

24 - Notepad

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```
/*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 chequebook 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 Curr-acct and Sav-acct to make the mmore specific to the irrequirements.Include the necessary methods in order to achieve the following tasks:• Accept deposit from customer and update the balance.
```

```
•  
Display the balance.  
•  
Compute and deposit interest  
•  
Permit withdrawal and update the balance  
•  
Check for the minimum balance,  
impose penalty if necessary and update the balance  
*/
```

```
import java.util.Scanner;  
class account  
{  
private String name;  
private long account_number;  
private int account_type;  
double balance;  
void set_data()  
{  
Scanner ss = new Scanner(System.in);  
System.out.println("Enter Account Holder Name");  
name=ss.next();  
System.out.println("Enter the account Number");  
account_number=ss.nextLong();  
System.out.println("Choose the account type:\n1.savings account\n2.current account");  
account_type=ss.nextInt();  
}  
void get_data(){  
System.out.println("Account Holder:"+name);  
System.out.println("Account Number:"+account_number);  
}  
int return_account_type()  
}
```

```
}
int return_account_type()
{
return account_type;
}
}
class savings extends account
{
Scanner ss=new Scanner(System.in);
double amount;
void get_sav_balance()
{
System.out.println("Enter the Amount to be placed in your Savings Account");
amount=ss.nextDouble();
balance+=amount;
}
void display_sav_blnce()
{
System.out.println("balance="+balance);
}
void compute_sav_interest()
{
System.out.println("\n***Calculating Compound Interest***");
System.out.println("Enter annual interest rate:");
float rate=ss.nextFloat();
System.out.println("Enter time in years:");
float time=ss.nextFloat();
System.out.println("Enter principle:");
float principle=ss.nextFloat();
float CI=(float)((principle*(Math.pow((1+rate/(12*100)),(12*time))))-principle);
System.out.println("The Compound Interestis:"+CI);
balance=balance+CI;
System.out.println("Balance after adding Interest:"+balance);
}
void withdrawl_sav()
{
System.out.println("Enter the amount to be withdrawn");
amount=ss.nextDouble();
balance=balance-amount;
}
}
class current extends account
<
```

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```
}  
}  
class current extends account  
{  
Scanner ss=new Scanner(System.in);  
double amount;  
final double min_balance=500;  
void get_cur_balance()  
{  
System.out.println("Enter the amount to be placed in your current account");  
amount=ss.nextDouble();  
balance+=amount;  
}  
void display_cur_blnce()  
{  
System.out.println("Balance="+balance);  
}  
void compute_cur_service_charges()  
{  
if(balance<min_balance)  
{  
System.out.println("service tax of rs.100 shall be levied");  
balance=balance-100;  
}  
else  
{  
System.out.println("Minimum balance is Maintained");  
}  
}  
void withdrawl_cur()  
{  
System.out.println("Enter the amount to be withdrawn");  
amount=ss.nextDouble();  
balance=balance-amount;  
}  
}  
class bank  
{  
public static void main(String args[])  
{  
Scanner ss=new Scanner(System.in);  
int type;  
<
```

```
}  
class bank  
{  
public static void main(String args[])  
{  
Scanner ss=new Scanner(System.in);  
int type;  
System.out.println("Enter the bank details");  
account acc=new account();  
acc.set_data();  
type=acc.return_account_type();  
if(type==1)  
{  
System.out.println("SAVINGS ACCOUNT");  
acc.get_data();  
savings sav=new savings();  
sav.get_sav_balance();  
sav.display_sav_blnce();  
System.out.println("Do you want to calculate Interest or not:\nIf yes press 1 else 0");  
int ch=ss.nextInt();  
if(ch==1)  
{  
sav.compute_sav_interest();  
}  
sav.display_sav_blnce();  
sav.withdrawl_sav();  
sav.display_sav_blnce();  
}  
if(type==2)  
{  
System.out.println("CURRENT ACCOUNT");  
acc.get_data();  
current cur=new current();  
cur.get_cur_balance();  
cur.display_cur_blnce();  
cur.compute_cur_service_charges();  
cur.display_cur_blnce();  
cur.withdrawl_cur();  
cur.display_cur_blnce();  
}  
}  
}  
<
```

```
Command Prompt
Microsoft Windows [Version 10.0.18363.1139]
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C:\Users\priya>cd desktop
C:\Users\priya\Desktop>cd java
C:\Users\priya\Desktop\java> javac 24.java
C:\Users\priya\Desktop\java>java bank
Enter the bank details
Enter Account Holder Name
priyanshu
Enter the account Number
08082000
Choose the account type:
1.savings account
2.current account
1
SAVINGS ACCOUNT
Account Holder:priyanshu
Account Number:08082000
Enter the Amount to be placed in your Savings Account
200000
balance=200000.0
Do you want to calculate Interest or not:
If yes press 1 else 0
1
***Calculating Compound Interest***
Enter annual interest rate:
10
Enter time in years:
3
Enter principle:
2000
The Compound Interest is:696.3629
Balance after adding Interest:200696.36291503906
balance=200696.36291503906
Enter the amount to be withdrawn
5000
balance=195696.36291503906
C:\Users\priya\Desktop\java>_
```