project-tech

Env && Linting && Build

lab 3/8

Show what you did

Stand-up!

issues

feedback

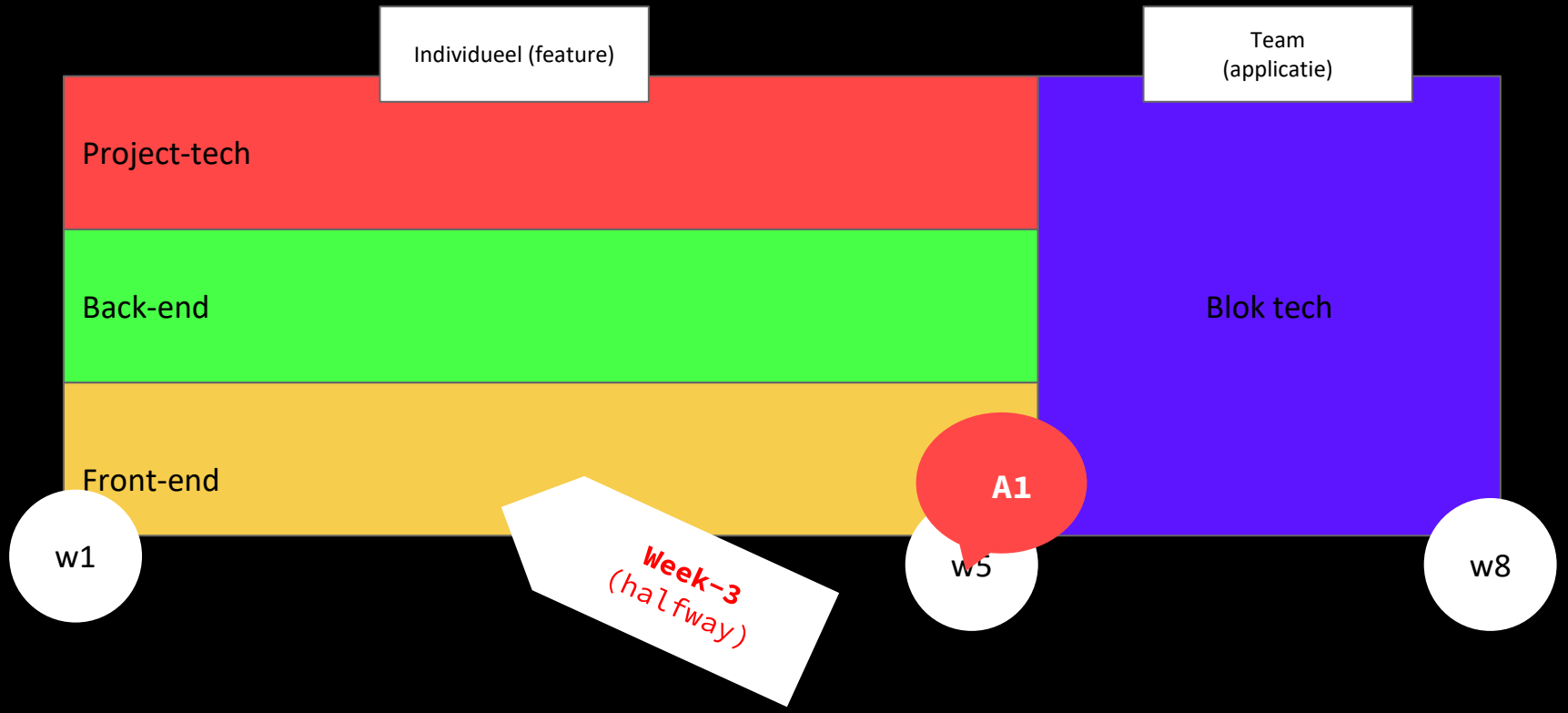
- **Ik heb nog niet van iedereen een issue (+repo link)**
- **Begin klein met je feature (je kan altijd uitbouwen)**
- Je schrijft de README en wiki voor bezoekers van je repo, niet voor je docenten (dus bv geen debrief van de opdracht)
- Organiseer de wiki niet per week, maar per onderwerp
- Maak een overzichtelijke wiki homepage
- Het handigste is de wiki in een aparte repo
- Veel repo’s hebben nog geen **research** over b.v. Git, Command Line, Markdown, etc.

issues

feedback

- **Begin klein** met je feature (je kan altijd uitbouwen)
- Er is **geen criteria over responsive**
- Er is een **template voor de wiki**
- Sommige repo’s op GitHub missen nog **‘community files’**

