

COSC1295 Advanced Programming

Computer Science and Information Technology

School of Science, RMIT

Assignment 2 – Semester 1 2018

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<https://github.com/LuciaWei86/assignment2>

1. Explain the changes if you use a different design compared to your assignment 1

We have added a new class called YoungChildProfile as subclass of PersonProfile refer to the assignment 2 specification.

We have added abstract functions in PersonProfile(addRelationship and removeRelationship), so all subclass of PersonProfile will have to override these two functions.

We have created new Interface called ConnectionManipulator, so all connections (ie parentConnection, friendConnection, etc) will have two properties called add and remove.

All connections could add connection and also remove the connection.

Due to the assignment 2 specification, we stored data in Text file. When the text file was not found, we will read people data from database. As a result, we removed Network Data class, which we used in assignment 1 to store temporary data.

We also added GUI folder and exception folder to satisfy the assignment 2 requirement.

2. Explain how the new classes are organized

Different Exceptions are divided into different classes. Classes such as NoParentException.java, NotIntegerException.java, etc. was created to handle the different exceptions. In the Connections package, different relationships were distributed. The class of each specific relation is a subclass of ConnectionManipulator. Subclasses determine and add, or delete different relations by overriding. At the same time, GUI has been added for all user interfaces including menu.

3. Explain the process by which your program will interact with user and external data source to run a game.

The menu interface will be displayed after the program starts running. Users can click one of the three buttons: Add person, Select a Person, Exit.

If users choose to add person, the program will switch to addPersonScene. Users can enter the name, age, status, select gender, upload photos and click the Add button after finish pervious steps or back to the main menu directly. If the data entered by the user is not accepted, the program will find out appropriate Exception according to the input data, then display different error messages to the user. Otherwise, program will access this information through the HashMap and display a complete message to users.

Similarly, if users choose to select a person, the program will switch to selectPersonGUI class. Program will ask users to select one person. Users can move to the next stage if their input is existed. On next stage, users can choose from four buttons: Display profile, Display relations, Delete and Make connection. Program will read the data from txt file(database) and display to the screen directly if user choose the first or second buttons. Users can also delete the data through the deletePerson method in selectPersonGUI class. Connection will only be set after users click Make connection button, switch to the AddConnectionGUI class, and select a relation type. Exceptions will be caught during the runtime.

