

Object-oriented Programming Language (Java)

HOMEWORK #9 ☺

This homework is Due in a week

1. Goal: Students will be needed to

- Learn how to use Thread in a game server.
- Learn how to use TCP client-server application.
- Learn how to use Swing GUI (optional).

2. Simple Game Client-Server: create a TCP server (GameServer) using ServerSocket and Socket classes and a TCP client (GameClient) using Socket class.

- The GameServer can accept many connection from the GameClients.
 - When GameClient connects to the GameServer, create a “game thread” to handle the game.
 - The “game thread” handles the game protocol.
- Game protocol: [猜數字](#)
 - GameServer 設定一組四碼的數字作為謎底，GameClient 猜。
 - GameClient 每猜一個數，GameServer 就要根據這個數字給出提示，提示以 XAYB 形式呈現，直到猜中為止。其中 X 表示位置正確的數的個數，而 Y 表示數字正確而位置不對的數的個數。
 - ◆ 例如，當謎底為 8123，而猜謎者猜 1052 時，出題者必須提示 0A2B。
 - ◆ 例如，當謎底為 5637，而猜謎者猜 4931 時，出題者必須提示 1A0B。
- GameClient interface: Swing GUI or text outputs (with Scanner input)



3. Upload and Hand in your homework assignment

- Write a MS word report containing 1. Game protocol 2. Lessons learned and conclusion.
- Zip your code and report to a zip file (i.e. I2A01.zip) and upload it to TronClass web.

Do your assignment as soon as possible. Don't wait till the last minute.