

Advanced Programming Assignment-2 report

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Developing Plan Changed part

In assignment 2, we totally changed the structure of our program

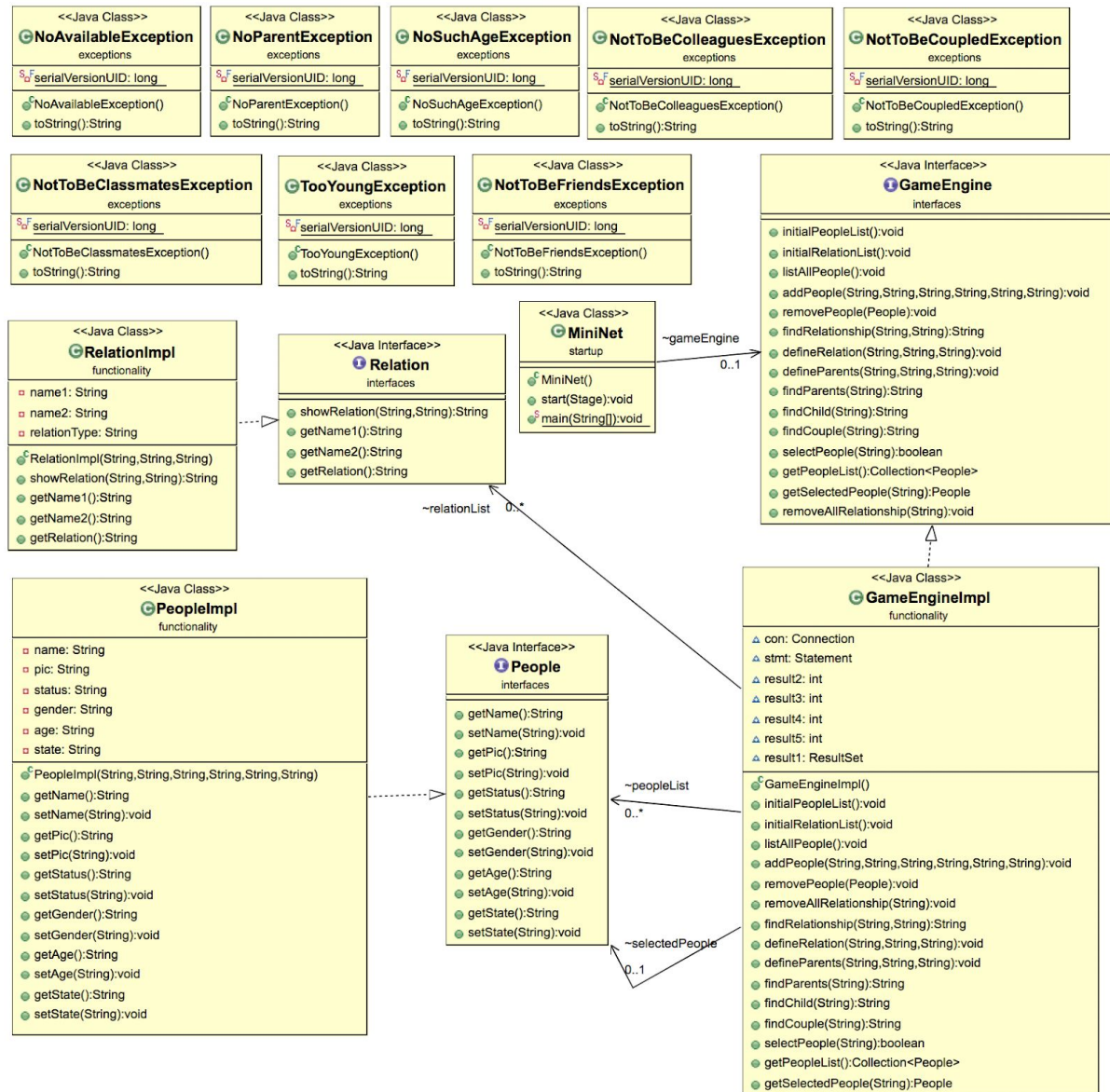
- Assignment 1: We defined 7 lists for 7 elements for people in the system. The user interface is based on console
 - Assignment 2: We defined people class which has name, age, pic, gender, status and state those 6 elements. The user interface is based on GUI
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Structure Design

This time we use the following classes in our program:

- **People Interface**, for designing what methods will be used in GameEngineImpl class.
 - **Relation Interface**, for designing what methods will be used in GameEngineImpl class.
 - **GameEngine Interface**, for designing what methods will be used in MiniNet class.
 - **PeopleImpl class**, implements People Interface, with getters and setters.
 - **RelationImpl class**, implements Relation Interface, with getters and setters.
 - **GameEngineImpl class**, implements GameEngine Interface, for defining the functionalities methods and also dealing with external data sources (including txt and database).
 - **MiniNet class**, the driver class, based on GUI, extremely combined with try-catch Exceptions for handling unreasonable user input, when it is running, a GameEngine object will be instantiated to call the functionality methods. This is the class which will interact with users.
 - **Exceptions classes**, as the requirements mentioned we need a group of Exceptions for error handling.
 - **TXT documents & Images**, those are external files.
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UML Diagram

