

Reference: <https://www.geeksforgeeks.org/how-to-create-a-websocket-connection-in-javascript/>

```
// Generate a unique ID for the client (RQ-08)
const clientID = "client_" + Math.floor(Math.random() * 10000);

// Connect to WebSocket server (RQ-03, RQ-05)
const socket = new WebSocket("ws://localhost:8080");

// Handle incoming messages from the server (RQ-02, RQ-04, RQ-09, RQ-10)
socket.onmessage = function(event) {
  try {
    const data = JSON.parse(event.data); // RQ-05: JSON used

    if (!Array.isArray(data)) return;

    const leaderboard = document.querySelector("#leaderboard tbody");
    leaderboard.innerHTML = "";

    data.forEach(entry => {
      const row = document.createElement("tr");

      const id = document.createElement("td");
      id.textContent = entry.userID;

      const username = document.createElement("td");
      username.textContent = entry.username;

      const wins = document.createElement("td");
      wins.textContent = entry.wins;

      row.appendChild(id);
      row.appendChild(username);
      row.appendChild(wins);

      leaderboard.appendChild(row);
    });
  } catch (error) {
    console.error("Unable to process leaderboard:", error);
  }
};
```