

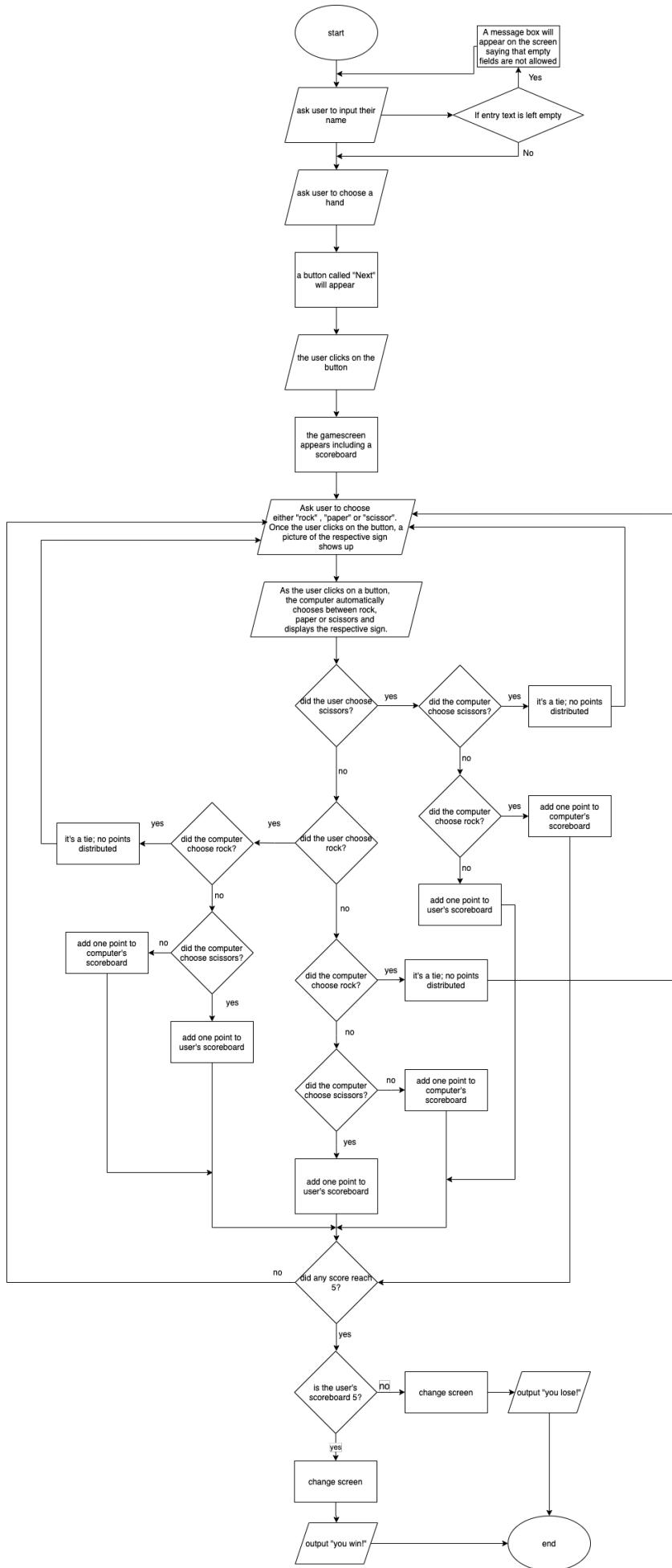
Rock Paper Scissors

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C173 Gargi Shukla
C185 Soumyaa Jain

Project Name: Rock, Paper Scissors

Individual Contribution: Everyone did the project together on video call. Thus, equal contribution

Flowchart:



Code:

```

1   import tkinter
2   from tkinter import *
3   from random import randint
4   from tkinter import ttk
5   from PIL import Image, ImageTk
6   import tkinter.font as font
7   import pygame
8   from tkinter import messagebox
9
10
11 #create App root
12 root = Tk()
13 root.title("Rock Paper Scissors Game")
14 root.geometry("700x400")
16 root.resizable(width=0, height=0)
17
18 global name
19 global c_score,y_score
20 c_score=0
21 y_score=0
22
23 frame1=Frame(root,width=700,height=400,bg="#97A2FF")
24 frame1.pack()
25 frame2=Frame(root)
26 frame2.pack()
27 pygame.mixer.init()
28
29 def rock():
30     pygame.mixer.music.load("/Users/soumyaa_jain/Desktop/PP Project/Click.mpeg")
31     pygame.mixer.music.play(loops=0)
32
33     if hand1var.get()==0 and hand2var.get()==0:
34
35         hand3var.set(1)
36     elif hand2var.get()==0 and hand3var.get()==0:
37
38         hand1var.set(1)
39     elif hand1var.get()==0 and hand3var.get()==0:
40         hand2var.set(1)
41
42
43     if hand1var.get()==1:
44
45         redrock_img= PhotoImage(file='/Users/soumyaa_jain/Desktop/PP Project/redrock.png')
46         redrock_label= Label(frame4,image=redrock_img,bg='red')
47         redrock_label.place(x=370,y=10)
48         redrock_label.image=redrock_img
49
50
51     elif hand3var.get()==1:
52
53         hulkrock_img= PhotoImage(file='/Users/soumyaa_jain/Desktop/PP Project/green rock.png')
54         hulkrock_label= Label(frame4,image=hulkrock_img,bg='red')
55         hulkrock_label.place(x=370,y=10)
56         hulkrock_label.image=hulkrock_img

