Date Page

POOJA.K
1BM19CS111

LAB - 4

```
// Bank account program

abstract class Account {
    String cname, acctype;
    long accno;
    double bal;
    final double minBal = 1000.0;

Account ( String cname, long accno, double
bal, String acctype) {
    this.accno = accno;
    this. cname = cname;
    this. bal = bal;
     this. acctype = acctype;
    }

abstract void addBal (double amt);
abstract void dispBal ();
abstract void withBal (double amt);
}

class Curr-acct extends Account {
Curr-acct (String cname, long accno, double bal){
 super(cname, accno, bal, "Current");
 System. out. println ("Name" + cname + "\t
accno:" + accno + "\t bal: " + bal + "\t type :"
     + acctype);
}
```

```
void addBal (double amt) {
  this.bal = amt;
}

void dispBal() {
System.out.println("Your balance is:"
   +this.Bal);
  }
void checkBal() {
 if (this.bal < minBal) {
 System.out.println("Insufficient balance,
 penalty imposed");
  this.bal -= this.Bal.*0.02;
   }
}

void withBal (double amt) {
    this.bal -= amt
    checkBal();
  }
};

class Sav_acct extends Account {
  Sav_acct (String cname, long accno,
  double bal) {
  super (cname, accno, bal, "Savings");
System.out.println("name:" + cname + "\t accno
  : " + accno + "\t bal:" + bal + "\t type:"
  + acctype);
}
```

```
void addBal (double amt) {
this.bal += amt;
addIntr();
}

void addIntr() {
  this.bal = this.bal * 0.07;
}

void dispBal() {
System.out.println("Your balance is:" +
  + this.bal);
}

void withBal(double amt){
    this.bal-= amt;
  }
}

class Bank {
public static void main (String args[]) {
 Scanner sc = new Scanner(System.in);
 Double amt;

System.out.println("Enter your details:");
System.out.println("Name:");
 String x = sc.next();
System.out.println("Account number:");
 long y = sc.nextLong();
```

```
for(;;)
System.out.println("Type of account:\n
1. Current account \n 2: Savings account
3. Exit");

int t = sc.nextInt();

if(t==1){
System.out.println("The current account
provides cheque book facility but no
interest:");
Curr_acct c= new Curr_acct(x,y,50,000);

for(;;)
        {
System.out.println("1.Deposit \n 2: Display
Balance \n 3: Withdraw \n 4: Exit");
 int ch = sc.nextInt();

switch(ch) {
case 1: System.out.println("Enter amount
to be added:");
amt = sc.nextDouble();
c = addBal(amt);
 break;

case 2:  c.dispBal();
                break;

case 3: System.out.println("Enter the
    amount to be withdrawn:");
    amt = sc.nextDouble();
```

```
c.withBal(amt);
break;
case 4 : System.exit(0);
default : System.out.println("Invalid choice");
}
    }
}

else if (t==2){
System.out.println("The savings account provides compound interest and withdrawal facility but no cheque book facility:");
Sav_acct s = new Sav_acct(x,y,5000);
System.out.println("1:Deposit \n 2: Display Balance \n 3: Withdraw \n 4: Exit");
int ch = sc.nextInt();
switch(ch) {
 case 1 : System.out.println("Enter the amount to be added");
          amt = sc.nextDouble();
          s.addBal(amt);
          break;
 case 2 :
          s.dispBal();
          break;

case 3: System.out.println("Enter the amount to be withdrawn:");
        amt = sc.nextDouble();
        s.withBal(amt);
        break;
```

```
        case 4: System.exit(0);
          default: System.out.println("Invalid
choice");
          }
        }
          }
        }
else if(t==3)
  System.exit(0);
  else
    System.out.println("Invalic choice! Try again");
          }
        }
}
```

Bank.java - Notepad

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```
import java.util.Scanner;

abstract class Account {
    String cName, accType;
    long accNo;
    double bal;
    final double minBal = 1000.0;

    Account(String cName, long accNo, double bal, String accType) {
        this.accNo = accNo;
        this.cName = cName;
        this.bal = bal;
        this.accType = accType;
    }

    abstract void addBal(double amt);

    abstract void dispBal();

    abstract void withBal(double amt);
}

class Curr_acct extends Account {
    Curr_acct(String cName, long accNo, double bal) {
        super(cName, accNo, bal, "Current");
        System.out.println("Name: "+cName+"\taccno: "+accNo+"\tbal: "+bal+"\ttype: "+accType);
    }

    void addBal(double amt){
        this.bal  += amt;

