



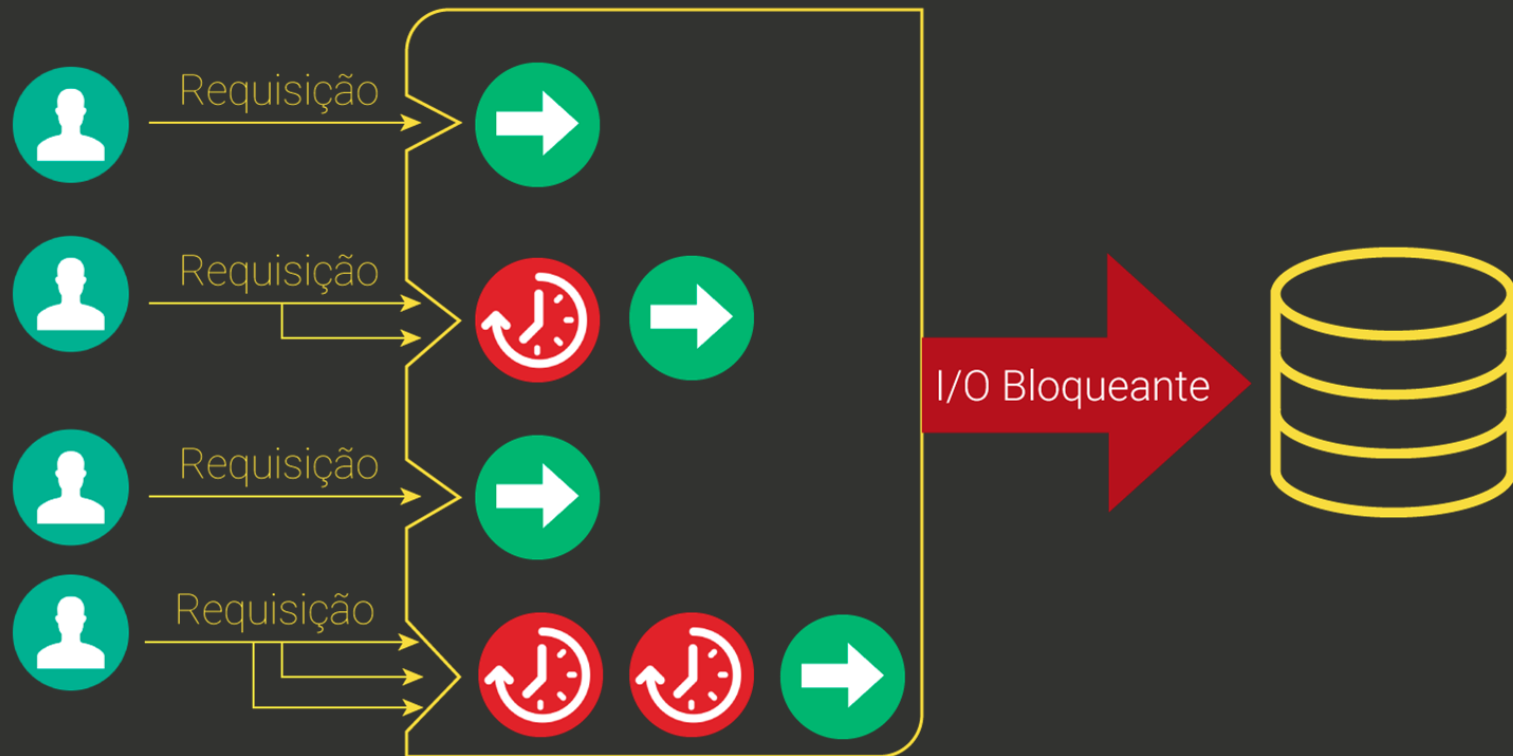
“**Node.js** é um interpretador de código *JavaScript* que funciona do lado do servidor”



