

# Node.js: Getting Started

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## INTRODUCTION



**Samer Buna**

SOFTWARE ARCHITECT - AGILELABS

@samerbuna | samer.dev



# This Course



**Beginner level**

**No assumptions about Node knowledge**

**Some assumptions about**

- Basic programming concepts
- JavaScript



# This Course

## Getting Started

Folder: 1-getting-started

## Node Package Manager

Folder: 3-npm

## Working with Web Servers

Folder: 5-web

## Modern JavaScript

Folder: 2-modern-js

## Modules and Concurrency

Folder: 4-modules

## Working with the OS

Folder: 6-os



# Not Covered



**Addons**

**Buffers**

**Streams**

**Modules**


- crypto
- zlib
- dns
- net/dgram
- ...


# Advanced Node.js

by Samer Buna

This course will teach you the core Node.js concepts and API modules from simple utility modules all the way to streams and clusters.

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Description

Transcript

Exercise files

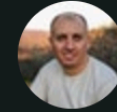
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Course author



Samer Buna

Samer Buna is a polyglot coder with years of practical experience in designing, implementing, and testing software, including web and mobile applications development, API design, functional...

Course info

Level      Advanced

Rating      ★★★★★ (345)

My rating      ★★★★★

Duration      3h 45m

samer.dev/adv-nodejs



There will be problems

**Mac**

**Windows**





# What is Node.js?





# Node.js

JavaScript on your backend servers...



# ~~Node.js~~ VM (V8/Chakra)

JavaScript on your backend servers...



# Node.js

A wrapper around a VM like V8



# Node.js

A wrapper around V8 with built-in modules providing rich features through easy-to-use asynchronous APIs



# Why Node?

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## Pros



Wrapper around V8 (execute JavaScript)

Built-in modules (fs, http, crypto, zip, ...)

Asynchronous APIs (no threads)

