

GAME TIC TAC TOE
"PRAKTIKUM PEMOGRAMAN JARINGAN"



Disusun Oleh :

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Server

```
1  from tkinter import *
2  from tkinter import messagebox
3  from socket import *
4  from threading import Thread
5
6  player = 1
7  turn = 1
8
9  def win(player):
10     messagebox.showinfo(title = "Congratulation",message = 'winner is ' + player )
11     wind.destroy()
12
13  def check():
14
15     global turn
16     turn += 1
17
18     b1=bt1['text']
19     b2=bt2['text']
20     b3=bt3['text']
21     b4=bt4['text']
22     b5=bt5['text']
23     b6=bt6['text']
24     b7=bt7['text']
25     b8=bt8['text']
26     b9=bt9['text']
27
28     if (b1==b2 and b2==b3 and b1 == 'O') or (b1==b2 and b2==b3 and b1 == 'X'):
29         win(b1)
30     if (b4==b5 and b5==b6 and b4 == 'O') or (b4==b5 and b5==b6 and b4 == 'X'):
31         win(b4)
32     if (b7==b8 and b8==b9 and b7 == 'O') or (b7==b8 and b8==b9 and b7 == 'X'):
33         win(b7)
34     if (b1==b4 and b4==b7 and b1 == 'O') or (b1==b4 and b4==b7 and b1 == 'X'):
35         win(b1)
36     if (b2==b5 and b5==b8 and b2 == 'O') or (b2==b5 and b5==b8 and b2 == 'X'):
37         win(b2)
```

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38     if (b3==b6 and b6==b9 and b3 == 'O') or (b3==b6 and b6==b9 and b3 == 'X'):
39         win(b3)
40     if (b1==b5 and b5==b9 and b1 == 'O') or (b1==b5 and b5==b9 and b1 == 'X'):
41         win(b1)
42     if (b3==b5 and b5==b7 and b3 == 'O') or (b3==b5 and b5==b7 and b3 == 'X'):
43         win(b3)
44
45     def clicked1():
46         global player
47         if (bt1['text']==" "):
48             if (player == 1):
49                 player=2
50                 bt1['text']='O'
51                 send_play(1)
52                 check()
53
54     def clicked2():
55         global player
56         if (bt2['text']==" "):
57             if (player == 1):
58                 player=2
59                 bt2['text']='O'
60                 send_play(2)
61                 check()
62
63     def clicked3():
64         global player
65         if (bt3['text']==" "):
66             if (player == 1):
67                 player=2
68                 bt3['text']='O'
69                 send_play(3)
70                 check()
71

```

```

72 def clicked4():
73     global player
74     if (bt4['text']==""):
75         if (player == 1):
76             player=2
77             bt4['text']='O'
78             send_play(4)
79             check()
80
81 def clicked5():
82     global player
83     if (bt5['text']==""):
84         if player == 1:
85             player=2
86             bt5['text']='O'
87             send_play(5)
88     check()
89
90 def clicked6():
91     global player
92     if (bt6['text']==""):
93         if( player == 1):
94             player=2
95             bt6['text']='O'
96             send_play(6)
97             check()
98
99 def clicked7():
100     global player
101     if (bt7['text']==""):
102         if (player == 1):
103             player=2
104             bt7['text']='O'
105             send_play(7)
106             check()
107
108 def clicked8():
109     global player
110     if (bt8['text']==""):
111         if (player == 1):
112             player=2
113             bt8['text']='O'
114             send_play(8)
115             check()
116
117 def clicked9():
118     global player
119     if (bt9['text']==""):
120         if (player == 1):
121             player=2
122             bt9['text']='O'
123             send_play(9)
124             check()
125
126 def send_play(n):
127     n = str(n)
128     n = n.encode()
129     c.send(n)
130
131 def handle_play(n):
132     global player
133     n = n-1
134     button_list [n]["text"] = "X"
135     player = 1
136
137 def apply_play(p):
138     p = p.decode()
139     p = int(p)
140     handle_play(p)
141
142 wind = Tk()

```

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143
144 wind.title('Server: tic tac toe')
145 wind.geometry('260x130')
146
147 lb1 = Label(wind, text='player1: 0', font=('Helvetica','15'))
148 lb1.grid(row=0, column=0)
149
150 button_list = list()
151
152 bt1=Button(wind, text=" ",bg="purple",fg="white",width = 3, height = 1,font=('Helvetica','15'),command = clicked1)
153 bt1.grid(row = 0, column=1)
154
155 bt2=Button(wind, text=" ",bg="purple",fg="white",width = 3, height = 1,font=('Helvetica','15'),command = clicked2)
156 bt2.grid(row = 0, column=2)
157
158 bt3=Button(wind, text=" ",bg="purple",fg="white",width = 3, height = 1,font=('Helvetica','15'),command = clicked3)
159 bt3.grid(row = 0, column=3)
160
161 bt4=Button(wind, text=" ",bg="purple",fg="white",width = 3, height = 1,font=('Helvetica','15'),command = clicked4)
162 bt4.grid(row = 1, column=1)
163
164 bt5=Button(wind, text=" ",bg="purple",fg="white",width = 3, height = 1,font=('Helvetica','15'),command = clicked5)
165 bt5.grid(row = 1, column=2)
166
167 bt6=Button(wind, text=" ",bg="purple",fg="white",width = 3, height = 1,font=('Helvetica','15'),command = clicked6)
168 bt6.grid(row = 1, column=3)
169
170 bt7=Button(wind, text=" ",bg="purple",fg="white",width = 3, height = 1,font=('Helvetica','15'),command = clicked7)
171 bt7.grid(row = 2, column=1)
172
173 bt8=Button(wind, text=" ",bg="purple",fg="white",width = 3, height = 1,font=('Helvetica','15'),command = clicked8)
174 bt8.grid(row = 2, column=2)
175
176 bt9=Button(wind, text=" ",bg="purple",fg="white",width = 3, height = 1,font=('Helvetica','15'),command = clicked9)
177 bt9.grid(row = 2, column=3)
178

```

```

179 button_list.append(bt1)
180 button_list.append(bt2)
181 button_list.append(bt3)
182 button_list.append(bt4)
183 button_list.append(bt5)
184 button_list.append(bt6)
185 button_list.append(bt7)
186 button_list.append(bt8)
187 button_list.append(bt9)
188
189 s = socket(AF_INET,SOCK_STREAM)
190
191
192 s.bind(('10.234.184.202', 7228))
193 s.listen(5)
194 c=None
195
196 def handle_client():
197     global player
198     global c
199     player = 1
200     c,ad = s.accept()
201     receive = Thread(target = receive_message, args = [c,])
202     receive.start()
203
204 def receive_message(c):
205     while True:
206         p = c.recv(10)
207         apply_play(p)
208
209 acc = Thread(target=handle_client)
210 acc.start()
211
212 wind.mainloop()

```

Client

```
1  from tkinter import *
2  from tkinter import messagebox
3  from socket import *
4  from threading import Thread
5
6  player = 0 #which player
7  turn = 1 #check turn (game finished or not)
8
9  def win(player):
10     messagebox.showinfo(title = "Congratulation",message = 'winner is ' + player )
11     wind.destroy()
12
13  def check():
14     global turn
15     turn +=1
16
17     b1=bt1['text']
18     b2=bt2['text']
19     b3=bt3['text']
20     b4=bt4['text']
21     b5=bt5['text']
22     b6=bt6['text']
23     b7=bt7['text']
24     b8=bt8['text']
25     b9=bt9['text']
26
27     if (b1==b2 and b2==b3 and b1 == 'O') or (b1==b2 and b2==b3 and b1 == 'X'):
28         win(b1)
29     if (b4==b5 and b5==b6 and b4 == 'O') or (b4==b5 and b5==b6 and b4 == 'X'):
30         win(b4)
31     if (b7==b8 and b8==b9 and b7 == 'O') or (b7==b8 and b8==b9 and b7 == 'X'):
32         win(b7)
33     if (b1==b4 and b4==b7 and b1 == 'O') or (b1==b4 and b4==b7 and b1 == 'X'):
34         win(b1)
35     if (b2==b5 and b5==b8 and b2 == 'O') or (b2==b5 and b5==b8 and b2 == 'X'):
36         win(b2)
37     if (b3==b6 and b6==b9 and b3 == 'O') or (b3==b6 and b6==b9 and b3 == 'X'):
```

```

38         win(b3)
39     if (b1==b5 and b5==b9 and b1 == 'O') or (b1==b5 and b5==b9 and b1 == 'X'):
40         win(b1)
41     if (b3==b5 and b5==b7 and b3 == 'O') or (b3==b5 and b5==b7 and b3 == 'X'):
42         win(b3)
43
44     def clicked1():
45         global player
46         if bt1['text']==" ":
47             if player == 1:
48                 player=2
49                 bt1['text']='X'
50                 send_play(1)
51             check()
52
53     def clicked2():
54         global player
55         if bt2['text']==" ":
56             if player == 1:
57                 player=2
58                 bt2['text']='X'
59                 send_play(2)
60             check()
61
62     def clicked3():
63         global player
64         if bt3['text']==" ":
65             if player == 1:
66                 player=2
67                 bt3['text']='X'
68                 send_play(3)
69             check()
70
71     def clicked4():
72         global player
73         if bt4['text']==" ":
74             if player == 1:

```

```

75                 player=2
76                 bt4['text']='X'
77                 send_play(4)
78             check()
79
80     def clicked5():
81         global player
82         if bt5['text']==" ":
83             if player == 1:
84                 player=2
85                 bt5['text']='X'
86                 send_play(5)
87             check()
88
89     def clicked6():
90         global player
91         if bt6['text']==" ":
92             if player == 1:
93                 player=2
94                 bt6['text']='X'
95                 send_play(6)
96             check()
97
98     def clicked7():
99         global player
100        if bt7['text']==" ":
101            if player == 1:
102                player=2
103                bt7['text']='X'
104                send_play(7)
105            check()
106
107     def clicked8():
108         global player
109         if bt8['text']==" ":
110             if player == 1:
111                 player=2

```

```

112         bt8['text']='X'
113         send_play(8)
114         check()
115
116     def clicked9():
117         global player
118         if bt9['text']==" ":
119             if player == 1:
120                 player=2
121                 bt9['text']='X'
122                 send_play(9)
123                 check()
124
125     def send_play(n):
126         n = str(n)
127         n = n.encode()
128         s.send(n)
129
130     def handle_play(n):
131         global player
132         n = n-1
133         button_list [n]["text"] = "O"
134         player = 1
135
136     def apply_play(p):
137         p = p.decode()
138         p = int(p)
139         handle_play(p)
140
141     wind = Tk()
142
143     wind.title('Client: tic tac toe')
144     wind.geometry('260x130')
145
146     lb1 = Label(wind, text='player1: X', font=('Helvetica','15'))
147     lb1.grid(row=0, column=0)
148
149     button_list = list()
150
151     bt1=Button(wind, text=" ",bg="DeepSkyBlue4",fg="orange",width = 3, height = 1,font=('Helvetica','15'),command = clicked1)
152     bt1.grid(row = 0, column=1)
153
154     bt2=Button(wind, text=" ",bg="DeepSkyBlue4",fg="orange",width = 3, height = 1,font=('Helvetica','15'),command = clicked2)
155     bt2.grid(row = 0, column=2)
156
157     bt3=Button(wind, text=" ",bg="DeepSkyBlue4",fg="orange",width = 3, height = 1,font=('Helvetica','15'),command = clicked3)
158     bt3.grid(row = 0, column=3)
159
160     bt4=Button(wind, text=" ",bg="DeepSkyBlue4",fg="orange",width = 3, height = 1,font=('Helvetica','15'),command = clicked4)
161     bt4.grid(row = 1, column=1)
162
163     bt5=Button(wind, text=" ",bg="DeepSkyBlue4",fg="orange",width = 3, height = 1,font=('Helvetica','15'),command = clicked5)
164     bt5.grid(row = 1, column=2)
165
166     bt6=Button(wind, text=" ",bg="DeepSkyBlue4",fg="orange",width = 3, height = 1,font=('Helvetica','15'),command = clicked6)
167     bt6.grid(row = 1, column=3)
168
169     bt7=Button(wind, text=" ",bg="DeepSkyBlue4",fg="orange",width = 3, height = 1,font=('Helvetica','15'),command = clicked7)
170     bt7.grid(row = 2, column=1)
171
172     bt8=Button(wind, text=" ",bg="DeepSkyBlue4",fg="orange",width = 3, height = 1,font=('Helvetica','15'),command = clicked8)
173     bt8.grid(row = 2, column=2)
174
175     bt9=Button(wind, text=" ",bg="DeepSkyBlue4",fg="orange",width = 3, height = 1,font=('Helvetica','15'),command = clicked9)
176     bt9.grid(row = 2, column=3)
177
178     button_list.append(bt1)
179     button_list.append(bt2)
180     button_list.append(bt3)
181     button_list.append(bt4)
182     button_list.append(bt5)
183     button_list.append(bt6)
184     button_list.append(bt7)
185     button_list.append(bt8)

```



```
186 button_list.append(bt9)
187
188
189
190 s = socket(AF_INET, SOCK_STREAM)
191
192 s.connect(('10.234.184.202', 7228))
193
194 def receive_message():
195     while True:
196         p = s.recv(10)
197         apply_play(p)
198
199
200 receive = Thread(target = receive_message)
201 receive.start()
202
203 wind.mainloop()
```

Output

Menjalankannya sesuai dengan IP komputer atau laptop kita