**Ryan Dahl**

# flickr





Servidor Multi Threaded



Thread aguardando

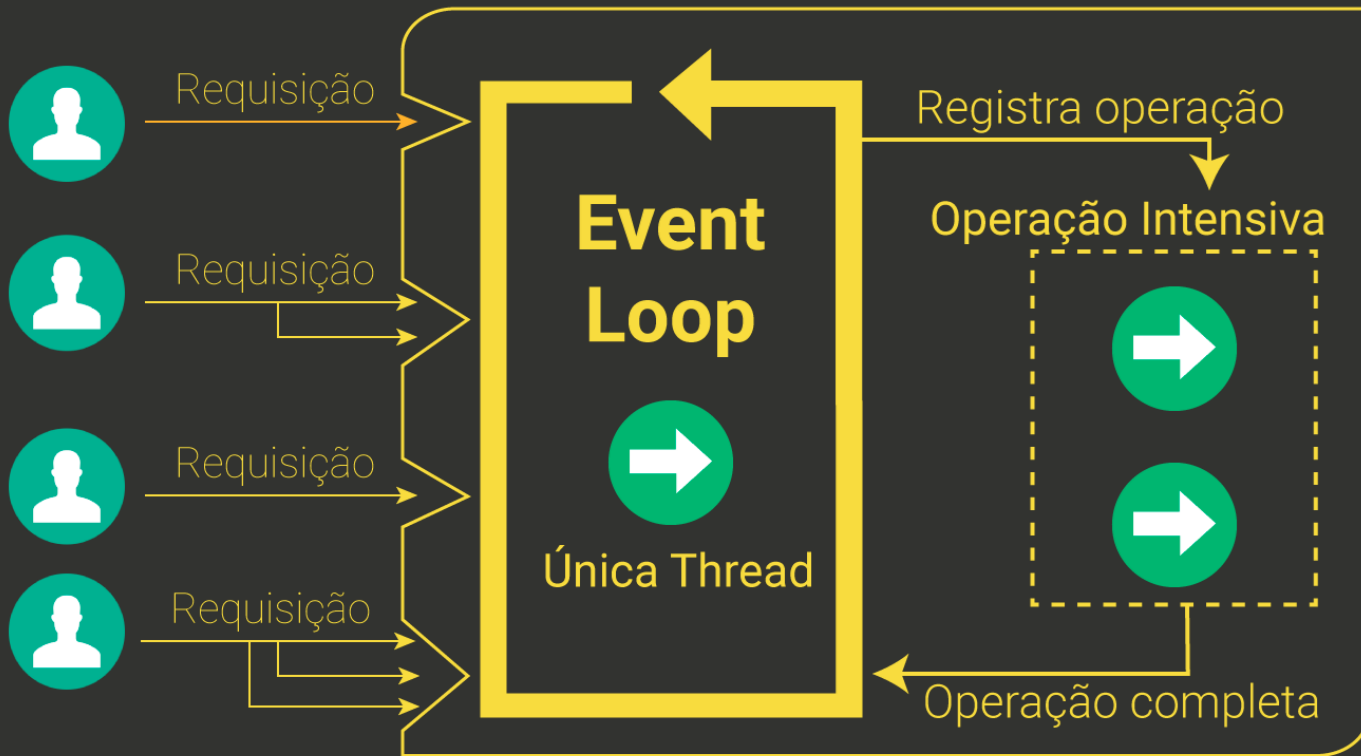


Thread em processo



Como resolver ?

# Event Loop !



Servidor NodeJS



Thread aguardando



Thread em processo





**E assim nasceu o  
NodeJs**

**+8.000** linhas em **C++**  
**+2.000** linhas em  
**JavaScript**

# Estudo de Caso

30

\$

3



20x faster



# Top 5 Features

# 1

**Alto desempenho e  
consumo baixo de  
memória**

# 2

The diagram illustrates a non-blocking I/O operation. It features three horizontal bars: a green bar at the top, a green bar in the middle, and a blue bar at the bottom. The top green bar is followed by the text `//pega data de nascimento`. A curved arrow points from this bar to the middle green bar, which is followed by the text `; //verifica se é maior de +18`. A callout box with a yellow border and rounded corners, containing the text "Quando pegar a data de nascimento", is connected to the arrow. The bottom blue bar is followed by the text `; //verifica últimas notificações`.

```
[green bar]; //pega data de nascimento  
[green bar]; //verifica se é maior de +18  
[blue bar]; //verifica últimas notificações
```

