Exercise 01:

Recall the following scenario discussed during the class. Develop a code base to represent the scenario. Add a test class to invoke Lecturer and Student class by creating atleast one object from each.

Note: All the common attributes and behavior stored in the super class and only the specific fields and behavior stored in subclasses.

|  |
| --- |
| Student |
| * name |
| * id |
| * course |
| + setName()/getName() |
| + setID()/getID() |
| + setCourse()/getCourse() |

|  |
| --- |
| Lecturer |
| * name |
| * id |
| * programme |
| + setName()/getName() |
| + setID()/getID() |
| + setProg()/getProg() |

|  |
| --- |
| Person |
| Identify field and attributes to be stored in this class |

package com.mycompany.project3;

public class person {

protected String name;

protected String id;

public person(String name,String id)

{

this.name=name;

this.id=id;

}

public String getName()

{

return name;

}

public void setName(String name)

{

this.name=name;

}

public String getId()

{

return id;

}

public void setId(String id)

{

this.id=id;

}

}

package com.mycompany.project3;

public class Student extends person {

private String course;

public Student(String name,String id,String course)

{

super(name,id);

this.course=course;

}

public String getCourse()

{

return course;

}

public void setCourse(String course)

{

this.course=course;

}

}

package com.mycompany.project3;

public class Lecturer extends person {

private String programme;

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

{

super(name,id);

this.programme=programme;

}

public String getPro()

{

return programme;

}

public void setPro(String programme)

{

this.programme=programme;

}

}

package com.mycompany.project3;

public class Project3 {

public static void main(String[] args) {

Student st=new Student("kaveesha","29188","networking");

System.out.println("student name: "+st.getName()+",student id: "+st.getId()+",course: "+st.getCourse());

Lecturer le=new Lecturer("isuru sri bandara","0023","DCN");

System.out.println("lecturer name: "+le.getName()+",lecturer id: "+le.getId()+",programme: "+le.getPro());

}

}

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