MIDTERM ASSIGNMENT

Subject : Classes, objects, encapsulation, inheritance, and polymorphism.
Instructor: Dr. Selim Yılmaz (selimyilmaz@mu.edu.tr) & Dr. Özgür Kılıç (ozgurkilic@mu.edu.tr)
Out Date: 05/03/2021 23:59:59
Due Date: 05/17/2021 23:59:59

DECLARATION OF HONOR CODE[1]

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In the course of Introduction to Object Oriented Programming (CENG 1004), I take academic integrity very seriously and ask you to do as well. That's why, this page is dedicated to some clear statements that defines the policies of this assignment, and hence, will be in force. Before reading this assignment booklet, please first read the following rules to avoid any possible violation on academic integrity.

- This assignment must be done individually unless stated otherwise.
- You are encouraged to discuss with your classmates about the given assignments, but these discussions should be carried out in an abstract way. That is, you cannot copy code (in whole or in part) of someone else, cannot share your code (in whole or in part) with someone else either.
- The previous rule also holds for the material found on the web as everything on the web has been written by someone else.
- You must not look at solution sets or program code from other years.
- You cannot share or leave your code (in whole or in part) in publicly accessible areas.
- You have to be prepared to explain the idea behind the solution of this assignment you submit.
- Finally, you must make a copy of your solution of this assignment and keep it until the end of this semester.

I have carefully read every of the statements regarding this assignment and also the related part of the official disciplinary regulations of Muğla Sıtkı Koçman University and the Council of Higher Education. By signing this document, I hereby declare that I shall abide by the rules of this assignment to prevent any violation on academic integrity.

Signature Sarper

[1]This page should be filled and signed by your handwriting. Make it a cover page of your report.

Figure 1: Honor.

May 16, 2021

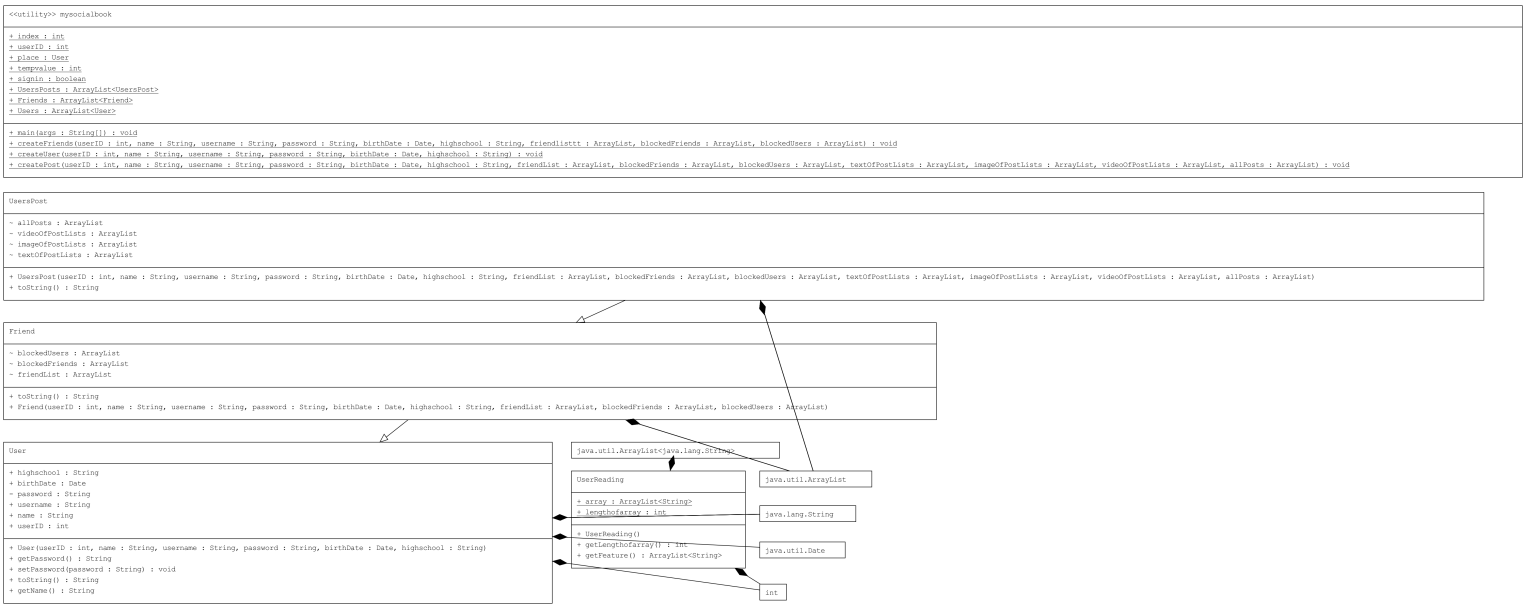

Figure 2: This is an UML diagram of code.

1 Class

User CLASS:We determined the attributes of the users in this class. We used this class while creating new users in the mySocialBook class. This class was also used during all the commands in the mySocialBook class directly or indirectly.

UserReading CLASS:In this class, we read the txt file and get the user attributes which are inside that file. We create some arraylists in this class and we get those arraylists when we need after making addition in the mySocialBook class.

Friend CLASS:We made inheritance with the User class to create the basis of this class. We also added the attributes which are not in the User Class but in the Friend Class. And we used these attributes in commands like AddFriend, remoteFriend, FriendList in the mySocialBook class.

UsersPost CLASS:We made inheritance with the Friend class to create the basis of this class. We created 4 arraylists. We created one arraylist for each post type and also created allPostsArrayList which contains all informations about posts. These arrays are used in the commands like Addpost-Text, Addpost-Image, Showpost.

MySocialBook: This is our main class. As I mentioned before in the descriptions of other classes, this is where we use all other classes. We used other classes during the User operations, Friend operations, Post operations etc. But the main job is done always in this class.

2 Methods

User CLASS: getPassword(): The method that is used in order to reach the password of the user

setPassword(): The method which is used while creating a new password for the user

toString():This allows us to get a data as a string

UserReading CLASS:

getLengthOfArray(): We get the length value of an array with this method

getFeature(): The method which allows us to reach the array which contains the user informations

Friend CLASS:

toString():This allows us to get a data as a string

UsersPost CLASS:

toString():This allows us to get a data as a string

MySocialBook CLASS:

CreateFriends(): This allows us to add the friends into the Friends arraylist with every attribute they have

CreateUser(): This allows us to add the users into the Users arraylist with every attribute they have

CreatePosts(): This allows us to add the posts into the UserPosts arraylist with every attribute that they have or we may use in the posts

3 General Idea

This is the homework done by using classes and OOP logic. By using the classes and the methods in correct places, we created object with the informations that we got from the text file and we executed the commands with the arraylists.

4 The Contribution of This Assignment On Me

I couldn't say that I understood the OOP paradigm well before this homework. But I think that I improved myself during the homework and I totally understand its logic now.