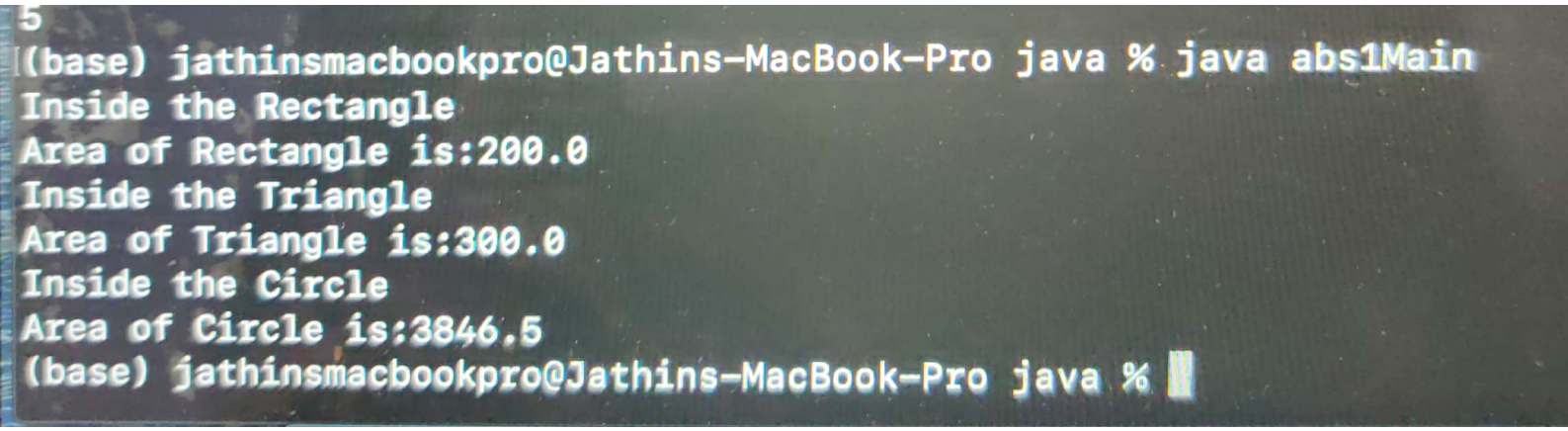
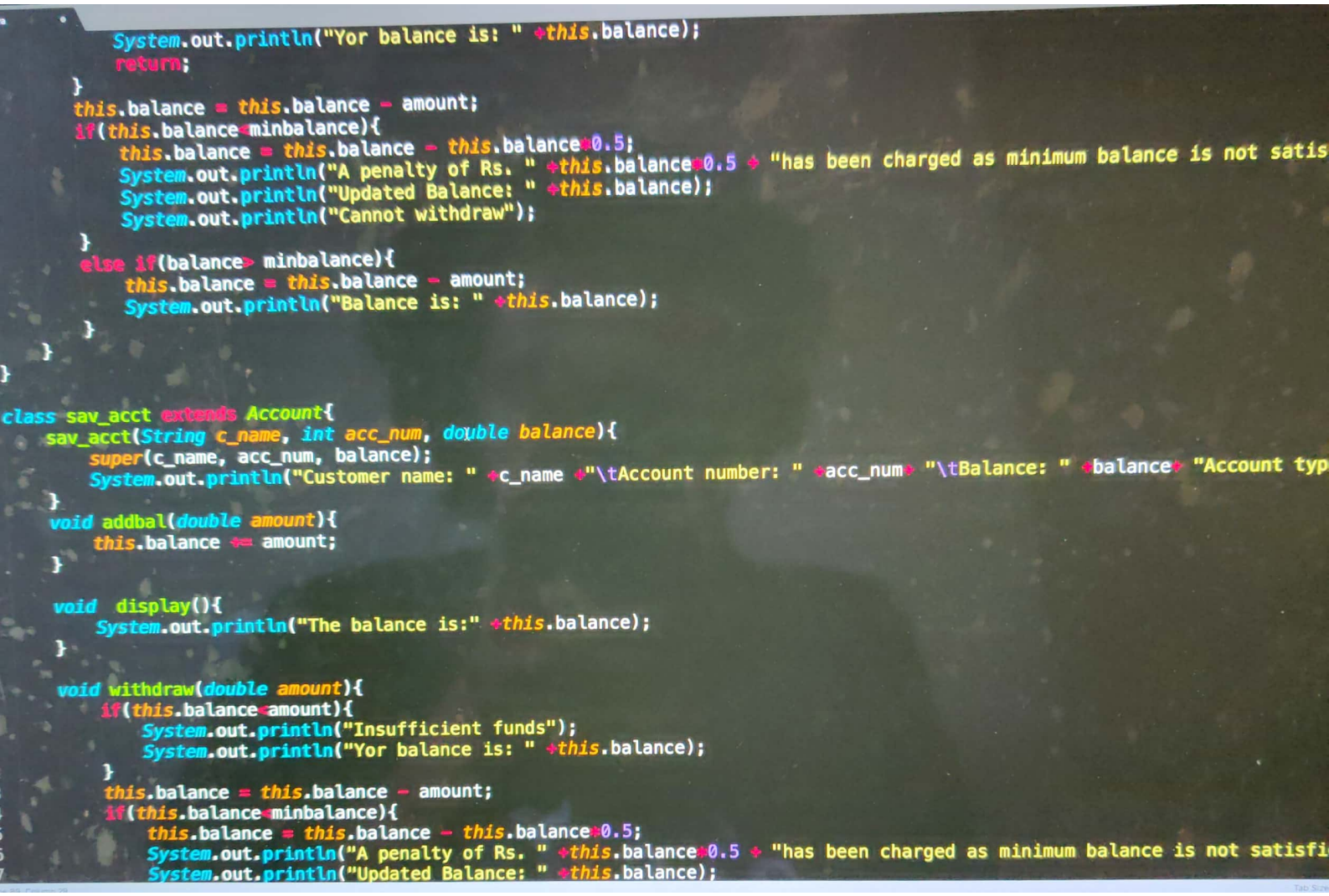
```java
abstract class Shape{
    double dim1,dim2;
    abstract double printArea();
}

class Rectangle extends Shape{
    Rectangle(double a, double b){
        dim1 = a;
        dim2 = b;
    }
    double printArea(){
        System.out.println("Inside the Rectangle");
        return dim1*dim2;
    }
}

class Triangle extends Shape{
    Triangle(double a, double b){
        dim1 = a;
        dim2 = b;
    }
    double printArea(){
        System.out.println("Inside the Triangle");
        return dim1*dim2/2;
    }
}

class Circle extends Shape{
    Circle(double a){
        dim1 = a;
    }
    double printArea(){
        System.out.println("Inside the Circle");
        return 3.14*dim1*dim1;
    }
}

class abs1Main{
    public static void main(String args[]){
        Rectangle r = new Rectangle(10,20);
```

Line 1, Column 1

```
    }
    double printArea(){
        System.out.println("Inside the Rectangle");
        return dim1*dim2;
    }
}

class Triangle extends Shape{
    Triangle(double a, double b){
        dim1 = a;
        dim2 = b;
    }
    double printArea(){
        System.out.println("Inside the Triangle");
        return dim1*dim2/2;
    }
}

class Circle extends Shape{
    Circle(double a){
        dim1 = a;
    }
    double printArea(){
        System.out.println("Inside the Circle");
        return 3.14*dim1*dim1;
    }
}

class abs1Main{
    public static void main(String args[]){
        Rectangle r = new Rectangle(10,20);
        Triangle t = new Triangle(20,30);
        Circle c = new Circle(35);

        System.out.println("Area of Rectangle is:" +r.printArea());
        System.out.println("Area of Triangle is:" +t.printArea());
        System.out.println("Area of Circle is:" +c.printArea());
