Develop a java program to create class Bank that maintains two kinds of accounts for its customer, one called savings account and 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

```
import java.util.*;
class Account{
    String name;
    int accno;
    String acctype;
    double balance;
    Account (String name, int accno, string acctype, double
                    double balance)
    {       this.name = name;
            this.accno = accno;
            this.acctype = acctype;
            this.balance = balance;
    }
    void deposit(double ammount) {
            balance += ammount;
    }
```

```
    void withdraw (double amount){
        if (balance - amount) >= 0) {
                balance -= amount;
        }
        else { System.out.println("Insufficient balance");
        }
    }
    void display(){
        System.out.println("Name :" + name + "\n"+
                           "Account No :"+ accno +"\n"+
                           "Type :" + type + "\n"+
                           "balance : " + balance + "\n");
    }
}
class SavingsAccount extends Account{
    private static int rate = 5;
    SavingAccount(String name, int accno, String type,
                  double balance)
    { super(name, accno, type, balance); }
    void balanceWithInterest(){
        balance += balance * rate/100;
        System.out.println("balance :"+ balance);
    }
}
class CurrAccount extends Account{
    private static int minBalance =1000;
    private static int charge = 100;
    CurrAccount(String name, int accno, String type,
                double balance)
    {
        super(name, accno, type, balance)
    }
```

```
void checkMin() {
        if (balance < minBalance)
        { System.out.println("Balance is less than
            min balance service charge exposed " +
              charge);
        }
        balance -= charge;
        System.out.println("balance is " + balance);
    }
}
public class Account_Main {
    public static void main(String args[])
    { Scanner s = new Scanner(System.in);
      System.out.println("Enter your name");
      String name = s.nextLine();
      System.out.println("Enter the account type
          (current or savings)");
      String type = s.next();
      System.out.println("Enter the account number");
      int accno = s.nextInt();
      System.out.println("Enter the initial balance");
      double balance = s.nextDouble();
      Account acc = new Account(name, accno,
          type, balance);
      SavingAccount sa = new SavingAccount(name,
          accno, type, balance);
      CurrAccount ca = new CurrAccount(name,
          accno, type, balance);
      double amount;
```

```
while (true) {
    if (acc.type.equals("savings")){
        System.out.println("\n ------MENU------ \n");
        System.out.println("1. Deposit \t 2. withdraw \t
        3. compute Interest \t 4. Display Account
        details \t 5. exit \t");
        System.out.println("Enter your choice");
        int choice = s.nextInt();
        switch(choice)
        { case 1 : System.out.println("Enter the
                    deposit amount");
                    amount = s.nextDouble();
                    sa.deposit(amount);
                    break;
          case 2 : System.out.println("Enter the
                    withdrawal amount");
                    amount = s.nextDouble();
                    sa.withdraw(amount);
                    break;
          case 3 : sa.balancewithInterest();
                    break;
          case 4 : System.out.println("Details:");
                    sa.display();
                    break;
          case 5 : return;
          default : System.out.println
                    ("Invalid choice");
        }
}
```

```
else {
        System.out.println("1. Deposit 2. withdraw 3. display account details 4. exit");
        System.out.println("Enter the choice");
        int choice = s.nextInt();
        switch(choice)
        {   case 1: System.out.println("Enter the amount");
                    amount = s.nextDouble();
                    ca.deposit(amount);
                    break;
            case 2: System.out.println("Enter the amount");
                    amount = s.nextDouble();
                    ca.withdraw(amount);
                    ca.checkMin();
                    break;
            case 3: ca.display();
                    break;
            case 4: System.exit(0);
        }
    }
}
}
```

Output:-

Savings output:-

Enter your name:

Sagar

Enter the account type(current or deposit):

savings

Enter the account number:

15386

Enter the initial balance

150

---- MENU ----

1. Deposit 2. withdraw 3. Compute interest

Enter your choice 1

Enter ammount

4000

Enter your choice

2

Enter your amount

3000

Enter your choice

3

Details :-

Name : Sagar

Accno : 15386

Type : Saving

balance : 1000

Curr Account output :

Enter your name:

Sagar

Enter account type (current or deposit)

current

Enter the accom number

15348

Enter the initial amount

1500

Enter choice

2

Enter the amount

3000

Enter your choice
3
Details
Name : sagar
Accno : 15348
Type : Current
balance : 1260

Write a Java program to create a generic class Stack which holds 5 integers and 5 double values

```
class Stack <T> {
    T a, b, c, d, e;
    void set (T a, T b, T c, T d, T e)
    {   this.a = a;
        this.b = b;
        this.c = c;
        this.d = d;
        this.e = e
    }
    void print () {
        System.out.println("a+" "+b+" "+c+" "+d+" "+e);
    }
}
class StackMain {
    public static void main (String args[]){
        Stack <Integer> ob1 = new Stack<Integer> ();
        Stack <Double> ob2 = new Stack<Double> ();
        ob1.set (2,4,6,7,5);
        ob2.set (2.5, 4.8, 6.9, 7.2, 5.6);
        ob1.print();
        ob2.print();
    }
}
```

output :-

2 4 6 7 5

2.5 4.8 6.9 7.2 5.6

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