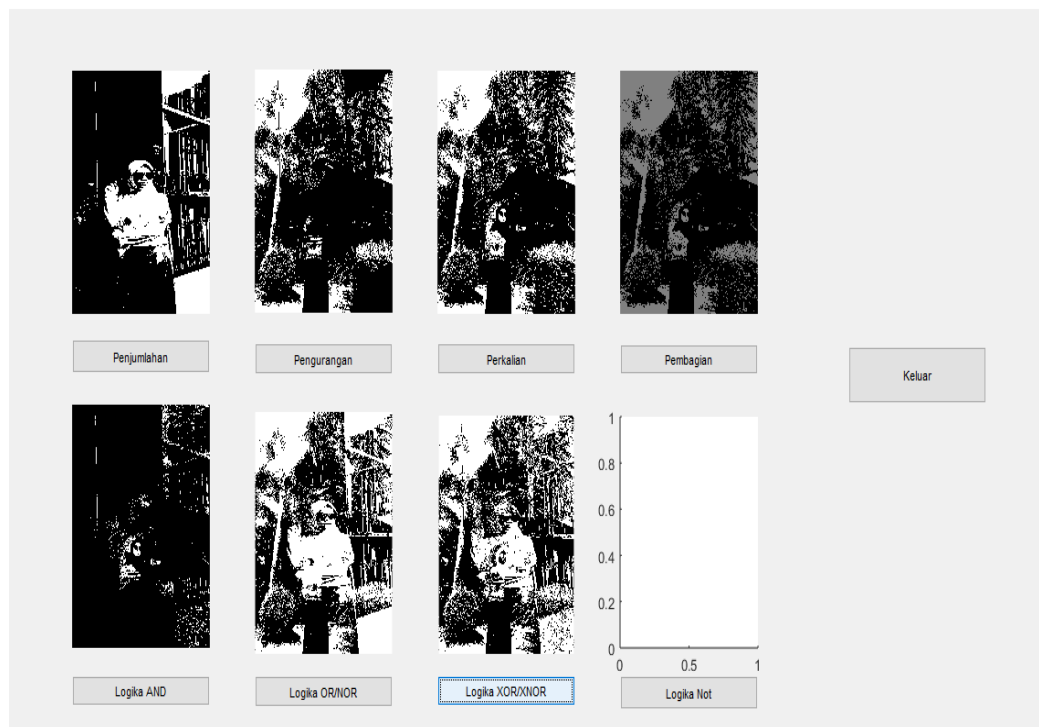
```
Editor - E:\untitled.m
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170
171
172 % --- Executes on button press in pushbutton6.
173 function pushbutton6_Callback(hObject, eventdata, handles)
174 % hObject    handle to pushbutton6 (see GCBO)
175 % eventdata  reserved - to be defined in a future version of MATLAB
176 % handles    structure with handles and user data (see GUIDATA)
177 % OR
178 axes(handles.axes6)
179 a = imread('FotoReski.jpg');
180 b = im2bw(a);
181
182 c = imread('Foto2.jpg');
183 d = im2bw(c);
184
185 e = imresize(d,[1280 960]);
186 imshow(e)
187
188 f = or(b,e);
189
190 imshow (f)
191
```



## 7. Logika XOR/XNOR

```
192
193 % --- Executes on button press in pushbutton7.
194 function pushbutton7_Callback(hObject, eventdata, handles)
195 % hObject    handle to pushbutton7 (see GCBO)
196 % eventdata  reserved - to be defined in a future version of MATLAB
197 % handles    structure with handles and user data (see GUIDATA)
198 % XOR
199 axes(handles.axes7)
200 a = imread('FotoReski.jpg');
201 b = im2bw(a, 0.5);
202
203 c = imread('Foto2.jpg');
204 d = im2bw(c, 0.5);
205
206 e = imresize(d,[1280 960]);
207 imshow(e)
208
209 f = xor(b,e);
210
211 imshow(f)
212
```

ntitled



## 8. Logika NOT

```
212  
213  
214 % --- Executes on button press in pushbutton8.  
215 function pushbutton8_Callback(hObject, eventdata, handles)  
216 % hObject handle to pushbutton8 (see GCBO)  
217 % eventdata reserved - to be defined in a future version of MATLAB  
218 % handles structure with handles and user data (see GUIDATA)  
219 axes(handles.axes8)  
220 a = imread('FotoReski.jpg');  
221 b = im2bw(a, 0.5);  
222  
223 c = not(b);  
224 imshow (c)  
225  
226  
227
```



Penjumlahan



Pengurangan



Perkalian



Pembagian

Keluar



Logika AND



Logika OR/NOR



Logika XOR/XNOR



Logika Not