    }
}
```

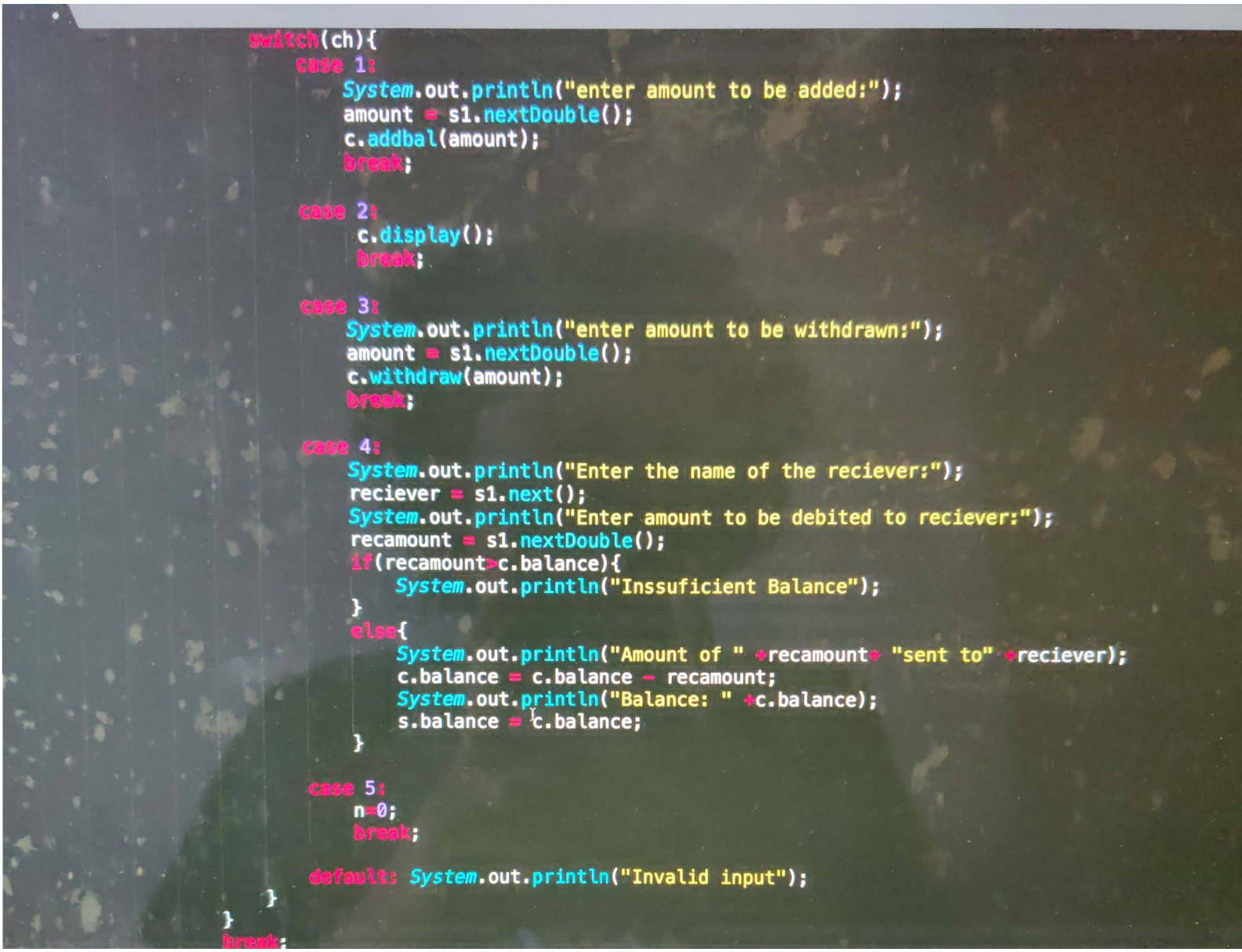


```java
import java.util.Scanner;

abstract class Account{
    String c_name, acc_type;
    int acc_num;
    double balance;
    int minbalance = 2000;
    Account(String c_name, int acc_num, double balance){
        this.c_name = c_name;
        this.acc_num = acc_num;
        this.balance = balance;
        this.acc_type = acc_type;
    }

        abstract void addbal(double amount);
        abstract void display();
        abstract void withdraw(double amount);
}

class curr_acct extends Account{
    curr_acct(String c_name, int acc_num, double balance){
        super(c_name, acc_num, balance);
        System.out.println("Details ot the customer:");
        System.out.println("Customer name: " +c_name +"\tAccount number: " +acc_num+ "\tBalance: " +balance+ "Account type
    }

    void addbal(double amount){
        this.balance += amount;
    }

    void  display(){
        System.out.println("The balance is:" +this.balance);
    }

    void withdraw(double amount){
        if(this.balance<amount){
            System.out.println("Insufficient funds");
            System.out.println("Yor balance is: " +this.balance);
            return;
        }
```



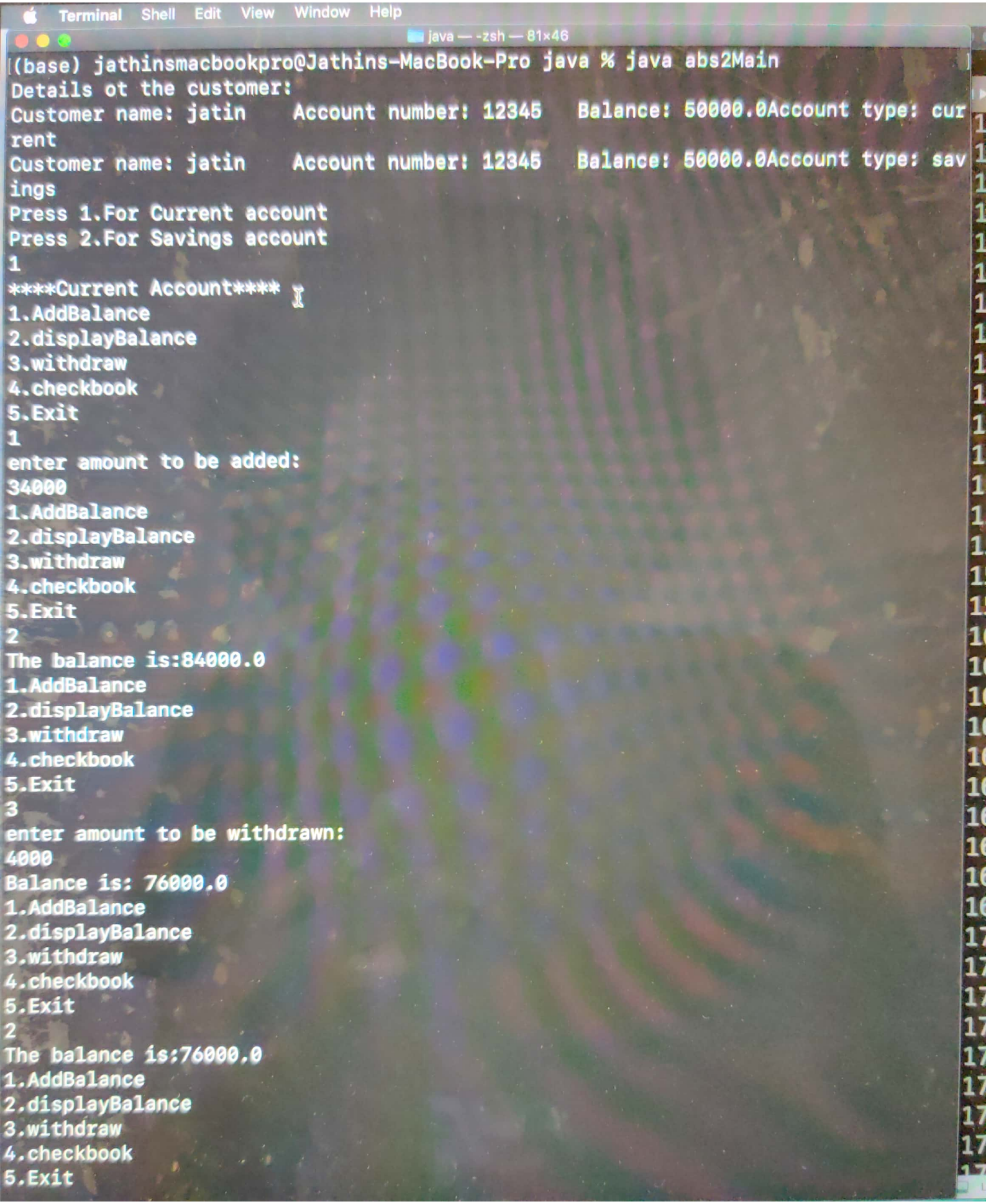
```
        System.out.println("Yor balance is: " +this.balance);
        return;
    }
    this.balance = this.balance - amount;
    if(this.balance<minbalance){
        this.balance = this.balance - this.balance*0.5;
        System.out.println("A penalty of Rs. " +this.balance*0.5 + "has been charged as minimum balance is not satis
        System.out.println("Updated Balance: " +this.balance);
        System.out.println("Cannot withdraw");
    }
    else if(balance> minbalance){
        this.balance = this.balance - amount;
        System.out.println("Balance is: " +this.balance);
