

```
package org.example1.dac;
```

```
class Person{
```

```
    String name;
```

```
    int age;
```

```
    public Person(){
```

```
        this.name = "Name";
```

```
        this.age = 18;
```

```
    }
```

```
    public Person(String name , int age) {
```

```
        this.name = name;
```

```
        this.age = age;
```

```
    }
```

```
    public String getName() {
```

```
        return this.name;
```

```
    }
```

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

```
        this.name = name;
```

```
    }
```

```
    public int getAge() {
```

```
        return this.age;
```

```
    }
```

```
    public void setAge(int age) {
```

```
        this.age = age;
```

```
}
```

```
public void printrec() {
```

```
    System.out.println(" name " + this.getName());
```

```
    System.out.println("age :" + this.getAge());
```

```
}
```

```
}
```

```
class Student extends Person{
```

```
    int prn;
```

```
    String subject;
```

```
    float marks;
```

```
public Student() {
```

```
}
```

```
public Student(String name , int age , int prn , String subject , float marks )
```

```
{
```

```
    super(name,age);
```

```
    this.prn = 4034;
```

```
    this.subject = "cdac";
```

```
    this.marks = 21.03f;
```

```
}
```

```
public int getPrn() {
```

```
    return prn;
```

```
}
```

```
public void setPrn(int prn) {  
    this.prn = prn;  
}
```

```
public String getSubject() {  
    return subject;  
}
```

```
public void setSubject(String subject) {  
    this.subject = subject;  
}
```

```
public float getMarks() {  
    return this.marks;  
}
```

```
public void setMarks(float marks) {  
    this.marks = marks;  
}
```

```
public void printrec() {  
    System.out.println("name :" + this.getName());  
    System.out.println("age :" + this.getAge());  
    System.out.println("marks :" + this.getMarks());  
    System.out.println("prn :" + this.getPrn());  
    System.out.println("subject :" + this.getSubject());  
}
```

```
}
```

```
public class Program {
```

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

```
        Student st = new Student();
```

```
        //Student st1 = (Student)new Person(); //"main" java.lang.ClassCastException:
```

```
        Person p = null;
```

```
        p = new Student(); // upcasting
```

```
        Person p2 = st;
```

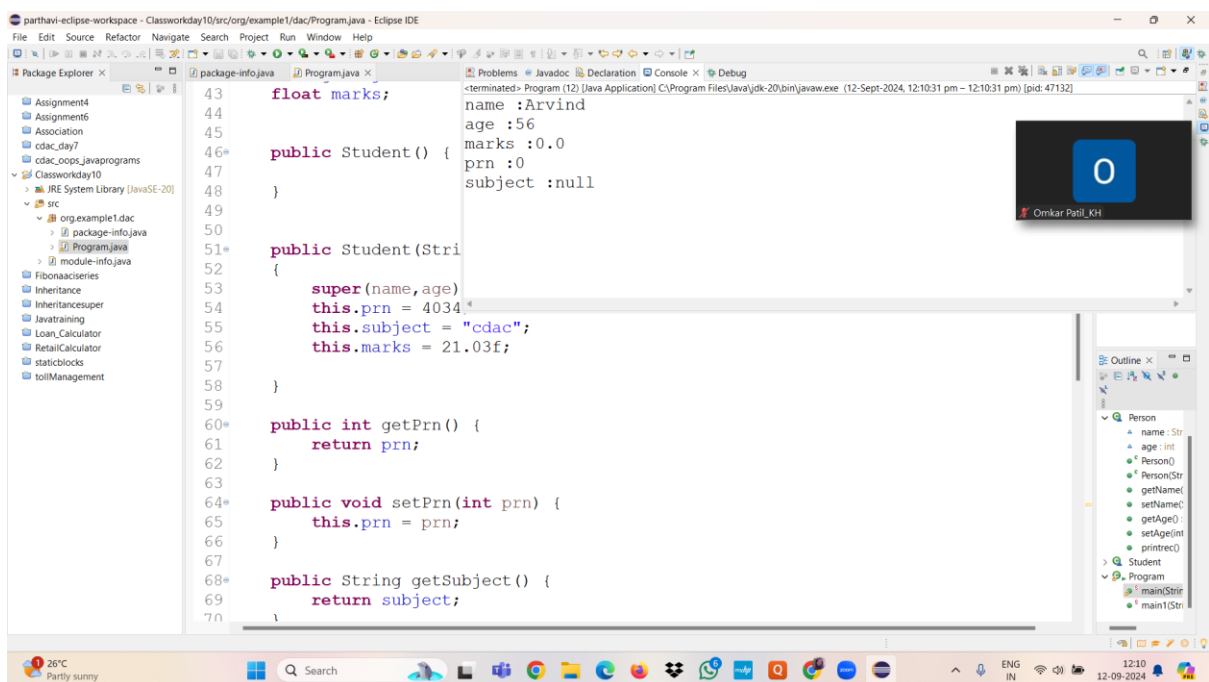
```
        p2.setName("Arvind");
```

```
        p2.setAge(56);
```

```
        p2.printrec(); // call goes to print record in sub class
```

```
    }
```

```
}
```



```
package org.example1.dac;
```

```
class Person{
```

```
    String name;
```

```
    int age;
```

```
    public Person(){
```

```
        this.name = "Name";
```

```
        this.age = 18;
```

```
    }
```

```
    public Person(String name , int age) {
```

```
        this.name = name;
```

```
        this.age = age;
```

```
    }
```

```
    public String getName() {
```

```
        return this.name;
```

```
    }
```