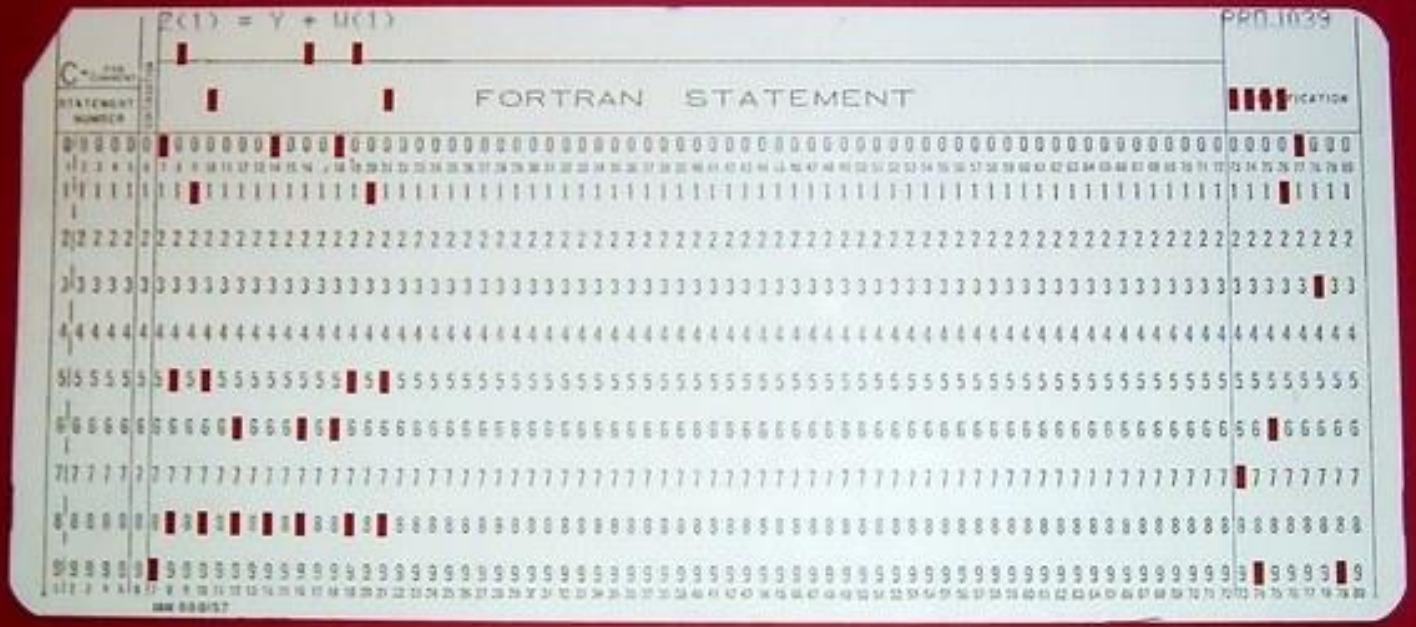
Note: Begin ook echt met bouwen van je front-end (interface). Want dat is altijd meer werk dan je denkt.


Individueel (feature)
Team
(applicatie)
Project-tech
Back-end
Front-end
Blok tech
A1
w1
Week-3
(halfway)
w5
w8

today

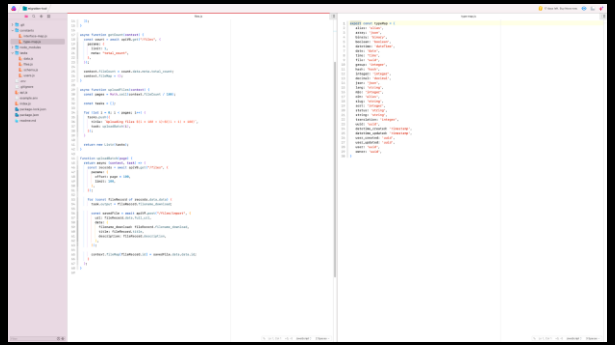
I. ~~Standup~~
II. Local Dev environment
III. Linters & Formatters
IV. Build Tools

