Project Description

Mobile to Mobile is a project composed by three different applications that allow a computer and an android device to communicate with each other using TCP and UDP Sockets. The devices are able to send and receive text and voice messages.

1. Server
   1. The server is a C# application. This application is constantly listening for clients to connect. When a client request for connection, the server creates an Object “client” that contains all the necessary methods for server-client communication. The server accepts the connection, it gets he IP address from the client, stores it in an array of strings. Finally it binds the stream to the client object and stores it on a linked lists and goes back to listening.
2. C# client.
   1. The client request connection to the Server, and it surrenders its own IP address. Once the client has establish connection to the server, its ready to start listening and broadcasting to all other clients connected to the server. When a client is trying to send a message, it requests the IP addresses from the server and starts broadcasting to all other clients.
3. . Android Application client.
   1. The android application has the same structure as the C# client, using Java programming language. There are some modifications made to the code to fit the Android platform.

The project is based on a server client communication. The Clients connect to the server using TCP sockets. The idea of using TCP sockets with the server is to assure a save connection. TCP sockets have to maintain a connection in order to be able to communicate, this assures that the client listening will get the message.

Clients use UDP Sockets to broadcast a message to all other clients connected. UDP sockets are faster than TCP sockets. They do not need to be connected in order to communicate, this protocol does not guaranty that the listener will get the message. Broadcasting is better implemented using UDP sockets because many messages can be sent to many locations. By using UDP sockets the application avoids having to make a connection to all the clients connected to the server. This saves a lot of work and makes the application faster.

Once the users install the Client Application on their computer or their android device, they would be able to connect to the server and start sending text messages to all other devices.

Philosophy

I became a student the moment I was born. The first thing I learned was to breathe, after that I learned to be hungry, thirsty, to feel pain and many other things that makes living a reality. My first rite of passage was when I open my eyes for the first time. A whole world of opportunities appeared right in front of me. From that moment on, I wanted to learn more about the things around me. Even when I cannot claim I was fully aware of my self and my decision was not completely made by me own will, I decided to be a life long learner. That is when curiosity started and since then it has only exponentially increased. Creativity developed as a result of curiosity. Once you learn something it is important to see how you can use it to achieve something else or how it can be modified.

In order to achieve success, it is necessary to acknowledge that success is not likely achieved at the first try. It is important to realize that in order to achieve success, the following qualities need to be embraced: determination, persistence, hard work and patience. In this world everything is possible. The only difference between getting to the goal and staying behind is how hard you want to get there.

My philosophy can resumed in three words in the order in which they are written, but all together create a cycle in which none of them is first of last. Learn, create and achieve.

Career Plans

1. My first plan is to gain work experience as a program developer. This will allow me to understand a have a better view of a work environment.
2. Once I have enough capital and experience I would like to open my own company.

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