

## Lab sheet 5

### Exercise 1

#### Person class

```
package com.mycompany.testperson;

public class Person
{
    private String name;
    private int id;

    public Person(String name, int id)
    {
        this.name = name;
        this.id = id;
    }

    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.testperson;

public class Student extends Person
{
    private String course;

    public Student(String name, int id, String course)
    {
        super(name, id);
        this.course = course;
    }

    public String getCourse()
    {
        return course;
    }

    public void setCourse(String course)
    {
        this.course = course;
    }
}
```

## Lecturer class

```
package com.mycompany.testperson;

public class Lecturer extends Person
{
    private String programme;

    public Lecturer(String name, int id, String programme)
    {
        super(name, id);
        this.programme = programme;
    }

    public String getProgramme()
    {
        return programme;
    }

    public void setProgramme(String programme)
    {
        this.programme = programme;
    }
}
```

## TestPerson (MAIN)

```
package com.mycompany.testperson;

public class TestPerson
{
    public static void main(String[] args)
    {
        Student student = new Student("John Doe", 1001, "Computer Science");

        Lecturer lecturer = new Lecturer("Jane Smith", 2001, "Engineering");

        System.out.println("Student Details:");
        System.out.println("Name: " + student.getName());
        System.out.println("ID: " + student.getId());
        System.out.println("Course: " + student.getCourse());

        System.out.println("\nLecturer Details:");
        System.out.println("Name: " + lecturer.getName());
        System.out.println("ID: " + lecturer.getId());
        System.out.println("Programme: " + lecturer.getProgramme());
    }
}
```

## Exercise 02

Develop the following class execute and discuss the answer: Please note that each public class stored in separate files. Write down the answer.

```
public class Animal{}
```

```
public class Mammal extends Animal{}
```

```
public class Reptile extends Animal{}
```

```
public class Dog extends Mammal{
```

```
public static void main(String args[]){
```

```
Animal a = new Animal();
```

```
Mammal m = new Mammal();
```

```
Dog d = new Dog();
```

```
System.out.println(m instanceof Animal);
```

```
System.out.println(d instanceof Mammal);
```

```
System.out.println(d instanceof Animal);
```

```
}
```

```
}
```

## OUTPUT

true

true

true