

index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8" />
  <title>Real-Time Chat App</title>
  <link rel="stylesheet" href="style.css" />
</head>
<body>
  <div class="chat-container">
    <h2>Real-Time Chat Application</h2>
    <div id="messages"></div>
    <form id="chat-form">
      <input type="text" id="message" placeholder="Type a message..." required />
      <button type="submit">Send</button>
    </form>
  </div>

  <script src="/socket.io/socket.io.js"></script>
  <script>
    const socket = io();
    const form = document.getElementById("chat-form");
    const messageInput = document.getElementById("message");
    const messagesDiv = document.getElementById("messages");

    form.addEventListener("submit", (e) => {
      e.preventDefault();
      socket.emit("chat message", messageInput.value);
      messageInput.value = "";
    });

    socket.on("chat message", (msg) => {
      const div = document.createElement("div");
      div.textContent = msg;
      messagesDiv.appendChild(div);
    });
  </script>
</body>
</html>
```

style.css

```
body {
  font-family: Arial;
  background: #f4f4f4;
  display: flex;
  justify-content: center;
  align-items: center;
  height: 100vh;
}

.chat-container {
  background: white;
  width: 350px;
  padding: 20px;
  border-radius: 8px;
}

#messages {
  height: 250px;
  border: 1px solid #ccc;
  margin-bottom: 10px;
  padding: 10px;
  overflow-y: auto;
}

form {
  display: flex;
}
input {
```

```
    flex: 1;
    padding: 8px;
}

button {
    padding: 8px;
    background: blue;
    color: white;
    border: none;
}
```

server.js

```
const express = require("express");
const app = express();
const http = require("http").createServer(app);
const io = require("socket.io")(http);

app.use(express.static("public"));

io.on("connection", (socket) => {
    socket.on("chat message", (msg) => {
        io.emit("chat message", msg);
    });
});

http.listen(3000, () => {
    console.log("Server running on port 3000");
});
```

package.json

```
{
  "name": "real-time-chat-app",
  "version": "1.0.0",
  "description": "Real-time chat application",
  "main": "server.js",
  "scripts": {
    "start": "node server.js"
  },
  "dependencies": {
    "express": "^4.18.2",
    "socket.io": "^4.7.2"
  }
}
```