**WebSocket Research – Pepijn Bullens**

**What is a WebSocket?**

WebSocket’s are a fundamental part of modern internet. They allow for data to be received and sent from a web application without having to refresh the page. WebSocket’s are used in almost all websites. Think of a MacDonalds order board where the orders are being updated in real time. Or even chat rooms like Teams, WhatsApp, Discord, or any other application containing the receiving/sending of messages.

**What are the cons of a WebSocket?**

As previously mentioned, a WebSocket can be used for updating content of a website without having to reload the page. A good example: say all users on the internet in this day of age (4.5 billion) must reload their web page every time they want to receive new data which when calculated could add up to 10 seconds of reload time per day, per user. This would result in up to 45 billion seconds of wasted time daily. That’s close to 1427 years. Needless to say, WebSocket’s safe us a lot of time and are a necessity in the modern internet.

**How do I implement a WebSocket?**

Using NodeJS a WebSocket is easily implemented. What makes it even easier is using a library like Socket IO. Combined with a Front-end like React or NextJS you’ll have a WebSocket system running in no time.