

A nighttime photograph of a city skyline, featuring the Taipei 101 skyscraper on the left, illuminated in blue. The sky is dark with visible stars. The city lights are visible in the background.

Code Quality 101

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Tecnólogo em Sistemas para Internet

“

Clean code always looks like it was written by
someone who cares.

”

Why?

Standardization , Simplicity , Agility ,
Maintainability ...

Coding Style Guide

JavaScript

Angular

Vue

React

Node

PHP (PSR-2)

Python (PEP-8)

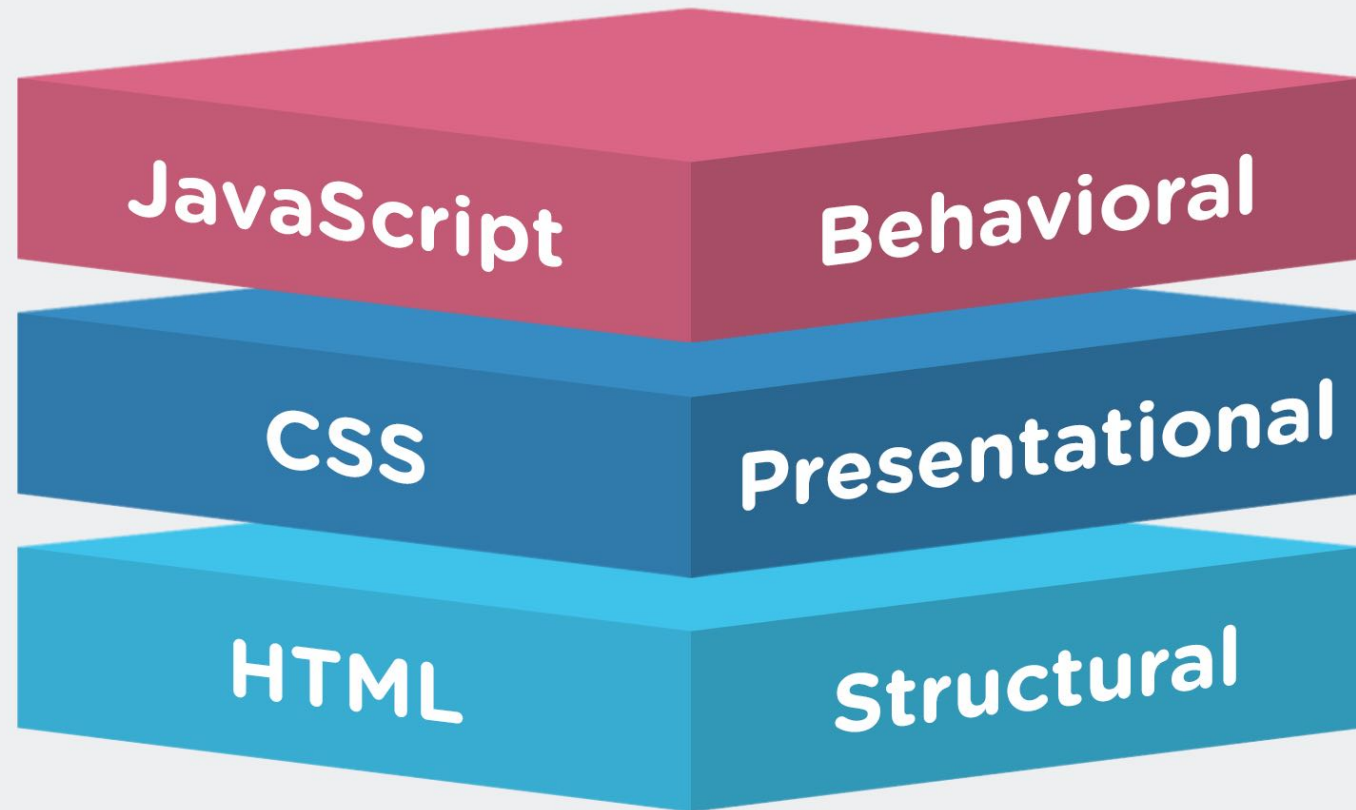
Java

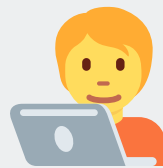
C#



Eat
Sleep
Code
Repeat

TL;DR





EditorConfig

“ EditorConfig is a file format and collection of text editor plugins for maintaining consistent coding styles between different editors and IDEs. ”

editorconfig.org

Extension Visual Studio Code

.editorconfig

EditorConfig Checker

```
npm install --save-dev editorconfig-checker  
npx ec -init
```

package.json

```
"scripts": [  
  ...  
  "lint:editorconfig": "editorconfig-checker"  
]
```

