

```

1  package Assign_2_C;
2
3  import Media.*;
4  import java.awt.*;
5  import static java.lang.Math.*;
6  import static Media.Turtle.*;
7  import static java.awt.Color.*;
8
9  /** This class is a program to draw beach with palm trees and birds
10   *
11   * @author Matt Laidman
12   *
13   * @version 1.0 (October 2012) */
14
15  public class PalmBeach {
16
17      private Turtle pen;
18      private TurtleDisplayer display;
19
20
21      public PalmBeach ( ) {
22
23          int ox, oy;
24          pen = new Turtle (FAST);
25          display = new TurtleDisplayer ();
26          display.placeTurtle (pen);
27
28          ox = pen.getScreenX ();
29          oy = pen.getScreenY ();
30
31          drawBeach ();
32          pen.moveTo (ox, oy);
33          display.close ();
34      };
35
36
37      public void drawBeach () {
38
39          pen.moveTo (-150, 0);
40          pen.setPenColor (new Color (8440063));
41          pen.setPenWidth (300);
42          pen.penDown ();
43          pen.forward (300);
44          pen.penUp ();
45          pen.moveTo (-150, -100);
46          pen.setPenColor (yellow);
47          pen.setPenWidth (100);
48          pen.penDown ();
49          pen.forward (300);
50          pen.penUp ();
51
52          pen.left (PI/2);
53          palmTree (-50, -70);
54          palmTree (50, -120);
55          bird (100, 100);
56          bird (125, 125);
57          pen.right (PI/2);
58      };
59
60
61      public void bird (int x, int y) {
62
63          pen.moveTo (x, y);
64          pen.setPenColor (black);
65          pen.setPenWidth (1);
66          pen.penDown ();
67          curvedV (pen.getScreenX (), pen.getScreenY (), 1);
68      };
69
70

```

```

71 public void palmTree (int x, int y) {
72
73     pen.moveTo (x, y);
74     pen.setPenColor (new Color (16752690));
75     pen.setPenWidth (8);
76     pen.penDown ();
77     pen.forward (100);
78     pen.setPenColor (green);
79     pen.setPenWidth (4);
80
81     for (int i = 1 ; i <= 3 ; i++) {
82         curvedV (pen.getScreenX (), pen.getScreenY (), 2*i);
83     }
84 };
85
86
87 public void curvedV (int x, int y, int segment) {
88
89     pen.moveTo (x, y);
90     pen.penDown ();
91     for (int j = 1 ; j <= 2 ; j++) {
92         for (int i = 1 ; i <= 5 ; i++) {
93             if (j == 1) {
94                 pen.left (PI/6);
95             } else {
96                 pen.right (PI/6);
97             }
98             pen.forward (i*segment);
99         }
100         pen.penUp ();
101         pen.moveTo (x, y);
102         if (j == 1) {
103             pen.right (5*PI/6);
104         } else {
105             pen.left (5*PI/6);
106         }
107         pen.penDown ();
108     }
109     pen.penUp ();
110 };
111
112
113 public static void main ( String[] args ) {PalmBeach b = new PalmBeach();}
114 };

```