SNAKE

DOG

(Head, Legs, Tail)

CAT

(Head, Legs, Tail)

HUMAN

(Head, Legs, Hands)

REPTILE

MAMMAL

ANIMAL

**Inheritance**

Dog HAS A head √

Dog HAS A tail √

Dog HAS A legs √

Human HAS A tail ×

Snake IS A Mammal ×

Snake IS A Animal √

Mammal IS A Animal √

Cat IS A Mammal √

Cat IS A Animal √

Java supports two types of relationship

1. IS A relationship
2. HAS A relationship

The IS A relationship defines the inheritance of a superclass to the subclass where HAS A relationship defines composition of a class.

Assignment:

Create Student class with following attributes.

Student\_ID, Student\_Name, Student\_PhoneNumber, Student\_MailId, Student\_Address, Degree & YOP (year of passing).

* Class should allow to create a student with

1. Student\_Id ,Student\_Name & Student\_PhoneNumber
2. Student\_Id,Student\_Name & Student\_MailId

* Class should have methods to print every attribute values
* The student class should provide an option to modify phoneno, MailId & Address
* Provide method to print details of the student

1. Student Class
2. Attributes-Id, StudentName, StudentNumber,StudentMailId,StudentAddress,Degree & YOP
3. Constructors
4. StudentId,StudentName & StudentPhoneNumber
5. StudentId,StudentName & StudentMailId
6. Method to get each & every attribute values
7. Modify StudentPhoneNo,MailId

class Student

{

//attributes

private int studentId;

private String studentName=null;

private long studentPhoneNumber;

private String studentAddress=null;

private String studentMailId=null;

private String studentDegree=null;

private int YOP;

//Constructors

Student(int studentId,String studentName,long

studentPhoneNumber)

{

this.studentId=studentId;

this.studentName=studentName;

this.studentPhoneNumber=studentPhoneNumber;

}

Student(int studentId,String studentName,String StudentMailId)

{

this.studentId=studentId;

this.studentName=studentName;

this.studentMailId=studentMailId;

}

int getStudentId()

{

return studentId;

}

String getStudentName()

{

return studentName;

}

long getStudentPhoneNumber()

{

return studentPhoneNumber;

}

String getStudentMailId()

{

return studentMailId;

}

String getStudentAddress()

{

return studentAddress;

}

String getStudentDegree()

{

return studentDegree;

}

int getStudentYOP()

{

return YOP;

}

void setStudentPhoneNumber(long studentPhoneNumber)

{

this.studentPhoneNumber=studentPhoneNumber;

}

void setStudentMailId(String studentMailId)

{

this.studentMailId=studentMailId;

}

void setStudentAddress(String studentAddress)

{

this.studentAddress=studentAddress;

}

void printStudentDetails()

{

System.out.println("Student Id:" + studentId);

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

System.out.println("Student PhoneNo:" + studentPhoneNumber);

System.out.println("Student MailId:" + studentMailId);

System.out.println("Student Address:" + studentAddress);

System.out.println("Student Degree:" + studentDegree);

System.out.println("Student YOP:" + YOP);

}

}

class CreateStudent

{

public static void main(String[] args)

{

Student s1=new Student(1,"Rajnikant",987654321l);

Student s2=new Student(2,"Kamal","kamal@nayagan.com");

System.out.println(s1.getStudentName());

s1.setStudentPhoneNumber(80000000);

System.out.println(s1.getStudentPhoneNumber());

s2.printStudentDetails();

}

}

o/p