```

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56         hulkrock_label.image=hulkrock_img
57
58     elif hand2var.get()==1:
59
60         bluerock_img= PhotoImage(file='/Users/soumyaa_jain/Desktop/PP Project/blue rock.png')
61         bluerock_label= Label(frame4,image=bluerock_img,bg='red')
62         bluerock_label.place(x=370,y=10)
63         bluerock_label.image=bluerock_img
64
65         user_choice="rock"
66         ls=["rock","paper","scissors"]
67         ran=randint(0,2)
68         computer_choice=ls[ran]
69         compselected.set(ls[ran])
70         userselected.set(user_choice)
71         global c_score , y_score
72
73         if ls[ran]=="rock":
74             comprock_img= PhotoImage(file='/Users/soumyaa_jain/Desktop/PP Project/comp rock.png')
75             comprock_label= Label(frame3,image=comprock_img,bg='blue')
76             comprock_label.place(x=370,y=-40)
77             comprock_label.image=comprock_img
78
79
80         if ls[ran]=="paper":
81             comppaper_img= PhotoImage(file='/Users/soumyaa_jain/Desktop/PP Project/comp paper.png')
82             comppaper_label= Label(frame3,image=comppaper_img,bg='blue')
83             comppaper_label.place(x=370,y=-40)
84             comppaper_label.image=comppaper_img
85             c_score=c_score+1
86             compoints.set(c_score)
87             userpoints.set(y_score)
88
89
90         if ls[ran]=="scissors":
91             compscissors_img= PhotoImage(file='/Users/soumyaa_jain/Desktop/PP Project/comp scissors.png')
92             compscissors_label= Label(frame3,image=compscissors_img,bg='blue')
93             compscissors_label.place(x=370,y=-40)
94             compscissors_label.image=compscissors_img
95             y_score=y_score+1
96             compoints.set(c_score)
97             userpoints.set(y_score)
98
99
100        if c_score==5 or y_score==5:
101            frame3.destroy()
102            frame4.destroy()
103            root.geometry("600x400")
104            root.resizable(width=0, height=0)
105            global frame5
106            frame5=Frame(root,height=700,width=700,bg="Yellow")
107            frame5.pack()
108            myFont2 = font.Font(size=70,weight='bold',family="Copperplate")
109            if c_score==5:
110                pygame.mixer.music.load("/Users/soumyaa_jain/Desktop/PP Project/lose.mpeg")
111                pygame.mixer.music.play(loops=0)
112                frame5["bg"]="Blue"
113                labelsample=Label(frame5,text="You lost!",font=myFont2,bg="Blue",fg="White")
114                labelsample.place(x=120,y=150)

```

```

115     .....
116     .....
117     .....
118     .....
119     .....
120     .....
121
122     .....
123     .....
124     .....
125     .....
126     .....
127     .....
128     .....
129     .....
130
131
132 def paper():
133     pygame.mixer.music.load("/Users/soumyaa_jain/Desktop/PP Project/winning.mpeg")
134     pygame.mixer.music.play(loops=0)
135     if hand1var.get()==0 and hand2var.get()==0:
136
137         hand3var.set(1)
138     elif hand2var.get()==0 and hand3var.get()==0:
139
140         hand1var.set(1)
141     elif hand1var.get()==0 and hand3var.get()==0:
142         hand2var.set(1)
143
144
145     if hand1var.get()==1:
146
147         redpaper_img= PhotoImage(file='/Users/soumyaa_jain/Desktop/PP Project/red paper.png')
148         redpaper_label= Label(frame4,image=redpaper_img,bg='red')
149         redpaper_label.place(x=370,y=10)
150         redpaper_label.image=redpaper_img
151
152
153     elif hand3var.get()==1:
154
155         hulkpaper_img= PhotoImage(file='/Users/soumyaa_jain/Desktop/PP Project/green paper.png')
156         hulkpaper_label= Label(frame4,image=hulkpaper_img,bg='red')
157         hulkpaper_label.place(x=370,y=10)
158         hulkpaper_label.image=hulkpaper_img
159
160
161     elif hand2var.get()==1:
162
163         bluepaper_img= PhotoImage(file='/Users/soumyaa_jain/Desktop/PP Project/blue paper.png')
164         bluepaper_label= Label(frame4,image=bluepaper_img,bg='red')
165         bluepaper_label.place(x=370,y=10)
166         bluepaper_label.image=bluepaper_img

```

