C:\Windows\system32\cmd.exe  —  □  ✕

```
C:\Users\NODE JS\laboratorios\node-fetch-lab>npm i node-fetch
npm WARN node-fetch-lab@1.0.0 No description
npm WARN node-fetch-lab@1.0.0 No repository field.

+ node-fetch@2.6.0
updated 1 package and audited 1 package in 2.004s
found 0 vulnerabilities
```

/src/index.js

```javascript
const fetch = require('node-fetch');

fetch('https://restcountries.eu/rest/v2/all').then((res)=>{
    return res.json();
}).then((json)=>{
    console.log(json);
});
```

# socket.io

## Eventos reservador en el:

## Servidor:

io.sockets.on("connectio",cb)

socket.on("message",cb)
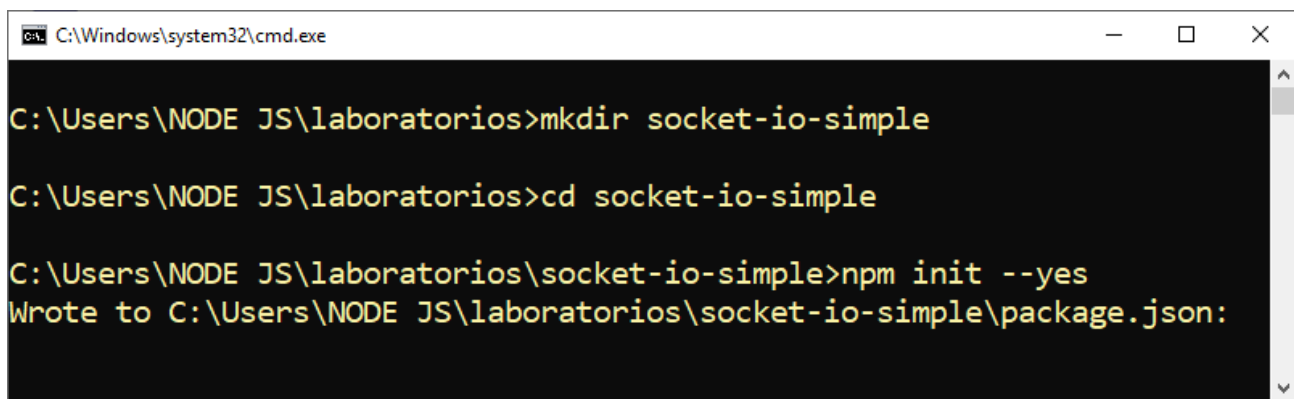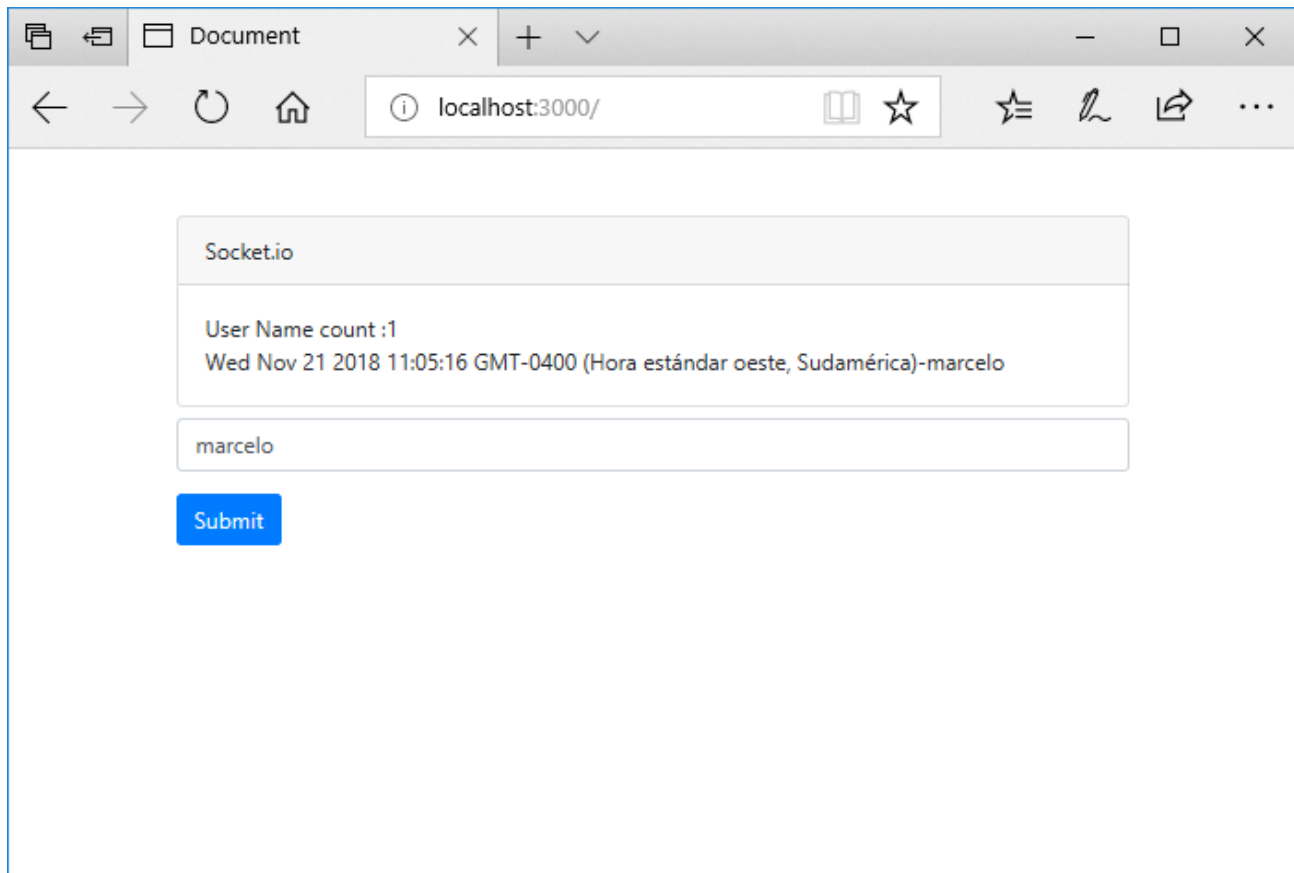
socket.on("disconnect",cd)

