Lab 5 program :- (week 8) :-

```
import java.util.Scanner;
import java.lang.Math;

class Account
{
  Scanner ss = new Scanner (System.in);
  String acc_name, acc_no;
  int acc_type;
  double Blance;
  void CreateAccount ()
  {
    System.out.println ("Enter the Details of the new account: ");
    System.out.printf ("Name: ");
    acc_name = ss.next ();
    System.out.printf ("Ideal Account number: ");
    acc_no = ss.next ();
    if (acc_type == 1)
    {
      System.out.printf ("Enter the first Deposite value: ");
      balance = ss.nextDouble ();
      System.out.printf ("Thank you for creating an Account.");
    }
  else
  {
    System.out.printf ("Enter the first Deposit value (above 5000): ");
    balance = ss.nextDouble ();
    System.out.printf ("Thank you for creating an Account. In
                        you will receive your cheque book");
    }
}
```

```
String getAccountNo()
{   return acc_no; }
void Display()
{
   System.out.println("The Account Details are given as follows: ");
   System.out.println("Name: "+acc_name);
   System.out.println("Account Number: "+acc_no);
   if(acc_type==1)
        System.out.println("Account Type: Saving Accounts");
   else
        System.out.println("Account Type: Current Accounts");
   System.out.println("Balance: "+balance);
}
}
class Sav_Acct extends Account
{
   void withdraw()
   {
      double amount;
      System.out.println("Enter the amount to be withdrawn: ");
      amount= ss.nextDouble();
      balance -= amount;
   }
   void deposite()
   {
      double amount;
      System.out.println("Enter the amount to be Deposited: ");
      amount = ss.nextDouble();
      balance += amount;
   }
   void compound_interest()
   {
      byte years_of_dep;
      double interest;
      System.out.println("Enter the number of years of compound interest: ");
      years_of_dep= ss.nextByte();
      interest=(balance*Math.pow(1+4.5/100, years_of_dep))-balance;
      System.out.println("The compound interest is: "+interest);
   }
}
```

```
class Curr_Acct extends Account
{
  void withdraw()
  {
    double amount;
    System.out.println("Warning: A minimum of 5000 balance must be
                        maintained in it If failed, a penalty of Rs100
                        will be imposed.");
    System.out.println("Enter the Amount to be withdrawn: ");
    amount = is.nextDouble();
    balance -= amount;
    penaltycheck();
  }
  void deposite()
  {
    double amount;
    System.out.println("Enter the amount to de Deposited: ");
    amount = is.nextDouble();
    balance += amount;
  }
  void penalty check()
  {
    if (balance < 5000)
    {
      int pen = 100;
      System.out.println("The balance is less than 5000 a penalty
                          of Rs.100 is imposed.");
      balance -= pen;
    }
  }
}
```

```
class Bank
{
    public static void main(String args[])
    {
        Sav_Acct Sacct[] = new Savi_Acct[10];
        Curr_Acct Cacct[] = new Curr_Acct[10];
        Scanner ss = new Scanner(System.in);
        String acctno;
        int ch, i=0, j=0;
        while (true)
        {
        System.out.println("Welcome to the bank.\n");
        System.out.println("Enter the action to be performed:");
        System.out.println("1: Create a Savings Account\n2: Create a Current Account");
        System.out.println("3: Deposite\n4: Withdraw\n5: Display Balance\n
                           6: check Compound Interest");
        System.out.println("Enter your choice:");
        ch = ss.nextInt();
        switch(ch)
        {
          case 1: S_acct[i] = new Sav_Acct();
                  S_acct[i].acc_type = 1;
                  S_acct[i].CreateAccount();
                  i++;
                  break;
          case 2: C_acct[j] = new Curr_Acct();
                  C_acct[i].acc_type = 2;
                  C_acct[j].CreateAccount();
                  j++;
                  break;
          case 3: System.out.println("Enter the account number:");
                  acctno = ss.next();
                  for(int K=0; K<=j; K++)
                  {
```

```
            if (acctno.equals(c_acct[K].getAccountNo()))
            {
              System.out.println("This Account is a current
                                  Account.");
              c_acct[K].deposite();
            }
          }
          for(int K=0; K<i; K++)
          {
            if (acctno.equals((c_acct[K].getAccountNo())))
            {
              System.out.println("This Account is a current Account");
              c_acct[K].deposite();
            }
          }
          for (int K=0; K<i; K++)
          {
            if (acctno.equals(s_acct[K].getAccountNo()))
            {
              System.out.println("This Account is a Saving Account.");
              s_acct[K].deposite();
            }
          }
          break;
      case 4: System.out.println("Enter the accnt number: ");
          acctno = ss.next();
          for(int K=0; K<j; K++)
          {
            if(acctno.equals(c_acct[K].getAccountNo()))
            {
              System.out.println("This Account is a current Acount.");
              c_acct[K].withdraw();
            }
          }
```

```
for (int K=0; K<i ; K++)
{
 if (acctno.equals (S_acct[K].getAccountNo()))
 {
   System.out.println("This Account is a saving Account.");
   S-acct [K]. withdraw();
 }
}
break;
case 5 : System.out. println("Enter the account number");
      acctno = ss.next();
      for (int K=0; K<j ; K++)
      {
        if (acctno.equals ((C_acct[K]. getAccountNo()))
          C_acct[K].Display();
      }
      for (int K=0; K<i ; K++)
      {
        if (acctno.equals (S_acct[K]. getAccountNo()))
          S-acct[K].Display();
      }
      break;

case 6 : System.out.println("Enter the account number: ");
      acctno= ss. next();
      for ( int K=0; K<j; K++)
      {
        if (acctno.equals ((C_acct [K]. getAccountNo()))
          System.out.println("This is a current account. In This account
          does not provide interest");
      }
      for (int K=0; K<i; K++)
      {
        if ( acct no. equals (S_acct [K].getAccountNo()))
          S-acct [K]. compound_interest();
        break;
      }
  }
}
```

```
Welcome to the bank.

Enter the action to be performed:
1: Create a Savings Account
2: Create a Current Account
3: Deposite
4: Withdraw
5:Display Balance
6: Check Compound Interest
Enter your choice: 1
Enter the Deals of the new account:
Name: Raju
Ideal Account number: 12345
Enter the first Deposite Value: 2000
Thank you for creating an Account.
Welcome to the bank.

Enter the action to be performed:
1: Create a Savings Account
2: Create a Current Account
3: Deposite
4: Withdraw
5:Display Balance
6: Check Compound Interest
Enter your choice: 2
Enter the Deals of the new account:
Name: Babu
Ideal Account number: 67890
Enter the first Deposite Value(above 5000):
6000
Thank you for creating an Account.
You will shortly receive your Cheque Book.
```

```
Welcome to the bank.

Enter the action to be performed:
1: Create a Savings Account
2: Create a Current Account
3: Deposite
4: Withdraw
5:Display Balance
6: Check Compound Interest
Enter your choice: 4
Enter the account number:
67890
This Account is a Current Account.
Warning: A minimum of 5000 balance must be maintained
        If failed, a penalty of Rs.100 will be imposed.
Enter the Amount to be withdrawn:
2000
The balance is less than 5000 a penalty of Rs.100 is imposed.
Welcome to the bank.

Enter the action to be performed:
1: Create a Savings Account
2: Create a Current Account
3: Deposite
4: Withdraw
5:Display Balance
6: Check Compound Interest
Enter your choice: 5
Enter the account number:
12345
The Account Details are given as follows:
Name: Raju
Account Number: 12345
Account Type: Savings Account
Balance: 2000.0
```