Object Oriented Programming 2

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Exercises 2

1. Storing and Loading Person Data with Text Files

Your JavaFX application from Exercise 1 shall load the person data from a text file at start-up and store back at shut-down. Loading and storing shall be separated from the rest of the application by a *Data Access Object (DAO)*. This is an often-used design pattern, when data must be persisted in some form. Follow these steps:

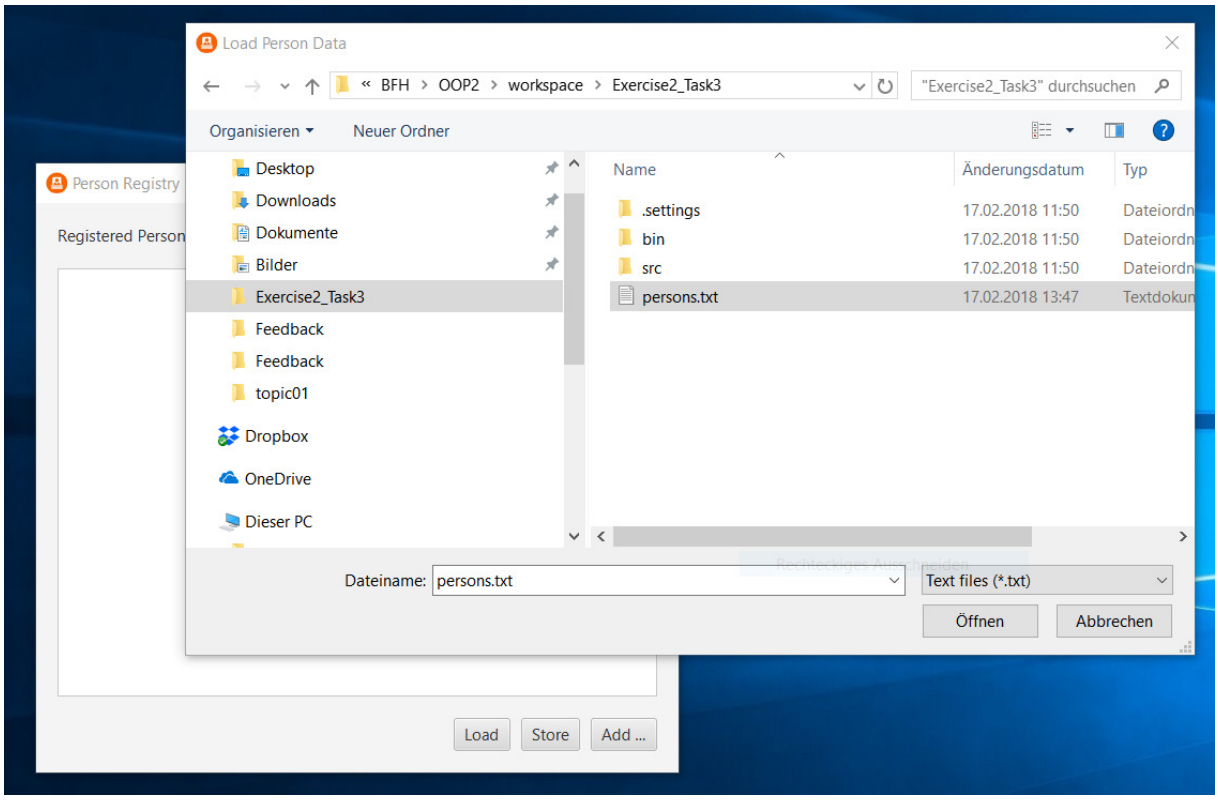
1. Introduce an Interface for the DAO, e.g. *PersonDAO*. This interface declares two methods for storing and loading a list of *Person* objects. Put it into a separate package, e.g. called *persistence*.
2. Create a class, which implements the DAO interface and which stores and loads person data in/from a text file. Put this class into a sub-package of the *persistence* package, e.g. called *persistence.textfile*.
3. You may optionally write a JUnit test for your class.
4. Overwrite the *init()* and the *close()* methods of your main class . These methods are inherited from Application and may be used to perform actions at start-up and close-down of a JavaFX application. The *init()* method shall load the person data from a text file an the *close()* method shall store the data to the same text file.

2. Storing and Loading Person Data with Serialization

Implement a second DAO class, which uses an *ObjectOutputStream* and an *ObjectInputStream* to store the person data by using object serialization. Put this class to another sub-package of *persistence*. Again, you may test your DAO class in JUnit test.

3. Choosing files in the GUI (optional)

Add a *FileChooser* to your JavaFX application to let the user select the files, where data is loaded from or stored to. Add a *Load* and a *Store* button to your main screen (see screenshot on next page). Set an appropriate *extension filter* in the *FileChooser* dialog.


Load Person Data
« BFH › OOP2 › workspace › Exercise2_Task3
"Exercise2_Task3" durchsuchen
Organisieren
Neuer Ordner
Desktop
Downloads
Dokumente
Bilder
Exercise2_Task3
Feedback
Feedback
topic01
Dropbox
OneDrive
Dieser PC
Name
Änderungsdatum
Typ
.settings 17.02.2018 11:50
bin 17.02.2018 11:50
src 17.02.2018 11:50
persons.txt 17.02.2018 13:47
Dateiname: persons.txt
Text files (*.txt)
Öffnen
Abbrechen
Person Registry
Registered Person
Load
Store
Add ...