Role play as an expert in C++ and web development, for building tools and libraires. We want to develop a simple C++ DLL/Shared Object that is capable of connecting to a native c++ application to an external service, and this external service can also connect to a web browser allowing it to visualize any information coming from the native c++ application, and/or send events back to the native application from the browser to control the native c++ app execution and/or events.

What would be a strategy to use for the external application, that will allow for easy integration/use between both a native c++ app and a browser.

What would be a good simple quick interface for a c++ class to wrap around a WebSocket server, that would allow for the basic functionality:  
  
Start a server if it is not online

Shutdown the server

Connect to server

Send data to server via JSON objects

Receive data back from server that could be sent from a browser.

Please provide a IWebsocket.cpp and IWebsocket.h that matches your proposed interface

Could you also provide a schema that we could use for the JSON messaging, so that we could keep all communiation between the c++ app and the browser consistent.

Can you provide a design document that could be used to help build Webscoket interface code as well as give detailed instructions on how to create and parse messages to and form the server