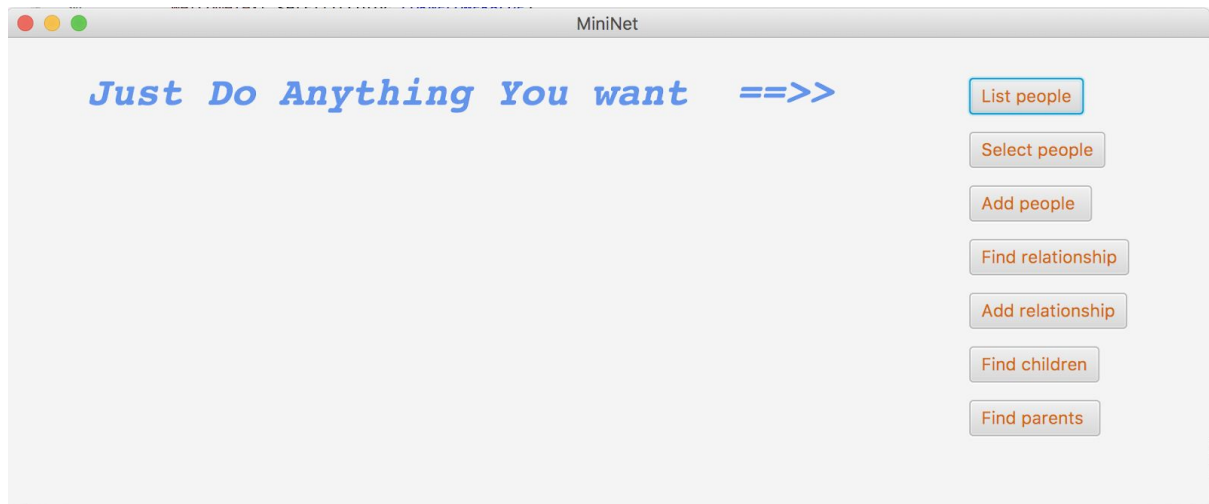


picture-1

(The picture-1 is generated by eclipse)

Operating Explanation

The main operating menu is like picture-2



picture-2

The user can operating the system by clicking like the following picture-3:



Picture-3

The error handling is like this, for example, because Ben is Mark's father so he can not be deleted, show as picture-4



Picture-4

The external source data reading condition is very clear to know, like the following situations:

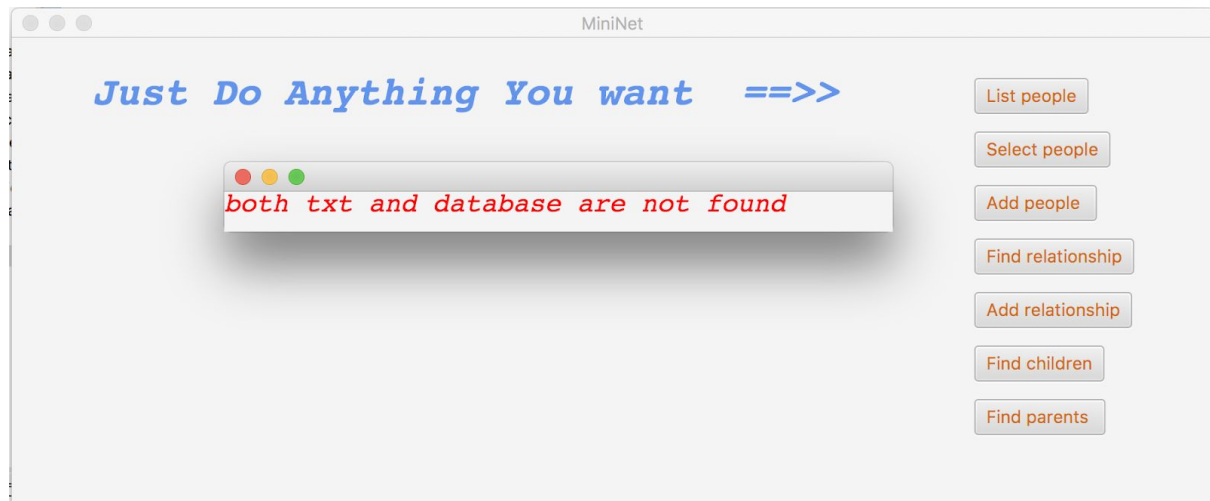
1:TXT documents exists:

```
0 tables dropped
0 tables created from database
1 people inserted into database
1 people inserted into database
1 people inserted into database
1 people inserted into database
1 people inserted into database
txt document exists
loading data from txt documents successfully!
```

2:TXT documents not found, so read data from database:

```
Problems Javadoc Declaration Search Console
GraphicUserInterface [Java Application] /Library/Java/JavaVirtualMachines/jdk-9.C
May 17, 2018 11:07:01 PM org.hsqldb.persist.Logger logInfoEvent
INFO: checkpointClose start
May 17, 2018 11:07:01 PM org.hsqldb.persist.Logger logInfoEvent
INFO: checkpointClose synched
May 17, 2018 11:07:01 PM org.hsqldb.persist.Logger logInfoEvent
INFO: checkpointClose script done
May 17, 2018 11:07:01 PM org.hsqldb.persist.Logger logInfoEvent
INFO: checkpointClose end
txt document not found
loading data from database successfully!
```

3:TXT and database both not found(it's mentioned in the requirements that the reminding should be on user interface):



How to compile

When compile the program by command line you need to follow the following commands(Assume you are already in "src" folder):

```
javac -cp ../hsqlldb.jar startup/MiniNet.java
java -cp ../hsqlldb.jar startup.MiniNet
```

```
[Jackys-MacBook-Pro:src jackytang$ pwd
/Users/jackytang/eclipse-workspace/ApAssignment2/src
[Jackys-MacBook-Pro:src jackytang$ javac -cp ../hsqlldb.jar startup/MiniNet.java
[Jackys-MacBook-Pro:src jackytang$ java -cp ../hsqlldb.jar startup.MiniNet
```

Welcome To MiniNet !

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START

Participants

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