Network based Tic-Tac-Toe Application Specifications

Create a network based Tic-Tac-Toe game that have the following features:

- Allow the player to play in single mode(i.e. play with the computer – **Bonus**: you may use any AI java library to specify the difficulty level when playing with the computer)
- Allow two players either to play locally on the same machine or on two different machines
    - For the online mode:
      The application displays a list of the online or available users. So, the player can choose any of them to send him a request to play.
    - The opponent player should receive a request to play. Hence he should have the decision to accept or refuse.
- The application should have a very elegant user interface
- The application should give the user an option to record the game and store it for replay later
- The application should give the player prize in the form of bonus **videos** to be played when the player wins
- The application should store the player score.
- The user can Register and Login to the server.

Server:
- The Server application will handle the connections, streams and exchanging the data among the users.
- There should be server application with simple GUI
- Start / Stop Button(s) to start or stop the service
- graphs that show the number of active users or online and offline users

- **Bonus**: you could create more than game in the same application (ex: Checkers, snakes and ladders, etc.....)

Milestone:

1st Milestone: Wednesday, 7th of December, 2022
- git-hub project
- Database Schema and implementation.
- GUI design V1.0.
- Draft plan or any description for how do you think about implementing your project (May making UML design if you can).
- *Show the tasks assignment to team members via Trello*

Project Delivery

Delivery Date: 21st of December, 2022
Delivery Package:
- git-hub repository link
- Executable JAR files.
- Tic-Tac-Toe Netbeans project
- Read me file that describes how to run and use the project and the team members' names.

Delivery methodology: The leader of the group will send a mail **To**

amazen@iti.gov.eg, yahosny@iti.gov.eg and asmali@iti.gov.eg then the team mates' emails in **CC**

Project Defense & Evaluation

The defense will be held physically in ITI
where there should be a demo on 4 or 5 machines with 3 or 4 clients and a server connected over network.

Each team member must proof his/her participation in the project success with efforts in (client logic, server logic, UI and database handling) and this should be proofed by the number of pushes on git-hub and the completed tasks on trello. So, the evaluation will depend on the ratio of the effective participation in the project success.

Support:

You can ask for support via:
Contacting Eng. Ahmed Mazen through
Email: amazen@iti.gov.eg
Mobile: 0114 67 55 230
or
Office Hours with Eng. Asmaa Ghoname & Eng. Yasmeen Hosny
Best Regards,
Ahmed Mazen