```

167
168
169     user_choice="paper"
170     ls=["rock","paper","scissors"]
171     ran=randint(0,2)
172     computer_choice=ls[ran]
173     compselected.set(ls[ran])
174     userselected.set(user_choice)
175     global c_score,y_score
176
177     if ls[ran]=="rock":
178         comprock_img= PhotoImage(file='/Users/soumyyaa_jain/Desktop/PP Project/comp_rock.png')
179         comprock_label= Label(frame3,image=comprock_img,bg='blue')
180         comprock_label.place(x=370,y=-40)
181         comprock_label.image=comprock_img
182         y_score=y_score+1
183         comppoints.set(c_score)
184         userpoints.set(y_score)
185
186
187     if ls[ran]=="paper":
188         comppaper_img= PhotoImage(file='/Users/soumyyaa_jain/Desktop/PP Project/comp_paper.png')
189         comppaper_label= Label(frame3,image=comppaper_img,bg='blue')
190         comppaper_label.place(x=370,y=-40)
191         comppaper_label.image=comppaper_img
192
193
194     if ls[ran]=="scissors":
195         compscissors_img= PhotoImage(file='/Users/soumyyaa_jain/Desktop/PP Project/comp_scissors.png')
196         compscissors_label= Label(frame3,image=compscissors_img,bg='blue')
197         compscissors_label.place(x=370,y=-40)
198         compscissors_label.image=compscissors_img
199         c_score=c_score+1
200         comppoints.set(c_score)
201         userpoints.set(y_score)
202
203     if c_score==5 or y_score==5:
204         frame3.destroy()
205         frame4.destroy()
206         root.geometry("600x400")
207         root.resizable(width=0, height=0)
208         global frame5
209         frame5=Frame(root,height=700,width=700,bg="Yellow")
210         frame5.pack()
211         myFont2 = font.Font(size=70,weight='bold',family="Copperplate")
212         if c_score==5:
213             pygame.mixer.music.load("/Users/soumyyaa_jain/Desktop/PP Project/lose.mpeg")
214             pygame.mixer.music.play(loops=0)
215             frame5["bg"]="Blue"
216             labelsample=Label(frame5,text="You lost!",font=myFont2,bg="Blue",fg="White")
217             labelsample.place(x=120,y=150)
218         else:
219             pygame.mixer.music.load("/Users/soumyyaa_jain/Desktop/PP Project/winning.mpeg")
220             pygame.mixer.music.play(loops=0)
221             frame5["bg"]="Red"
222             labelsample2=Label(frame5,text="You Won!",font=myFont2,bg="Red",fg="White")
223             labelsample2.place(x=120,y=150)

```

```
224
225
226
227
228 def scissors():
229     pygame.mixer.music.load("/Users/soumyyaa_jain/Desktop/PP Project/Click.mpeg")
230     pygame.mixer.music.play(loops=0)
231     global c_score , y_score
232     if hand1var.get()==0 and hand2var.get()==0:
233
234         hand3var.set(1)
235     elif hand2var.get()==0 and hand3var.get()==0:
236
237         hand1var.set(1)
238     elif hand1var.get()==0 and hand3var.get()==0:
239         hand2var.set(1)
240
241     if hand1var.get()==1:
242
243         redscissors_img= PhotoImage(file='/Users/soumyyaa_jain/Desktop/PP Project/red scissors.png')
244         redscissors_label= Label(frame4,image=redscissors_img,bg='red')
245         redscissors_label.place(x=370,y=10)
246         redscissors_label.image=redscissors_img
247
248
249     elif hand3var.get()==1:
250
251         hulkscissors_img= PhotoImage(file='/Users/soumyyaa_jain/Desktop/PP Project/green scissors.png')
252         hulkscissors_label= Label(frame4,image=hulkscissors_img,bg='red')
253         hulkscissors_label.place(x=370,y=10)
254         hulkscissors_label.image=hulkscissors_img
255
256
257     elif hand2var.get()==1:
258
259         bluescissors_img= PhotoImage(file='/Users/soumyyaa_jain/Desktop/PP Project/blue scissors.png')
260         bluescissors_label= Label(frame4,image=bluescissors_img,bg='red')
261         bluescissors_label.place(x=370,y=10)
262         bluescissors_label.image=bluescissors_img
263
264
265     user_choice="scissors"
266     ls=['rock','paper','scissors']
267     ran=randint(0,2)
268     computer_choice=ls[ran]
269     compselected.set(ls[ran])
270     userselected.set(user_choice)
271
272     if ls[ran]=="rock":
273
274         comprock_img= PhotoImage(file='/Users/soumyyaa_jain/Desktop/PP Project/comp rock.png')
275         comprock_label= Label(frame3,image=comprock_img,bg='blue')
276         comprock_label.place(x=370,y=-40)
277         comprock_label.image=comprock_img
278         c_score=c_score+1
279         compoints.set(c_score)
280         userpoints.set(y_score)
```