## I/O direcionada a eventos não bloqueante

# 3

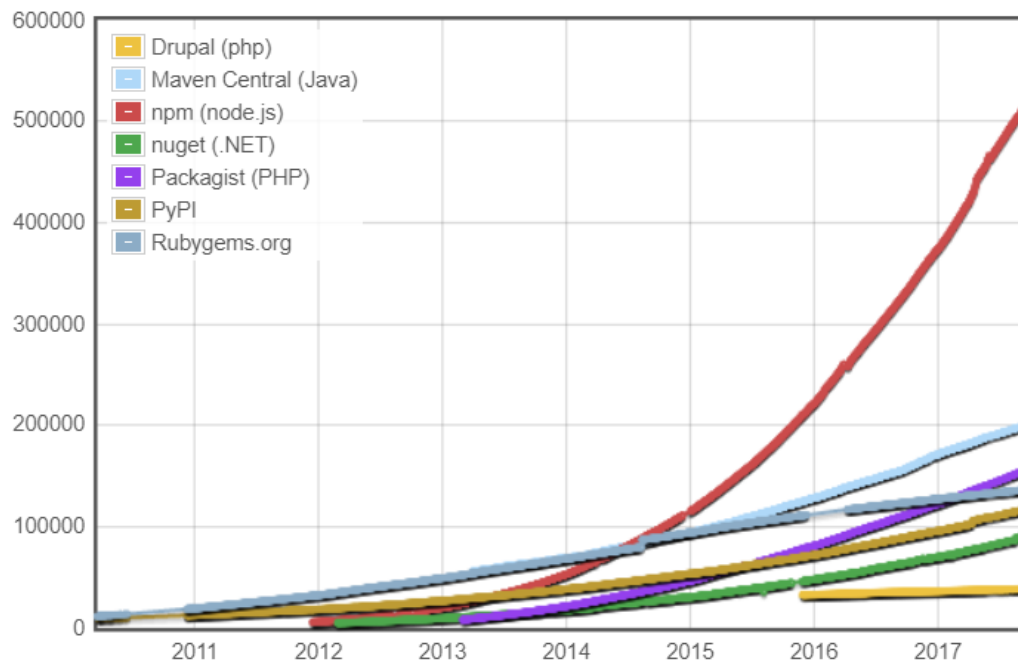
**Programação no lado do  
servidor**



# 4

## Comunidade ativa

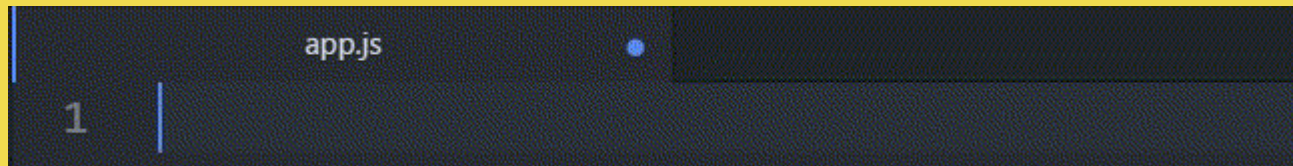
### Module Counts



Fonte: [modulecounts.com](http://modulecounts.com)

```
> npm install <nome_do_modulo>
```

# 5



## Fácil instalação de módulos com NPM



# Exemplo de WebChat

[goo.gl/CE8EgQ](https://goo.gl/CE8EgQ)



[github.com/cookingscript/cs-nodejs-chat-example](https://github.com/cookingscript/cs-nodejs-chat-example)

# Hello NodeJS

# Variáveis Globais

# Módulos Nativos

# Módulos Nativos Path

```
1  var path = require('path');  
2  
3  path.join();
```

Documentação: <https://nodejs.org/api/path.html>

# Módulos Nativos File System

```
1  var fs = require('fs');  
2  
3  fs.readFile();  
4  fs.writeFile();
```

Documentação: <https://nodejs.org/api/fs.html>



# Módulos Nativos Http

```
1  var http = require('http');
2
3  var httpServer = http.createServer((request, response) => {
4    |    response.end('Requisicao ok');
5  });
6
7  httpServer.listen(8080, () => {
8    |    console.log('Servidor Rodando...');
9  });
```

Documentação: <https://nodejs.org/api/http.html>

# Módulos Externos



**Node Package Manager**



<https://www.npmjs.com/>



Search packages

Search



npm is the package manager for javascript

### Popular libraries

lodash  
request  
chalk  
react  
express  
commander  
moment  
debug  
async  
prop-types  
react-dom  
bluebird

### Discover packages

IoT  
mobile  
front end  
backend  
robotics  
css  
testing  
cli  
documentation  
math  
coverage  
frameworks

### By the numbers

Packages

**997.343**

Downloads · Last Week

**10.378.047.660**

Downloads · Last Month

**47.874.050.627**

# NPM

- Express
- Request
- React
- Chalk
- Bluebird
- SerialPort
- MongoDB
- Socket.IO

```
> npm init
```

```
> npm install <nome_do_modulo>
```

# NPM

# Express

```
> npm init
```

```
> npm install express --save
```

Documentação: <https://www.npmjs.com/package/express>

# NPM

# SOCKET.IO

```
> npm init
```

```
> npm install socket.io --save
```

Documentação: <https://www.npmjs.com/package/socket.io>



[github.com/Guihgo](https://github.com/Guihgo)



[linkedin.com/in/guihgo](https://www.linkedin.com/in/guihgo)



[guihgo100milha@gmail.com](mailto:guihgo100milha@gmail.com)