**APPLICATIONS DEVELOPMENT PRACTICE II (ADP262S)**



**Assignment 3 Due date: Wednesday 9 June 2021 @ 8pm**

**Step 1**: Create a Maven project using Netbeans. Create Java classes called Customer, Supplier, Stakeholder, and CreateStakeholderSer. Copy the code from the given files to your class files.

**Given**:

Customer.java

Supplier.java

Stakeholder.java

CreateStakeholderSer.java

**DO NOT MAKE ANY CHANGES TO ANY OF THESE CLASSES.**

Then create the serialized file by executing the program **CreateStakeholderSer.java**

**Step 2**: Write a Java program to perform the following operations:

1. Read the values from the ser file created in step 1, and store the customer and supplier objects in separate arraylists.
2. Sort the contents of the customer arraylist in ascending order of stakeholderId.
3. Determine the age of each customer.
4. Re-format the date-of-birth: 1993-01-24 🡪 24 Jan 1993
5. Write the details (sorted) of each customer to a text file (**customerOutFile.txt**), including the age and appropriate headings. See the sample output.
6. Determine the number of customers who can rent and those who cannot. Write these totals to the file.

**Step 3**:

1. Sort the contents of the supplier arraylist in ascending (alphabetical) order of name.
2. Write the details (sorted) of each supplier to another text file (**supplierOutFile.txt**), including appropriate headings. See the sample output.

**Additional instructions:**

* Make use of modular programming techniques. One method should not do more than one logical operation.
* Your main method should mainly consist of calls to different methods, as discussed during our lectures.
* Do not write any of your solution code in the given classes. Create your own class (or classes), containing all the methods you require to solve the problem.
* Do not hard-code any of the data values to be written to the output files.
* Use the filenames that are given for the output text files.
* A submitted solution application that does not compile, or does not produce any output will receive ZERO marks.
* Contents of output files and Java code will be checked for correctness.
* Once completed, upload the Github link to your repository where your project and output files reside..
* Failure to follow instructions will result in penalties.
* The rubric will be made available on Blackboard to clearly show how marks are allocated.

Figure 1

**Sample customer text-file output:**

================== CUSTOMERS =======================

ID Name Surname Date of birth Age

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C100 Mike Rohsopht 24 Jan 1993 28

C130 Stu Padassol 18 May 1987 34

C150 Luke Atmyass 27 Jan 1981 40

C250 Eileen Sideways 27 Nov 1999 21

C260 Ima Stewpidas 27 Jan 2001 20

C300 Ivana.B Withew 16 Jul 1998 22

Number of customers who can rent: 4

Number of customers who cannot rent: 2

Figure 2

**Sample supplier text-file output:**

================== SUPPLIERS ==========================

ID Name Prod Type Description

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S350 Auto Delight BMW Luxury SUV

S270 Grand Theft Auto Toyota Mid-size sedan

S290 MotorMania Hyundai compact budget

S400 Prime Motors Lexus Luxury sedan

S300 We got Cars Toyota 10-seater minibus