```

281     if ls[ran]=="paper":
282         comppaper_img= PhotoImage(file='/Users/soumyaa_jain/Desktop/PP Project/comp paper.png')
283         comppaper_label= Label(frame3,image=comppaper_img,bg='blue')
284         comppaper_label.place(x=370,y=-40)
285         comppaper_label.image=comppaper_img
286         y_score=y_score+1
287         compoints.set(c_score)
288         userpoints.set(y_score)
289
290
291
292     if ls[ran]=="scissors":
293         compscissors_img= PhotoImage(file='/Users/soumyaa_jain/Desktop/PP Project/comp scissors.png')
294         compscissors_label= Label(frame3,image=compscissors_img,bg='blue')
295         compscissors_label.place(x=370,y=-40)
296         compscissors_label.image=compscissors_img
297
298     if c_score==5 or y_score==5:
299         frame3.destroy()
300         frame4.destroy()
301         root.geometry("600x400")
302         root.resizable(width=0, height=0)
303         global frame5
304         frame5=Frame(root,height=700,width=700,bg="Yellow")
305         frame5.pack()
306         myFont2 = font.Font(size=70,weight="bold",family="Copperplate")
307         if c_score==5:
308             pygame.mixer.music.load("/Users/soumyaa_jain/Desktop/PP Project/lose.mpeg")
309             pygame.mixer.music.play(loops=0)
310             frame5["bg"]="Blue"
311             labelsample=Label(frame5,text="You lost!",font=myFont2,bg="Blue",fg="White")
312             labelsample.place(x=120,y=150)
313         else:
314             pygame.mixer.music.load("/Users/soumyaa_jain/Desktop/PP Project/winning.mpeg")
315             pygame.mixer.music.play(loops=0)
316             frame5["bg"]="Red"
317             labelsample2=Label(frame5,text="You Won!",font=myFont2,bg="Red",fg="White")
318             labelsample2.place(x=120,y=150)
319
320
321
322 def my_command(num):
323     pygame.mixer.music.load("/Users/soumyaa_jain/Desktop/PP Project/Click.mpeg")
324     pygame.mixer.music.play(loops=0)
325     name=str(name_entrytext.get())
326     if num==1:
327         hand1var.set(1)
328     elif num==2:
329         hand2var.set(1)
330     elif num==3:
331         hand3var.set(1)
332
333     next_button= Button(frame1, text= "",command=frame1destroy,fg="Black",bg="#E69A8D",font=myFontframe1)
334     next_button["highlightbackground"]="Black"
335     #next_button["highlightbackground"]="#8FE381"
336     #next_button["highlightthickness"]=5
337     next_button.place(x=340,y=350)
338     next_button.config(text= "Next")

```

