Customer Products:

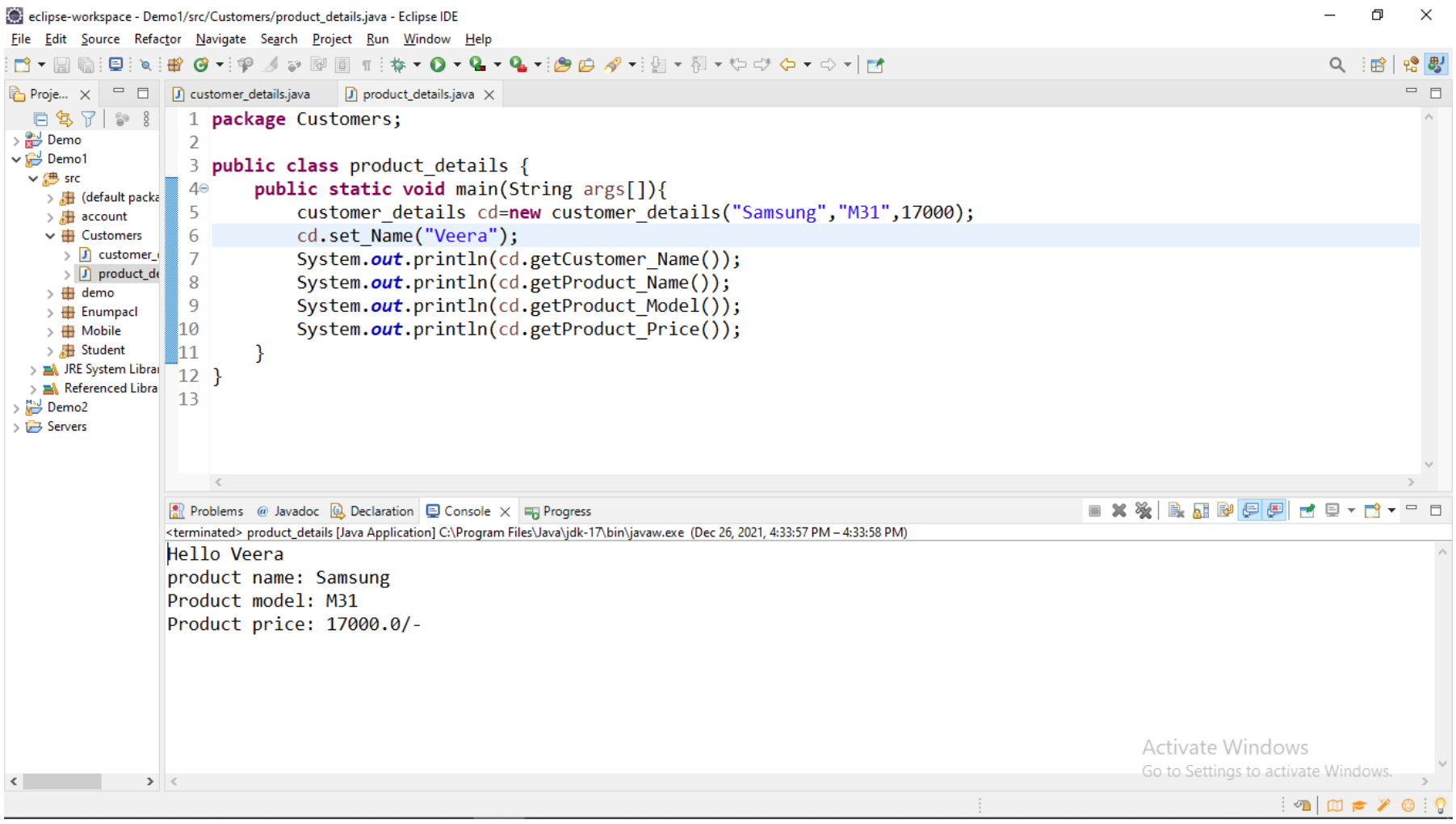
Super class:

```
    package Customers;

    public class customer_details {

    customer_details(String product_Name, String product_Model, double
product_Price){
        this.product_Name=product_Name;
        this.product_Model=product_Model;
        this.product_Price=product_Price;
    }
    private String customer_Name;
    private String product_Name;
    private String product_Model;
    private double product_Price;

    public void set_Name(String name){
        customer_Name=name;
    }
    public String getCustomer_Name(){
        if(customer_Name!=null){
            return "Hello "+customer_Name;
        }
        return "Please set your name before getting name use 'set_Name
method'";
    }
    public String getProduct_Model(){
        return "Product model: "+product_Model;
    }
    public String getProduct_Price(){
        return "Product price: "+product_Price+"/-";
    }
    public String getProduct_Name(){
            return "product name: "+product_Name;
    }
}
```

