WEEK 4

1.class Student {

private int marks;

public void setMarks(int marks) {

this.marks = marks;

}

public int getMarks() {

return marks;

}

}

public class Main1 {

public static void main(String[] args) {

Student s = new Student();

s.setMarks(90);

System.out.println("Marks: " + s.getMarks());

// s.marks = 100; // ❌ Error: marks has private access

}

}

2.class Vehicle {

protected int speed;

}

class Car extends Vehicle {

public void setSpeed(int s) {

speed = s;

}

public void showSpeed() {

System.out.println("Car speed: " + speed);

}

}

public class Main2 {

public static void main(String[] args) {

Car c = new Car();

c.setSpeed(120);

c.showSpeed();

}

}

// In package pack1

package pack1;

public class Vehicle {

protected int speed;

}

// In package pack2

package pack2;

import pack1.Vehicle;

class Car extends Vehicle {

public void setSpeed(int s) {

speed = s;

}

public void showSpeed() {

System.out.println("Car speed: " + speed);

}

}

public class MainDiff {

public static void main(String[] args) {

Car c = new Car();

c.setSpeed(150);

c.showSpeed();

}

}

3.// In package pack1

package pack1;

public class A {

public void display() {

System.out.println("Hello from Class A");

}

}

// In package pack2

package pack2;

import pack1.A;

public class B {

public static void main(String[] args) {

A obj = new A();

obj.display();

}

}

4.class Employee {

static int count = 0;

Employee() {

count++;

}

public static void showCount() {

System.out.println("Total employees: " + count);

}

}

public class Main4 {

public static void main(String[] args) {

new Employee();

new Employee();

new Employee();

Employee.showCount();

}

}

5.class Employee {

static int count = 0;

Employee() {

count++;

}

public static void showCount() {

System.out.println("Total employees: " + count);

}

}

public class Main4 {

public static void main(String[] args) {

new Employee();

new Employee();

new Employee();

Employee.showCount();

}

}