    }

    void dispBal(){
```

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Bank.java - Notepad

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```
    void dispBal(){
        System.out.println("Your balance is: " + this.bal);
    }
        void checkBal() {
        if (this.bal < minBal) {
                        System.out.println("Insufficient balance, penalty imposed");
            this.bal -= this.bal * 0.02;
        }
}

    void withBal(double amt){
        this.bal -= amt;
        checkBal();
    }

}

class Sav_acct extends Account {
    Sav_acct(String cName, long accNo, double bal) {
        super(cName, accNo, bal, "Savings");
        System.out.println("name: " + cName + "\taccno: " + accNo + "\tbal: " + bal + "\ttype: " + accType);
    }

    void addBal(double amt){
        this.bal  += amt;
        addIntr();
    }

    void addIntr() {
        this.bal += this.bal * 0.07;
    }

    void dispBal(){
        System.out.println("Your balance is: " + this.bal);
```

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```
        System.out.println("Your balance is: " + this.bal);
    }


    void withBal(double amt){
        this.bal -= amt;

    }



    }


class Bank {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        Double amt;
                System.out.println("Enter your details:");
                System.out.println("Name:");
                String x=sc.next();
                System.out.println("Account Number:");
                long y=sc.nextLong();
                for(;;)
                {
                System.out.println("Type of account:\n1.Current account\n2.Savings account\n3.Exit");
                int t=sc.nextInt();


        if(t==1){
                        System.out.println("The current account provides cheque book facility but no interest.");
                Curr_acct c = new Curr_acct(x, y, 50000);
        for(;;)
                        {
```

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```
                System.out.println("The current account provides cheque book facility but no interest.");
        Curr_acct c = new Curr_acct(x, y, 50000);
for(;;)
                {
    System.out.println("1:Deposit\n2:Display Balance\n3:Withdraw\n4:Exit");
    int ch = sc.nextInt();

    switch (ch) {
        case 1:
            System.out.println("Enter the amount to be added:");
            amt = sc.nextDouble();
            c.addBal(amt);
            break;

        case 2:
            c.dispBal();
            break;

        case 3:
            System.out.println("Enter the amount to be withdrawn:");
            amt = sc.nextDouble();
            c.withBal(amt);
            break;
                    case 4:System.exit(0);
            default:System.out.println("Invalid choice! Try again");
    }
                }

        }

else if(t==2){
                System.out.println("The savings account provides compound interest and withdrawal facilities but no cheque book facility.");
        Sav_acct s = new Sav_acct(x,y,5000);
for(;;) {
```

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```
            Sav_acct s = new Sav_acct(x,y,5000);
        for(;;) {
            System.out.println("1:Deposit\n2:Display Balance\n3:Withdraw\n4:Exit");
            int ch = sc.nextInt();
            switch (ch) {
                case 1:
                    System.out.println("Enter the amount to be added:");
                    amt = sc.nextDouble();
                    s.addBal(amt);
                    break;

                case 2:
                    s.dispBal();
                    break;

                case 3:
                    System.out.println("Enter the amount to be withdrawn:");
                    amt = sc.nextDouble();
                    s.withBal(amt);
                    break;
                case 4:System.exit(0);
                        default:System.out.println("Invalid choice! Try again");
            }
        }
                }
                else if(t==3)
                        System.exit(0);
                else
                        System.out.println("Invalid choice! Try again");


