

## Documentation

### What is WebSocket ?

WebSocket's are a communication protocol that enables real-time, bidirectional communication between a client (like a web browser) and a server.

#### WebSocket Connection



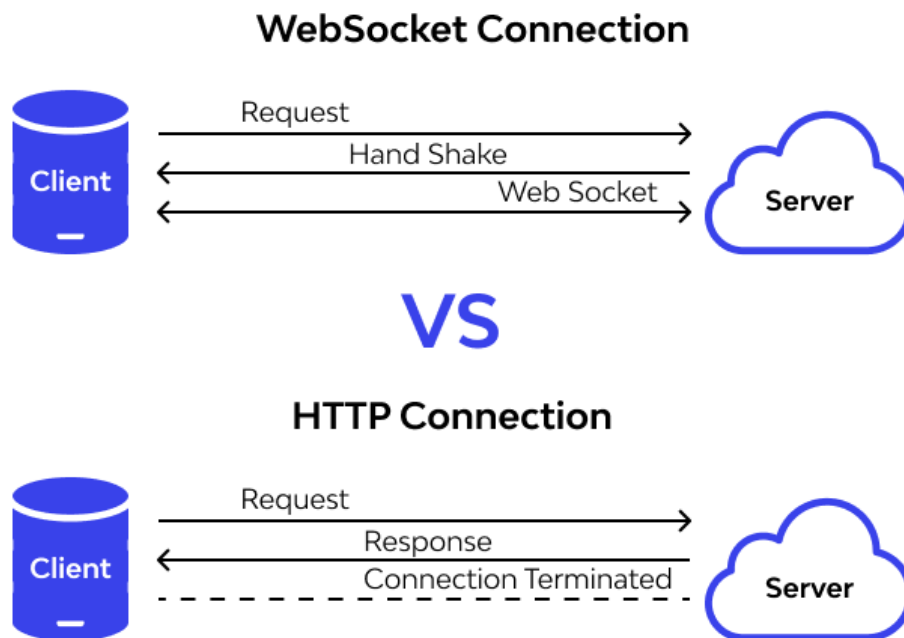
#### Advantage -

- Realtime Data Transfer
- Bi-Directional
- Efficient
- Persistent Connection

#### Use Cases for building WebSockets -

- Chat Application
- Real-Time Gaming
- Collaborative Editing
- Live Updates
- IOT(Internet Of Things)

## Difference between HTTP Connection and WebSocket Connection.

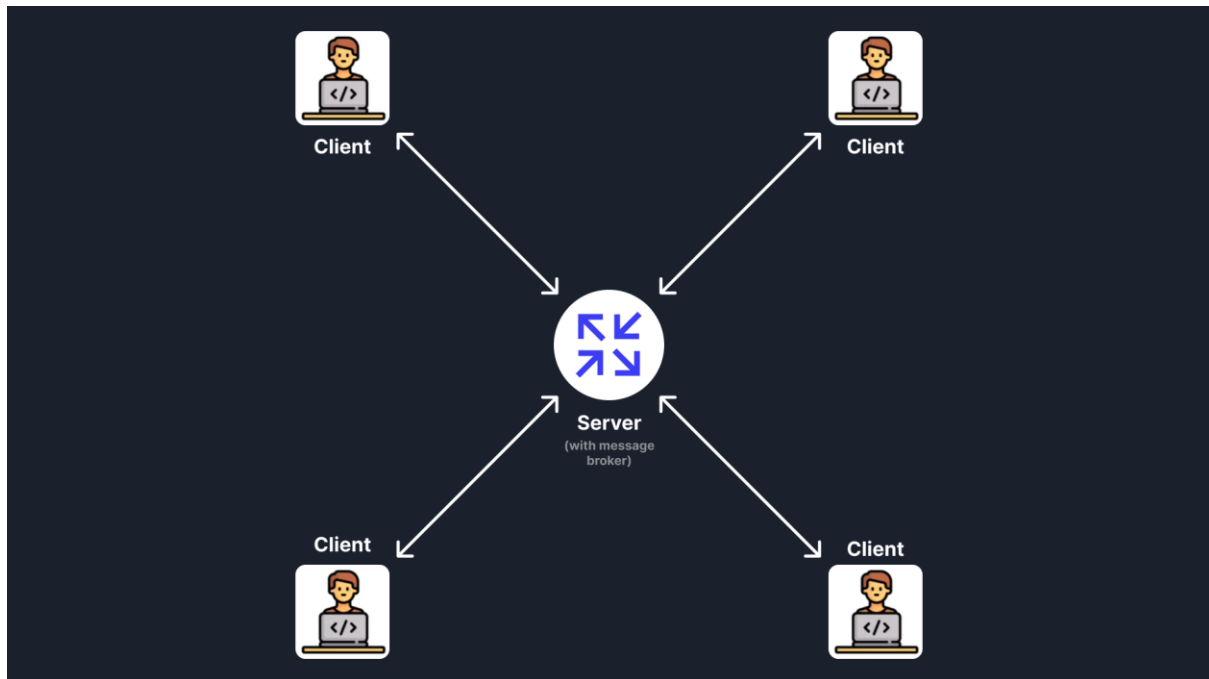


<u>HTTP Connection</u>	<u>WebSocket Connection</u>
Request-Response	The Handshake
One-Way	Persistent Connection(Two-Way)
Inefficient for Real-Time	Real-Time Data

### What is Handshake ?

The client and server begin with a standard HTTP request, but this request includes an "Upgrade" header asking to switch to the WebSocket protocol.

## WebSocket Message Broker



A WebSocket message broker is a system that facilitates real-time, bidirectional communication between clients and servers using the WebSocket protocol. It acts as an intermediary that manages the distribution of messages between connected clients, often following a publish-subscribe (pub/sub) model.