## Cliente:

socket.on("connect",cb)

socket.on("desconnect",cb)

socket.on("error",cb)

socket.on("message",cb)

# Laboratorio

C:\Users\NODE JS\laboratorios\socket-io-simple>npm i express socket.io
npm notice created a lockfile as package-lock.json. You should commit this file.
npm WARN socket-io-simple@1.0.0 No description
npm WARN socket-io-simple@1.0.0 No repository field.

**/package.js**

```json
{
  "name": "socket-io-simple",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1",
    "start" : "node src/."
  },
  "keywords": [],
  "author": "",
  "license": "ISC",
  "dependencies": {
    "express": "^4.17.1",
    "socket.io": "^2.2.0"
  }
}
```

/src/index.js

```javascript
const express = require('express');
const path = require('path');

const app = express();

const server = require('http').createServer(app);
const io = require('socket.io')(server);

var messages = [];

io.on('connection',(socket)=>{
    console.log('un cliente de ha conectado');
    socket.emit('mensajes',messages);

    socket.on('nuevo-mensaje',(data)=>{
        var msg = '';
        msg = msg.concat(new Date());
        msg = msg.concat('-');
        msg = msg.concat(data);

        messages.push(msg);
        io.sockets.emit('mensajes',messages);
    });
});

app.use(express.static(path.join(__dirname, 'public')));

server.listen(3000,() =>{
    console.log('Server iniciado en el puerto 3000');
})
```

/src/public/main.js

```javascript
var socket = io.connect('http://localhost:3000',{'forceNew':true});

socket.on('mensajes',(data)=>{
    renderHtml(data);
});

function renderHtml(data){
    console.log('render client from server ',data);
    var msgDiv = document.getElementById('mensajes');
    var content = '';
    content = content.concat('Numero de usuarios :');
    content = content.concat(data.length);
    content = content.concat('<br>');

    for(var i = 0 ; i < data.length;i++){
        content = content.concat(data[i]);
        content = content.concat('<br>');
    }
    msgDiv.innerHTML = content;
}

function addMessage(e){
   var message = document.getElementById("texto").value;
   socket.emit('nuevo-mensaje',message);
   return false;
}
```

/src/public/index.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <meta http-equiv="X-UA-Compatible" content="ie=edge">
    <link rel="stylesheet" href="https://stackpath.bootstra-
pcdn.com/bootstrap/4.1.3/css/bootstrap.min.css"
        integrity="sha384-MCw98/SFnGE8fJT3GXwEOngsV7Zt27NXFoaoApmYm81iuXoPkFO-
JwJ8ERdknLPMO" crossorigin="anonymous">
    <title>socket-io-simple</title>
    <script src="/socket.io/socket.io.js"></script>
    <script src="main.js"></script>
</head>

<body>
    <div class="container">
        <div class="row mt-5">
            <div class="col-xl-8">
                <div class="card">
                    <div class="card-header">Socket.io</div>
                    <div class="card-body">
                        <div id="mensajes"></div>
                    </div>
                </div>
            </div>
            <div class="col-xl-4 mt-2">
                <form onsubmit="return addMessage(this)">
                    <div class="form-group">
                        <input type="text" class="form-control" id="texto" pla-
ceholder="Enter User Name" requi-red />
                    </div>
                    <button type="submit" class="btn btn-primary">Enviar</button>
                </form>
            </div>
        </div>
    </div>
</body>
</html>
```

# Cómo configurar una aplicación Node.js para producción

sudo npm install -g pm2

pm2 start src/index.js

pm2 list

pm2 stop     <app_name|id|'all'|json_conf>

pm2 restart  <app_name|id|'all'|json_conf>

pm2 delete   <app_name|id|'all'|json_conf>

```
unitech@t450: ~
>>> pm2 ls

 App name      id   mode      pid     status    restart   uptime   cpu   mem        watching

 api           0    cluster   27287   online    0         2m       0%    35.5 MB    disabled
 api           5    cluster   27308   online    0         2m       0%    32.4 MB    disabled
 api           6    cluster   27348   online    0         2m       0%    33.7 MB    disabled
 front         3    fork      27303   online    0         2m       0%    26.5 MB     enabled
 healthcheck   2    fork      0       stopped   0         0        0%    0 B        disabled
 mailer        4    fork      27309   online    0         2m       0%    26.1 MB    disabled
 worker        1    fork      27292   online    0         2m       0%    24.9 MB    disabled

Use `pm2 show <id/name>` to get more details about an app
```

[https://www.npmjs.com/package/pm2-windows-service](https://www.npmjs.com/package/pm2-windows-service)

npm install pm2 -g

npm install pm2-windows-startup -g

pm2-startup install

pm2 start src/index.js

pm2 save

reboot

pm2 ls