

Secure WebSocket Connections

2 min

You may notice that some websites (including Codecademy.com) use the `https://` protocol at the beginning of the URI while others use `http://`. So what's the difference?

[https:// is the secure version of the http:// protocol](#) and is encrypting using the Transport Layer Security (TLS) protocol. Using an HTTPS server instead of a basic HTTP server safeguards your users from malicious attacks, such as a [Man In The Middle Attack](#).

In the last exercise, we learned that during the WebSocket handshake a GET request is sent to the server using a `ws://` URI. Just like the `http://` protocol, `ws://` is an unencrypted protocol. So is there a more secure WebSocket protocol?

Yes! WebSocket connections can also use the TLS protocol to establish a more secure connection by using the `wss://` protocol (notice the extra s). Connections using the `wss://` protocol function just like `ws://` ones, except that the initial handshake takes place over HTTPS instead of HTTP.

Instructions

Take a look at the diagram. For all four protocols, a TCP connection is being used to establish a connection. However an extra TLS layer is added for protection for the `https://` and `wss://` protocols.

