1,**package** com.Trainee.java;

**public** **class** Batch {

**private** **int** batchCode;

**private** String startdate;

**private** String enddate;

**public** Batch(**int** batchCode, String startdate, String enddate) {

**super**();

**this**.batchCode = batchCode;

**this**.startdate = startdate;

**this**.enddate = enddate;

}

**public** **int** getBatchCode() {

**return** batchCode;

}

**public** **void** setBatchCode(**int** batchCode) {

**this**.batchCode = batchCode;

}

**public** String getStartdate() {

**return** startdate;

}

**public** **void** setStartdate(String startdate) {

**this**.startdate = startdate;

}

**public** String getEnddate() {

**return** enddate;

}

**public** **void** setEnddate(String enddate) {

**this**.enddate = enddate;

}

@Override

**public** String toString() {

**return** "Batch [batchCode=" + batchCode + ", startdate=" + startdate + ", enddate=" + enddate + "]";

}

}

//Trainee//

**ackage** com.Trainee.java;

**public** **class** Trainee {

**private** String traineeName;

**private** **int** contactNo;

**private** String gender;

**private** **int** age;

**private** **int** traineeId;

**private** String email;

Trainee[] trainees;

**public** Trainee(String traineeName, **int** contactNo, String gender, **int** age, **int** traineeId, String email) {

**super**();

**this**.traineeName = traineeName;

**this**.contactNo = contactNo;

**this**.gender = gender;

**this**.age = age;

**this**.traineeId = traineeId;

**this**.email = email;

}

**public** Trainee(**int** i, String string, **int** j) {

**this**.traineeId=234;

**this**.gender="female";

**this**.age=22;

}

**public** String getTraineeName() {

**return** traineeName;

}

**public** **void** setTraineeName(String traineeName) {

**this**.traineeName = traineeName;

}

**public** **int** getContactNo() {

**return** contactNo;

}

**public** **void** setContactNo(**int** contactNo) {

**this**.contactNo = contactNo;

}

**public** String getGender(String string) {

**return** gender;

}

**public** **void** setGender(String gender) {

**this**.gender = gender;

}

**public** **int** getAge(**int** age) {

**return** age;

}

**public** **void** setAge(**int** age) {

**this**.age = age;

}

**public** **int** getTraineeId() {

**return** traineeId;

}

**public** **void** setTraineeId(**int** traineeId) {

**this**.traineeId = traineeId;

}

**public** String getEmail() {

**return** email;

}

**public** **void** setEmail(String email) {

**this**.email = email;

}

**public** Trainee[] getTrainees() {

**return** trainees;

}

@Override

**public** String toString() {

**return** "Trainee [gender=" + gender + ", age=" + age + ", traineeId=" + traineeId + "]";

}

**public** **int**[] gettraineeage() {

**this**.age=22;

**return** **null**;

}

**public** String[] gettraineegender() {

**this**.gender="female";

**return** **null**;

}

}

//main//

**package** com.Trainee.java;

**import** java.util.Arrays;

**public** **class** Main {

**public** **static** **void** main(String[] args) {

Trainee[] trainees =**new** Trainee[3];

trainees[0]=**new** Trainee(123,"male",25);

trainees[1]=**new** Trainee(234,"female",22);

trainees[2]=**new** Trainee(345,"female",35);

Trainee mytrainee = **new** Trainee(234, "female", 22);

System.***out***.println(mytrainee.getAge(22));

System.***out***.println(mytrainee.getGender("female"));

}

}

2,**package** project.java;

**public** **class** project {

**private** **int** projectId;

**private** String projectName;

**private** String projectHead;

**private** **int** noofResource;

**public** project() {

}

**public** project(**int** projectId, String projectName, String projectHead, **int** noofResource) {

**super**();

**this**.projectId = projectId;

**this**.projectName = projectName;

**this**.projectHead = projectHead;

**this**.noofResource = noofResource;

}

**public** **int** getProjectId() {

**return** projectId;

}

**public** **void** setProjectId(**int** projectId) {

**this**.projectId = projectId;

}

**public** String getProjectName() {

**return** projectName;

}

**public** **void** setProjectName(String projectName) {

**this**.projectName = projectName;

}

**public** String getProjectHead() {

**return** projectHead;

}

**public** **void** setProjectHead(String projectHead) {

**this**.projectHead = projectHead;

}

**public** **int** getNoofResource() {

**return** noofResource;

}

**public** **void** setNoofResource(**int** noofResource) {

**this**.noofResource = noofResource;

}

}

//main//

**package** project.java;

**public** **class** main {

**public** **static** **void** main(String[] args) {

project myproject = **new** project(3101,"big data","malathi",3);

System.***out***.println(myproject.getProjectId());

System.***out***.println(myproject.getProjectName());

System.***out***.println(myproject.getProjectHead());

System.***out***.println(myproject.getNoofResource());

}

}

3,**package** com.String.java;

**public** **class** String {

**public** String strRev(java.lang.String string) {

**char**[] strArr = string.toCharArray();

**char**[] revArr = **new** **char**[strArr.length];

**int** j=0;

**for**(**int** i=strArr.length-1;i>=0;i--)

{

revArr[j] = strArr[i];

j++;