Dev Environment


P(1) = Y + U(1)
PRO.1039
FORTRAN STATEMENT


IBM

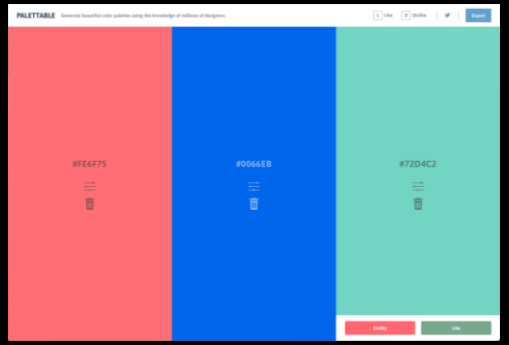

MacBook Pro
Pocketlint



1. Code Editors

3. Build Tools

2. Linters/Formatters



4. Non-code tools

files.js — Edited

```javascript
async function getCount(context) {
  const count = await apiV8.get("/files", {
    params: {
      limit: 1,
      meta: "total_count",
    },
  });

  context.fileCount = count.data.meta.total_count;
  context.fileMap = {};
}

async function uploadFiles(context) {
  const pages = Math.ceil(context.fileCount / 100);

  const tasks = [];

  for (let i = 0; i < pages; i++) {
    tasks.push({
      title: `Uploading files ${i * 100 + 1}–${(i + 1) * 100}`,
      task: uploadBatch(i),
    });
  }

  return new Listr(tasks);
}

function uploadBatch(page) {
  return async (context, task) => {
    const records = await apiV8.get("/files", {
      params: {
        offset: page * 100,
        limit: 100,
      },
    });

    for (const fileRecord of records.data.data) {
      task.output = fileRecord.filename_download;

      const savedFile = await apiV9.post("/files/import", {
        url: fileRecord.data.full_url,
        data: {
          filename_download: fileRecord.filename_download,
          title: fileRecord.title,
          description: fileRecord.description,
        },
      });

      context.fileMap[fileRecord.id] = savedFile.data.data.id;
    }
  };
}
```

migration-tool

17 days left. Buy Nova now.

files.js

```javascript
17 async function getCount(context) {
18   const count = await apiV8.get("/files", {
19     params: {
20       limit: 1,
21       meta: "total_count",
22     },
23   });
24
25   context.fileCount = count.data.meta.total_count;
26   context.fileMap = {};
27 }
28
29 async function uploadFiles(context) {
30   const pages = Math.ceil(context.fileCount / 100);
31
32   const tasks = [];
33
34   for (let i = 0; i < pages; i++) {
35     tasks.push({
36       title: `Uploading files ${i * 100 + 1}–${(i + 1) * 100}`,
37       task: uploadBatch(i),
38     });
39   }
40
41   return new Listr(tasks);
42 }
43
44 function uploadBatch(page) {
45   return async (context, task) => {
46     const records = await apiV8.get("/files", {
47       params: {
48         offset: page * 100,
49         limit: 100,
50       },
51     });
52
53     for (const fileRecord of records.data.data) {
54       task.output = fileRecord.filename_download;
55
56       const savedFile = await apiV9.post("/files/import", {
57         url: fileRecord.data.full_url,
58         data: {
```

uploadFiles Ln 29, Col 38 +0, -0 JavaScript 2 Spaces

code

- Code is “just” text
- Computers don’t care what your code
- Make writing (reading) source code easier
- Don’t work hard, work smart #tailopez
- Personal preference!