Child class (Main method):

```
package Customers;

public class product_details {
    public static void main(String args[]){
        customer_details cd=new customer_details("Samsung","M31",17000);
        cd.set_Name("Veera");
        System.out.println(cd.getCustomer_Name());
        System.out.println(cd.getProduct_Name());
        System.out.println(cd.getProduct_Model());
        System.out.println(cd.getProduct_Price());       }   }
```

Output:



Mobile:

Super class:

```
package Mobile;

public class mobile {
    mobile(){System.out.println("From Mobile... ");}
    public void call() {System.out.println("u can call from mobile... ");}
    public void games() {System.out.println("U can play small games..");}
    public void sms() {System.out.println("U can send and recevice
meassages...");}

}
```

Child interface:

```
    package Mobile;
        public interface Music_player {

            void select_song();
            void next_song();
            void previous_song();
            void forward_song();
    }
```

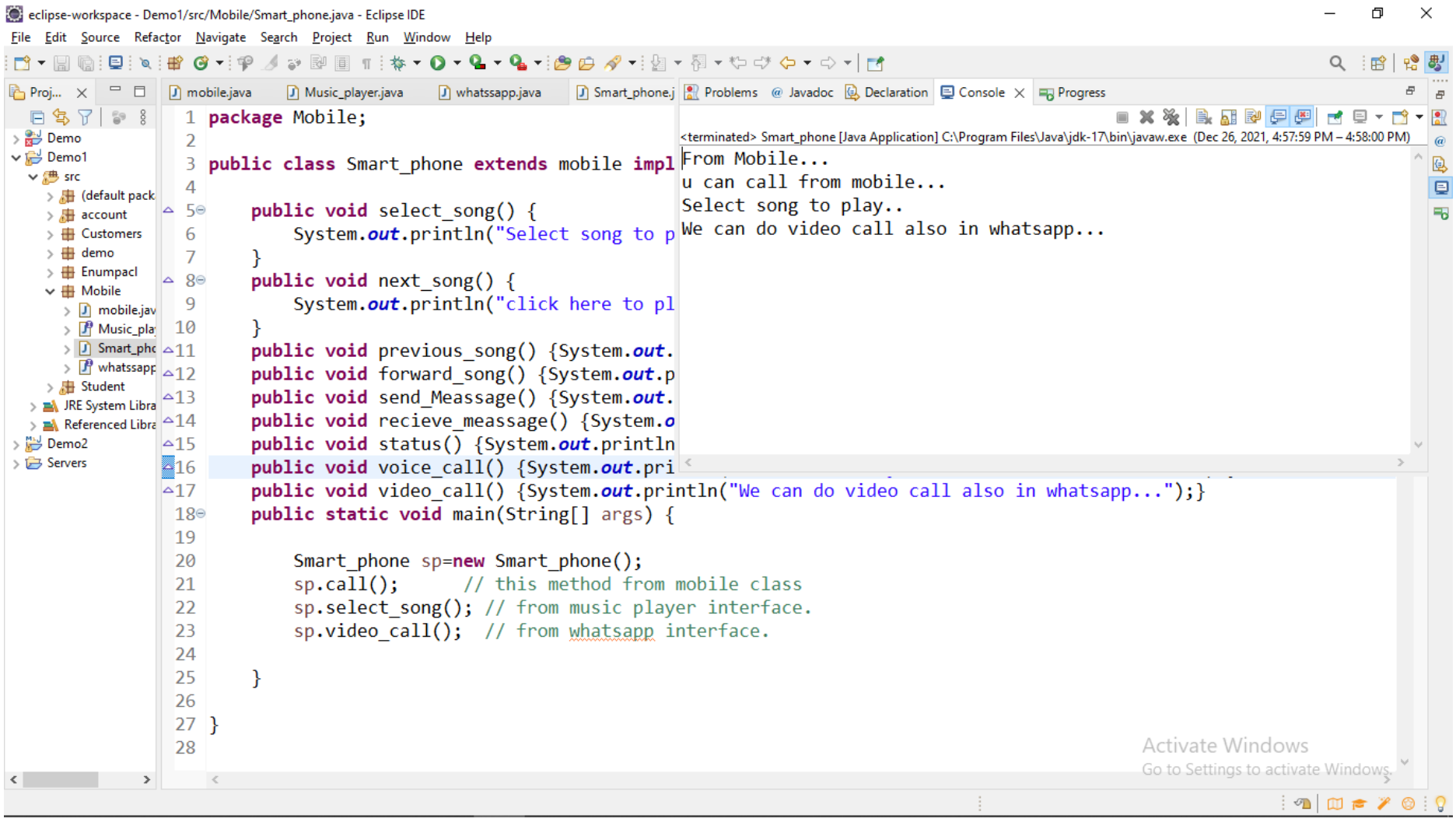
Child interface:

```
package Mobile;

        public interface whatssapp {

            void send_Meassage();
            void recieve_meassage();
            void status();
            void voice_call();
            void video_call();
    }
```

