Lab5- program

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```
import java.util.*;
import java.lang.*;

class Account{

    String name, abc;
    int accNo;
    char accType;
    double deposit;
    Scanner in = new
    Scanner(System.in);

void input_data(){
    System.out.println("Enter your account type (S/C):");
        abc = in.nextLine();
        accType = abc.charAt(0);
}

void deposit(){
    System.out.println("Enter an amount to deposit:");
        deposit = in.nextDouble();
        bal += deposit;
        System.out.println("Balance has been updated.");
}

void view_balance(){
    System.out.println("Balance = " + bal);
}
```

```
public static void main (String [] args )
{
  Scanner s= new
  Scanner ( System.in ) ;
  int x ;
  Account a1 = new Account ();
  a1 .input_data ();
  if (a1. accType == 'c' || a1. accType = = 'c' ) {
  Current a2 = new Current () ;
  do {
  System .out. println ("Welcome to your current Account ");
  System .out. println (" 1. Deposit " );
  System. out. println (" 2. Check Balance " );
  System .out. println ("3. Issue Cheque ");
  System . out .println("4. Exit " );
   System . out. println (" Enter your choice " );
   x = s. nextInt ();
   switch (x) {
   case 1: a2. deposit ();
   break ;
   case 2: a2. check_balance ();
   break;
   Case 3: a2. issue _cheque ();
   break;
   Case 4: System . exit (0);
   break;
   default ;

  System . out . println (" Error, Invalid choice " );
  }
} while (x <= 4 && x >= 1 );
```

```
}
else if(a1.accType == 'S' || a1.accType == 's'){
Savings a3 = new Savings();
do{
    System.out.println("Welcome to your savings Account");
    System.out.println("1. Deposit");
    System.out.println("2. View balance");
    System.out.println("3. Withdraw");
    System.out.println("4. Calculate compound interest");
    System.out.println("5. Exit");
    System.out.println("Enter your choice:");
    x= s.nextInt();
    switch(x){
    case 1 : a3.deposit();
    break;
    case 2: a3.view_balance();
    break;
    case 3: a3.withdraw_balance();
    break;
    case 4: a3.compute_ci();
    break;
    case 5: System.exit(0);
    break;
    default: System.out.println("Error. Invalid choice");
    }
} while(x<=5 && x>=1);
}
else System.out.println("Invalid Account type");
}
}
```

```
class Current extends Account {
 Current () {
 System.out.println (" Enter your name: " );
 name = in. nextLine ();
 System. out. println (" Enter your Account number : " );
     accNo = in. nextInt ();
    deposit ();
 }
  double chq_amount;
  void issue_cheque () {
  System.out.println (" Enter amount for which cheque is to be
 issued. ");
  ~~cheque~~ chq_amount = in. nextDouble ();
  if (chq_amount > bal ) {
  System.out.println (" Error ! Insufficient balance in account.");
 }
  else {
   bal = chq_amount ;
   System.out.println(" Cheque has been issued successfully");
  }
}
  void check_balance () {
   if (bal < 1000 ) {
   System.out.println (" Current available balance is lesser than
minimum required balance ");
   bal = 100;
   System.out.println (" Service charge of Rs. 100 has been deducted
from your ~~phone~~ balance");
  }
  view_balance ();
 }
}
```

```
class Savings extends Account {
  double CI, withdrawal_amount, time;
Savings(){
 System.out.println("Enter your name: ");
 name = in.nextLine();
 System.out.println("Enter your account number.");
  accNo = in.nextInt();
   deposit();
}

void compute_CI(){
  System.out.println("Enter time period:");
 time =in.nextInt();
  CI = bal * Math.pow(1 + (0.08/12), 12*time) - bal;
  System.out.println("CI = " + CI);
   bal += CI;
   System.out.println("CI has been deposited");
}

void withdraw_balance(){
System.out.println("Enter the amount you want to withdraw :");
withdrawal_amount = in.nextDouble();
 if(withdrawal_amount > bal){
 System.out.println("Error! The entered amount is greater than
 the available balance");
  }
  else {
  bal = withdrawal_amount;
  System.out.println("Amount has been successfully withdrawn");
}
}
}
```