

## OO- Assignment 5

Worth 8%, due, as per LEA

### Overview

I have written a fully functional 2-person guessing game using server sockets (code included)

- The connection code and GUI is already separate from the game code
- However, the game logic, associated data transfer & GUI for the game are all in the same file. No MVC
- This code needs to be refactored so that it follows good OO and MVC design.

### Getting the Game Up and Running

1) Get the server running... from the command prompt:

`perl BroadcastServer.pl 8080` optional  
~~~~~> port #, defaults to 8080

2) Run two versions of xcode program

a) Select a simulator, click build

b) Select a different simulator, click build

⇒ Two simulators should now be running, click the "Guessing Game" app if the app is not currently running on that simulator

3) Connect to the server, choosing the correct port #.

PS: it is easier to follow if you use different names on each phone.

## Your task

You do NOT need to modify any file except for `GameViewController.swift`

Todo: Refactor `GameViewController.swift` so that it follows proper MVC and OD design.

When done, you should have the following files:

### `gameViewController.swift`

- contains code that sets up the GUI,
- is a `GameServerViewDelegate`
- sets up the "gameServerController"
- does not interact with the game logic or the server

### `guessingGame.swift`

- is the game logic only.
- does NOT communicate with the server at all

### `gameServerController.swift`

- the boss!
- calls fns in `guessingGame.swift` as necessary
- interacts with the server (sending and receiving data)
- calls the `gameServerViewDelegate` functions as necessary to update the GUI

## gameServerViewDelegate

- defines the protocol

## userReceivedData

- a simple class, which parses the userData sent by the server, and returns an object.

\* see `MakeConnection/ClientReceivedData.swift` for ideas

## HINTS

- Keep 1 simulator running the original code, because you know it works
- Take the time to understand what my code is doing (debug + breakpoints) before starting to refactor
- All data sent & received is printed to the debug console

SOMETIMES, IT MIGHT LOOK LIKE ITS CRASHING (RARE)... EITHER RESTART, OR WAIT FOR IT TO TIMEOUT, IT WILL RECOVER AFTER A TIMEOUT

## RUBRIC

- If you made changes and it still works 40%
- Proper coding and comments 60%