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LAB09

1.

public abstract class Container {

private double height;

private double radius;

public Container() {

}

public Container(double height, double radius) {

this.height = height;

this.radius = radius;

}

public double getHeight() {

return height;

}

public void setHeight(double height) {

this.height = height;

}

public double getRadius() {

return radius;

}

public void setRadius(double radius) {

this.radius = radius;

}

public abstract double calculateVolume();

}

//CylindricalContainer

public class CylindricalContainer extends Container {

private static final double PI = 3.14159;

public CylindricalContainer() {

}

public CylindricalContainer(double height, double radius) {

super(height, radius);

}

@Override

public double calculateVolume() {

return PI \* radius \* radius \* height;

}

}

public class Main {

public static void main(String[] args) {

CylindricalContainer container = new CylindricalContainer(10, 5);

System.out.println("The volume of the cylinder is: " + container.calculateVolume());

}

}

2.

public interface PlayerController {

void moveUp();

void moveDown();

void moveLeft();

void moveRight();

}

// PlayerController interface

public class KeyboardPlayerController implements PlayerController {

private static final int UP = 38;

private static final int DOWN = 40;

private static final int LEFT = 37;

private static final int RIGHT = 39;

@Override

public void moveUp() {

System.out.println("The player moved up");

}

@Override

public void moveDown() {

System.out.println("The player moved down");

}

@Override

public void moveLeft() {

System.out.println("The player moved left");

}

@Override

public void moveRight() {

System.out.println("The player moved right");

}

}

public class Main {

public static void main(String[] args) {

PlayerController playerController = new KeyboardPlayerController();

playerController.moveUp();

playerController.moveDown();

playerController.moveLeft();

playerController.moveRight();

}

}