                }
                }
    }
```

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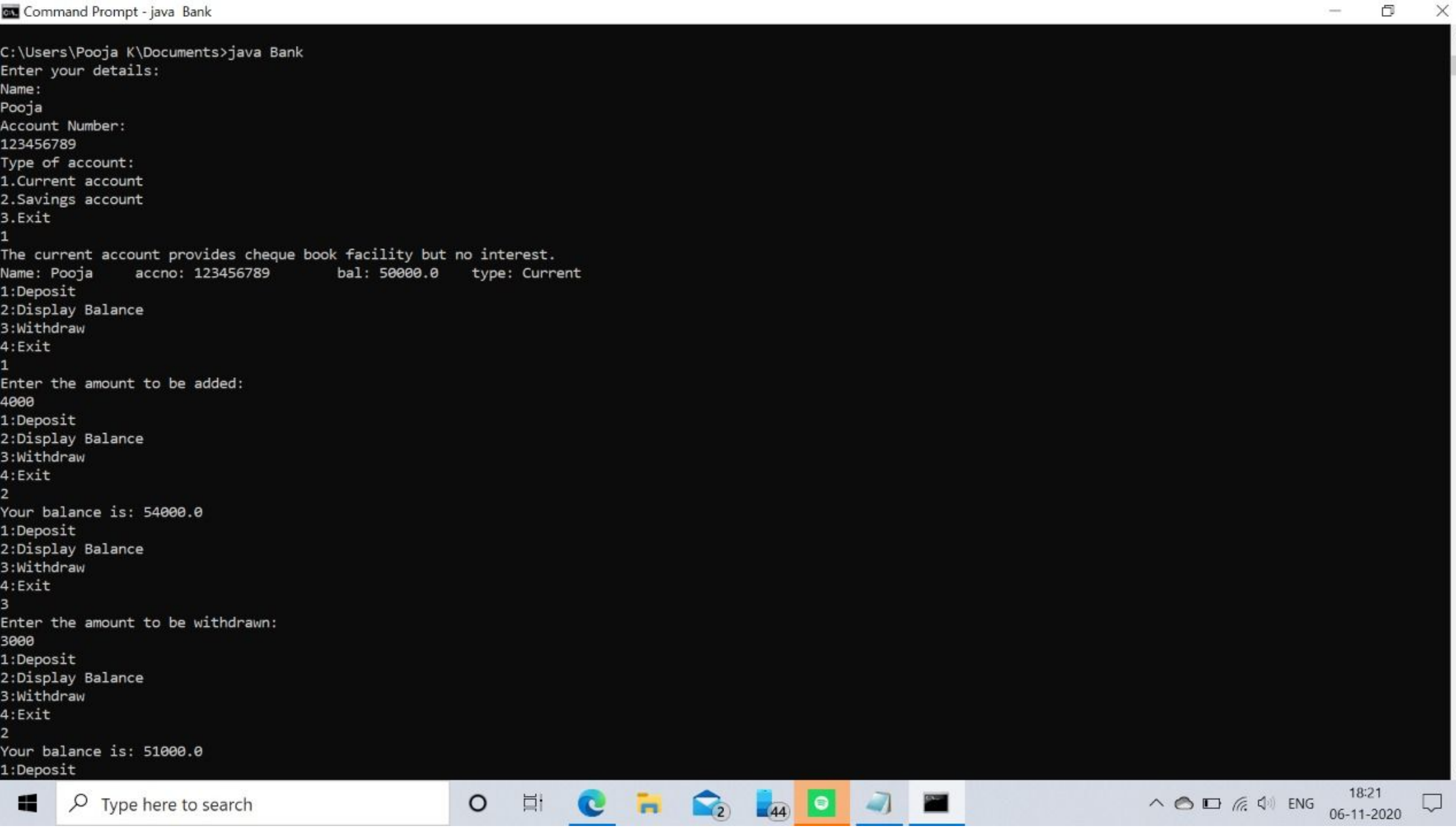
Command Prompt - java Bank
C:\Users\Pooja K\Documents>java Bank
Enter your details:
Name:
Pooja
Account Number:
123456789
Type of account:
1.Current account
2.Savings account
3.Exit
1
The current account provides cheque book facility but no interest.
Name: Pooja accno: 123456789 bal: 50000.0 type: Current
1:Deposit
2:Display Balance
3:Withdraw
4:Exit
1
Enter the amount to be added:
4000
1:Deposit
2:Display Balance
3:Withdraw
4:Exit
2
Your balance is: 54000.0
1:Deposit
2:Display Balance
3:Withdraw
4:Exit
3
Enter the amount to be withdrawn:
3000
1:Deposit
2:Display Balance
3:Withdraw
4:Exit
2
Your balance is: 51000.0
