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**Section: BSCS-6C**

**Lab-12**

# **Task:**

## **TransactionRecords.java:**

# package lab.pkg12;

# /\*\*

# \*

# \* @author Hamad nasir

# \*/

# public class TransactionRecord {

# 

# private int accountID;

# private double amount;

# 

# public double getAmount(){

# return amount;

# }

# 

# public int getAccountNumber(){

# return accountID;

# }

# 

# public void setAmount(double amount){

# this.amount = amount;

# }

# 

# public void setAccountNumber(int accountID){

# this.accountID = accountID;

# }

# 

# }

# **MasterRecord.java:**

package lab.pkg12;

/\*\*

\*

\* @author Hamad nasir

\*/

public class MasterRecord {

private int account;

private String firstName;

private String lastName;

private double balance;

private double combinedValue;

public MasterRecord()

{

this(0,"","",0.0);

}

public MasterRecord(int acct, String first, String last, double bal)

{

setAccount(acct);

setFirstName(first);

setLastName(last);

setBalance(bal);

}

public MasterRecord(int acct, double trans){

setAccount(acct);

setBalance(trans);

}

public void setAccount(int acct){

account = acct;

}

public int getAccount(){

return account;

}

public void setFirstName(String first){

firstName = first;

}

public String getFirstName(){

return firstName;

}

public void setLastName(String last){

lastName = last;

}

public String getLastName(){

return lastName;

}

public void setBalance(double bal){

balance = bal;

}

public double getBalance(){

return balance;

}

public void combine(TransactionRecord record){

combinedValue = balance + record.getAmount();

}

public double getCombinedValue(){

return combinedValue;

}

}

# **Record.java:**

# package lab.pkg12;

# /\*\*

# \*

# \* @author Hamad nasir

# \*/

# import java.io.FileNotFoundException;

# import java.io.IOException;

# import java.util.Formatter;

# public class Record {

# 

# private Formatter TextFile1;

# private Formatter TextFile2;

# private MasterRecord masterRecords[];

# private MasterRecord transactionRecords[];

# 

# public Record() throws FileNotFoundException{

# try{

# TextFile1 = new Formatter("oldmast.txt");

# TextFile2 = new Formatter("trans.txt");

# 

# }

# catch(FileNotFoundException filenotfound){

# System.err.format("%s", "File can not be found");

# System.exit(1);

# }

# catch(SecurityException authorization){

# System.err.format("%s" , "This file is immutable");

# System.exit(1);

# }

# 

# masterRecords = new MasterRecord[4];

# masterRecords[0] = new MasterRecord(100,"Alan", "Jones", 348.17);

# masterRecords[1] = new MasterRecord(300,"Mary", "Smith", 27.19);

# masterRecords[2] = new MasterRecord(500,"Sam", "Sharp", 0.00);

# masterRecords[3] = new MasterRecord(700,"Suzy", "Green", -14.22);

# 

# transactionRecords = new MasterRecord[4];

# transactionRecords[0] = new MasterRecord(100, 27.14);

# transactionRecords[1] = new MasterRecord(300, 62.11);

# transactionRecords[2] = new MasterRecord(400, 100.56);

# transactionRecords[3] = new MasterRecord(900, 82.17);

# 

# 

# writingFile1();

# writingFile2();

# }

# 

# public void writingFile1(){

# TextFile1.format("%d %s %s %f%n", masterRecords[0].getAccount(), masterRecords[0].getFirstName(),masterRecords[0].getLastName(),masterRecords[0].getBalance());

# TextFile1.format("%d %s %s %f%n", masterRecords[1].getAccount(), masterRecords[1].getFirstName(),masterRecords[1].getLastName(),masterRecords[1].getBalance());

# TextFile1.format("%d %s %s %f%n", masterRecords[2].getAccount(), masterRecords[2].getFirstName(),masterRecords[2].getLastName(),masterRecords[2].getBalance());

# TextFile1.format("%d %s %s %f%n", masterRecords[3].getAccount(), masterRecords[3].getFirstName(),masterRecords[3].getLastName(),masterRecords[3].getBalance());

# TextFile1.close();

# }

# 

# public void writingFile2(){

# TextFile2.format("%d %f %n", transactionRecords[0].getAccount(), transactionRecords[0].getBalance() );

# TextFile2.format("%d %f%n", transactionRecords[1].getAccount(), transactionRecords[1].getBalance());

# TextFile2.format("%d %f%n", transactionRecords[2].getAccount(), transactionRecords[2].getBalance());

# TextFile2.format("%d %f%n", transactionRecords[3].getAccount(), transactionRecords[3].getBalance());

# TextFile2.close();

# }

# 

# public Formatter getFile1(){

# return TextFile1;

# }

# public Formatter getFile2(){

# return TextFile2;

# }

# 

# public MasterRecord[] getMasterRecords(){

# return masterRecords;

# }

# 

# public MasterRecord[] getTransactionRecords(){

# return transactionRecords;

# }

# 

# }

# **MatchFile.java:**

# package lab.pkg12;

# /\*\*

# \*

# \* @author Hamad nasir

# \*/

# import java.io.File;

# import java.io.FileNotFoundException;

# import java.util.Formatter;

# import java.util.Scanner;

# public class MatchFile {

# private Scanner readFile1;

# private Scanner readFile2;

# private Record data;

# private MasterRecord record;

# private Formatter newMast,logFile;

# 

# public MatchFile() throws FileNotFoundException{

# 

# record = new MasterRecord();

# data = new Record();

# newMast = new Formatter("newmast.txt");

# logFile = new Formatter("log.txt");

# 

# try {

# readFile1 = new Scanner(new File("trans.txt"));

# readFile2 = new Scanner(new File("oldmast.txt"));

# } catch (FileNotFoundException ex) {

# System.err.format("File cannot be found");

# }

# compare();

# 

# }

# 

# public void compare(){

# for(MasterRecord master : data.getMasterRecords()){

# for(MasterRecord trans : data.getTransactionRecords()){

# 

# if(master.getAccount() == trans.getAccount()){

# newMast.format("%d %f%n",master.getAccount(), master.getBalance() + trans.getBalance());

# newMast.flush();

# break;

# 

# }

# else if(master.getAccount() != trans.getAccount() && checkTrans(master) == false){

# newMast.format("%d %n" , master.getAccount());

# newMast.flush();

# break;

# }

# }

# }

# populateLog();

# 

# }

# public boolean checkTrans(MasterRecord master){

# 

# for(MasterRecord trans : data.getTransactionRecords())

# if(master.getAccount() == trans.getAccount())

# return true;

# 

# return false;

# }

# 

# public void populateLog(){

# for(MasterRecord transaction : data.getTransactionRecords()){

# boolean hold = false;

# 

# for(MasterRecord master : data.getMasterRecords())

# if(transaction.getAccount() == master.getAccount())

# hold = true;

# 

# if(hold == false){

# logFile.format("Unmatched Transaction Record for account Number %d%n" , transaction.getAccount());

# logFile.flush();

# continue;

# }

# }

# 

# 

# }

# }

# **Lab12.java:**

package lab.pkg12;

/\*\*

\*

\* @author Hamad nasir

\*/

import java.io.FileNotFoundException;

public class Lab12 {

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

MatchFile file = new MatchFile();

}

}

# Output:







