

# meta-paradigm

with JavaScript

# JavaScript Turns

# 25

## Deno 1.0 released

Deno finally sees the light of day with its first public release. It's still not clear whether it's going to become the next big thing but the hopes are high.

## JavaScript makes it into space

The SpaceX Dragon launch brings JavaScript to space! The Dragon 2 flight interface was built using Chromium and JavaScript along with C++ for flight

## Vue.js 3.0 "One Piece" release

Decorators: a new proposal iteration

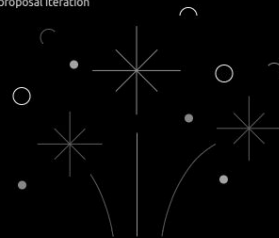
## Rome first beta release

## ECMAScript 2020

## Playwright announced

## WebStorm turns 10

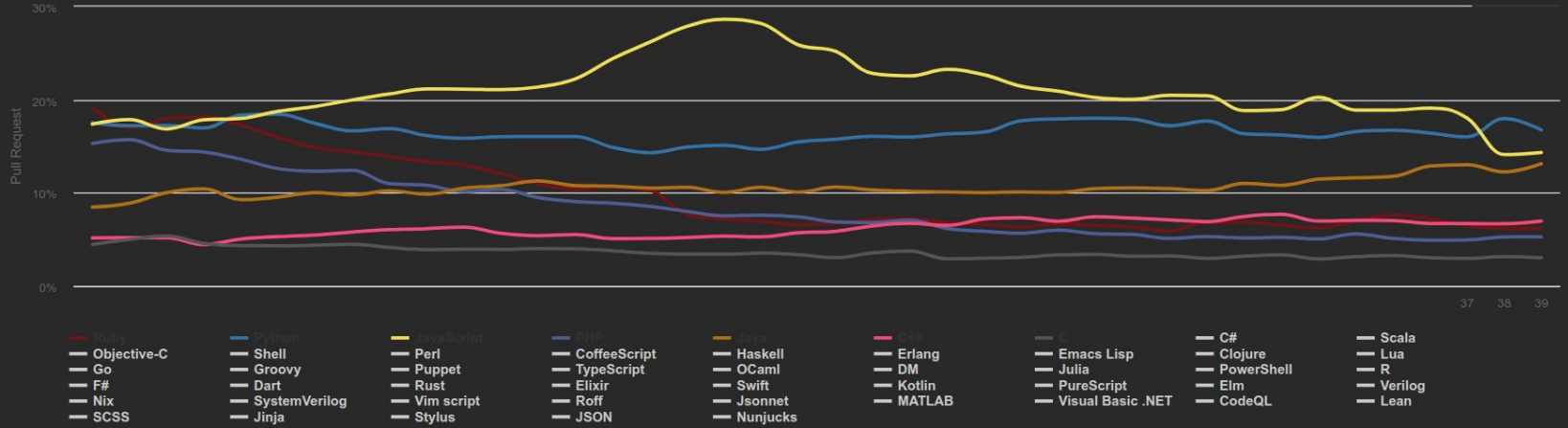
## Angular 9.0.0 with Ivy



# GitHut 2.0

A SMALL PLACE TO DISCOVER LANGUAGES IN GITHUB

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PULL REQUEST

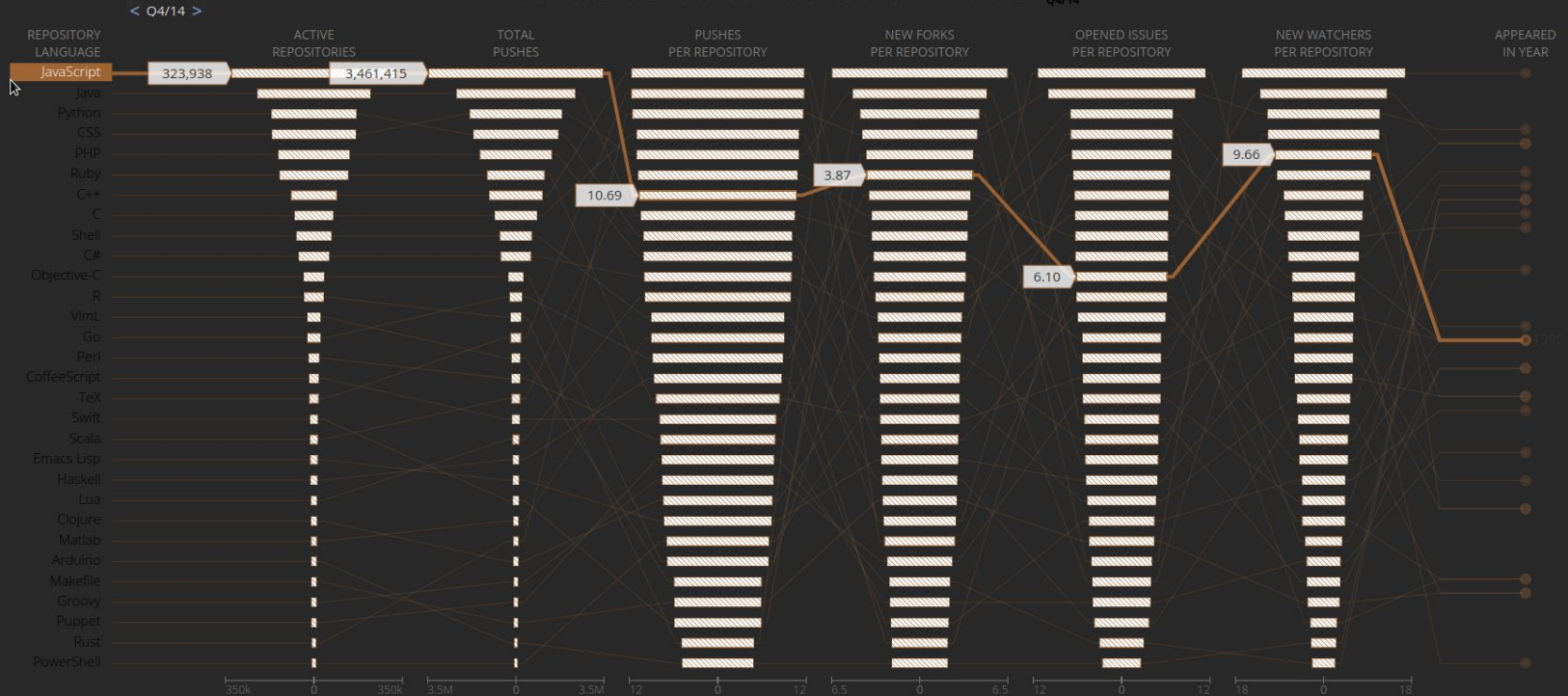
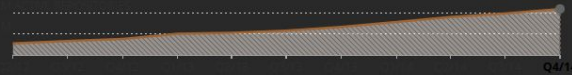
Year

Quarter

2022

1

# Ranking	Programming Language	Percentage (YoY Change)	YoY Trend
1	Python	16.689% (+0.061%)	^
2	JavaScript	14.270% (-4.486%)	v
3	Java	13.075% (+1.394%)	
4	TypeScript	9.105% (+2.501%)	^



TOP ACTIVE LANGUAGES  
A split by language view of active repositories

demo

demo

```
class FirstClass extends BaseClass {  
    constructor() {  
        super();  
        this.myField = mySpecialField;  
    }  
}
```

demo

```
class SecondClass extends BaseClass {  
    constructor() {  
        super();  
        this.myField = mySpecialField;  
    }  
}
```

## demo

```
const firstInstance = new FirstClass();  
const secondInstance = new SecondClass();  
  
firstInstance.myField = 're-assigned value';  
// will print → 're-assigned value'  
console.log(secondInstance.myField);
```



## demo

```
'use strict';
```

```
const { BaseClass } = require('typeomatica');
```

```
const { mySpecialField } = require('./code/fields');
```

demø

intro

# Programming paradigm

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From Wikipedia, the free encyclopedia

*This article is about classification of programming languages. For definition of the term "programming model", see [Programming model](#).*

**Programming paradigms** are a way to classify [programming languages](#) based on their features. Languages can be classified into multiple paradigms.