HTML

HyperText Markup Language

HTMLHint

“ The static code analysis tool you need for your HTML ”

htmlhint.com

Extension Visual Studio Code

```
npm install htmlhint --save-dev
```


.htmlhintrc

package.json

```
"scripts": [  
  ...  
  "lint:html": "htmlhint"  
]
```

CSS

Cascading Style Sheets

```
position: relative;
z-index: 10;
border: 1px solid transparent;
-moz-border-image: linear-gradient(to right,
-webkit-border-image: linear-gradient(to right,
border-image: linear-gradient(to right,
border-image-slice: 3;
background-repeat: repeat;
background-position: center;
text-decoration: none;
box-shadow: 0px 0px 5px black;
```

Principles of writing consistent, idiomatic CSS

StyleLint

“ A mighty, modern linter that helps you avoid errors and enforce conventions in your styles. ”

stylelint.io

Extension Visual Studio Code

```
npm install --save-dev \  
  stylelint \  
  stylelint-scss \  
  stylelint-config-standard \  
  stylelint-config-idomatic-order
```

stylelint.config.js

package.json

```
"scripts": [  
  ...  
  "lint:style": "stylelint './src/**/*.{css,sass,scss}'",  
  "lint:style:fix": "npm run lint:style -- --fix"  
]
```



```
2 const afterSomeTime = (time) => new Promise(resolve => {
3   setTimeout(() => {
4     resolve(true);
5   }, time);
6 });
7 const callAfterSomeTime = (callback, time) => afterSomeTime(time).then(callback);
8
9 callAfterSomeTime(() => console.log('Hello after 1500ms'), 1500);
10
11 const getData = async (url) => fetch(url);
12
13 document
14   .querySelector('#submit')
15   .addEventListener('click', function() {
16     const name = document.querySelector('#name').value;
17
18     // send to backend
19     const user = await fetch(`/users?name=${name}`);
20     const posts = await fetch(`/posts?userId=${user.id}`);
21     const comments = await fetch(`/comments?post=${posts[0].id}`);
22   });
```

JS

JavaScript

ESLint

“ A pluggable and configurable linter tool for identifying and reporting on patterns in JavaScript. Maintain your code quality with ease. ”

eslint.org

Extension Visual Studio Code

```
npm install eslint --save-dev  
npx eslint --init
```

```
# if you are using TypeScript  
npm install typescript eslint --save-dev  
npx tsc --init  
npx eslint --init
```

package.json

```
"scripts": [  
  ...  
  "lint:script": "eslint",  
  "lint:script:fix": "npm run lint -- --fix=true"  
]
```

.eslintrc.js

Git



~/ .gitconfig


```
git config --global init.defaultBranch main  
  
git config --global user.name "Magno Fernando Brixner Biét"  
git config --global user.email "magno.biet@gmail.com"  
  
git config --global core.editor vim  
git config --global core.excludesfile ~/.gitignore_global  
git config --global core.autocrlf input
```


.gitignore

Conventional Commits

conventionalcommits.org

```
<type>[optional scope]: <description>  
[optional body]  
[optional footer(s)]
```

