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**1. Explain how your design will be able to store the profile information.**

The user profile consists of name, image, status, age and friends. The variables of the user profile information are in the User class.

Arraylist is used to store the profile information from User class by using this code:

ArrayList<User> users = **new** ArrayList<User>();

Another arraylist is used to store friends of users by using this code:

**public** ArrayList<String> userFriends = **new** ArrayList<String>();

**2. Explain how your class hierarchy will facilitate the network management**

The main class is the start-up class. The driver class calls user class to manipulate user profile. The driver also calls TextMenu class for error handling. The driver class consists of a simple menu system that can add users, find users, list user profiles, delete user, is friend, get user, add friends and delete friends.
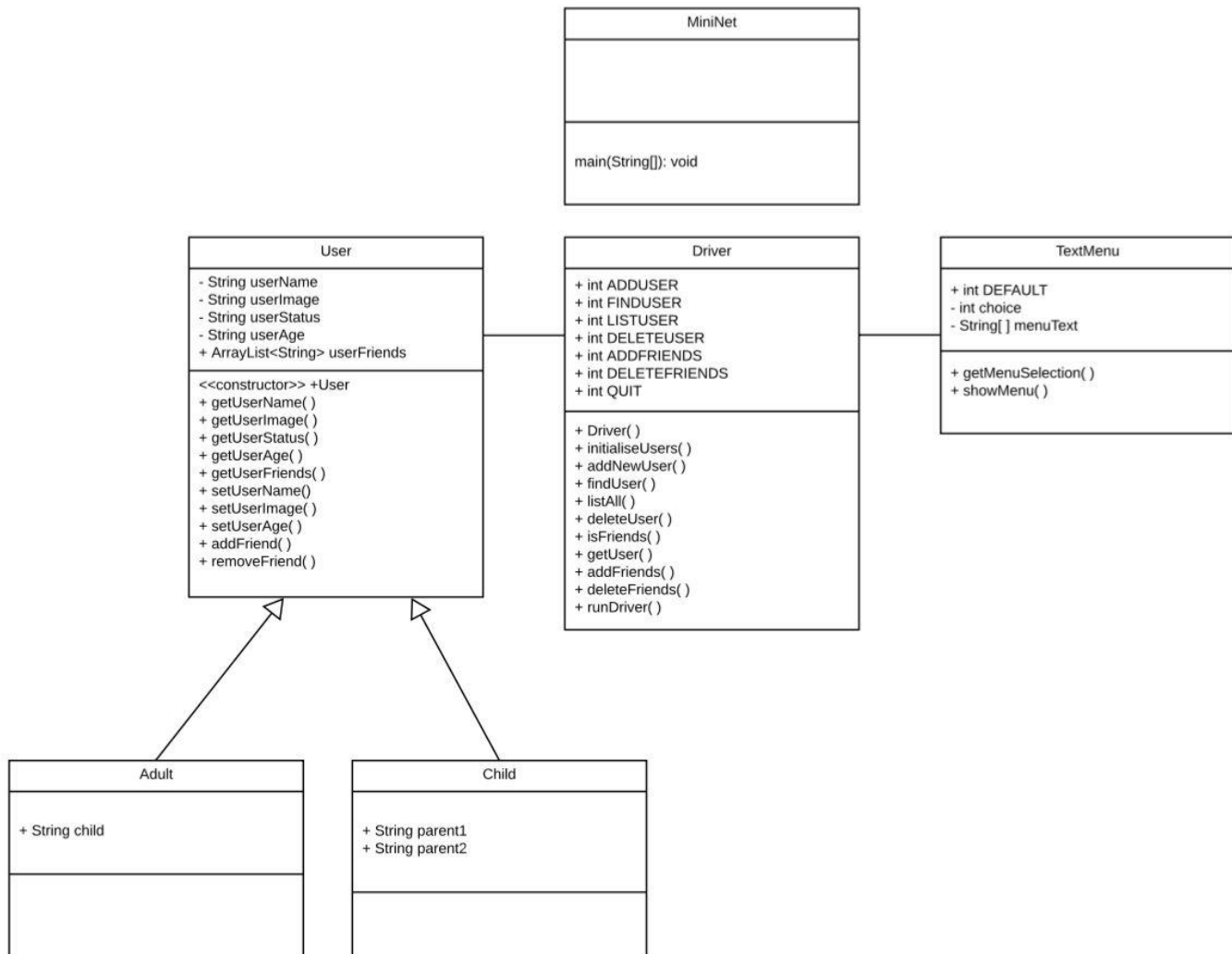
**3. Explain the process by which your program can maintain the networks and find connections more efficiently.**

To make a friend connection, addFriend() method is used. The menu asks user to enter name 1 and name 2, it uses isFriends() method to check if they are friends or not. If they are not friends a friend connection is be made, on the other hand if they are already friends, a friend connection is not be made.

To delete a friend connection, removeFriend() method is used. The menu asks user to enter name 1 and name 2, it uses isFriends() method to check if they are friends or not. If they are not friends there is no need to remove a friend because the connection never exists, on the other hand if they are already friends, a friend can be removed.

The friend connections can be found using the findUser() method. It allows users input the user name to search for a particular user. If the user name has been found, user profile of the user is displayed.

## Class Diagram:

**MiniNet**

main(String[]): void

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**User**

- String userName
- String userImage
- String userStatus
- String userAge
+ ArrayList<String> userFriends

<<constructor>> +User
+ getUserName( )
+ getUserImage( )
+ getUserStatus( )
+ getUserAge( )
+ getUserFriends( )
+ setUserName()
+ setUserImage( )
+ setUserAge( )
+ addFriend( )
+ removeFriend( )

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**Driver**

+ int ADDUSER
+ int FINDUSER
+ int LISTUSER
+ int DELETEUSER
+ int ADDFRIENDS
+ int DELETEFRIENDS
+ int QUIT

+ Driver( )
+ initialiseUsers( )
+ addNewUser( )
+ findUser( )
+ listAll( )
+ deleteUser( )
+ isFriends( )
+ getUser( )
+ addFriends( )
+ deleteFriends( )
+ runDriver( )

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**TextMenu**

+ int DEFAULT
- int choice
- String[ ] menuText

+ getMenuSelection( )
+ showMenu( )

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**Adult**

+ String child

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**Child**

+ String parent1
+ String parent2

## Github link:

https://github.com/rmit-s3679718-natalie-sy/Assignment-1