

DAT 240 fall 2019, Advanced Programming.
Homework 1

- a. Create a class diagram for your project work. Make sure the SOLID principles are not violated.
- b. Create a sequence diagram for your project work for the scenario mentioned below:

Scenario for login and user pairing:

The scenario begins when the user chooses to join the game by registering in the game or the user logs in directly if he/she is already registered.

The new user enters username or email and password. The UI will prevent the user from entering invalid data such as an empty username invalid username, email, password. The authenticator stores the user credentials in a database.

The existing user enters username and password. The authenticator authenticates the user by cross checking with the database.

The authenticator tells the game server of successful login. the game server gives the user of choice to be a proposer or guesser. The user chooses to be either guesser or proposer. For each proposer/guesser the game server matches with a guesser/proposer. If no matches are found wait until a fixed time and then timeout.

Using UML class diagrams and sequence diagrams for designing the software architecture before coding is quite useful as we discussed in the lecture. Having these to document your project design is an advantage and including that in your final project submission in addition to source code would improve the quality of your project. However, submitting this homework is not obligatory to pass the course.

Contrary to what I said in the lecture, there will be no bonus points for presenting the design in the lecture. I have been reprimanded for saying that in the class. But anyone willing to present it is still appreciated let me know.

If anyone would like to use these tools I would recommend <https://www.visual-paradigm.com> I have license keys I can distributed if anyone needs them. Unfortunately there is no easy way to just distribute it to everyone.