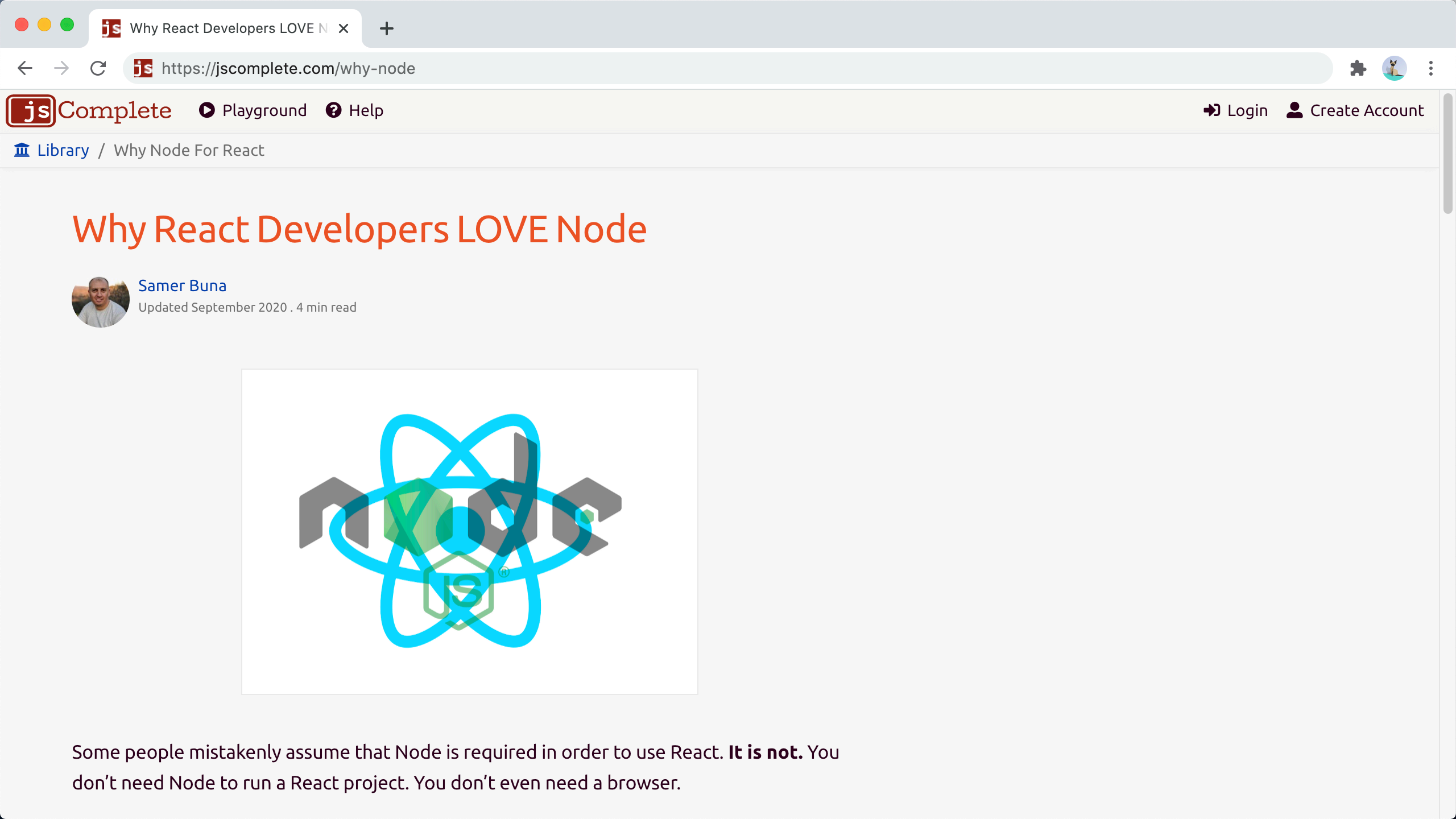
C++ addons

Debugger and other utilities

**NPM**

**Module dependency manager**



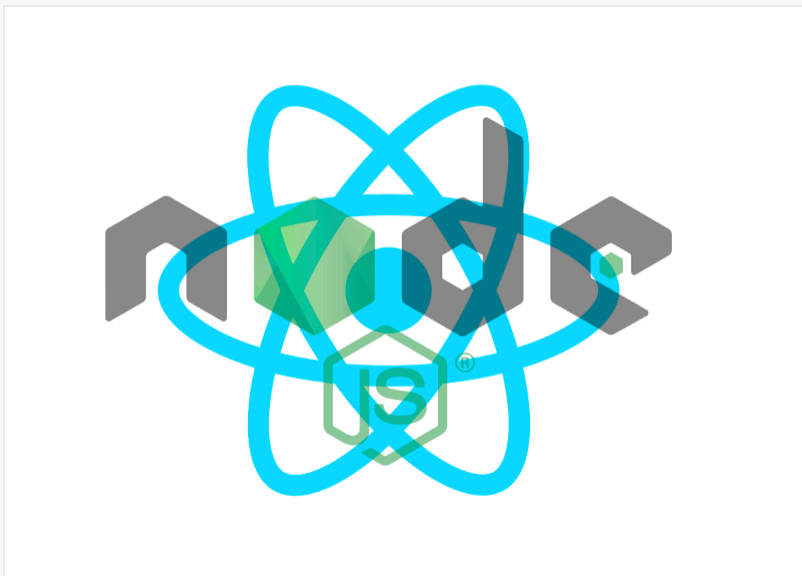


# Why React Developers LOVE Node



Samer Buna

Updated September 2020 . 4 min read



Some people mistakenly assume that Node is required in order to use React. **It is not.** You don't need Node to run a React project. You don't even need a browser.