Child class (Main class):

```
package Mobile;

public class Smart_phone extends mobile implements Music_player,whatssapp {

    public void select_song() {
        System.out.println("Select song to play..");
    }
    public void next_song() {
        System.out.println("click here to play next song...");
    }
    public void previous_song() {System.out.println("Click here to previous
song...");}
    public void forward_song() {System.out.println("click to forward
song...");}
    public void send_Meassage() {System.out.println("Send meassage from
whatssapp");}
    public void recieve_meassage() {System.out.println("Recieve meassage from
whatsapp");}
    public void status() {System.out.println("we keep status and we see others
status also");}
    public void voice_call() {System.out.println("We can call any one who r in
our contacts..");}
    public void video_call() {System.out.println("We can do video call also in
whatsapp...");}
    public static void main(String[] args) {

        Smart_phone sp=new Smart_phone();
        sp.call();      // this method from mobile class
        sp.select_song(); // from music player interface.
        sp.video_call();  // from whatsapp interface.

    }

}
```

Output:



Account:

Account class (super class):

```
package account;

public class Account {

    public void savings_Account_Details() throws Exception{
        System.out.print("Loading");
        for(int i=0;i<=6;i++) {Thread.sleep(300);System.err.print(".");}
        System.out.println();
        System.out.println("Account Number: 2872428282382");
        Thread.sleep(1000);
        System.out.println("Ifsc Code: SBI10009");
        Thread.sleep(1000);
        System.out.println("Account Holder Name: veera");
        Thread.sleep(1000);
        System.out.println("Account Type: Savings Account");
        Thread.sleep(1000);
        System.out.println();
        System.out.println("********** Thanks Visit Again **********");
    }
    public void loan_Account_Details() throws Exception{
        System.out.print("Loading");
```