1:Deposit
Type here to search
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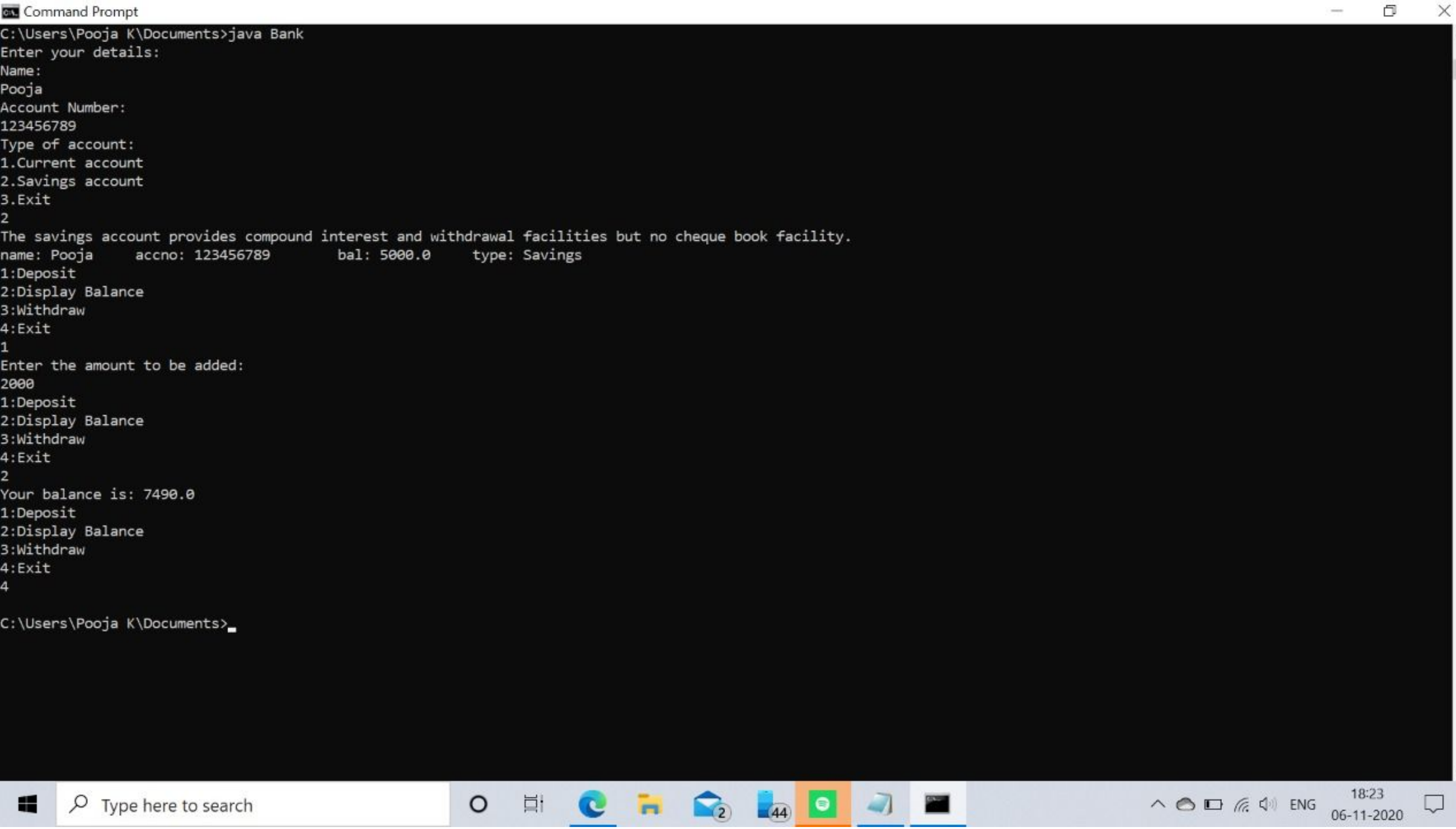
Command Prompt
C:\Users\Pooja K\Documents>java Bank
Enter your details:
Name:
Pooja
Account Number:
123456789
Type of account:
1.Current account
2.Savings account
3.Exit
2
The savings account provides compound interest and withdrawal facilities but no cheque book facility.
name: Pooja accno: 123456789 bal: 5000.0 type: Savings
1:Deposit
2:Display Balance
3:Withdraw
4:Exit
1
Enter the amount to be added:
2000
1:Deposit
2:Display Balance
3:Withdraw
4:Exit
2
Your balance is: 7490.0
1:Deposit
2:Display Balance
3:Withdraw
4:Exit
4
C:\Users\Pooja K\Documents>
Type here to search
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