School of Computing

Bachelor of Science in Computing.
Programme Code: DT211/3
2012 – 2016
Networking Programming

Student Name: Christopher Mahon
Assignment Number: 3
Assignment Title: Game Protocol
Date Due For Return: 27/3/2015

Specification

Design and Implement application protocols to run over TCP and UDP respectively.
Both protocols are intended for the same purpose, control and reporting of an electronic game framework.

Game consists of a series of buttons. They may be illuminated in any sequence.

Link to Github

https://github.com/Chris-Mahon/DT211-3-NP-CA-3

Program Capabilities

The programs will be written in different languages. The Client will be written in Python, the server will be written in Java.
The Server will send messages to the client telling it which buttons need to be illumated. It will receive messages from the Client saying what buttons have been pressed. In response to these messages, the server will determine what actions to take. If the illuminated button is pressed, then the server will tell the client to change which button is illuminated.
The client will receive messages from the server to decide what buttons to illuminate, and then send a message to the server whenever the user presses a button. The client has a GUI that the user can interact with to send messages to the server. The client will also be in control of handling the session, it will be the one responsible for keeping the session alive, by sending heart beats to the server.

Unique Selling Point

I have 2 unique selling points.
My first is adding in a GUI onto the client side of the application that the user can interact with, which is to simulate the missing physical hardware.
As well as this, my program and client will be written in 2 different languages, to demonstrate the idea that it doesn't matter what language its all written it, just about how it is written.

Known Issues

The Client doesn't have a timeout check, it assumes that the server is still connected and doesn't check if it is still connected.
The game only functions using 1 protocol, the second one has not yet been implemented.
The illumination has not been implemented yet.