

Exercise: Final Project | CMU CS Academy

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1 screen=Rect(0,0,400,400, fill=gradient('limeGreen','cyan') ,visible=True)
2 start=Label('Press any key to start',200,265, fill='yellow', size=20,visible=True)
3 title=Label('Monkey spazing Monkeys',200,200, fill='yellow',size=35,visible=True)
4
5 def onKeyPress(key):
6     title.visible=False
7     screen.visible=False
8     start.visible=False
9
10
11 app.stepsPerSecond = 2
12 app.bugs = [ ]
13
14
15 Rect(0, 0, 400, 150, fill=gradient('cornSilk', 'ghostWhite', start='top'))
16 Rect(0, 150, 400, 250, fill=gradient('peru', 'saddleBrown', start='top'))
17
18 Label('You have beaten', 150, 60, fill='saddleBrown', size=20, bold=True)
19 score = Label(0, 255, 60, fill='saddleBrown', size=20, bold=True)
20 Label('meats!', 300, 60, fill='saddleBrown', size=20, bold=True)
21
22 def drawBug(x, y):
23     Oval(x, y, 100, 40,
24         fill=gradient('saddleBrown', rgb(120, 15, 10), start='top'))
25
26     bugColor = gradient('Pink','salmon', start='right')
27     bug = Group(
28         Rect(x, y, 30, 75, fill=bugColor, align='bottom'),
29         Circle(x, y - 60, 15, fill=bugColor),
30         Label('O o', x, y - 70, bold=True),
31         Label('_', x, y - 65, bold=True),
32         Line(x, y, x, y - 60, fill='LightSalmon', lineWidth=30, dashes=(2, 12))
33     )
34
35
36     bug.visible = False
37     app.bugs.append(bug)
38 def drawBugs():
39     # Creates all of the bugs at once.
40     bugXCoords = [ 75, 200, 325, 135, 260, 200 ]
41     bugYCoords = [ 220, 220, 220, 300, 300, 380 ]
42     for index in range(len(bugXCoords)):
43         x = bugXCoords[index]
44         y = bugYCoords[index]
45         drawBug(x, y)
46
47 drawBugs()
48
49
50 hammer = Group(
51     Rect(185, 100, 50, 40, fill='salmon'),
52     Rect(204, 140, 12, 50, fill=gradient('peru', 'burlyWood', start='left'))
53 )
54 hammer.rotateAngle = 35

```

```
55
56 def checkGameOver():
57
58     upCount = 0
59     for bug in app.bugs:
60         if (bug.visible == True):
61             upCount += 1
62
63
64     if (upCount == len(app.bugs)):
65         Rect(50, 185, 300, 100, fill=gradient('maroon', 'crimson'),
66             border='white')
67         Label('Game Over', 200, 235, fill='white', size=50, font='monospace',
68             bold=True)
69         app.stop()
70
71 def onMousePress(mouseX, mouseY):
72
73     hammer.rotateAngle = 90
74
75
76     for bug in app.bugs:
77         if ((bug.visible == True) and (bug.hitsShape(hammer) == True)):
78             bug.visible = False
79             score.value += 1
80
81 def onMouseRelease(mouseX, mouseY):
82
83     hammer.rotateAngle = 35
84
85 def onMouseMove(mouseX, mouseY):
86     hammer.centerX = mouseX
87     hammer.centerY = mouseY
88
89 def onStep():
90
91     app.bugs[randrange(0,6)].visible = True
92
93     checkGameOver()
```