    }
  }
}

class sav_acct extends Account{
    sav_acct(String c_name, int acc_num, double balance){
        super(c_name, acc_num, balance);
        System.out.println("Customer name: " +c_name +"\tAccount number: " +acc_num+ "\tBalance: " +balance+ "Account typ
    }
    void addbal(double amount){
        this.balance += amount;
    }

    void  display(){
        System.out.println("The balance is:" +this.balance);
    }

    void withdraw(double amount){
        if(this.balance<amount){
            System.out.println("Insufficient funds");
            System.out.println("Yor balance is: " +this.balance);
        }
        this.balance = this.balance - amount;
        if(this.balance<minbalance){
            this.balance = this.balance - this.balance*0.5;
            System.out.println("A penalty of Rs. " +this.balance*0.5 + "has been charged as minimum balance is not satisfi
            System.out.println("Updated Balance: " +this.balance);
```

```
            System.out.println("A penalty of Rs. " +this.balance*0.5 + "has been charged as minimum balance is not sati
            System.out.println("Updated Balance: " +this.balance);
            System.out.println("Cannot withdraw");
        }
        else if(balance> minbalance){
            this.balance = this.balance - amount;
            System.out.println("Balance is: " +this.balance);
        }
    }

    void intrest(double amount){
        int time = 3, n=1;
        System.out.println("Rate of intrest is 0.2");
        this.balance = this.balance*Math.pow(1+(0.2)/n, (nt));
    }
}

class abs2Main{
    public static void main(String args[]){
        int choice,ch,n=1;
        double amount;
        Scanner s1 = new Scanner(System.in);
        curr_acct c = new curr_acct("jatin", 12345, 50000);