}

String strRev = **new** String();

**return** strRev;

}

**public** **void** linearSearch(java.lang.String string,**char** element)

{

**int** c=0;

**char**[] strArr =string.toCharArray();

**for**(**int** i=0;i<strArr.length;i++)

{

**if**(strArr[i]==element)

{

System.***out***.println("element "+element+"is available at position in given string");

c++;

}

}

**if**(c==0)

{

System.***out***.println("element is not available in the given string");

}

}

**public** String replace(CharSequence str,**char** element,**char** replacement)

{

**char**[] arr =toCharArray();

**for**(**int** i=0;i<arr.length;i++)

{

**if**(arr[i]==element)

{

arr[i] = replacement;

}

}

String replace = **new** String();

**return** replace;

}

**private** **char**[] toCharArray() {

// **TODO** Auto-generated method stub

**return** **null**;

}

}

//main//

**package** com.String.java;

**public** **class** Main {

**public** **static** **void** main(String[] args) {

String mystring = **new** String();

String S =mystring;

String rev = S.strRev("ramya");

System.***out***.println(S);

S.linearSearch("ramya",'e');

CharSequence str = "ramya";

**char** element = 'm';

**char** replacement ='i';

String replace = S.replace(str,element,replacement);

System.***out***.println(replace);

}

}

4,**package** com.Bank.java;

**import** com.css.bankapplication.dto.BankAccount;

**public** **class** Bank {

**private** String accountNo;

**private** String accountName;

**private** BankAccount[] balance;

**public** Bank(String string, String accountName,BankAccount[] accounts) {

**super**();

**this**.accountNo = string;

**this**.accountName = accountName;

**this**.balance = accounts;

}

**public** Bank(String accountNo,String accountName) {

**super**();

**this**.accountNo = accountNo;

**this**.accountName = accountName;

getBalance(1000);

}

**public** Bank(**int** i, String accountName2, **int** j) {

// **TODO** Auto-generated constructor stub

}

**public** String getAccountNo() {

**return** accountNo;

}

**public** **void** setAccountNo(String accountNo) {

**this**.accountNo = accountNo;

}

**public** String getAccountName() {

**return** accountName;

}

**public** **void** setAccountName(String accountName) {

**this**.accountName = accountName;

}

**public** BankAccount[] getBalance() {

**return** balance;

}

**public** **void** setBalance(BankAccount[] balance) {

**this**.balance = balance;

}

@Override

**public** String toString() {

**return** "Bank [accountNo=" + accountNo + ", accountName=" + accountName + ", balance=" + balance + "]";

}

**public** BankAccount checkAccount(String string) {

// **TODO** Auto-generated method stub

**return** **null**;

}

**public** **char**[] getAccountNo(**int** i) {

// **TODO** Auto-generated method stub

**return** **null**;

}

**public** **char**[] getAccountName(String string) {

// **TODO** Auto-generated method stub

**return** **null**;

}

**public** **char**[] getBalance(**int** i) {

// **TODO** Auto-generated method stub

**return** **null**;

}

}

//main//**package** com.Bank.java;

**public** **class** Main {

**public** **static** **void** main(String[] args) {

Bank mybank = **new** Bank(123,"Ramya",500);

System.***out***.println(mybank.getAccountNo(123));

System.***out***.println(mybank.getAccountName("Ramya"));

System.***out***.println(mybank.getBalance(500));

}

}

5,**package** com.css.bankapplication.dao;

**import** com.css.bankapplication.dto.BankAccount;

**public** **interface** BankServiceProvider {

**public** BankAccount checkAccount(String accountNo);

**public** **double** getBalance(String accountNo);

**public** **boolean** withdrawMoney(String accountNo, **double** amount);

**public** **boolean** depositMoney(String accountNo, **double** amount);

**public** **boolean** transferMoney(String fromaccountNo, String toAccountNo,**double** amount);

}

**package** com.css.bankapplication.dto;

**public** **class** BankAccount {

**private** **static** **int** *LastAssignedNo*;

**static** {

*LastAssignedNo*=1000;

}

**private** String accountNo;

**private** String accountName;

**private** **double** balance;

**public** **static** **int** getLastAssignedNo() {

**return** *LastAssignedNo*;

}

**public** **static** **void** setLastAssignedNo(**int** lastAssignedNo) {

*LastAssignedNo* = lastAssignedNo;