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

```
        this.name = name;
```

```
    }
```

```
    public int getAge() {
```

```
        return this.age;
```

```
    }
```

```
    public void setAge(int age) {
```

```
        this.age = age;
```

```
}
```

```
public void printrec() {
```

```
    System.out.println(" name " + this.getName());
```

```
    System.out.println("age :" + this.getAge());
```

```
}
```

```
}
```

```
class Student extends Person{
```

```
    int prn;
```

```
    String subject;
```

```
    float marks;
```

```
public Student() {
```

```
}
```

```
public Student(String name , int age , int prn , String subject , float marks )
```

```
{
```

```
    super(name,age);
```

```
    this.prn = 4034;
```

```
    this.subject = "cdac";
```

```
    this.marks = 21.03f;
```

```
}
```

```
public int getPrn() {
```

```
    return prn;
```

```
}
```

```
public void setPrn(int prn) {  
    this.prn = prn;  
}
```

```
public String getSubject() {  
    return subject;  
}
```

```
public void setSubject(String subject) {  
    this.subject = subject;  
}
```

```
public float getMarks() {  
    return this.marks;  
}
```

```
public void setMarks(float marks) {  
    this.marks = marks;  
}
```

```
public void printrec() {  
    System.out.println("name :" + this.getName());  
    System.out.println("age :" + this.getAge());  
    System.out.println("marks :" + this.getMarks());  
    System.out.println("prn :" + this.getPrn());  
    System.out.println("subject :" + this.getSubject());  
}
```

```
}
```

```

public class Program {

    public static void main(String[] args) {

        Person p = new Student();

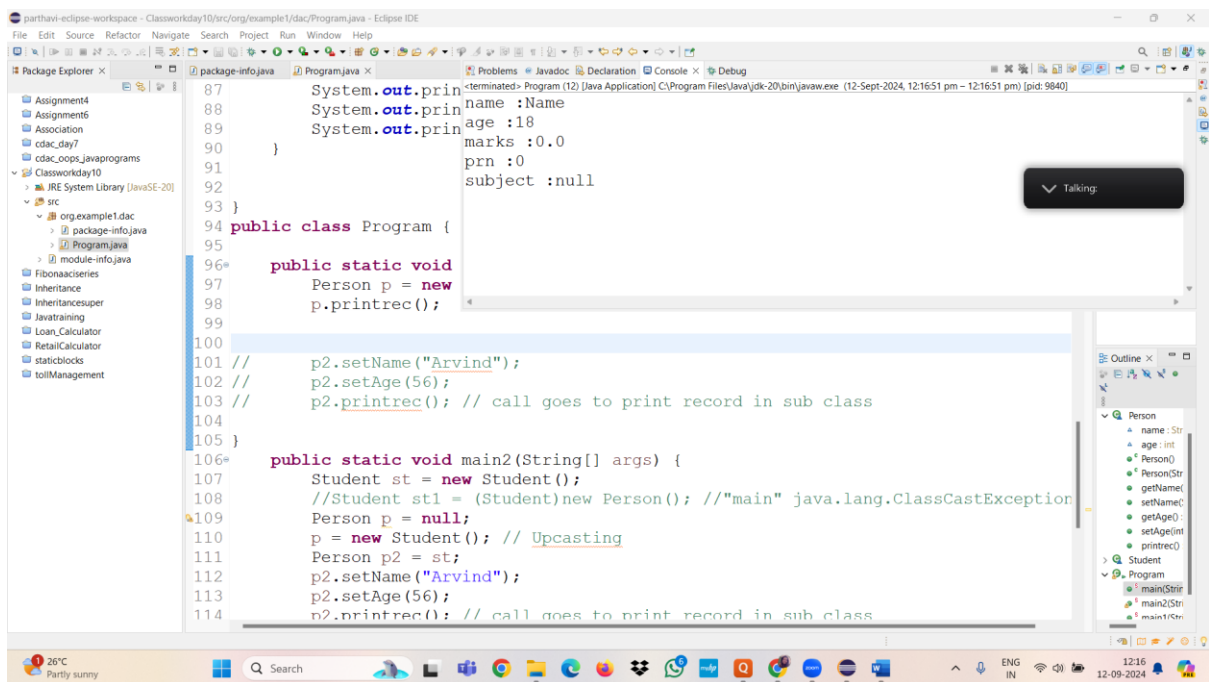
        p.printrec();

//        p2.setName("Arvind");
//        p2.setAge(56);
//        p2.printrec(); // call goes to print record in sub class

    }

}

