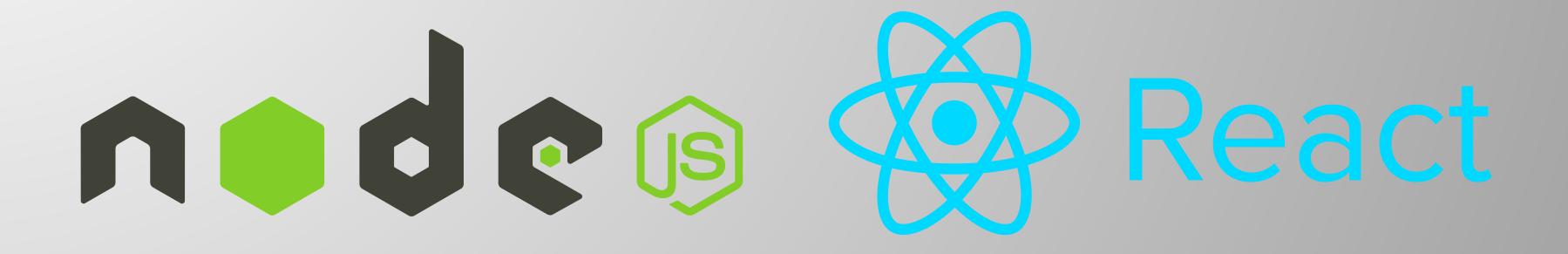
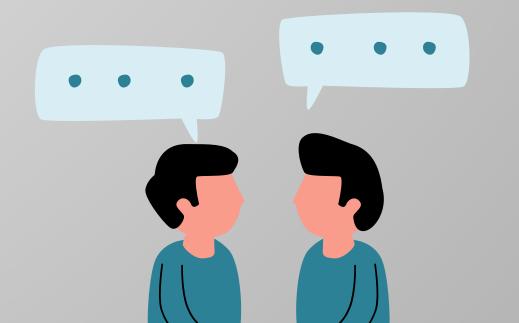


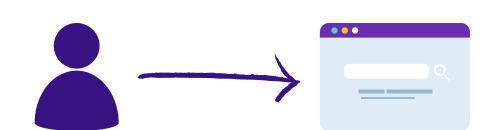
INSTANT MESSAGING ARNOLD MUZARUWI





conversation design





support for up to 100'000 Users





one to many conversation (broadcast)





one on one conversation

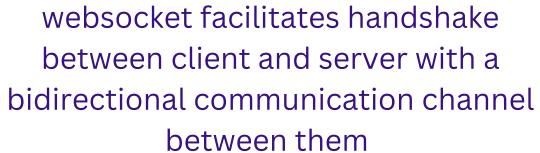


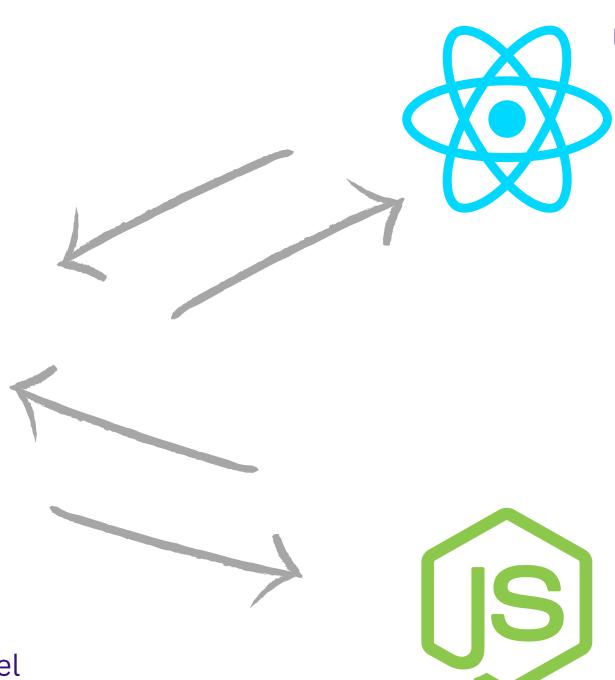
group chat



client-server protocol







User sends/receives a message



server stores/retrieves data



Through a single TCP socket connection, the WebSocket protocol enables persistent, real-time, full-duplex communication between the client and the server.

There are only two goals of the WebSocket protocol: to initiate a handshake and to facilitate data flow. They can transfer data to each other at any time with reduced overhead after the server approves the client's handshake request and starts a WebSocket connection.

WebSocket communication uses either the WS (port 80) or WSS (port 443) protocol across a single TCP socket.