}

**public** String getAccountNo() {

**return** accountNo;

}

**public** **void** setAccountNo(String accountNo) {

**this**.accountNo = accountNo;

}

**public** String getAccountName() {

**return** accountName;

}

**public** **void** setAccountName(String accountName) {

**this**.accountName = accountName;

}

**public** **double** getBalance() {

**return** balance;

}

**public** **void** setBalance(**double** balance) {

**this**.balance = balance;

}

@Override

**public** String toString() {

**return** "BankAccount [accountNo=" + accountNo + ", accountName=" + accountName + ", balance=" + balance + "]";

}

**public** BankAccount(String accountNo, String accountName, **double** balance) {

**super**();

**this**.accountNo = ""+*LastAssignedNo*++;

**this**.accountName = accountName;

**this**.balance = balance;

}

**public** BankAccount() {

**this**.accountNo = ""+*LastAssignedNo*++;

}

**public** BankAccount(String accountName) {

**super**();

**this**.accountNo = ""+*LastAssignedNo*++;

**this**.accountName = accountName;

**this**.balance = 1000.00;

}

}

**package** com.css.bankapplication.dto;

**import** com.css.bankapplication.exception.InvalidAccountNoException;

**public** **class** Banl {

**private** String IFSCCode;

**private** String bankName;

**private** BankAccount[] accounts;

@Override

**public** String toString() {

**return** "Banl [IFSCCode=" + IFSCCode + ", bankName=" + bankName + "]";

}

**public** String getIFSCCode() {

**return** IFSCCode;

}

**public** **void** setIFSCCode(String iFSCCode) {

IFSCCode = iFSCCode;

}

**public** String getBankName() {

**return** bankName;

}

**public** **void** setBankName(String bankName) {

**this**.bankName = bankName;

}

**public** BankAccount[] getAccounts() {

**return** accounts;

}

**public** **void** setAccounts(BankAccount[] accounts) {

**this**.accounts = accounts;

}

**public** Banl(String iFSCCode, String bankName, BankAccount[] accounts) {

**super**();

IFSCCode = iFSCCode;

**this**.bankName = bankName;

**this**.accounts = accounts;

}

**public** Banl() {

**super**();

// **TODO** Auto-generated constructor stub

}

**public** BankAccount checkAccount(String accountNo) **throws** InvalidAccountNoException {

BankAccount foundAccount=**null**;

**for**(BankAccount account : accounts) {

**if**(account.getAccountNo().equals(accountNo)) {

foundAccount=account;

**break**;

}

}

**if**(foundAccount==**null**)

**throw** **new** InvalidAccountNoException();

**return** foundAccount;

}

**public** **double** getBalance(String accountNo) **throws** InvalidAccountNoException{

**double** balance=0.0;

BankAccount foundAccount=checkAccount(accountNo);

**if**(foundAccount!=**null**)

balance=foundAccount.getBalance();

**return** balance;

}

**public** **boolean** withdrawMoney(String accountNo, **double** amount) **throws** InvalidAccountNoException{

**boolean** withdrawFlag=**false**;

BankAccount foundAccount=checkAccount(accountNo);

**if**(foundAccount!=**null**)

**if**(foundAccount.getBalance()>amount) {

foundAccount.setBalance(foundAccount.getBalance()-amount);

}

**return** withdrawFlag;

}

**public** **boolean** depositMoney(String accountNo, **double** amount) **throws** InvalidAccountNoException{

**boolean** depositFlag=**false**;

BankAccount foundAccount=checkAccount(accountNo);

**if**(foundAccount!=**null**) {

foundAccount.setBalance(foundAccount.getBalance()+amount);

depositFlag=**true**;

}

**return** depositFlag;

}

**public** **boolean** transferMoney(String fromAccountNo, String toAccountNo, **double** amount) **throws** InvalidAccountNoException{

**boolean** transferFlag=**false**;

**boolean** depositFlag=**false**;

**boolean** withdrawFlag=withdrawMoney(fromAccountNo, amount);

**if**(withdrawFlag)

depositFlag=depositMoney(toAccountNo, amount);

**if**(depositFlag)

transferFlag=**true**;

**else**

depositMoney(fromAccountNo, amount);

**return** transferFlag;

}

}

**package** com.css.bankapplication.exception;

**public** **class** InsufficientBalanceException {

**private** String errorMsg= "Insufficient balance in account.";

**public** InsufficientBalanceException(String errorMsg) {

**super**();

**this**.errorMsg = errorMsg;

}

**public** InsufficientBalanceException() {

**super**();

// **TODO** Auto-generated constructor stub

}

@Override

**public** String toString() {

**return** "InsufficientBalanceException [errorMsg=" + errorMsg + "]";

}

}

**package** com.css.bankapplication.exception;

**public** **class** InvalidAccountNoException **extends** Exception {

**private** String errorMsg= "Bank Account is invalid.";

**public** InvalidAccountNoException(String errorMsg) {

**super**();

**this**.errorMsg = errorMsg;

}

**public** InvalidAccountNoException() {

**super**();

}

@Override

**public** String toString() {

**return** "InvalidAccountNoException [errorMsg=" + errorMsg + "]";

}

}

package com.css.bankapplication.exception;

import com.css.bankapplication.dto.BankAccount;

import com.css.bankapplication.dto.Banl;

public class mainBankServiceProvider {

public static void main(String[] args) throws InvalidAccountNoException {

BankAccount[] accounts=new BankAccount[2];

accounts[0]=new BankAccount("priya");

accounts[1]=new BankAccount("divya");

Banl indianBank=new Banl("indian234","tambaram",accounts);

BankAccount foundAccount=null;

foundAccount = indianBank.checkAccount("1001");

System.out.println(foundAccount.toString());

}

}