**Practical 04**

1) package com.mycompany.encapsulate;

public class Employee

{

private int empID;

private String empName;

private String empDesignation;

public int getEmpID(){

return empID;

}

public void setEmpID(int empID)

{

this.empID= empID;

}

//getter and setter for empName

public String getEmpName()

{

return empName;

}

public void setEmpName(String empName)

{

this.empName= empName;

}

public String getEmpDesignation()

{

return empDesignation;

}

public void setEmpDesignation(String empDesignation)

{

this.empDesignation = empDesignation;

}

}

**Main Method**

package com.mycompany.encapsulate;

public class Encapsulate {

public static void main(String[] args)

{

//create an object for Mr.Bogdan

Employee bogdan=new Employee();

bogdan.setEmpID(1);

bogdan.setEmpName("Mr Bogdan");

bogdan.setEmpDesignation("Software Engineer");

Employee bird = new Employee();

bird.setEmpID(2);

bird.setEmpName("Ms.Bird");

bird.setEmpDesignation("Project Manager");

//Display employee information using getters

System.out.println("Employee 1:");

System.out.println("ID: "+bogdan.getEmpID());

System.out.println("Name: "+bogdan.getEmpName());

System.out.println("Designation: " +bogdan.getEmpDesignation());

System.out.println("\nEmployee 2:");

System.out.println("ID: " + bird.getEmpID());

System.out.println("Name: " + bird.getEmpName());

System.out.println("Designation: " + bird.getEmpDesignation());

}

}

3)

package com.mycompany.testlect;

public class Person {

private String name;

private int id;

//constructor

public Person(String name,int id)

{

this.name = name;

this.id = id;

}

//getter setter

public String getName()

{

return name;

}

public void setName(String name)

{

this.name = name;

}

public int getID()

{

return id;

}

public void setID(int id)

{

this.id = id;

}

}

//Student Class

package com.mycompany.testlect;

public class student extends Person

{

private String course;

//constructor

public student(String name,int id,String course)

{

super(name,id);

this.course = course;

}

//getter and setter for course

public String getCourse(){

return course;

}

public void setCourse(String course){

this.course=course;

}

}

//Lecturer

package com.mycompany.testlect;

public class Lecturer extends Person

{

private String programme;

public Lecturer(String name,int id,String programme)

{

super(name,id);

this.programme= programme;

}

//getter setter

public String getProgramme()

{

return programme;

}

public void setProgramme(String programme)

{

this.programme= programme;

}

}

//Main Method

package com.mycompany.testlect;

public class TestLect {

public static void main(String[] args) {

// Creating a Student object

student student = new student("John Doe", 12345, "Computer Science");

System.out.println("Student Name: " + student.getName());

System.out.println("Student ID: " + student.getID());

System.out.println("Student Course: " + student.getCourse());

// Creating a Lecturer object

Lecturer lecturer = new Lecturer("Jane Smith", 54321, "Physics");

System.out.println("Lecturer Name: " + lecturer.getName());

System.out.println("Lecturer ID: " + lecturer.getID());

System.out.println("Lecturer Programme: " + lecturer.getProgramme());

}

}

4)False

True

True