TASK A: Practice your c# - Go through the C# code for the client-server application. Evaluate the code:

1. Pay attention to the following:
   - How does the client establish a connection.
   - How does the server open a connection and accept connections.
   - How does the client send a message
   - How does a server send a message
   - What are the key responsibilities or functions that should be in separate classes or methods?
2. Now perform the following activities:
   - Refactoring: Clean the code and make it easier to understand.

Suggestions:

In the main Main() for the server try to only have the following:

```
Server server = new Server();

server.Start();
```

Then evaluate the best division of responsibilities across different methods and classes.

For the Client, you can also separate concerns, e.g., a Client class that handles client specific concerns and also a ConnectionManager.

- Add Exception handling where necessary in the server and client
- Ask a partner to evaluate your code. What is their opinion of your code and commenting?
- Now implement a change in the server:
  - have the server exit when the client exits
- Develop a UML class diagram that shows the architecture of your modified client-server application.

Fyi – to run the code there are two options:

1. Use Visual Studio Code. In there you can open tabs, one with the server and the other with the client. Open two tabs in your terminal, and in one tab navigate to the folder that contains the .cs file for the client and in the other tab to the folder that has the server. FYI - Visual Studio Code also comes with a terminal that you can also use. Then run the following to compile:
   csc Server.cs

   That will create the Server.exe file. And then the following to run the exe program.
   mono Server.exe

2. Alternatively, try using two different IDE's e.g., Visual Studio (for the server) and Visual Studio Code (for the client). For compiling and executing, it is simple in Visual Studio. For Visual Studio Code follow the instructions above.

TASK B: (Take home**)** Revise your UML. Look at the UML slides on blackboard.