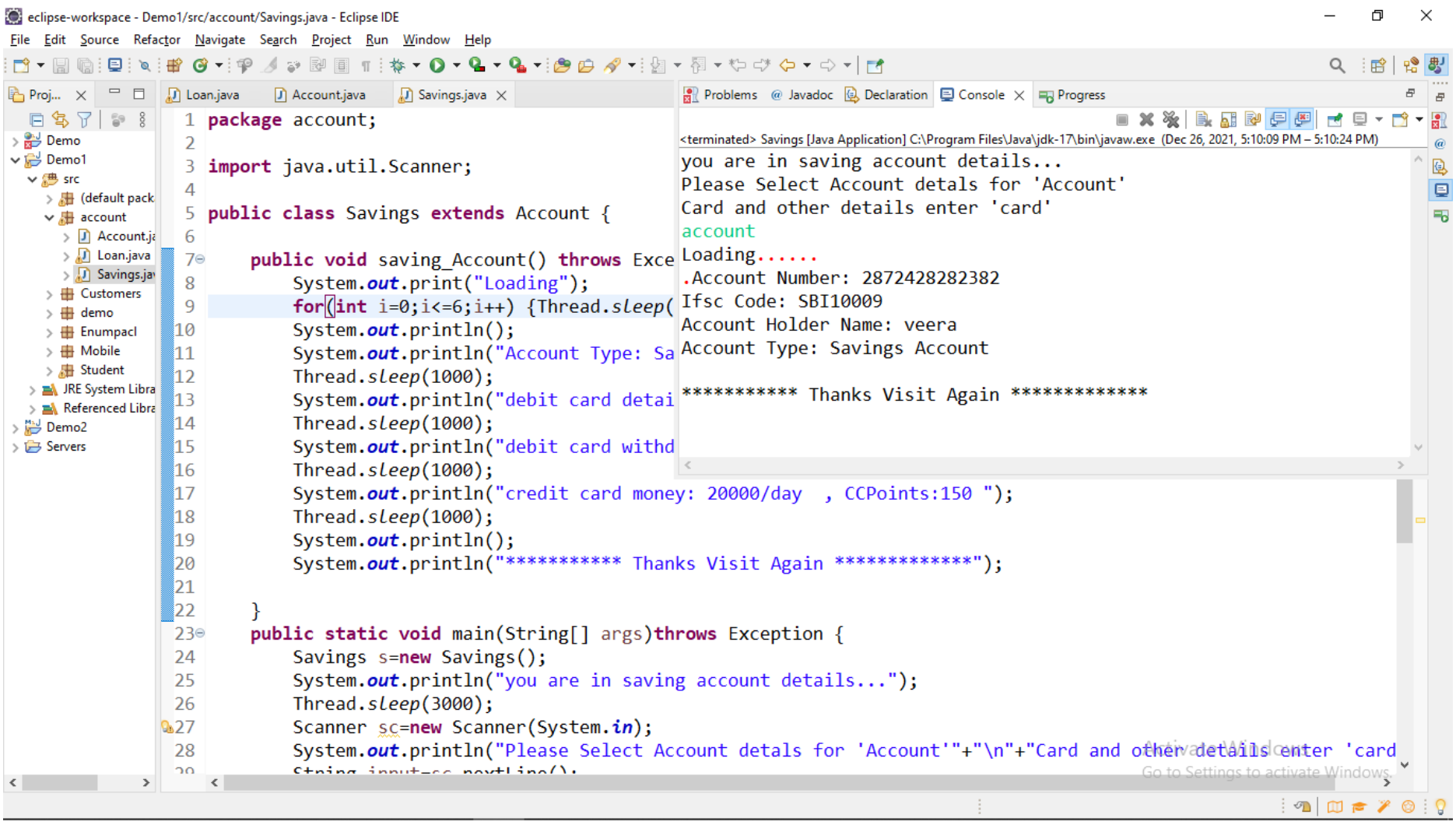
```
        for(int i=0;i<=6;i++) {Thread.sleep(300);System.err.print(".");}
        System.out.println();
        System.out.println("Account Number: 8997799821");
        Thread.sleep(1000);
        System.out.println("Ifsc Code: ICICI10009");
        Thread.sleep(1000);
        System.out.println("Account Holder Name: suresh");
        Thread.sleep(1000);
        System.out.println("Account Type: loan Account");
        Thread.sleep(1000);
        System.out.println();
        System.out.println("********** Thanks Visit Again ************");
    }

}
```

Loan class (child class / main class):

```
package account;

import java.util.Scanner;

public class Loan extends Account {

    public void loan_Details() throws Exception{
        System.out.print("Loading");
        for(int i=0;i<=6;i++) {Thread.sleep(300);System.err.print(".");}
        System.out.println();
        System.out.println("Account Type: loan Account...");
        Thread.sleep(1000);
        System.out.println("Loan amount: 2000000/-");
        Thread.sleep(1000);
        System.out.println("Monthly Emi: 20000");
        Thread.sleep(1000);
        System.out.println("Intrest amount: 10000/-");
        Thread.sleep(1000);
        System.out.println();
        System.out.println("********** Thanks Visit Again ************");
    }
    public static void main(String[] args) throws Exception {
        Loan l=new Loan();
        System.out.println("you are in loan account details...");
        Thread.sleep(3000);
        Scanner sc=new Scanner(System.in);
        System.out.println("Please Select Account detals for 'Account'"+"\n"+"
For loan details enter 'loan'");
        String input=sc.nextLine();
        if(input.equalsIgnoreCase("account")) {
            l.loan_Account_Details();
        }
        else if(input.equalsIgnoreCase("loan")) {
            l.loan_Details();
        }
        else {
```

```
                System.err.println("Please enter correct input check again....");
            }

        }

}
```

Output:

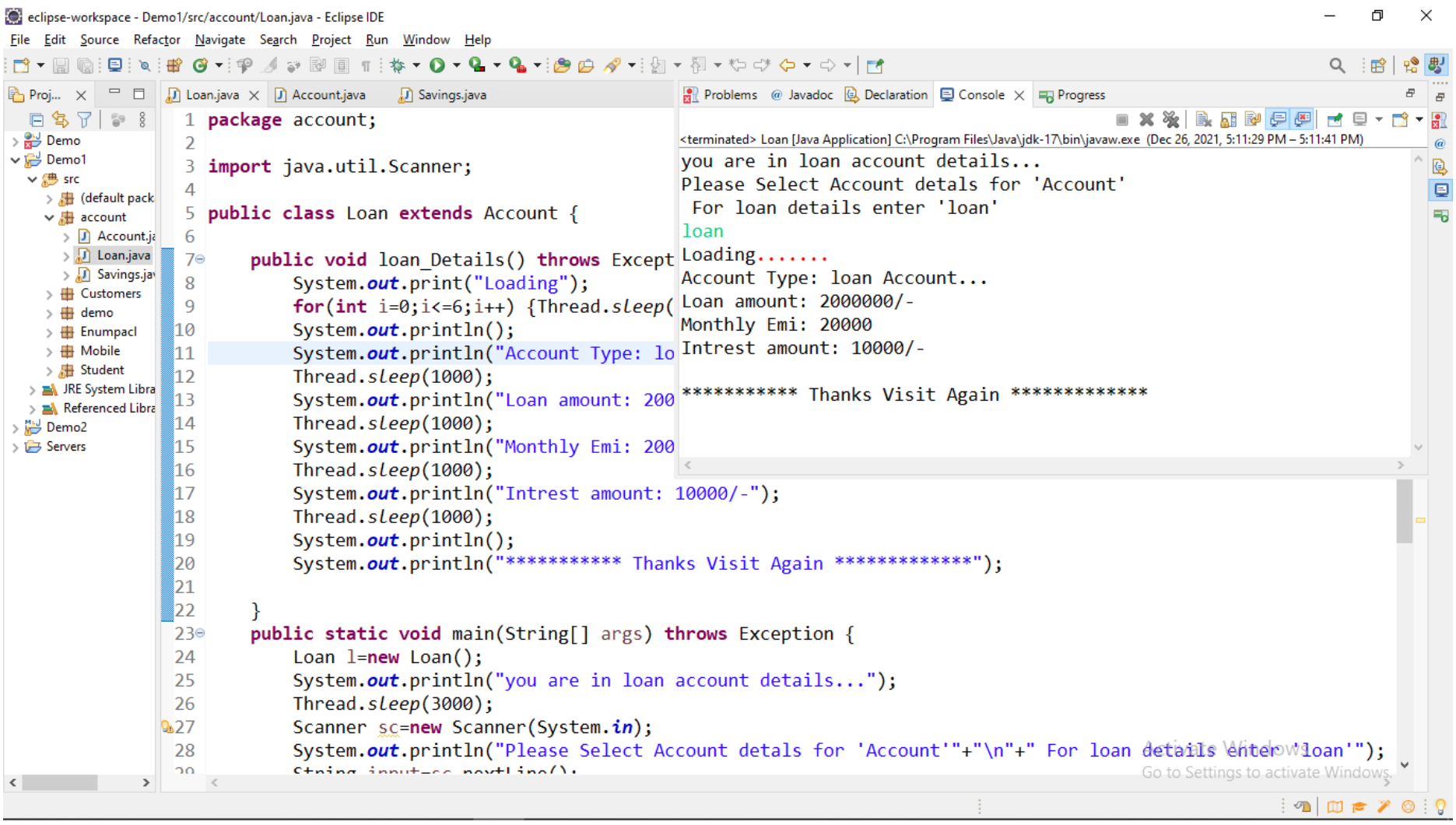


Savings account (child class / main class):

```
package account;

import java.util.Scanner;

public class Savings extends Account {

    public void saving_Account() throws Exception{
        System.out.print("Loading");
        for(int i=0;i<=6;i++) {Thread.sleep(300);System.err.print(".");}
        System.out.println();
        System.out.println("Account Type: Savings Account");
        Thread.sleep(1000);
        System.out.println("debit card details: 9992/8292/8299 , *** ");
        Thread.sleep(1000);
        System.out.println("debit card withdraw: 10000/day");
        Thread.sleep(1000);
        System.out.println("credit card money: 20000/day  , CCPoints:150 ");
        Thread.sleep(1000);
        System.out.println();
```

```
        System.out.println("********** Thanks Visit Again *************");

    }
    public static void main(String[] args)throws Exception {
        Savings s=new Savings();
        System.out.println("you are in saving account details...");
        Thread.sleep(3000);
        Scanner sc=new Scanner(System.in);
        System.out.println("Please Select Account detals for
'Account'"+"\n"+"Card and other details enter 'card'");
        String input=sc.nextLine();
        if(input.equalsIgnoreCase("account")) {
            s.savings_Account_Details();
        }
        else if(input.equalsIgnoreCase("card")) {
            s.saving_Account();
        }
        else {
            System.err.println("Please enter correct input check again....");