```

339
340
341
342     def frame1destroy():
343         if name_entrytext.get() == "":
344             messagebox.showwarning("Empty Fields", "Name cannot be left blank")
345         else:
346             pygame.mixer.music.load("/Users/soumyaa_jain/Desktop/PP Project/Click.mpeg")
347             pygame.mixer.music.play(loops=0)
348             name = str(name_entrytext.get())
349             #frame 1 is destroyed
350             frame1.destroy()
351
352             root.geometry("1000x700")
353             root.resizable(width=0, height=0)
354
355             global frame3, frame4
356
357             frame3 = Frame(root, height=350, width=1000, bg='Blue')
358             frame3.pack()
359
360             frame4 = Frame(root, height=350, width=1000, bg='Red')
361             frame4.pack()
362
363             myFontlabel = font.Font(size=23, weight='bold', family="Krungthep")
364
365             name_label = Label(frame4, text=name, font=myFontlabel, fg="white", bg="red")
366             name_label.place(x=0, y=0)
367
368             comp_label = Label(frame3, text="Computer", bg="blue", font=myFontlabel, fg="white")
369             comp_label.place(x=0, y=0)
370
371             myFont = font.Font(size=20, weight='bold', family="Helvetica")
372
373             rock_button = Button(frame4, text="Rock", command=rock, height=1, fg="Red")
374             rock_button["highlightbackground"] = "Black"
375             rock_button["highlightthickness"] = 5
376             rock_button.place(x=800, y=300)
377             rock_button['font'] = myFont
378
379             paper_button = Button(frame4, text="Paper", command=paper, height=1, width=5, fg="Red")
380             paper_button["highlightbackground"] = "Black"
381             paper_button["highlightthickness"] = 5
382             paper_button.place(x=700, y=300)
383             paper_button['font'] = myFont
384
385             scissors_button = Button(frame4, text="Scissors", command=scissors, height=1, width=7, fg="Red")
386             scissors_button["highlightbackground"] = "Black"
387             scissors_button["highlightthickness"] = 5
388             scissors_button.place(x=800, y=300)
389             scissors_button['font'] = myFont
390
391             scoreboard_label = Label(frame3, text="Scoreboard", font=myFont, width=16, bg="Yellow", relief="raised", borderwidth=2)
392             scoreboard_label["highlightbackground"] = "Grey"
393             scoreboard_label.place(x=700, y=70)
394
395             selected_label = Label(frame3, text="Selected:", width=11, relief="raised", borderwidth=2, font=("Helvetica", 13, 'bold'))
