	Marwadi University **Faculty of Technology** **Department of Information and Communication Technology**	
Subject: AWT (01CT1625)	**Aim: Backend: Using NodeJS, build a real time chat application or email sender.**	
Experiment No: 10	**Date:**	**Enrollment No: 92200133005**

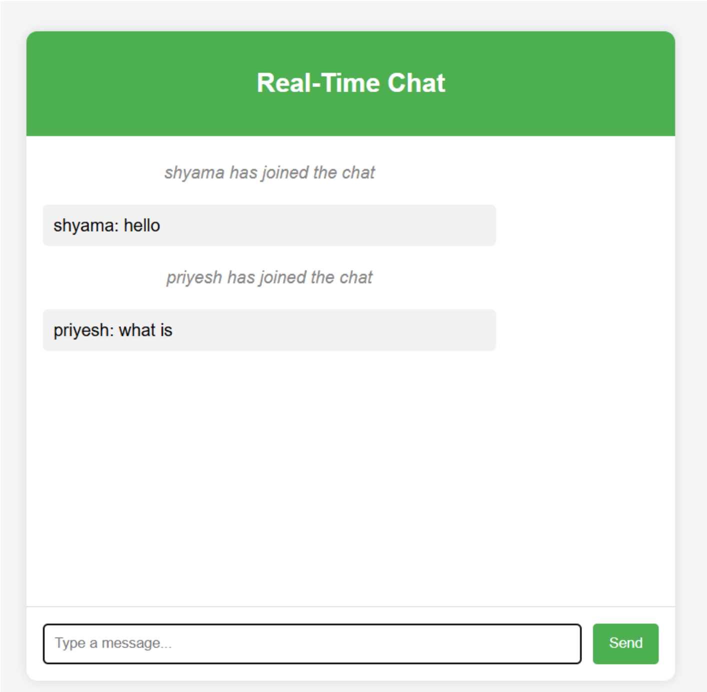
AIM: **Backend: Using NodeJS, build a real time chat application or email sender.**

CODE:

```
// File: index.js
const express = require('express');
const http = require('http');
const socketIo = require('socket.io');
const path = require('path');
// Initialize Express app
const app = express();
const server = http.createServer(app);
const io = socketIo(server);
// Serve static files from the 'public' directory
app.use(express.static(path.join(__dirname, 'public')));
// Route for the home page
app.get('/', (req, res) => {
  res.sendFile(path.join(__dirname, 'public', 'index.html'));
});
// Socket.io connection handling
io.on('connection', (socket) => {
  console.log('A user connected');
  // Handle user joining with a username
  socket.on('join', (username) => {
    socket.username = username;
    io.emit('message', {
      user: 'System',
      text: `${username} has joined the chat`
    }); });
  // Handle chat messages
  socket.on('chatMessage', (message) => {
    io.emit('message', {
      user: socket.username,
      text: message
    }); });
  // Handle disconnect
  socket.on('disconnect', () => {
    if (socket.username) {
      io.emit('message', {
        user: 'System',
        text: `${socket.username} has left the chat`
      });
    }
    console.log('A user disconnected');
  }); });
// Start the server
const PORT = process.env.PORT || 3000;
server.listen(PORT, () => {
  console.log(`Server running on port ${PORT}`);
});
```

```
<script src="/socket.io/socket.io.js"></script>

  <script>

    const socket = io();

    // DOM elements

    const usernameScreen = document.getElementById('username-screen');

    const chatScreen = document.getElementById('chat-screen');

    const usernameForm = document.getElementById('username-form');

    const usernameInput = document.getElementById('username-input');

    const chatForm = document.getElementById('chat-form');

    const messageInput = document.getElementById('message-input');

    const chatMessages = document.getElementById('chat-messages');

    // Handle username submission

    usernameForm.addEventListener('submit', (e) => {

      e.preventDefault();

      const username = usernameInput.value.trim();

      if (username) {

        socket.emit('join', username);

        usernameScreen.style.display = 'none';

        chatScreen.style.display = 'flex';

      }});

    // Handle sending messages

    chatForm.addEventListener('submit', (e) => {

      e.preventDefault();

      const message = messageInput.value.trim();
      if (message) {
        socket.emit('chatMessage', message);
        messageInput.value = '';
        messageInput.focus();
      } });
    // Display received messages
    socket.on('message', (message) => {
      const messageElement = document.createElement('div');
      if (message.user === 'System') {
        messageElement.classList.add('message', 'system-message');
        messageElement.innerText = message.text;
      } else if (message.user === usernameInput.value) {
        messageElement.classList.add('message', 'user-message');
        messageElement.innerText = `You: ${message.text}`;
      } else {
        messageElement.classList.add('message', 'other-message');
        messageElement.innerText = `${message.user}: ${message.text}`; }
      chatMessages.appendChild(messageElement);
      // Auto-scroll to the bottom
      chatMessages.scrollTop = chatMessages.scrollHeight;
    });
  </script>
```

OUTPUT:

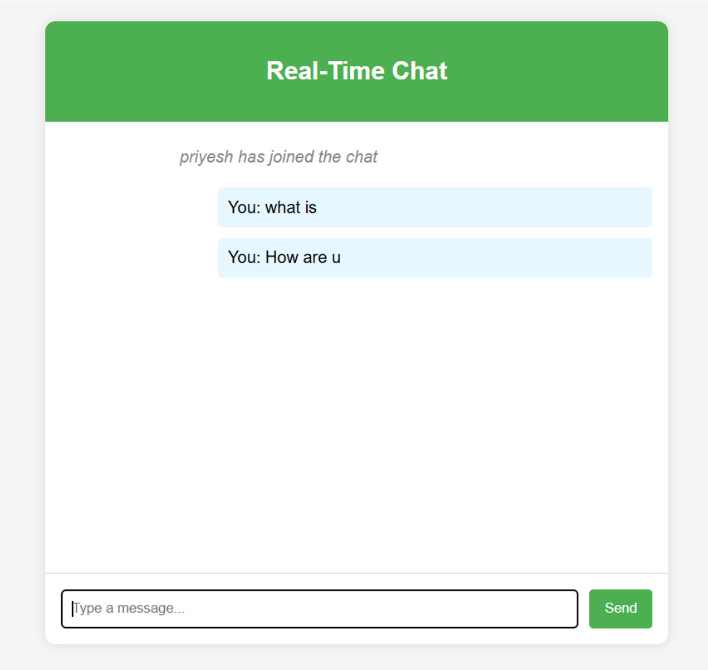


shyama has joined the chat

shyama: hello

priyesh has joined the chat

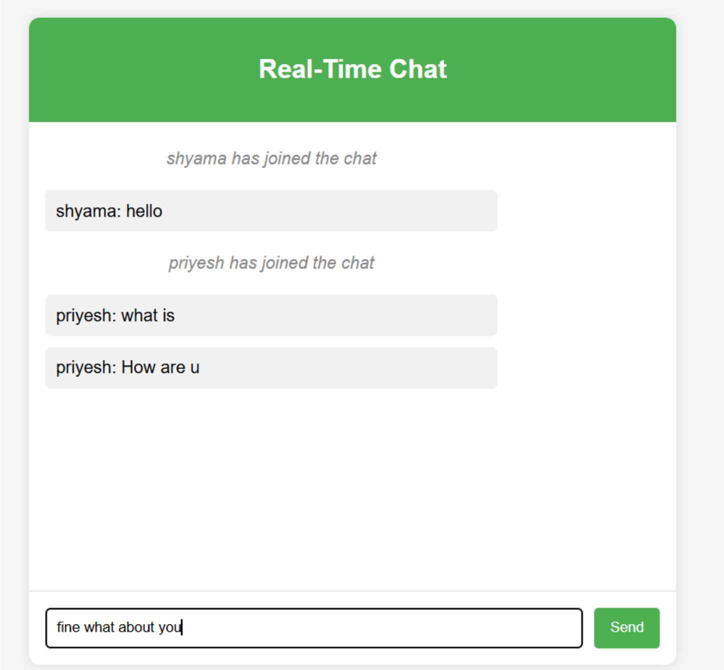
priyesh: what is



priyesh has joined the chat

You: what is

You: How are u



shyama has joined the chat

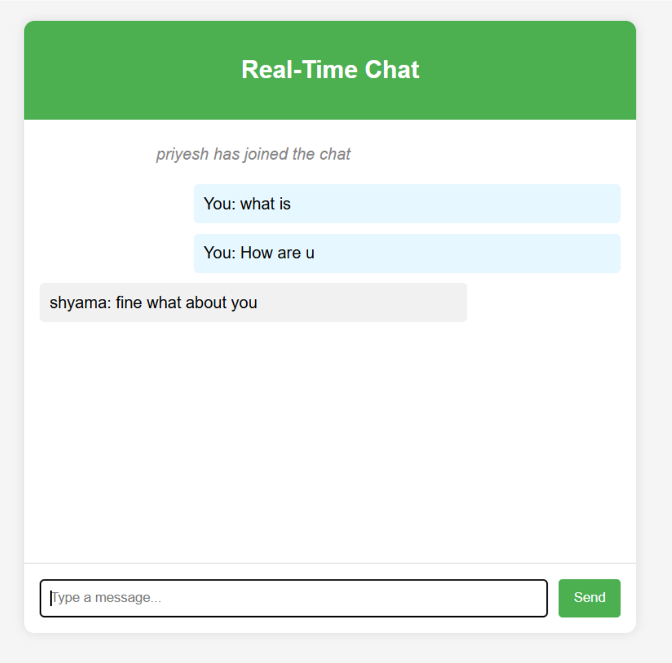
shyama: hello

priyesh has joined the chat

priyesh: what is

priyesh: How are u

fine what about you



priyesh has joined the chat

You: what is

You: How are u

shyama: fine what about you