Some paradigms are concerned mainly with implications for the [execution model](#) of the language, such as allowing [side effects](#), or whether the sequence of operations is defined by the execution model. Other paradigms are concerned mainly with the way that code is organized, such as grouping a code into units along with the state that is modified by the code. Yet others are concerned mainly with the style of syntax and grammar.

Common programming paradigms include:<sup>[1][2][3]</sup>

## Programming paradigms

- Action
- Array-oriented
- Automata-based
- Concurrent computing
  - Actor-based
  - Choreographic programming
  - Multitier programming
  - Relativistic programming
  - Structured concurrency
- Data-driven
- Declarative (contrast: Imperative)

# The Magic of Prototype Inheritance

# Strict Types in JavaScript

hitchhiker's guide

# Multiplie Inheritance in JavaScript

intrø



## Related Topics

## JavaScript

## Tutorials:

- ▶ Complete beginners
- ▶ JavaScript Guide
- ▶ Intermediate
- ▶ Advanced

## References:

- ▶ Built-in objects
- ▶ Expressions & operators
- ▶ Statements & declarations
- ▶ Functions
- ▶ Classes

# Meta programming

[« Previous](#)[Next »](#)

The [Proxy](#) and [Reflect](#) objects allow you to intercept and define custom behavior for fundamental language operations (e.g. property lookup, assignment, enumeration, function invocation, etc). With the help of these two objects you are able to program at the meta level of JavaScript.

## Proxies

Introduced in ECMAScript 6, [Proxy](#) objects allow you to intercept certain operations and to implement custom behaviors.

For example, getting a property on an object:

```
const handler = {  
  get(target, name) {  
    return name in target ? target[name] : 42;  
  },  
};
```



## In this article

[Proxies](#)[Handlers and traps](#)[Revocable \[Proxy\]\(#\)](#)[Reflection](#)

# Symbol

`Symbol` is a built-in object whose constructor returns a `symbol` [primitive](#) — also called a **Symbol value** or just a **Symbol** — that's guaranteed to be unique. Symbols are often used to add unique property keys to an object that won't collide with keys any other code might add to the object, and which are hidden from any mechanisms other code will typically use to access the object. That enables a form of weak [encapsulation](#), or a weak form of [information hiding](#) [↗](#).

Every `Symbol()` call is guaranteed to return a unique Symbol. Every `Symbol.for("key")` call will always return the same Symbol for a given value of `"key"`. When `Symbol.for("key")` is called, if a Symbol with the given key can be found in the global Symbol registry, that Symbol is returned. Otherwise, a new Symbol is created, added to the global Symbol registry under the given key, and returned.

## Description

To create a new primitive Symbol, you write `Symbol()` with an optional string as its description:

### In this article

[Description](#)[Constructor](#)[Static properties](#)[Static methods](#)[Instance properties](#)[Instance methods](#)[Examples](#)[Specifications](#)[Browser compatibility](#)[See also](#)

# getter

The `get` syntax binds an object property to a function that will be called when that property is looked up.

## Syntax

```
{ get prop() { /* ... */ } }  
{ get [expression]() { /* ... */ } }
```



## Parameters

`prop`

The name of the property to bind to the given function.

`expression`

You can also use expressions for a computed property name to bind to the given function.

## In this article

[Try it](#)

[Syntax](#)

[Description](#)

[Examples](#)

[Specifications](#)

[Browser compatibility](#)

[See also](#)

# setter

The `set` syntax binds an object property to a function to be called when there is an attempt to set that property.

## Syntax

```
{ set prop() { /* ... */ } }  
{ set [expression]() { /* ... */ } }
```



## Parameters

`prop`

The name of the property to bind to the given function.

`val`

An alias for the variable that holds the value attempted to be assigned to `prop`.

## In this article

[Try it](#)

[Syntax](#)

[Description](#)

[Examples](#)

[Specifications](#)

[Browser compatibility](#)

[See also](#)

demo

## demo

```
const firstInstance = new FirstClass();  
const secondInstance = new SecondClass();  
  
firstInstance.myField = 're-assigned value';  
// will print → 're-assigned value'  
console.log( secondInstance . myField );
```

```
class ExtendedClass extends BasePrototype (secondInstance) {  
  constructor() {  
    super();  
    this . myField = myExtendedField; // words order reverted  
  }  
}  
  
const thirdInstance = new ExtendedClass();  
// will print → 'value re-assigned'  
console . log('thirdInstance :', thirdInstance . myField);
```

demo and ...



demo

```
try {  
    thirdInstance . myField = 123;  
} catch ( error ) {  
    console.error( error );  
}
```

demØ



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**Дмитрий Махнёв**

JUG Ru Group

**Артём Кобзарь**

Wrike

(не|ну)жная монада Either  
на практике и в теории



0:30 / 45:12





2018 Moscow

Всеволод Родионов  
Стартап

Paranoid Service Worker





2018 Moscow

Дмитрий Пацур

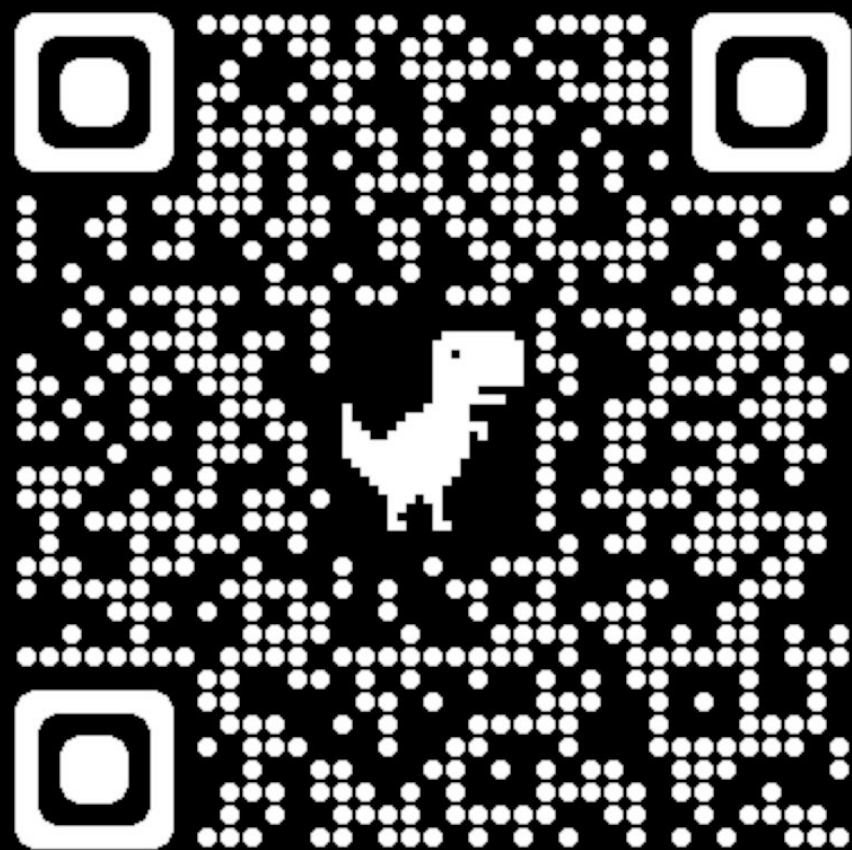
Fintier

Микросервисная архитектура



¿ Q & Æ ?







# Type ø matica

coverage 100%

license MIT version v0.2.8 last commit today

\$ npm install typeomatica

This package is a part of **mnemonica** project.

Strict Types checker for objects which represent Data Types.

## how it works

see `test/index.ts`

```
class SimpleBase extends BasePrototype {  
  stringProp = '123';  
};
```

```
// next code line will work properly  
simpleInstance.stringProp = '321';
```

```
// but next code line will throw TypeError('Type Mismatch')  
// @ts-ignore  
simpleInstance.stringProp = 123;
```

### Install

```
> npm i typeomatica
```

### Repository

[github.com/wentout/typeomatica](https://github.com/wentout/typeomatica)

### Homepage

[github.com/wentout/typeomatica#read...](https://github.com/wentout/typeomatica#readme)

### Weekly Downloads

63



### Version

0.2.8

### License

MIT

### Unpacked Size

44.8 kB

### Total Files

42

### Issues

0

### Pull Requests

0

### Last publish

9 hours ago