Visual Studio Code

Brackets

WebStorm

Sublime Text

nova

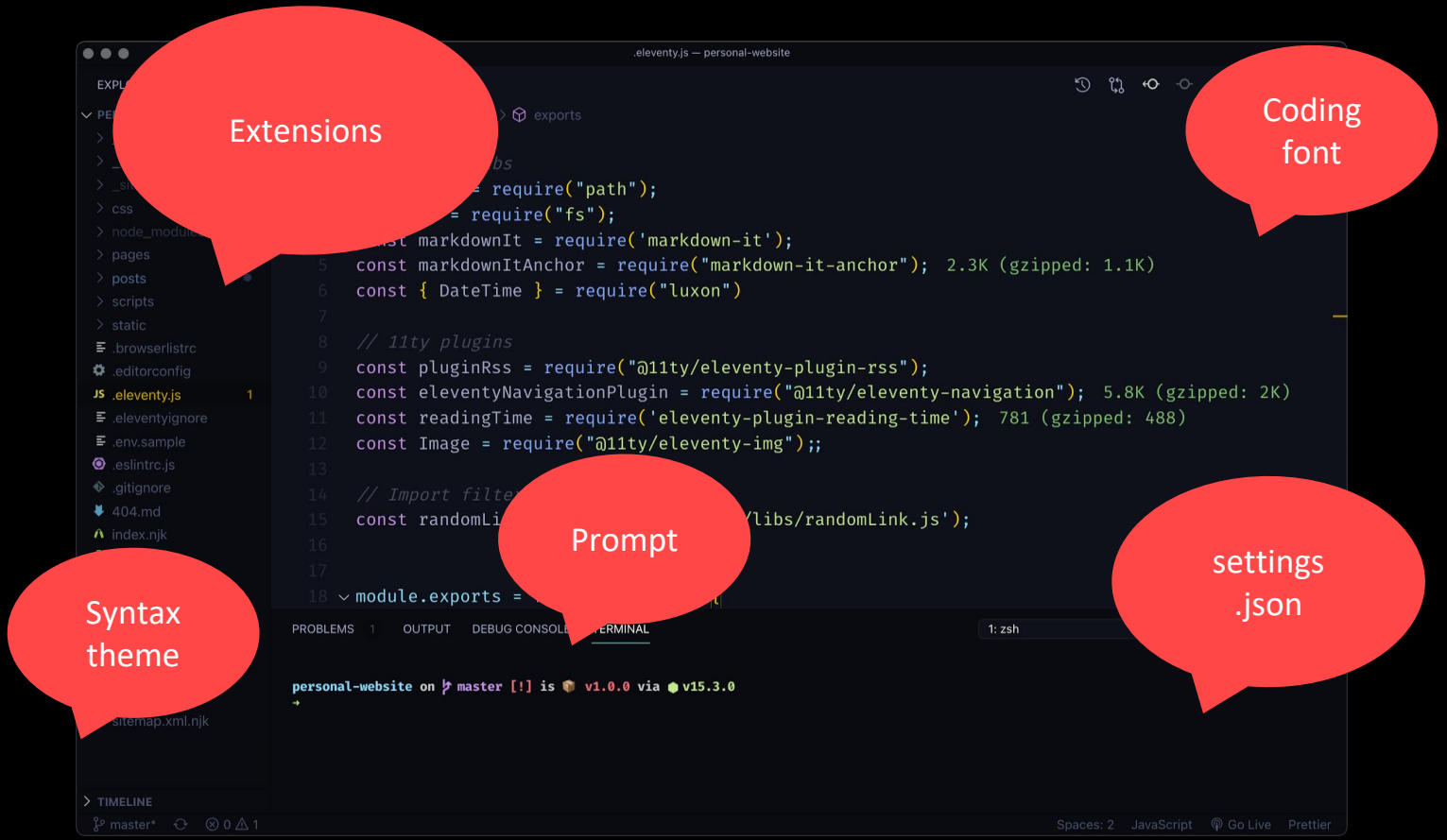
ATOM

Visual Studio

GNU Emacs

Xcode 12

the editor


Extensions
Coding font
Prompt
Syntax theme
settings .json
.eleventy.js — personal-website
exports
require("path");
require("fs");
const markdownIt = require('markdown-it');
const markdownItAnchor = require("markdown-it-anchor"); 2.3K (gzipped: 1.1K)
const { DateTime } = require("luxon")
// 11ty plugins
const pluginRss = require("@11ty/eleventy-plugin-rss");
const eleventyNavigationPlugin = require("@11ty/eleventy-navigation"); 5.8K (gzipped: 2K)
const readingTime = require('eleventy-plugin-reading-time'); 781 (gzipped: 488)
const Image = require("@11ty/eleventy-img");;
/libs/randomLink.js');
module.exports =
PROBLEMS 1
OUTPUT
DEBUG CONSOLE
TERMINAL
1: zsh
personal-website on master [!] is v1.0.0 via v15.3.0
.eleventy.js
.eleventyignore
.env.sample
.eslintrc.js
.gitignore
404.md
index.njk
sitemap.xml.njk
TIMELINE
master*
Spaces: 2
JavaScript
Go Live
Prettier

.eleventy.js — personal-website

EXPLORER

PERSONAL-WEBSITE

- _data
- _includes
- _site
- css
- node_modules
- pages
- posts
- scripts
- static
- .browserlistrc
- .editorconfig
- .eleventy.js 1
- .eleventyignore
- .env.sample
- .eslintrc.js
- .gitignore
- 404.md
- index.njk
- license
- netlify.toml
- package-lock.json
- package.json
- postcss.config.js
- README.md
- rollup.config.js
- sitemap.xml.njk

.eleventy.js > <unknown> > exports

```
// Default libs
const path = require("path");
const fs = require("fs");
const markdownIt = require('markdown-it');
const markdownItAnchor = require("markdown-it-anchor");  2.3K (gzipped: 1.1K)
const { DateTime } = require("luxon")

// 11ty plugins
const pluginRss = require("@11ty/eleventy-plugin-rss");
const eleventyNavigationPlugin = require("@11ty/eleventy-navigation");  5.8K (gzipped: 2K)
const readingTime = require('eleventy-plugin-reading-time');  781 (gzipped: 488)
const Image = require("@11ty/eleventy-img");;

// Import filters
const randomLink = require('./scripts/libs/randomLink.js');


module.exports = function(config) {
```

PROBLEMS 1 OUTPUT DEBUG CONSOLE TERMINAL 1: zsh

```
personal-website on master [!] is v1.0.0 via v15.3.0
→
```

live demo dev environment

Linters & Formatters

linters

?

A **linter** catches inconsistencies throughout your project and reduces your *chances of making logical errors.*

Syntax: Linters check the source code for programmatic mistakes (bugs, errors)

formatter

?

A **formatter** can help maintain a *consistent coding style*. It’s basically a ‘style guide’ for how you write code.

Stylistic: beautifies (and formats) your code to make it more readable.

Linters & formatters

why

Ensuring a good coding style has a couple upsides:

- It helps you avoid bugs
- Help other developers read through your code
- Save time and avoid stress
- Well organized, cleanly written code can be its own documentation!
- Improves team collaboration

linter example

ESlint

- Checks for a wide range of syntax- and stylistic errors
- Can help you write better code by enforcing best practices
- Makes sure everybody codes in the same “dialect”

https://eslint.org

enforce a maximum depth that blocks can be nested (max-depth)

Many developers consider code difficult to read if blocks are nested beyond a certain depth.

This rule enforces a maximum depth that blocks can be nested to reduce code complexity.