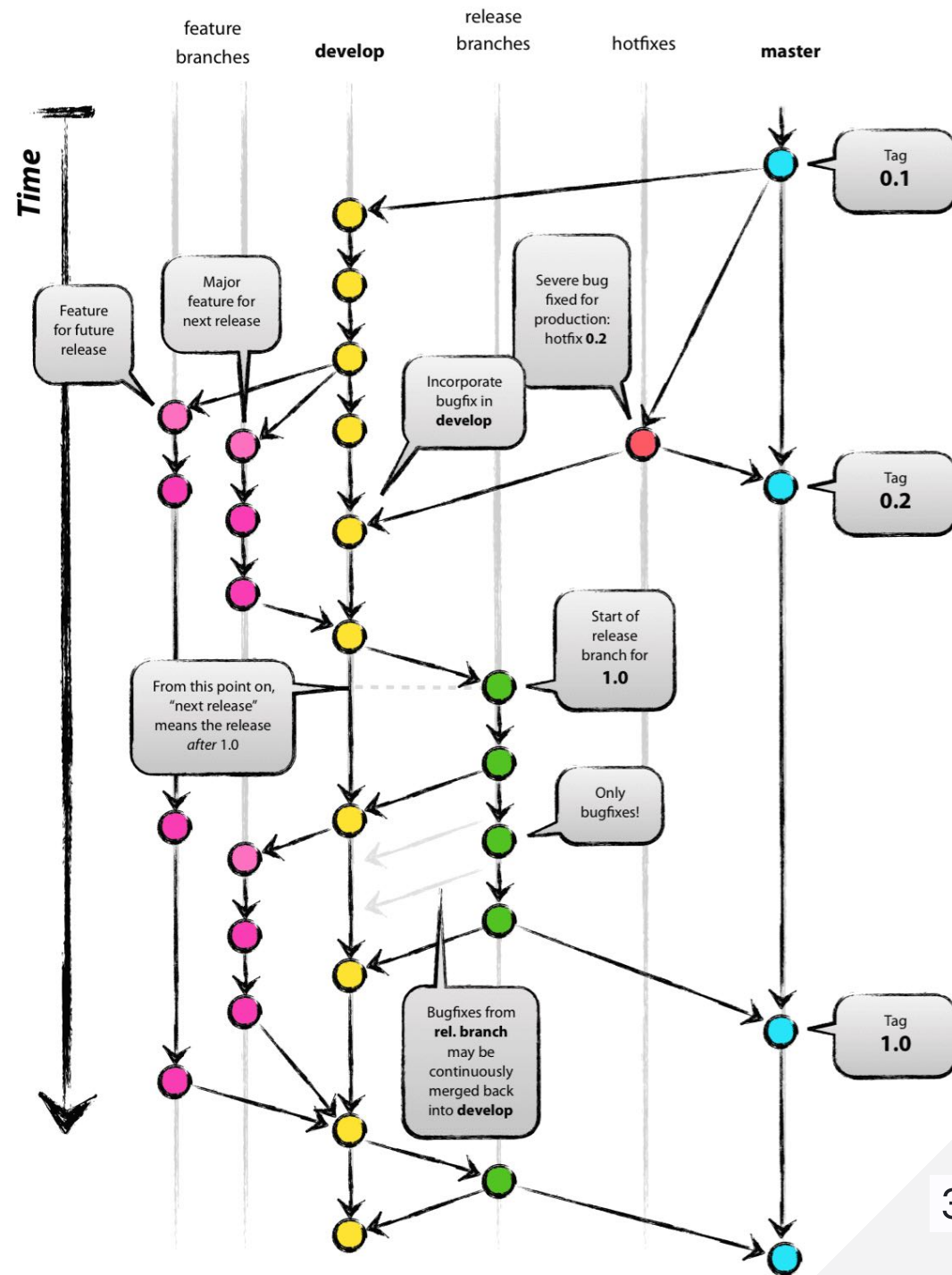
~/ .gitmessage

```
<type>[optional scope]: <description>  
[optional body]  
Refs #
```

```
git config --global commit.template ~/.gitmessage
```

Branchs

gitflow-avh



.git/hooks


```
.git/hooks
├── applypatch-msg
├── commit-msg
├── fsmonitor-watchman
├── post-update
├── pre-applypatch
├── pre-commit
├── pre-merge-commit
├── pre-push
├── pre-rebase
├── pre-receive
├── prepare-commit-msg
├── push-to-checkout
└── update
```

Husky

“

Modern native Git hooks made easy

”

[typicode/husky](https://typicode.github.io/husky/)

```
npx husky-init && npm install  
rm -rf .husky/pre-commit
```

Commit Lint

“

Lint commit messages

”

[conventional-changelog/commitlint](https://conventional-changelog.github.io/commitlint/)

```
npm install --save-dev \
  @commitlint/config-conventional \
  @commitlint/cli
```

commitlint.config.js

package.json

```
"scripts": [  
  ...  
  "lint:commit": "commitlint"  
]
```

Lint Staged

“ Run linters against staged git files and don't let 💩 slip into your code base! ”

[okonet/lint-staged](https://github.com/okonet/lint-staged)


```
npm install --save-dev lint-staged
```

lint-staged.config.js

package.json

```
"scripts": [  
  ...  
  "lint:staged": "lint-staged"  
]
```

```
npx husky add .husky/commit-msg 'npm run lint:commit -- --edit "$1"'
npx husky add .husky/pre-commit 'npm run lint:staged'

npx husky add .husky/pre-push 'npm run lint:editorconfig'
npx husky add .husky/pre-push 'npm run lint:script'
npx husky add .husky/pre-push 'npm run lint:style'
```



Other tools

SonarQube
Snyk
Code Quality Extension Pack for Visual Studio Code



Clean Code
Object Calisthenics
SOLID



That's all Folks!



Photos from [Unsplash](#)