## Lab Program 5:

Develop a Java program to create a class Bank that maintains two kinds of account for its customers, one called savings account and the other current account. The savings account provides compound interest and withdrawal facilities but no cheque book facility. The current account provides cheque book facility but no interest. Current account holders should also maintain a minimum balance and if the balance falls below this level, a service charge is imposed.

Create a class Account that stores customer name, account number and type of account. From this derive the classes Cur-acct and Sav-acct to make them more specific to their requirements. Include the necessary methods in order to achieve the following tasks:

- a) Accept deposit from customer and update the balance.
- b) Display the balance.
- c) Compute and deposit interest
- d) Permit withdrawal and update the balance Check for the minimum balance, impose penalty if necessary and update the balance.

# Code:

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Create a close Account that stones customer name	System out . print (" Enter account number")
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b) Display the balance.	
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c) Compute and deposit intust.	else? System. and printly ("customer account type Current);
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impose penalty i) necessary, and sund ! Il	<b>*</b>

void deposit() void withdraw () System out printes ("Extentle amount to be deposited!"); system out printh ("Enter the amount to be withdrawn"); Sanna x= new Scanna (System in); double ant = ze-next Double (); double ant=s. port Double (); if (blance >ant) 3 balance - = ant; }. balance + =amt; ? Class Sav-acet extends Account. 2 System out pointh ("Amount to be with glacon greater than balance !!!); ). double interest; Scanner s=new Scanner (System:in); clas cur -acet extends Account Sav-acet () ? double check - ant; type = 1; type = 2; void contact () void cheque (). int time y; Ploat inti system . out print ("Enter the chaque amount: "), System out printh (" (ompound Interest details"); System out printh (" Eiter time in years: "); Scanner s = new Scanner (System in); check - ant = s. restPouble(); if (check - ant > Laborer - 5000). nate = s. next Float (); System out purtle "Interest will be compounded System out printle ("RS 500 percently imposed - Is it of to proceed ? Enter y 5 times a year"); intuest - balance + (Moth, pour ((1+ inate/100)) String option = s. neat();

If (option : qualy("y")) ? balance - balance -chele ( time y) ) Lybrus balance + = interest else 3 System out printh ("no check delited"); }

System out printle (" propose" + check and + "delital)
bolence = check ant; void withdraw () System. out println ("Enter the amount to be withdrawn:"); Scanna s=new Scannal System in); double ant = s. new Double 1); if (balance > ant).
3 balance = ant; 3, elsc 2 System out printle ("Amount to be withdown greater than balance!")it class Bant? public static void main (string of [3)? String op 1, op 2; Scanner se new Scanner Crystem in) System-out paint or ("I savings on 2 Current) intq: 2 = 5 next Int (); if (q = = 1) ? Sav-act s1 = new Sav-act Ur while (thus)? System out print ("Finter the choice: In 1. Set the values for savings accept 2. Display in 3. deposit in 4. Interest in 5. withdraw in 6. exit in );

Date Page op 1 = s. neit (); soitch (op 1) case "1": s1. setA(); care 12": SI display 0; breaks Case "3": S1 . deposit (); breaki case "y": 51. cinterest (); break; cax "5": st. withdraw (); beaki ase "6": System. exit(0); 3 else if (q=2) 3 courset of = new cour-acet(); cohile Ctane), ? system-out-print ("Enter the choice: In acto; 1. Set the values for current 3. depoit h 4. transfer thech h 5. Withdraw horcith (") op 2 = s. next (); switch (ap2). case #1" : c1-sctA(); breaki cose 112": c1-display 1); beal;

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	1. LATINGEN - LATINGEN
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5-	withdraw
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150	Enter Customer name: Addi
	Enter account number: 230034.
	Enter bank balance ? 7 m
1.	Bet the values for savings ace
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3.	deposit
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5.	wi thousand
6-	withdraw exit.
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#### Output:

#### 1. Savings Account

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jdt.ls-java-project\bin' 'Bank'
1. Savings or 2. Current?
Enter the choice:
1 .Set the values for savings acc
2. display
deposit
4. Interest
5. Withdraw
Enter customer name: Sumukh
Enter account number: 344
Enter bank balance: 20000
Enter the choice:
1 .Set the values for savings acc
deposit
4. Interest
5. Withdraw
6. exit
Compound Interest details:
Enter time in years:
Enter rate of interest:
Interest will be compunded 5 times a year
Enter the choice:
1 .Set the values for savings acc
2. display
3. deposit
5. Withdraw
Customer name is: Sumukh
Customer account type is: Savings
Customer account number is: 344
Current balance is: 22471.997573852605
```