Examples of **incorrect** code for this rule with the default `{ "max": 4 }` option:

```
/*eslint max-depth: ["error", 4]*/
/*eslint-env es6*/

function foo() {
    for (;;) { // Nested 1 deep
        while (true) { // Nested 2 deep
            if (true) { // Nested 3 deep
                if (true) { // Nested 4 deep
                    if (true) { // Nested 5 deep
                    }
                }
            }
        }
    }
}
```

Examples of **correct** code for this rule with the default `{ "max": 4 }` option:

```
/*eslint max-depth: ["error", 4]*/
/*eslint-env es6*/

function foo() {
    for (;;) { // Nested 1 deep
        while (true) { // Nested 2 deep
            if (true) { // Nested 3 deep
                if (true) { // Nested 4 deep
                }
            }
        }
    }
}
```

formatter example

editorconfig

- Makes sure everybody's editor settings are the same
- Ensures you never end up with mixed tabs/spaces

https://editorconfig.org

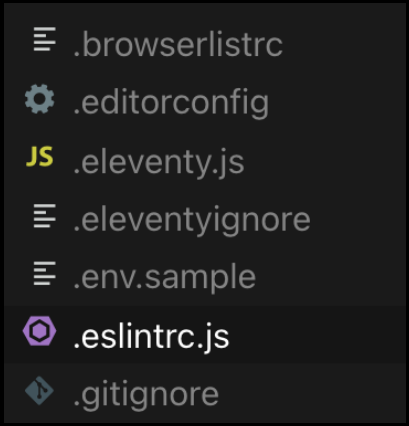
```
# EditorConfig is awesome:
https://EditorConfig.org

# top-most EditorConfig file
root = true

# Unix-style newlines with a newline ending
every file
[*]
end_of_line = lf
insert_final_newline = true

# Matches multiple files with brace expansion
notation
# Set default charset
[*.{js,py}]
charset = utf-8

# 4 space indentation
[*.py]
indent_style = space
indent_size = 4

# Tab indentation (no size specified)
[Makefile]
indent_style = tab

# Indentation override for all JS under lib
directory
[lib/**.js]
indent_style = space
indent_size = 2
```

linters

configuration

Linters & formatters **need configuration files to tell them what rules to enforce.**
(.rc = runtime configuration)

- .editorconfig
- .eslintrc
- .stylelint



linters

how to use

- In **an extension** in your text editor
- **Using commands** in the CLI
- **Run scripts** in package.json

.eslintrc.js

.eslintrc.js > ...

Danny de Vries, 2 years ago | 1 author (Danny de Vries)

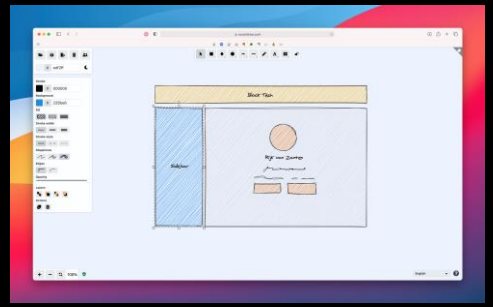
```
module.exports = {
    "env": {
        "browser": true,
        "commonjs": true,
        "es6": true
    },
    "extends": "eslint:recommended",
    "rules": {
        'no-console': 1,
    },
};
```

