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/* Code for COMP102 - 2024T3, Assignment 2
 * Name:
 * Username:
 * ID:
 */

import ecs100.*;
import java.awt.Color;
import java.util.*;
import java.io.*;
import java.nio.file.*;


/**
 * TableLayout draw a plan for tables in a restaurant.
 * It draws the outline of the room,
 * Then draws a number of tables placed around the room
 * Each table is a round circle with four chairs around it.
 * The chairs can be as simple as a square that is half visible
 */

public class TableLayout{
    double left = 50 ;
    double top = 50;
    public static final double T_DIAM = 50;  // diameter of the tables.

     /**
     * Draw a square room with 4 tables,
     * one towards each corner
     */
    public void drawRoom1(){
        /*# YOUR CODE HERE */
        double diameter = 50;




        this.drawTable(50,50,50);
        this.drawTable(150,50,50);
        this.drawTable(50,150,50);
        this.drawTable(150,150,50);



    }

        public void drawTable(double left,double top,double diameter){
        this.drawChair(left-10,top+10,10,20);
        this.drawChair(left+15,top-10,20,10);
        this.drawChair(left+diameter,top+10,10,20);
        this.drawChair(left+15,top+diameter,20,10);

        UI.setColor(Color.black);
        UI.drawRect(0,0,250,250);

        UI.setLineWidth( 5);
        UI.setColor( new Color (139, 128, 0) );
        UI.drawOval(left,top,diameter,diameter);

        UI.setColor(Color.yellow);
        UI.fillOval(left,top,diameter,diameter);


    }
```

```
    public void drawChair(double left1,double top1,double width1,double height1){
        UI.setLineWidth( 5);
        UI.setColor( new Color (1, 50, 32));
        UI.drawRect(left1,top1,width1,height1);


        UI.setColor(Color.green);
        UI.fillRect(left1,top1,width1,height1);



    }




    /**
     * Draw a long rectangular room with 7 tables in a zig zag
     */
    public void drawRoom2(){
        /*# YOUR CODE HERE */
        double diameter = 50;




        this.drawTable2(50,50,50);
        this.drawTable2(220,50,50);
        this.drawTable2(390,50,50);
        this.drawTable2(560,50,50);

        this.drawTable2(140,100,50);
        this.drawTable2(310,100,50);
        this.drawTable2(480,100,50);




    }

    public void drawTable2(double left,double top,double diameter){
        this.drawChair2(left-10,top+10,10,20);
        this.drawChair2(left+15,top-10,20,10);
        this.drawChair2(left+diameter,top+10,10,20);
        this.drawChair2(left+15,top+diameter,20,10);


        UI.setColor(Color.black);
        UI.drawRect(0,0,700,250);

        UI.setLineWidth( 5);
        UI.setColor( new Color (139, 128, 0) );
        UI.drawOval(left,top,diameter,diameter);

        UI.setColor(Color.yellow);
        UI.fillOval(left,top,diameter,diameter);


    }

    public void drawChair2(double left1,double top1,double width1,double height1){
        UI.setLineWidth( 5);
        UI.setColor( new Color (1, 50, 32));
        UI.drawRect(left1,top1,width1,height1);


        UI.setColor(Color.green);
        UI.fillRect(left1,top1,width1,height1);
```

```
    }


    /**
    * Setup the GUI with buttons
    */
    public void setupGUI(){
        UI.addButton("Clear", UI::clearGraphics);
        UI.addButton("Draw Room 1", this::drawRoom1);
        UI.addButton("Draw Room 2", this::drawRoom2);
        UI.addButton("Quit", UI::quit);
    }


    /**
     * Make object and call setupGUI on it
     */
    public static void main(String[] arguments){
        new TableLayout().setupGUI();
    }

}
```