396             selected_label.place(x=700, y=100.5)
397
398             global compselected, comppoints
399
400             compselected = StringVar()
401             compselected_label = Label(frame3, width=10, textvariable=compselected, relief="raised", borderwidth=2, fg="Blue", font=("Helvetica", 13, 'bold'))
402             compselected_label.place(x=802, y=100.5)
403
404             points_label = Label(frame3, text="Points:", height=3, width=11, relief="raised", borderwidth=2, font=("Helvetica", 13, 'bold'))
405             points_label.place(x=700, y=125)
406
407             comppoints = IntVar()
408             comppoint_label = Label(frame3, height=3, width=10, textvariable=comppoints, font=("Helvetica", 13, 'bold'), relief="raised", borderwidth=2, fg="Blue")
409             comppoint_label.place(x=802, y=125)
410
411             scoreboard_label_user = Label(frame4, text="Scoreboard", font=myFont, width=16, bg="Yellow", relief="raised", borderwidth=2)
412             scoreboard_label_user["highlightbackground"] = "Grey"
413             scoreboard_label_user.place(x=80, y=100)
414
415             selected_label_user = Label(frame4, text="Selected:", width=11, relief="raised", borderwidth=2, font=("Helvetica", 13, 'bold'))
416             selected_label_user.place(x=80, y=130)
417
418             global userselected, userpoints
419
420             userselected = StringVar()
421             userselected_label = Label(frame4, width=10, textvariable=userselected, relief="raised", borderwidth=2, fg="Red", font=("Helvetica", 13, 'bold'))
422             userselected_label.place(x=181, y=130)
423
424             points_label_user = Label(frame4, text="Points:", height=3, width=11, relief="raised", borderwidth=2, font=("Helvetica", 13, 'bold'))
425             points_label_user.place(x=80, y=153)
426
427             userpoints = IntVar()
428             userpoint_label = Label(frame4, height=3, width=10, textvariable=userpoints, font=("Helvetica", 13, 'bold'), relief="raised", borderwidth=2, fg="Red")
429             userpoint_label.place(x=181, y=153)
430
431
432             myFontframe1 = font.Font(size=16, family="DIN Alternate", weight='bold')
433
434             name_label = Label(frame1, text="Enter your name: ", bg="#97A2FF", font=myFontframe1)
435             name_label.place(x=180, y=80)
436
437             myFontname = font.Font(size=16, family="Ayuthaya")
438
439
440             name_entrytext = Entry(frame1, bg="#97A2FF", font=myFontname)
441             name_entrytext.place(x=330, y=77)
442

```

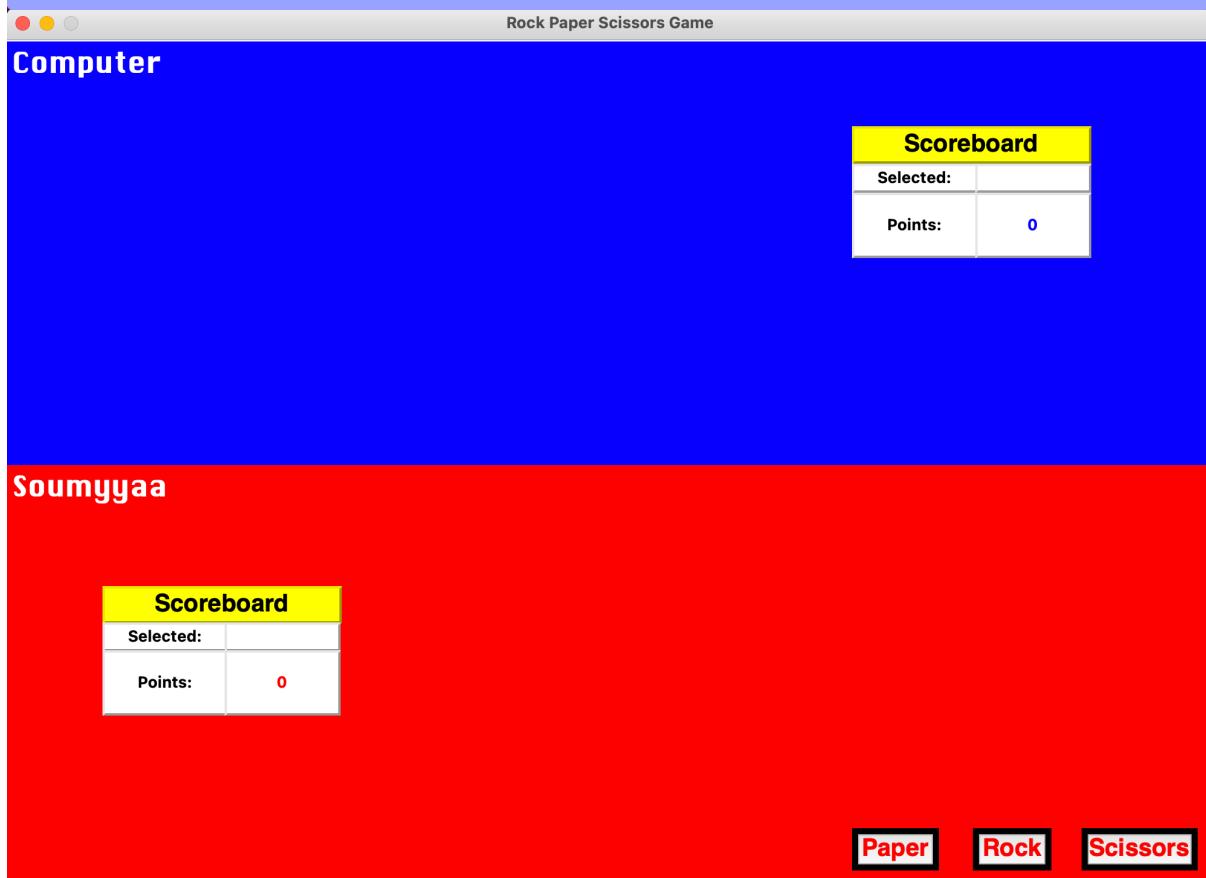
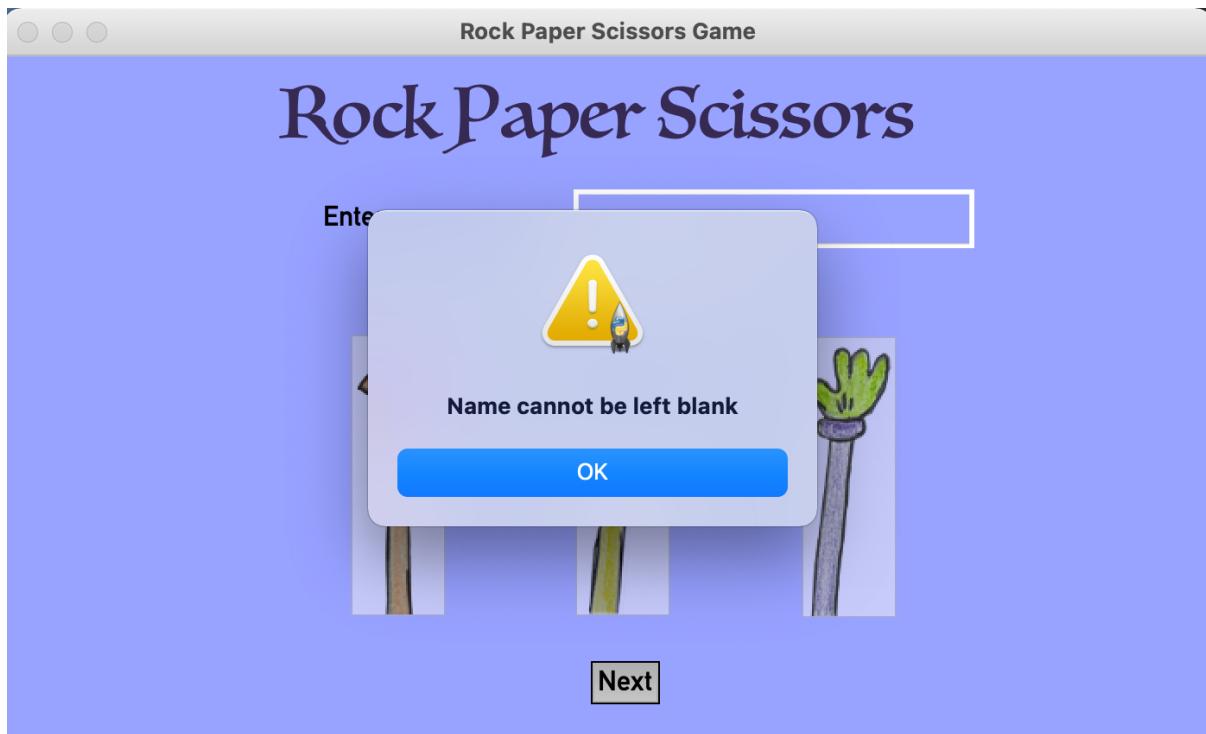
```