Danny de Vries, 2 years ago • Initial co

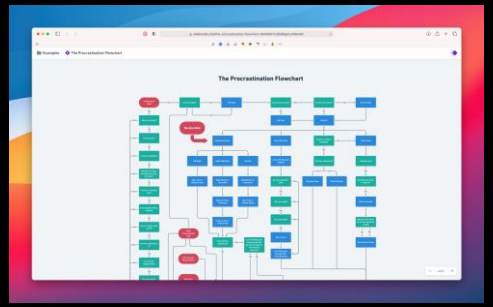
live demo linters & formatters

non-code tools

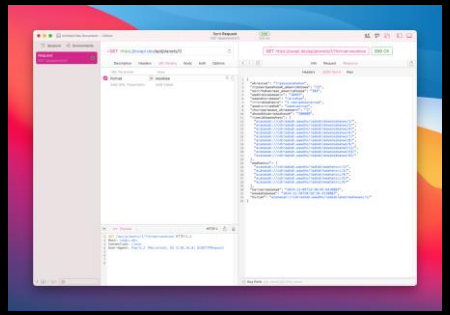
applications



Excalidraw

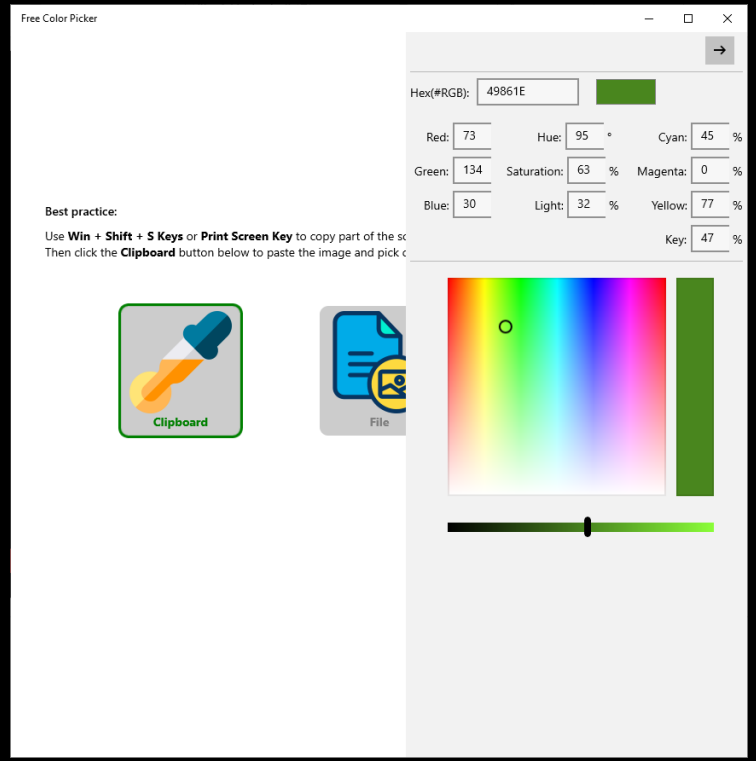


Whimsical



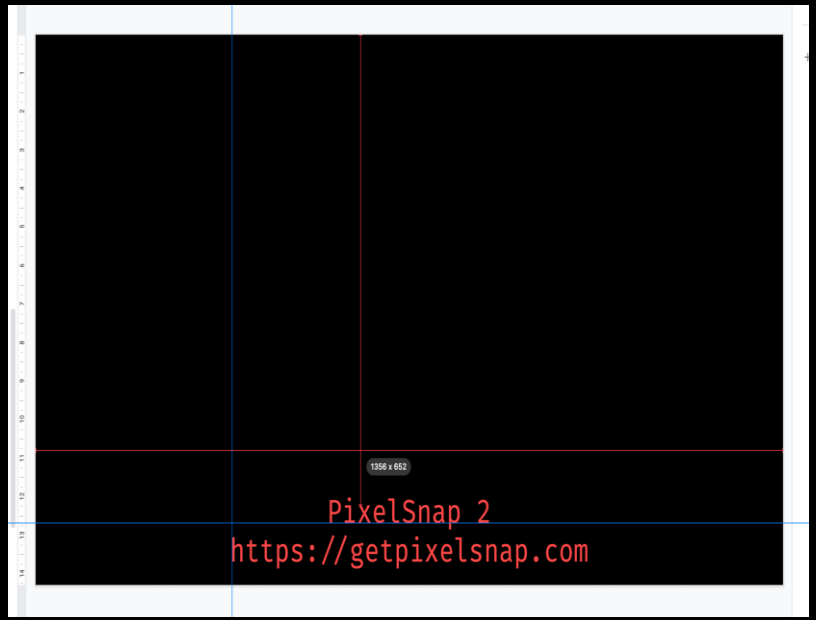
Postman

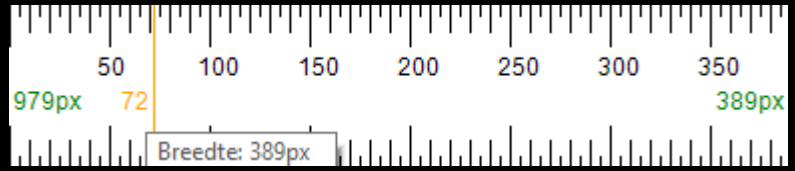
And many many more...



