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1  """
2
3  Author:      Muhammad Anees Khan
4  Created:    12/09/2020
5  Description: Animation of a boat sinking.
6
7  """
8  #background
9  app.background=gradient('deepSkyBlue', 'skyBlue', start='top-left')
10 #steps
11 app.stepsPerSecond=40
12 #Boat
13 Boat = Group(
14     Polygon(50, 270, 132, 350, 300, 350, 362, 270, fill='peru'),
15     Line(204, 272, 204, 128, fill='peru', lineWidth=10),
16     Polygon(192, 132, 192, 229, 115, 229, fill=gradient('White', 'peru')))
17 Boat.dy=1
18 #Sun
19 Sun = Circle(305, 53, 50, fill=gradient('gold', 'yellow'))
20 water2 = Group(
21
22     Circle(59, 380, 65, fill='royalBlue'),
23     Circle(174, 387, 65, fill='royalBlue'),
24     Circle(273, 386, 65, fill='royalBlue'),
25     Circle(362, 390, 65, fill='royalBlue')
26
27 )
28 water = Group(
29     Circle(59, 380, 70, fill='royalBlue'),
30     Circle(174, 387, 70, fill='royalBlue'),
31     Circle(273, 386, 70, fill='royalBlue'),
32     Circle(362, 390, 70, fill='royalBlue'))
33
34 water.dx=3
35
36 Rect(0,350,400,80, fill='royalBlue')
37 clouds = Group(
38     Circle(68, 104, 30, fill='White'),
39     Circle(96, 71, 30, fill='White'),
40     Circle(119, 111, 30, fill='White'),
41     Circle(145, 70, 30, fill='White'),
42     Circle(166, 110, 30, fill='White'),
43     Circle(266, 83, 30, fill='White'),
44     Circle(305, 60, 30, fill='White'),
45     Circle(351, 80, 30, fill='White'),
46     Circle(309, 95, 30, fill='White'))
47 clouds.dx=0.5
48 #Moon
49 Moon = Circle(450,47, 35, fill='ivory')
50 #water
51 def onStep():
52     water2.centerX += water.dx
53     water.centerX -= water.dx
54     if(water2.left>=400):
55         water2.right=0
56     if(water.left>=0):
57         water.left=400
58 #Boat Motion
59 Boat.rotateAngle=-40
60 Boat.centerY+= Boat.dy
61 if (Boat.centerY > 548):
62     app.paused = True
63 #Clouds Motion
64 clouds.centerX -= clouds.dx

```