

Exercise 2 (Übung 2)

Given a table Record

Gegeben sei die Tabelle Record

Name	Street	City	acct_no	acc_type
Willi Steeb	123 Kingsway	Egoli	2345	C
Nela Sousa	23 Main Street	Pretoria	875	0
Olli Moloko	17 Church Street	Cape Town	1234	C

oldbalance	newbalance	payment	lastpayment
1000.00	100.00	900.00	10/01/2002
2000.00	1500.00	500.00	31/03/2003
4500.00	3700.00	800.00	12/12/2001

a) Given a data file `record.old` the Java program `MRecords.java`, which includes the `main` method, updates the records within this data file and writes to the file `record.new`. The file `Record.java` includes the information about the record. First we display the current date, and then enter a loop that will read a series of customer records from the data file `record.old` and write the corresponding updated records to a new data file called `record.new`. Each pass through the `while` loop will read one record, update it if necessary by entering the payment, and then write the record to `record.new`. All the records will be written to `record.new` whether updated or not. The program will continue until the customer name `END` has been read from the source file. Once this happens, `END` will be written to the data file `record.new`, indicating an end-of-file condition. Finally the file `record.new` will be copied to `record.old` so that at the next session we start with the correct data.

b) Can the operations described above also be performed within SQL and the table `Record`.

An interactive session would be:

Customer Invoice System - Update

Today's date is: 18-12-2002

Name: Willi Steeb Account Number: 2345

Old Balance: 1000.00 Current Payment: 900.00

New Balance: 100.00

Name: Nela Sousa Account Number: 875

Old Balance: 2000.00 Current Payment: 1500.00

New Balance: 500.00

Name: Olli Moloko Account Number: 2345

Old Balance: 45000.00 Current Payment: 800.00

New Balance: 3700.00

Write a Java program for this task. For the date use the `Calendar` class of Java.

Write a separate class for `Record`.

The file record.old is given by

Willi Steeb
123 Kingsway

Egoli

2345

C

1000.00

100.00

900.00

10

1

2002

Nela Sousa

23 Main street

Pretoria

875

0

2000.00

1500.00

500.00

31

3

2001

Olli Moloko

17 Church Street

Cape Town

1234

C

4500.00

800.00

3700.00

12

12

2001

END