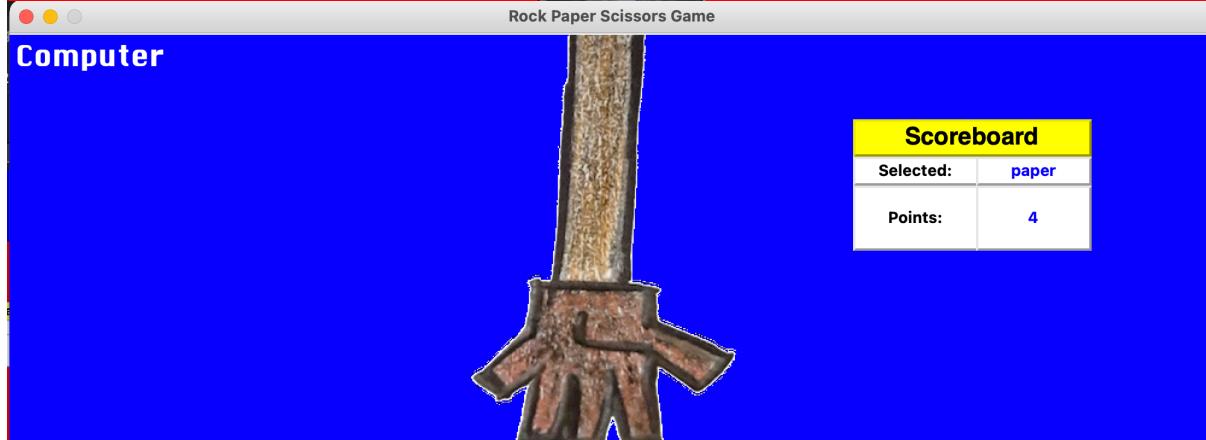
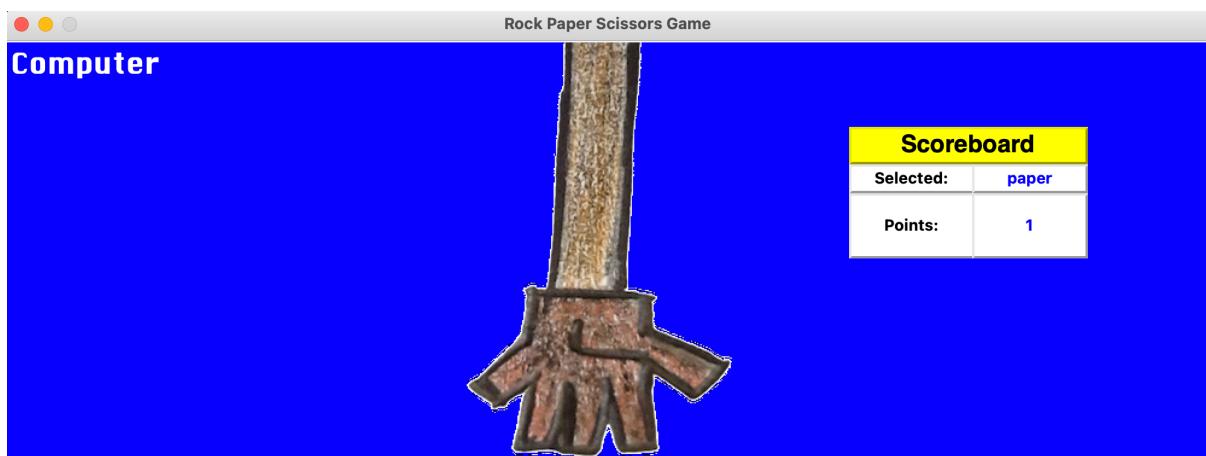
443
444
445
446 hand1_img= PhotoImage(file='/Users/soumyaa_jain/Desktop/Picture 1.png')
447
448
449 hand1_label= Label(image=hand1_img)
450
451
452 hand1var=IntVar()
453 hand1_button= Button(frame1, image=hand1_img,command= lambda:my_command(1),borderwidth=0,textvariable=hand1var)
454 hand1_button["highlightbackground"]="#97A2FF"
455 hand1_button.place(x=200,y=160)
456
457
458 hand2_img= PhotoImage(file='/Users/soumyaa_jain/Desktop/Picture 5 copy.png')
459
460
461 hand2_label= Label(image=hand2_img)
462
463
464 hand2var=IntVar()
465 hand2_button= Button(frame1, image=hand2_img,command= lambda:my_command(2),borderwidth=0,textvariable=hand2var)
466 hand2_button["highlightbackground"]="#97A2FF"
467 hand2_button.place(x=330,y=160)
468
469 hand3_img= PhotoImage(file='/Users/soumyaa_jain/Desktop/Picture 6.png')
470
471
472 hand3_label= Label(image=hand3_img)
473
474 hand3var=IntVar()
475 hand3_button= Button(frame1, image=hand3_img,command= lambda:my_command(3),borderwidth=0,textvariable=hand3var)
476 hand3_button["highlightbackground"]="#97A2FF"
477 hand3_button["highlightthickness"]=2
478 hand3_button.place(x=460,y=160)
479
480 heading_label=Label(frame1,text="~~~Select your hand~~~",bg="#97A2FF",font=myFontframe1,fg="white")
481 heading_label.place(x=260,y=123)
482
483 myFontmain = font.Font(size=40,family="Luminari",weight="bold")
484 main_label=Label(frame1,text='Rock Paper Scissors',bg="#97A2FF",font=myFontmain,fg='#362951')
485 main_label.place(x=155,y=5)
486
487
488
489 root.mainloop()

