INTRODUCTION TO NODE.JS

WE WILL COVER THE FOLLOWING TOPICS:

- The story
- node.js
- Examples of applications written in node.js
- Differences between the browser and the node environments
- Let's get started!

THE STORY

JAVASCRIPT WAS DESIGNED TO RUN ONLY IN THE BROWSER

Up until now, we've only been running JavaScript in the browser, in what's known as the frontend
If we wanted to write "backend" or "server-side" code, we had to use other languages such as **php**, **asp.net**, etc

THEN ALONG CAME NODE.JS...

Now we can run JavaScript in the backend too

REACTION FROM PHP / ASP / .NET / JAVA / RUBY BACKEND DEVELOPERS

YEP, THEY HATED US!

They REALLY hated us

NODE.JS

- node.js allows us to run JavaScript code in the command line - just like a real backend language!
- we can write **command line applications**, **desktop applications** as well as **backend applications**

EXAMPLES OF APPLICATIONS WRITTEN IN NODE.JS

DESKTOP

(Using node.js via the Electron framework)
- Slack
- Postman
- Visual Studio Code

CLI (COMMAND LINE INTERFACE)

- create-react-app
- jest
- live-server or http-server

Important!

Within the node environment there no browser!
There is no DOM!

DIFFERENCES BETWEEN THE BROWSER AND THE NODE ENVIRONMENTS

WHAT NODE.JS DOES NOT HAVE, WHICH THE BROWSER TYPICALLY HAS

- No `window` or `document` objects
- No `localStorage` or `sessionStorage` API
- No `fetch` API
- No Document Object Module (no ability to interact with HTML elements)
- Slow to adopt the latest JavaScript methods / features
- Example: No ES6 modules (unless you run it in a special mode)

WHAT NODE.JS HAS, WHICH THE BROWSER DOES NOT HAVE

- process.env environment variables
- ability to setup a server
- control over the environment (the version of node.js)

LET'S GET STARTED!

SETTING UP YOUR COMPUTER

```
sudo apt install curl
curl -L
https://raw.githubusercontent.com/tj/n/master/bin/n -o n
sudo n lts
```

THE NODE CLI

We can run applications from the command line using the node command
For example, if we have a file called app.js, we run it like this:

```
node app.js
```