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Kelas   : TI-20-PA1
Matkul : Pemrograman Web Lanjut

1. Buatlah penggunaan websocket seperti contoh kasus diatas dengan menambahkan inputan user account.

Source Code

```javascript
const app = require('express')();
const http = require('http').Server(app);
const io = require('socket.io')(http);
const port = 3002;

app.get('/', (req, res) => {
  res.sendFile(__dirname + '/index.html');
});

io.on('connection', (socket) => {
  console.log('a user connected');

  // Mengirimkan data user account saat koneksi dibuat
  socket.on('user account', (account) => {
    console.log('User account: ' + account);
    io.emit('user account', account);
  });

  socket.on('chat message', (msg) => {
    console.log('message: ' + msg);
    io.emit('chat message', msg);
  });

  socket.on('disconnect', () => {
    console.log('user disconnected');
  });
});

http.listen(3002, () => {
  console.log('listening on *:3002');
});
```

```html
<!DOCTYPE html>
<html>
  <head>
    <title>Socket.IO chat</title>
    <style>
      body { margin: 0; padding-bottom: 3rem; font-family: -apple-system, BlinkMacSystemFont, "Segoe UI", Roboto, Helvetica, Arial, sans-serif; }

      #form { background: rgba(0, 0, 0, 0.15); padding: 0.25rem; position: fixed; bottom: 0; left: 0; right: 0; display: flex; height: 3rem; box-sizing: border-box; backdrop-filter: blur(10px); }
      #input { border: none; padding: 0 1rem; flex-grow: 1; border-radius: 2rem; margin: 0.25rem; }
      #input:focus { outline: none; }
      #form > button { background: #333; border: none; padding: 0 1rem; margin: 0.25rem; border-radius: 3px; outline: none; color: #fff; }

      #messages { list-style-type: none; margin: 0; padding: 0; }
      #messages > li { padding: 0.5rem 1rem; }
      #messages > li:nth-child(odd) { background: #efefef; }
    </style>
  </head>
  <body>
    <ul id="messages"></ul>
    <form id="form" action="">
      <input id="input" autocomplete="off" /><button>Send</button>
    </form>
    <script src="/socket.io/socket.io.js"></script>
```

```
                                        <script>
                                          var socket = io();

                                          var messages =
                                        document.getElementById('messages')
                                        ;
                                          var form =
                                        document.getElementById('form');
                                          var input =
                                        document.getElementById('input');

                                          // Mengirimkan data akun
                                        pengguna saat koneksi baru dibuat
                                          var account = prompt('Please enter
                                        your account:');
                                          socket.emit('user account',
                                        account);

                                          form.addEventListener('submit',
                                        function(e) {
                                            e.preventDefault();
                                            if (input.value) {
                                              socket.emit('chat message',
                                        input.value);
                                              input.value = '';
                                            }
                                          });

                                          socket.on('the chat message',
                                        function(msg) {
                                            var item =
                                        document.createElement('li');
                                            item.textContent = msg;
                                            messages.appendChild(item);
                                            window.scrollTo(0,
                                        document.body.scrollHeight);
                                          });
                                        </script>
                                      </body>
                    </html>
```
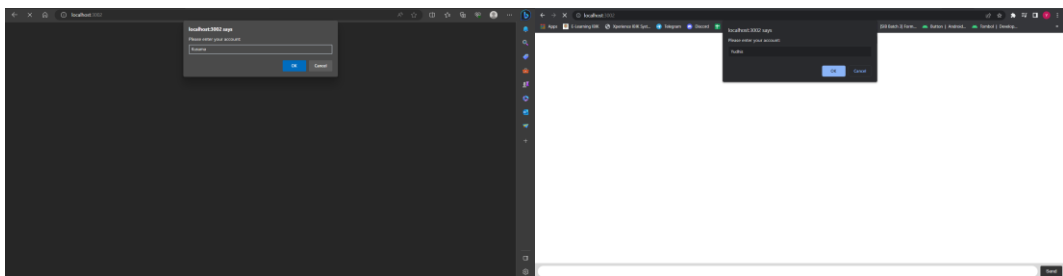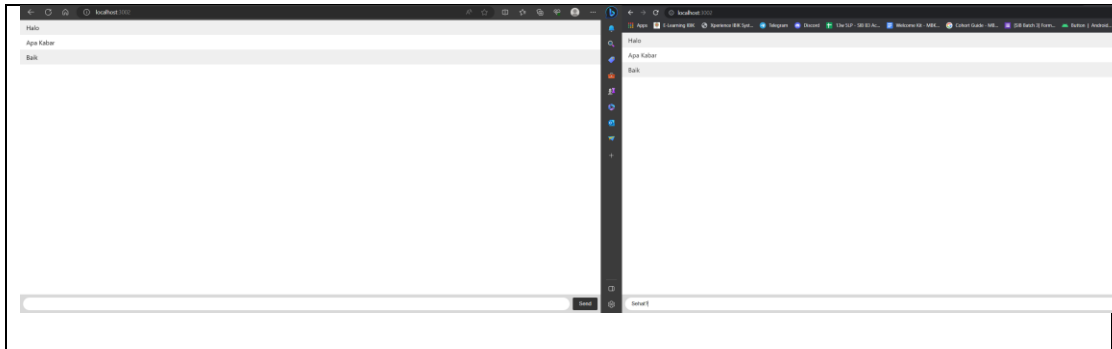
Screenshot

2. Dapatkah anda membuat replica dari soal nomor 1 kedalam bentuk React JS.

Source Code

```
import React, { useEffect } from 'react';
import io from 'socket.io-client';

const App = () => {
 useEffect(() => {
  const socket = io('http://localhost:3002');

  socket.on('connect', () => {
   console.log('Connected');
   const account = prompt('Please enter your account:');
   socket.emit('user account', account);
  });

  socket.on('disconnect', () => {
   console.log('Disconnected');
  });

  socket.on('chat message', (msg) => {
   console.log('Message:', msg);
  });

  return () => {
   socket.disconnect();
  };
 }, []);

 const handleSubmit = (e) => {
  e.preventDefault();
  const input = e.target.elements.message;
  const message = input.value;
  input.value = '';

  // Mengirim pesan ke server
  // Ganti 'chat message' dengan event yang sesuai di server
  // Misalnya 'send message'
  // socket.emit('send message', message);
 };

 return (
```

```
        <div>
         <ul id="messages"></ul>
         <form id="form" onSubmit={handleSubmit}>
          <input id="input" name="message" autoComplete="off" />
          <button type="submit">Send</button>
         </form>
        </div>
       );
      };

export default App;
```