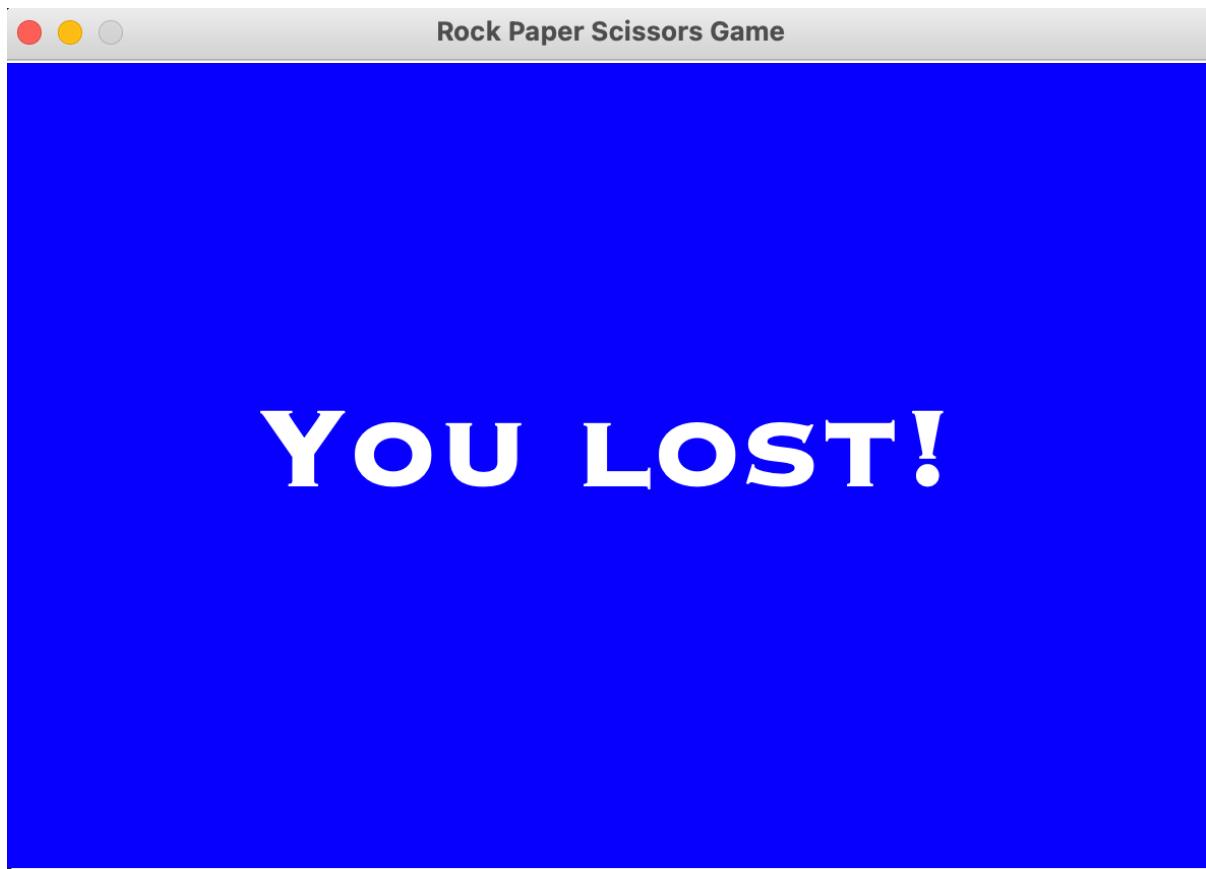
```

Output:









Rock Paper Scissors Game

Computer



Gargi

Scoreboard

| | |
|-----------|------|
| Selected: | rock |
| Points: | 1 |

Scoreboard

| | |
|-----------|-------|
| Selected: | paper |
| Points: | 4 |



Paper Rock Scissors