```
1 .Set the values for savings acc
2. display
deposit
4. Interest
5. Withdraw
6. exit
Enter the amount to be withdrawn:
10000
Enter the choice:
1 .Set the values for savings acc
2. display
deposit
4. Interest
5. Withdraw
Customer name is: Sumukh
Customer account type is: Savings
Customer account number is: 344
Current balance is: 16471.997573852605
Enter the choice:
1 .Set the values for savings acc
2. display
deposit
4. Interest
5. Withdraw
6. exit
■
```

```
Enter the choice:
1 .Set the values for savings acc
2. display
3. deposit
4. Interest
5. Withdraw
6. exit
Enter the amount to be deposited: 4000
Enter the choice:
1 .Set the values for savings acc
2. display
deposit
4. Interest
5. Withdraw
6. exit
Customer name is: Sumukh
Customer account type is: Savings
Customer account number is: 344
Current balance is: 26471.997573852605
```

### 2. Current Account

```
1. Savings or 2. Current?

2
Enter the choice:
1.Set the values for current account
2. display
3. deposit
4. transferCheck
5. Withdraw
6. exit
1
Enter customer name: Aadi
Enter account number: 234
Enter bank balance: 100
Enter the choice:
1.Set the values for current account
2. display
3. deposit
4. transferCheck
5. Withdraw
6. exit
4
Enter the cheque amount: 1000
Rs. 500 penalty imposed...Is it ok to proceed? Enter y for yes and n for no y
Enter the choice:
1.Set the values for current account
2. display
3. deposit
4
Enter the cheque amount: 1000
Rs. 500 penalty imposed...Is it ok to proceed? Enter y for yes and n for no y
Enter the choice:
1.Set the values for current account
2. display
3. deposit
4. transferCheck
5. Withdraw
6. exit
2
Customer name is: Aadi
Customer account type is: Current
Customer account tymber is: 234
Current balance is: -1400.0
```

```
Enter the choice:
1. Set the values for current account
2. display
3. deposit
4. transferCheck
5. Withdraw
6. exit
2
Customer name is: Aadi
Customer account type is: Current
Customer account type is: 234
Current balance is: 180.0
Enter the choice:
1. Set the values for current account
2. display
3. deposit
4. transferCheck
5. Withdraw
6. exit
4
Enter the cheque amount: 1000
Rs. 500 penalty imposed...Is it ok to proceed? Enter y for yes and n for no
n no check debited
Enter the choice:
1. Set the values for current account
2. display
3. deposit
4. transferCheck
5. Withdraw
6. exit
4
Enter the choice:
1. Set the values for current account
2. display
3. deposit
4. transferCheck
5. Withdraw
6. exit
Customer account number is: 234
Current balance is: Aadi
Customer account number is: 234
Current balance is: 180.0
```

```
1. Savings or 2. Current?
2. display
3. deposit
4. transferCheck
5. Withdraw
Enter customer name: Aadi
Enter account number: 234
Enter bank balance: 8000
1.Set the values for current account
2. display
deposit
4. transferCheck
5. Withdraw
6. exit
Enter the cheque amount: 1000
Rupees 1000.0 debited
Enter the choice:
1.Set the values for current account
2. display
deposit
4. transferCheck
5. Withdraw
Customer name is: Aadi
Customer account type is: Current
Customer account number is: 234
Current balance is: 7000.0
```

```
Enter the choice:
1.Set the values for current account
2. display
deposit
4. transferCheck
5. Withdraw
6. exit
Enter the amount to be deposited: 4000
Enter the choice:
1.Set the values for current account
2. display
3. deposit
4. transferCheck
5. Withdraw
Customer name is: Aadi
Customer account type is: Current
Customer account number is: 234
```

Current balance is: 11000.0

```
Enter the choice:
1.Set the values for current account
2. display
3. deposit
4. transferCheck
5. Withdraw
6. exit
Enter the amount to be withdrawn:
6000
1.Set the values for current account
2. display
3. deposit
4. transferCheck
5. Withdraw
Customer name is: Aadi
Customer account type is: Current
Customer account number is: 234
Current balance is: 5000.0
```