Full-stack!  
One language everywhere





Cons



Different way of thinking

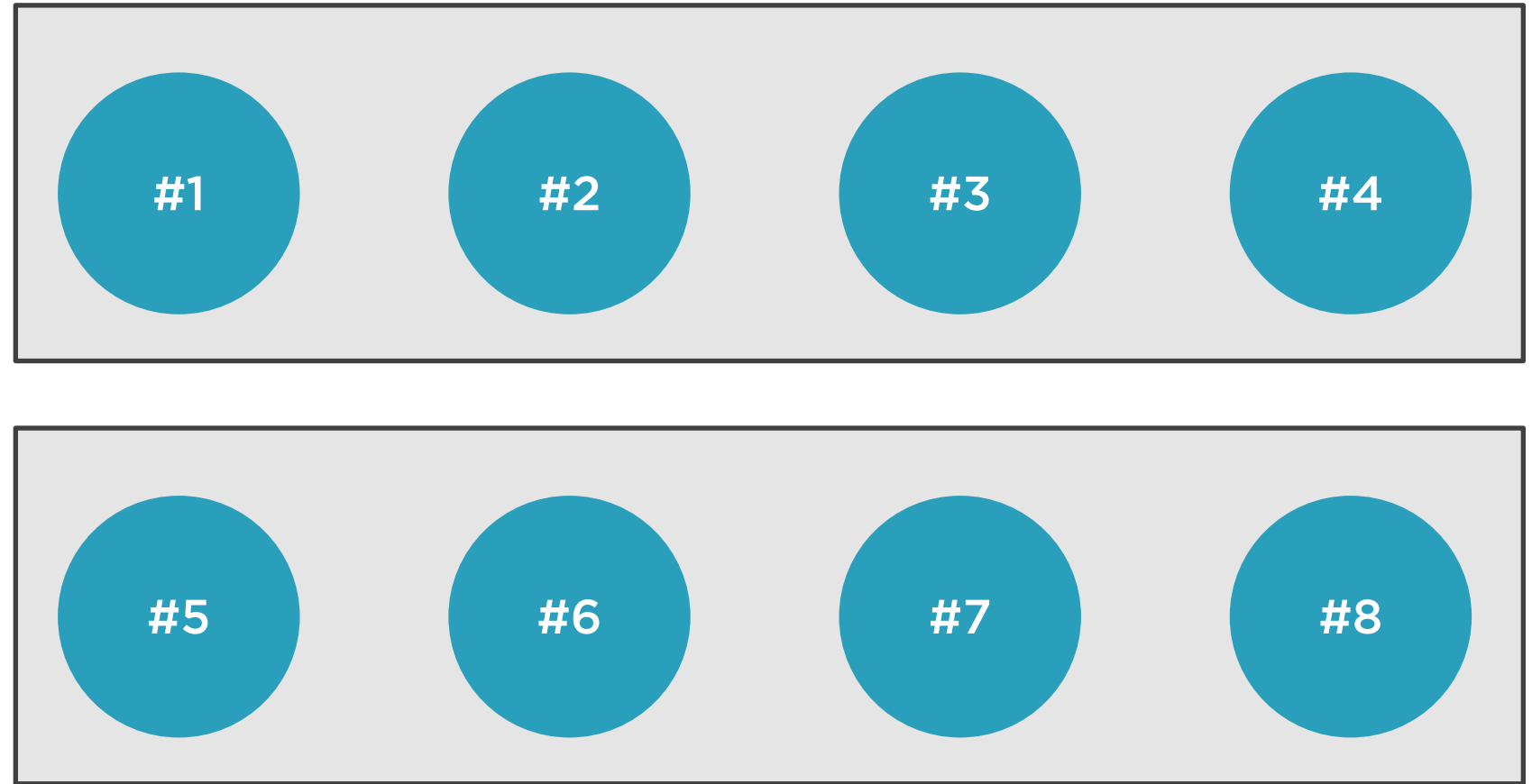
Picking good options

Small packages



# Why Node is named Node

Master



What exactly is a  
CALLBACK?