        }

    }

}
```

Output:



Student details:

Student details (super class):

```
package Student;


import java.util.Scanner;

public class Student_details {

    private String id;
    private String name;
    private int total_marks=100;
    private int sub1_marks;
    private int sub2_marks;
    private int sub3_marks;
    private String sub1;
    private String sub2;
    private String sub3;

    Student_details(String id,String name,int marks,int marks1,int marks2){
        this.id=id;
        this.name=name;
        sub1_marks=marks;
        sub2_marks=marks1;
        sub3_marks=marks2;
    }

    public String get_Details(){

        if(sub1 !=null && sub2 !=null && sub3 !=null){
            int total=sub1_marks+sub2_marks+sub3_marks;
            return "Student Id: "+id+" Student Name: "+name+"\n"+"subject 1:
"+sub1+" Marks"+sub1_marks+"\n"+
                    "subject 2: "+sub2+" Marks"+sub2_marks+"\n"+"subject 3:
"+sub3+" Marks"+sub3_marks+"\n"+"Total Marks: "+total;
        }
        else if(sub1 !=null && sub2 !=null){
            int total1=sub1_marks+sub2_marks;
            return "Student Id: "+id+" Student Name: "+name+"\n"+"subject 1:
"+sub1+" Marks"+sub1_marks+"\n"+
                    "subject 2: "+sub2+" Marks"+sub2_marks+"\n"+"Total Marks:
"+total1;
        }
        return "Please select 3 or 2 subjects";
    }

    public void set_subjects(String ...sub){
       if(sub.length==3){
           sub1=sub[0];
           sub2=sub[1];
           sub3=sub[2];
       }
```