```




```
package org.example1.dac;
```

```
class Person{

    String name;

    int age;


    public Person(){

        this.name = "Name";

        this.age = 18;

    }


    public Person(String name , int age) {

        this.name = name;

        this.age = age;

    }


    public String getName() {

        return this.name;

    }


    public void setName(String name) {

        this.name = name;

    }


    public int getAge() {

        return this.age;

    }

}
```

```
    public void setAge(int age) {  
        this.age = age;  
    }  
  
    public void printrec() {  
        System.out.println(" name " + this.getName());  
        System.out.println("age :" + this.getAge());  
    }  
}
```

```
class Student extends Person{  
    int prn;  
    String subject;  
    float marks;
```

```
    public Student() {  
  
    }
```

```
    public Student(String name , int age , int prn , String subject , float marks )  
    {  
        super(name,age);  
        this.prn = 4034;  
        this.subject = "cdac";  
        this.marks = 21.03f;  
    }
```

```
public int getPrn() {  
    return prn;  
}
```

```
public void setPrn(int prn) {  
    this.prn = prn;  
}
```

```
public String getSubject() {  
    return subject;  
}
```

```
public void setSubject(String subject) {  
    this.subject = subject;  
}
```

```
public float getMarks() {  
    return this.marks;  
}
```

```
public void setMarks(float marks) {  
    this.marks = marks;  
}
```

```
public void printrec() {  
    System.out.println("name : " + this.getName());  
    System.out.println("age : " + this.getAge());  
    System.out.println("marks : " + this.getMarks());  
    System.out.println("prn : " + this.getPrn());  
    System.out.println("subject : " + this.getSubject());  
}
```

```
}
```

```
public class Program {
```

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

```
        Student s = new Student();
```

```
        Person p = new Person();
```

```
        //Person p = new Student(); //upcsting
```

```
        Student s1 = (Student) p;
```

```
        s1.setName("Chiku");
```

```
        s1.setAge(14);
```

```
        s1.setPrn(80);
```

```
        s1.setSubject(" maths");
```

```
        s1.setMarks(88.36f);
```

```
        s1.printrec();
```

```
        // class exception means value accepted but exception arise.
```

```
        p.printrec();
```

```
}
```

```
}
```