        sav_acct s = new sav_acct("jatin", 12345, 50000);
        System.out.println("Press 1.For Current account\nPress 2.For Savings account");
        choice = s1.nextInt();
        switch(choice){
            case 1: System.out.println("****Current Account****");
                    while(n!=0){
                        System.out.println("1.AddBalance\n2.displayBalance\n3.withdraw\n4.checkbook\n5.Exit");
                        ch = s1.nextInt();
                        String reciever;
                        double recamount;
                        switch(ch){
                            case 1:
                                System.out.println("enter amount to be added:");
                                amount = s1.nextDouble();
                                c.addbal(amount);
                                break;
```



```
switch(ch){
    case 1:
        System.out.println("enter amount to be added:");
        amount = s1.nextDouble();
        c.addbal(amount);
        break;

    case 2:
         c.display();
         break;

    case 3:
        System.out.println("enter amount to be withdrawn:");
        amount = s1.nextDouble();
        c.withdraw(amount);
        break;

    case 4:
        System.out.println("Enter the name of the reciever:");
        reciever = s1.next();
        System.out.println("Enter amount to be debited to reciever:");
        recamount = s1.nextDouble();
        if(recamount>c.balance){
            System.out.println("Inssuficient Balance");
        }
        else{
            System.out.println("Amount of " +recamount+ "sent to" +reciever);
            c.balance = c.balance - recamount;
            System.out.println("Balance: " +c.balance);
            s.balance = c.balance;
        }

     case 5:
         n=0;
         break;

     default: System.out.println("Invalid input");