ColorSnapper 2
https://colorsnapper.com

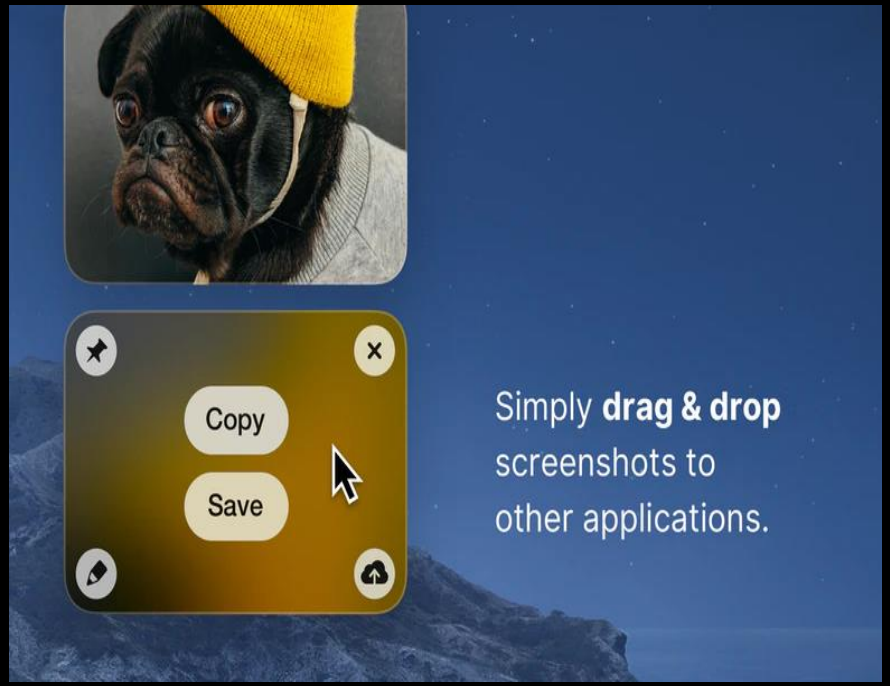
Free color picker
Windows Store

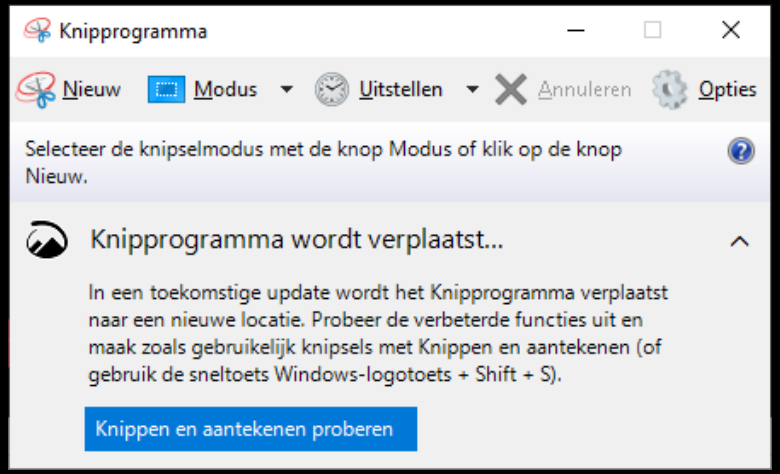




PixelSnap 2
https://getpixelsnap.com

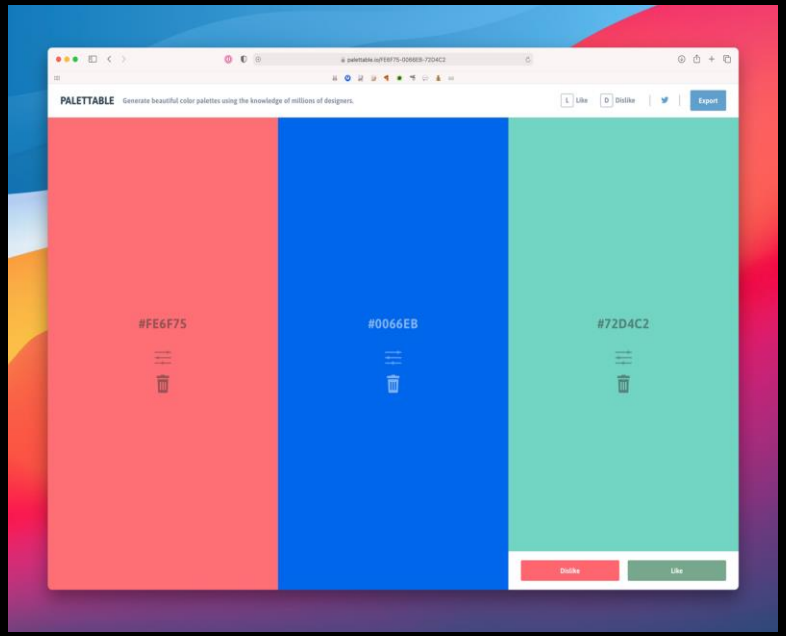
ScreenRuler
https://sourceforge.net/projects/screenruler/