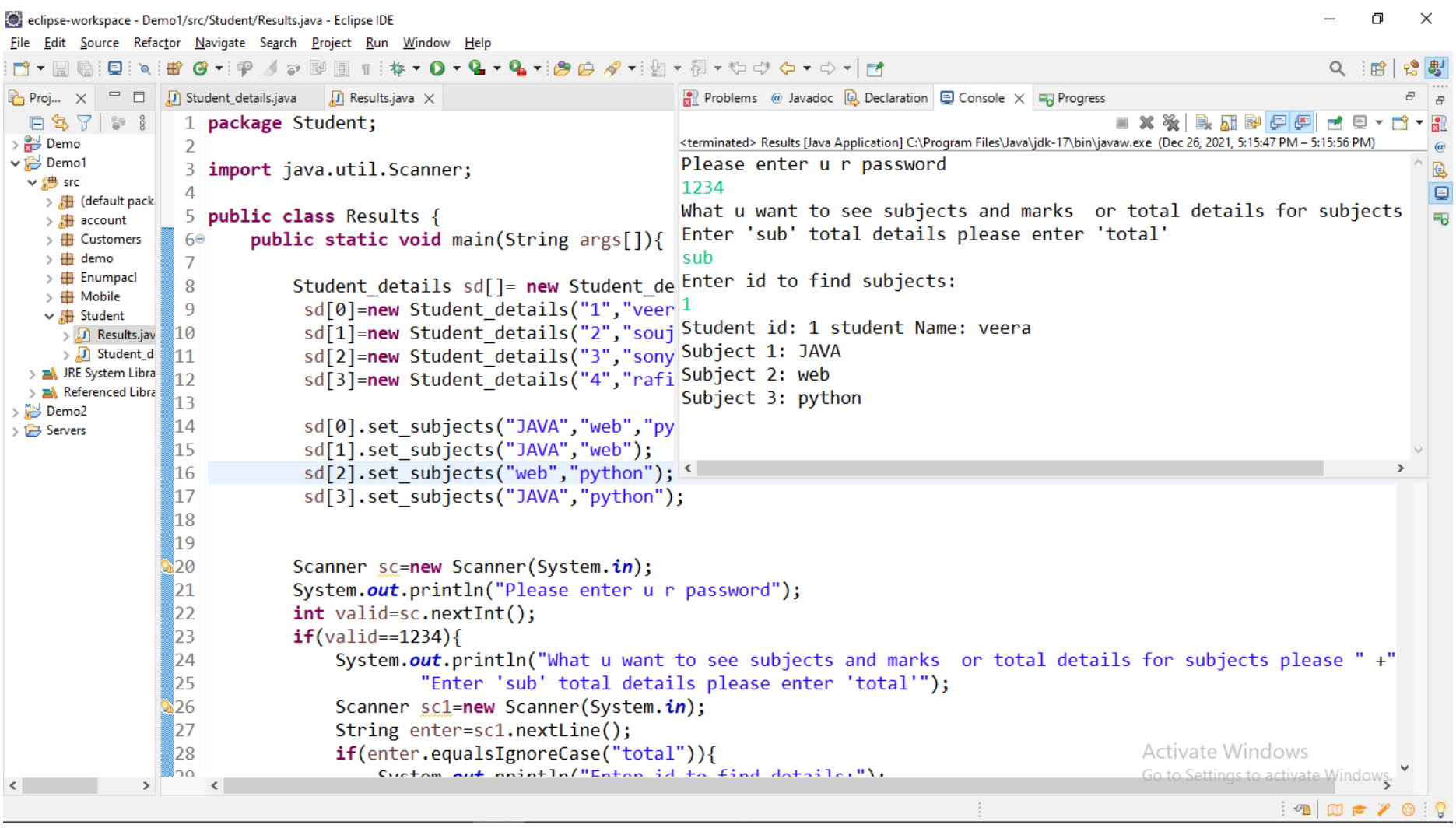
```
        else if(sub.length==2)
        {
            sub1=sub[0];
            sub2=sub[1];
        }
        else{
            System.out.println("please select 3 or 2 subjects...");
        }
    }

    public String get_subjects() {
        if (sub1 != null && sub2 != null && sub3 != null) {
            return "Student id: " + id + " student Name: " + name + "\n" +
"Subject 1: " + sub1 + "\n" + "Subject 2: " + sub2 + "\n"
                    + "Subject 3: " + sub3;
        } else if (sub1 != null && sub2 != null) {
            return "Student id: " + id + " student Name: " + name + "\n" +
"Subject 1: " + sub1 + "\n" + "Subject 2: " + sub2;

        }
        return "Please select atleast 2 or 3 subjects...";
    }
}
```

Results (child class / main class):

```
        package Student;

import java.util.Scanner;

public class Results {
    public static void main(String args[]){

        Student_details sd[]= new Student_details[4];
         sd[0]=new Student_details("1","veera",60,50,65);
         sd[1]=new Student_details("2","soujanya",70,65,60);
         sd[2]=new Student_details("3","sony",75,80,46);
         sd[3]=new Student_details("4","rafi",73,75,80);

         sd[0].set_subjects("JAVA","web","python");
         sd[1].set_subjects("JAVA","web");
         sd[2].set_subjects("web","python");
         sd[3].set_subjects("JAVA","python");


        Scanner sc=new Scanner(System.in);
        System.out.println("Please enter u r password");
        int valid=sc.nextInt();
        if(valid==1234){
            System.out.println("What u want to see subjects and marks  or total
details for subjects please " +"\n"+
                    "Enter 'sub' total details please enter 'total'");
            Scanner sc1=new Scanner(System.in);
            String enter=sc1.nextLine();
```

```
if(enter.equalsIgnoreCase("total")){
    System.out.println("Enter id to find details:");
    int id=sc1.nextInt();
    try{
        System.out.println(sd[id-1].get_Details());
    }catch(Exception e){
        System.err.println("Please enter correct student id");
    }

}
else if(enter.equalsIgnoreCase("sub")){
    System.out.println("Enter id to find subjects:");
    int id=sc1.nextInt();
    try{
        System.out.println(sd[id-1].get_subjects());
    }catch(Exception e){
        System.err.println("Please enter correct student id");
                }
            }
            else{
                System.out.println("please select correct input...");
            }
        }
        else{
            System.out.println("Wrong Password please enter correct
password...");
        }

    }
}
```

Output 1 (subjects):



Output 2 (All details):