# Callback

A function that Node will “call back” at a later point in the time of a program

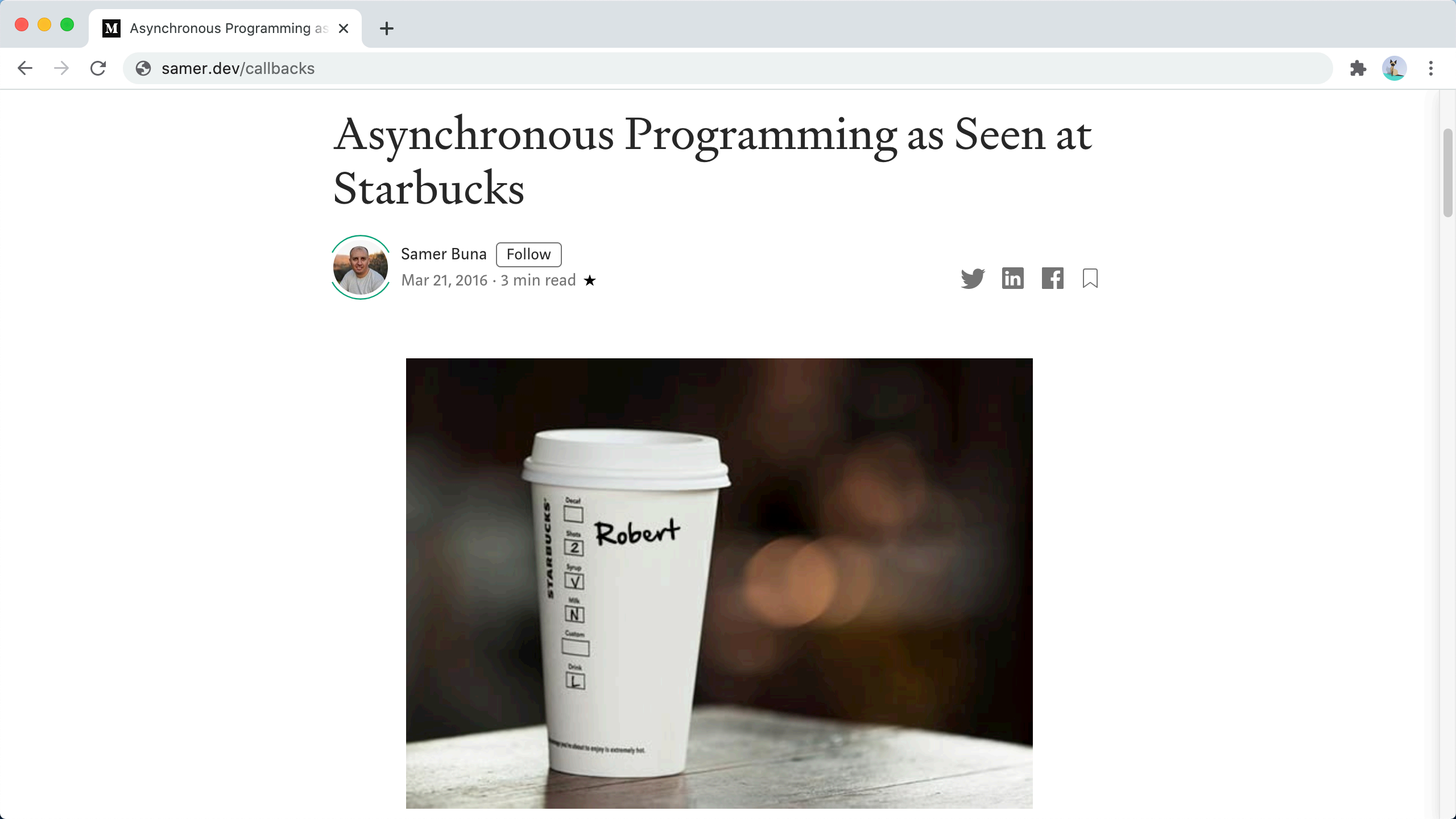


# A callback is just a function

```
function cb(data) {  
    // do something with data  
}
```

```
someAsyncMethod(cb);
```





# Asynchronous Programming as Seen at Starbucks



Samer Buna

Follow

Mar 21, 2016 · 3 min read ★



# Make Me a Latte, Starbucks!

```
function Samer(readyLatte) {  
  // drink readyLatte..  
}  
  
starbucks.makeMeALatte(Samer);
```