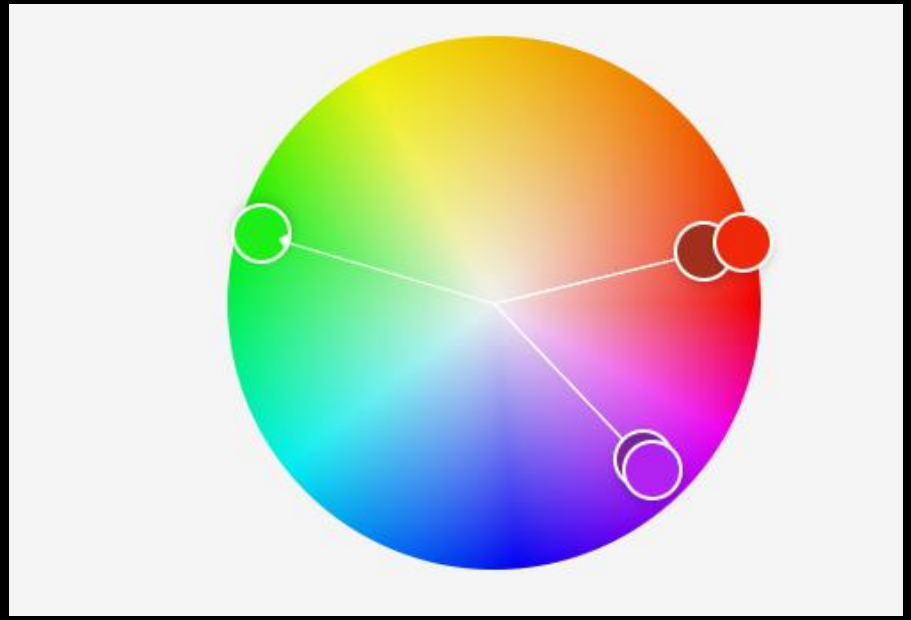




CleanShot X
https://cleanshot.com

Knipprogramma
Standaard bij Windows





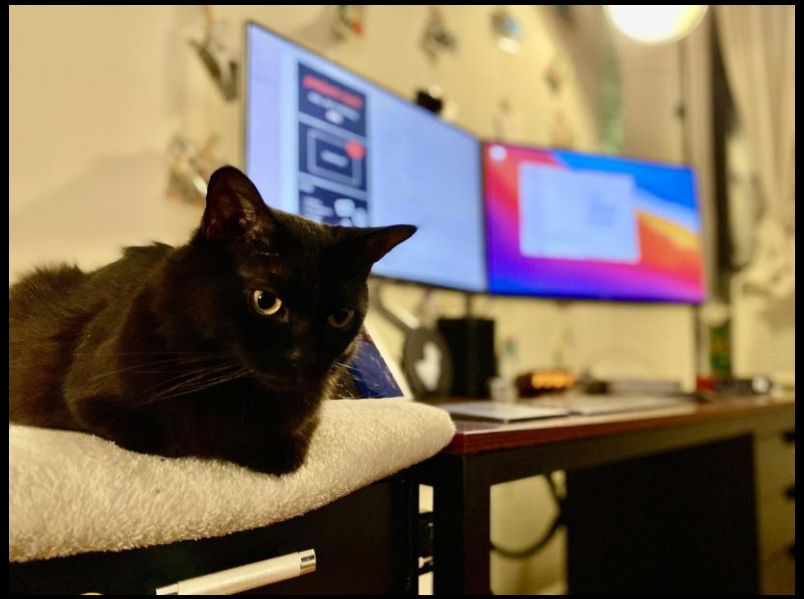
https://palettable.io

https://color.adobe.com

non-code tools

healthy

- #stayhydrated
- Get enough sleep
- Reduce your brightness
- Make your workspace comfortable
- Take enough breaks



Build Tools

build tools

?

Build tools are additional tooling you can use in your project and are mostly used for ***automating* tasks or *transforming* code.**

preprocessors, bundlers, postprocessor, compiling #buzzword #buzzword, ai, machine learning

build tools

?

Build tools are additional tooling you can use in your project and are mostly used for ***automating* tasks or *transforming* code.**

preprocessors, bundlers, postprocessor,

Note: If you don’t know what you are doing and build tools feel too much. **Then don’t ;-)**
But *zwarte piste* go ahead.

example

sass

.scss gets processed
(compiled) to .css

SCSS

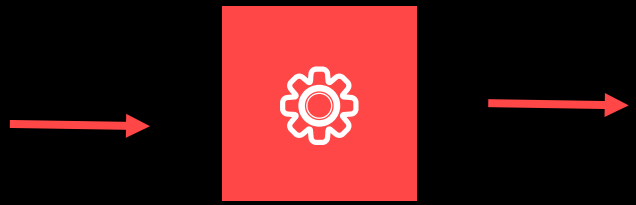
```scss
section {
    height: 100px;
    width: 100px;

    .class-one {
        height: 50px;
        width: 50px;

        .button {
            color: #074e68;
        }
    }
}
```

CSS

```css
section {
    height: 100px;
    width: 100px;
}

section .class-one {
    height: 50px;
    width: 50px;
}

section .class-one .button {
    color: #074e68;
}
```

example


```
// Input

css/
├─ typography.scss
├─ layout.scss
└─ colors.scss
```




```
// Output

css/
└─ style.css
```

Building

building

> Start building out the interface (html & css) of your matching-app feature.

Synopsis

- **Time**: 6:00h
- **Due**: before week 3

Assignment

Based on the concept, job story, requirement list and wireframe from the previous week start building out the front-end of the feature you are going to make for the matching-application. You can build the interface with the **templating engine** as you learned in back-end as opposed to 'plain' HTML & CSS.

- Turn your wireframe **into HTML pages**. Do a HTML breakdown of your wireframe and use semantic HTML as learned in previous courses.

work on local, linting, build

exit;

see you in lab-4!