lab 5.

```java
import java.util.Scanner;
class bank {
    String bankname;
}

class account extends bank {
    Scanner sc = new Scanner(System.in);
    String name, accttype;
    double accnum;
    double Saccnum, caccnum;
    double ci;
    double rate, principal, year;

    void setd() {
        System.out.println("customer name:");
        name = sc.next();
        System.out.println("Account type: ");
        accttype = sc.next();
        System.out.print("Account-number:").
        accnum = sc.nextDouble();
        System.out.print("savings Acc num:");
        Saccnum = sc.nextDouble();
        System.out.print("Current Acc num:");
        caccnum = sc.nextDouble();
        System.out.println("enter principal amount:");
        principle = sc.nextDouble();
        System.out.println("rate of interest:");
        rate = sc.nextDouble();
    }
}
```

```java
class savings extends account1 {
    Scanner sc = new Scanner (System.in);
    double deposit, withdraw, pbalance1, borrow, lend,
        rate1, years1, rate2, years2, ci;
    double cid, cib;
    void setd1() {
        System.out.println(" \n ... savings Account!!");
        System.out.print(" present Balance:");
        pbalance1 = sc.nextDouble();
        System.out.print("Deposited:");
        deposit = sc.nextDouble();
        System.out.print("withdrawn:");
        withdraw = sc.nextDouble();
        pbalance1 = (pbalance1 + deposit) - (withdraw);
    }

    void compint() {
        System.out.println("\n *** Details of lend amount");
        System.out.print(" Enter amount Deposited:");
        lend = sc.nextDouble();
        System.out.print(" rate of deposition:");
        rate1 = sc.nextDouble();
        System.out.print("no of years deposited:");
        years1 = sc.nextDouble();
        System.out.println("\n *** Details of borrowed Amount");
        System.out.println(" enter Amount Borrowed:");
        borrow = sc.nextDouble();
        System.out.print(" rate of borrowed:");
        rate2 = sc.nextDouble();
```

```java
System.out.print("NO of years borrowed : ");
    year2 = Sc.nextDouble();
    cib = borrow * (Math.pow(1 + (rate2 * 0.01), year2));
    cid = lend * (Math.pow(1 + (rate1 * 0.01), year1));

    if(cid > cib){
      ci = cid - cib;
      pbalance1 = pbalance1 + cid;
      System.out.print("\n .. Acc Balance --- " + pbalance1);

    }

else if(cib > cid){

    ci = cib - cid;
    pbalance1 = pbalance1 - cib;
    System.out.print("\n --- Acc Balance ---: " + pbalance1);

    }

else
    System.out.println("comp int is zero and account
                       balance is ;" + pbalance1);

    }

}


Class current extends account1 {

    Scanner Sc = new Scanner(system.in);

    double deposit, withdraw, pbalance2, min;

    void setd2(){

        System.out.println("\n .... current account ---- ");
        System.out.print("present Balance : ");
        pbalance2 = Sc.nextDouble();
        System.out.print("Deposited : ");
        deposit = Sc.nextDouble();
```

```java
System.out.print("withdrawn:");
    withdraw = sc.nextDouble();
    pbalance2 = (pbalance2 + deposit) - (withdraw);
    }

void checkmin() {
    min = 2000;
    if (pbalance2 >= 2000) {
    System.out.println("minimum balance is maintained and acc balanc
                 is :" + pbalance2); }
    else if (pbalance2 < 2000) {
    System.out.println("minimum balance is not maintained");
    system.out.println("service charge of 500 rs. is deducted
    System.out.println("original balance :" + pbalance2);
        pbalance2 = pbalance2 - 500;
    System.out.println("After deduction balance:" + pbalance2)
    }
    else
        System.out.println("Invalid amount in bank");
    }
}
```

```java
class Bankmain{
    public static void main(string ss[]){
        Scanner sc = new Scanner(System.io);
        accounts a = new accounts();
        Savings s = new savings();
        current c = new current();
        a.setd();
        System.out.println("\nTransaction details");
        S.setds();
        c.setds();
        System.out.println("\n --- Bank balance after transactions---");
        System.out.println("savings account num("+a.saccnum+") "+ "
                        +s.pbalance) + "Rs");
        System.out.println("current account num("+a.caccnum+")"+ "
                        " +c.pbalance2 + "Rs");
        System.out.println("\n --- current account minimum balance");
        c.checkmin();
        System.out.println("\n --- interest calculation of
                        savings account.");
    }; compint();
    }
}
```