I promise you a chick

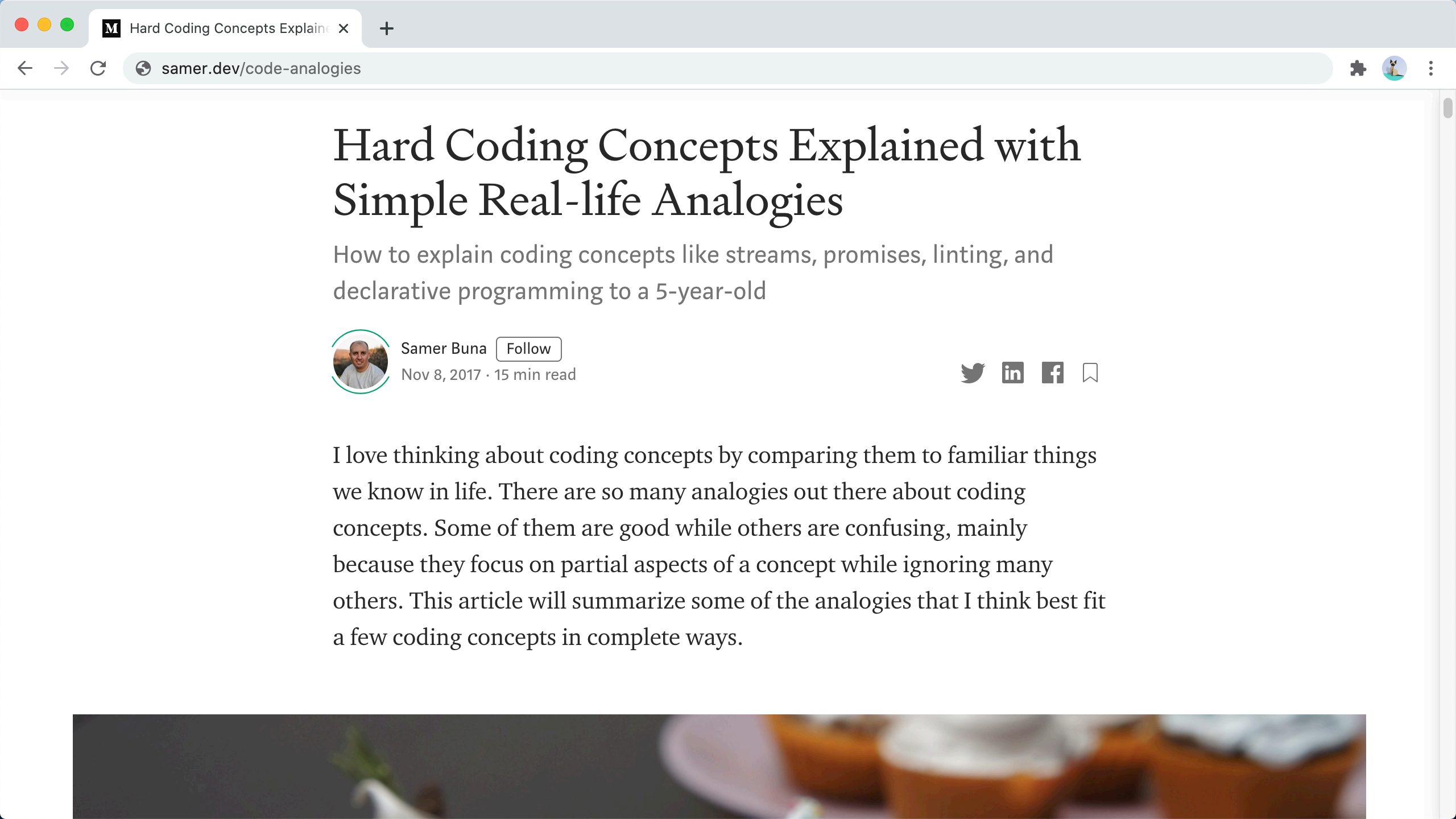
```
const egg = chicken.makeChick(); // It's a promise!
```

**egg**

```
.then(chick => raiseChick()) // Success outcome  
.catch(badEgg => throw badEgg) // Fail outcome
```







# Hard Coding Concepts Explained with Simple Real-life Analogies

How to explain coding concepts like streams, promises, linting, and declarative programming to a 5-year-old



Samer Buna

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Nov 8, 2017 · 15 min read



I love thinking about coding concepts by comparing them to familiar things we know in life. There are so many analogies out there about coding concepts. Some of them are good while others are confusing, mainly because they focus on partial aspects of a concept while ignoring many others. This article will summarize some of the analogies that I think best fit a few coding concepts in complete ways.



# What You Get When You Install Node

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# MODULE

