**Client class-**

**package** com.classroomteacher;

**import** java.util.Scanner;

**public** **class** Clientclass {

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

// **TODO** Auto-generated method stub

Teacher t=**new** Teacher(101,"jyoti",Designation.***PROFESSOR***);

System.***out***.println(t);

**if**(t.getDes()==Designation.***PROFESSOR***) {

System.***out***.println("Jyoti is Professor");

}

}}

Classroom class-

**package** com.classroomteacher;

**public** **class** Classroom {

**public** **int** roomid;

**public** String name;

**public** Classroom(**int** roomid,String name) {

**this**.roomid=roomid;

**this**.name=name;

}

**public** **int** getRoomid() {

**return** roomid;

}

**public** **void** setRoomid(**int** roomid) {

**this**.roomid = roomid;

}

**public** String getName() {

**return** name;

}

**public** **void** setName(String name) {

**this**.name = name;

}

**public** String toString() {

**return** "Roomid :"+roomid+"Name :"+name;

}

}

**Teacher class-**

**package** com.classroomteacher;

**public** **class** Teacher {

**public** **int** tid;

**public** String tname;

**public** Designation des;

**public** Teacher(**int** tid,String tname,Designation des) {

// **TODO** Auto-generated constructor stub

**this**.tid=tid;

**this**.tname=tname;

**this**.des=des;

}

**public** String toString() {

**return** "Teacher id: " + **this**.tid + ", Teacher Name: " + **this**.tname + ", Type: " + **this**.des;

}

**public** **int** getTid() {

**return** tid;

}

**public** **void** setTid(**int** tid) {

**this**.tid = tid;

}

**public** String getTname() {

**return** tname;

}

**public** **void** setTname(String tname) {

**this**.tname = tname;

}

**public** Designation getDes() {

**return** des;

}

**public** **void** setDes(Designation des) {

**this**.des = des;

}

}

**Designation enum class –**

**package** com.classroomteacher;

**public** **enum** Designation {

***PROFESSOR***,***ASSISTANTPROFESSOR***

}

**Utility class –**

**package** com.classroomteacher;

**import** java.util.Scanner;

**public** **class** Utilityclass {

// **TODO** Auto-generated method stub

**public** **static** **void** AcceptClassRoomDetails (**int**[] arr)

{

Scanner in=**new** Scanner(System.***in***);

**for**(**int** i=0;i<arr.length;i++)

{

System.***out***.println("----Enter classroom Information---- ");

**int**[] Classroom =**null**;

Classroom[i]=in.nextInt();

}

}

**public** **void** displayinfo(**int**[] arr) {

**for**(**int** i=0;i<arr.length;i++)

{

System.***out***.println(arr[i]);

}

}

}

**Inheritance-**

**Car class-**

**package** inheritance;

**public** **class** Car **extends** Vehiclebaseclass{

**public** **int** cid;

**public** String cname;

**public** **int** noofdoors;

**public** Car(**int** vid,String vname,**int** cid,String cname,**int** noofdoors) {

// **TODO** Auto-generated constructor stub

**super**(vid,vname);

**this**.cid=cid;

**this**.cname=cname;

**this**.noofdoors=noofdoors;

}

**public** **int** getCid() {

**return** cid;

}

**public** **void** setCid(**int** cid) {

**this**.cid = cid;

}

**public** String getCname() {

**return** cname;

}

**public** **void** setCname(String cname) {

**this**.cname = cname;

}

**public** **int** getNoofdoors() {

**return** noofdoors;

}

**public** **void** setNoofdoors(**int** noofdoors) {

**this**.noofdoors = noofdoors;

}

@Override

**public** String toString() {

**return** **super**.toString()+"Car id: "+cid+"Car Name: "+cname+"No of Doors: "+noofdoors;

}

**public** **void** vehicleinfo() {

System.***out***.println(**super**.vname+"Car milage also high");

}

}

**Vehicle class-**

**package** inheritance;

**public** **class** Vehiclebaseclass {

**public** **int** vid;

**public** String vname;

**public** Vehiclebaseclass(**int** vid,String vname) {

// **TODO** Auto-generated constructor stub

**this**.vid=vid;

**this**.vname=vname;

}

**public** **int** getVid() {

**return** vid;

}

**public** **void** setVid(**int** vid) {

**this**.vid = vid;

}

**public** String getVname() {

**return** vname;

}

**public** **void** setVname(String vname) {

**this**.vname = vname;

}

@Override

**public** String toString() {

// **TODO** Auto-generated method stub

**return** "Vehicle number: "+vid+"Vehicle Name: "+vname;

}

**public** **void** vehicleinfo() {

System.***out***.println("Vehilce milage is high");

}

}

**Client class-**

**package** inheritance;

**public** **class** Clientclass {

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

// **TODO** Auto-generated method stub

Vehiclebaseclass b=**new** Vehiclebaseclass(101,"pulser");

Car c=**new** Car(11,"CAR",102,"FORD",4);

c.getCname();

b.vehicleinfo();

c.vehicleinfo();

}

}