    }
}
break;
```

```
                    break;

                default: System.out.println("Invalid input");
            }
        }
        break;

    case 2: System.out.println("****Savings Account****");
        while(n!=0){
            System.out.println("1.AddBalance\n2.displayBalance\n3.withdraw\n4.Exit");
            ch = s1.nextInt();
            switch(ch){
                case 1:
                    System.out.println("enter amount to be added:");
                    amount = s1.nextDouble();
                    s.addbal(amount);
                    break;

                case 2:
                    s.display();
                    break;

                case 3:
                    System.out.println("enter amount to be withdrawn:");
                    amount = s1.nextDouble();
                    s.withdraw(amount);
                    break;

                case 4:
                    n=0;

                default: System.out.println("Invalid input");
            }
        }
        break;

    default: System.out.println("Invalid input");
    }
  }
}
```



```
2.displayBalance
3.withdraw
4.checkbook
5.Exit
3
enter amount to be withdrawn:
4000
Balance is: 76000.0
1.AddBalance
2.displayBalance
3.withdraw
4.checkbook
5.Exit
2
The balance is:76000.0
1.AddBalance
2.displayBalance
3.withdraw
4.checkbook
5.Exit
3
enter amount to be withdrawn:
75500
A penalty of Rs. 125.0has been charged as minimum balance is not satisfied
Updated Balance: 250.0
Cannot withdraw
1.AddBalance
2.displayBalance
3.withdraw
4.checkbook
5.Exit
2
The balance is:250.0
1.AddBalance
2.displayBalance
3.withdraw
4.checkbook
5.Exit
4
Enter the name of the reciever:
john
Enter amount to be debited to reciever:
150
Amount of 150.0sent tojohn
Balance: 100.0
(base) jathinsmacbookpro@Jathins-MacBook-Pro java %
```