Labsheet 05

01)

```java
package com.mycompany.personobj;
public class Person
{
  private String name;
  private int id;

  //setter method
  public void setName(String name)
  {
    this.name=name;
  }
  public void setID(int id )
  {
    this.id=id;
  }

  //getter method
  public String getName()
  {
    return name;
  }
  public int getid()
  {
    return id;
  }
}

public class Student extends Person
{
  private String course;

  //setter method
  public void setCourse(String course)
  {
    this.course=course;
  }

  //getter method
```

```java
    public String getCourse()
    {
      return course;
    }
}

public class Lecturer extends Person
{
    private String programme;

    //setter method
    public void setProgramme(String programme)
    {
      this.programme=programme;
    }

    //getter method
    public String getProgramme()
    {
      return programme;
    }
}

public class PersonObj
{

    public static void main(String[] args)
    {
      Student s1=new Student();
      s1.setID(123);
      s1.setName("Methma");
      s1.setCourse("Computer Networks");
      System.out.println(" "+s1.getid());
      System.out.println(" "+s1.getName());
      System.out.println(" "+s1.getCourse());

      Lecturer l1=new Lecturer();
      l1.setID(1000);
      l1.setName("John");
      l1.setProgramme("Networking and Security");
      System.out.println(" "+l1.getid());
```

```java
        System.out.println(" "+l1.getName());
        System.out.println(" "+l1.getProgramme());
    }
}
```

02)

```java
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(a instanceof Animal);
  System.out.println(m instanceof Mammal);
  System.out.println(d instanceof Animal);
 }
}
```