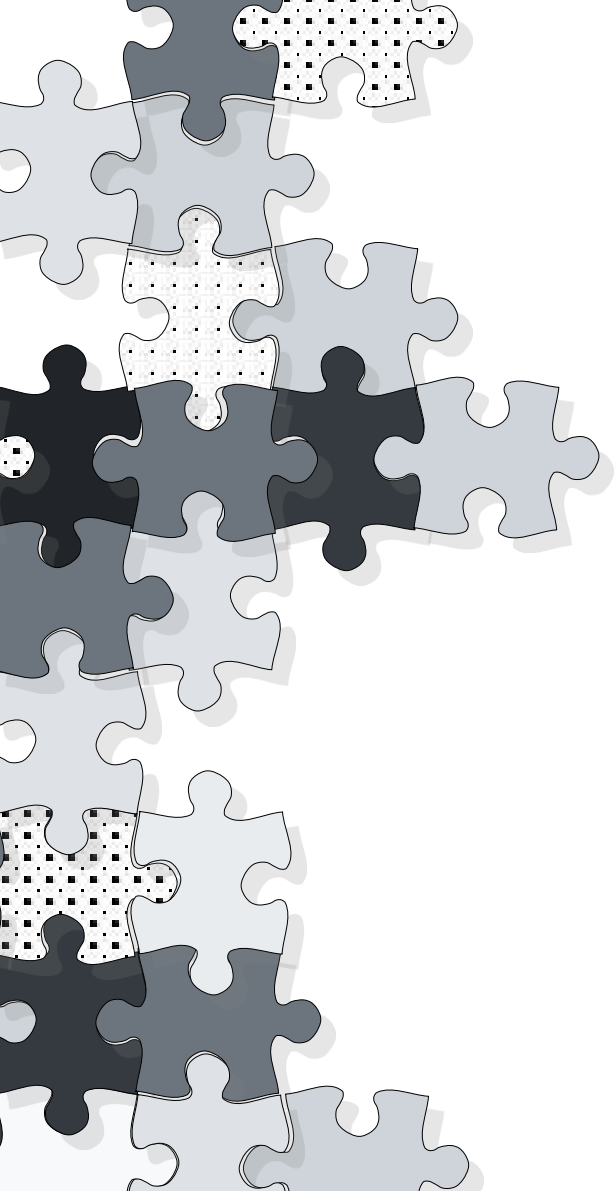# Web-site development
Using Adaptive Layout

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> " If you enjoy the tools you use, then the job will be done successfully.

- Donald Ervin Knuth

"

Contents

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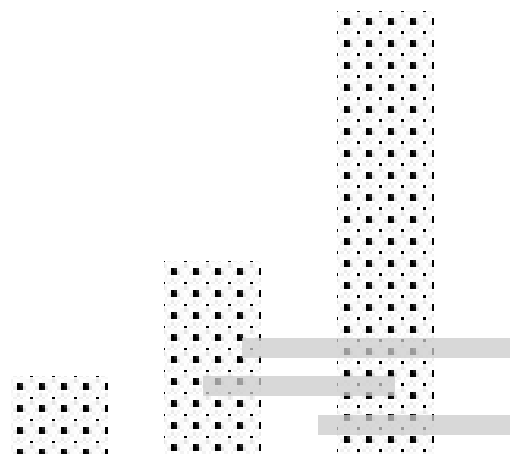- Technologies in use
- Theory
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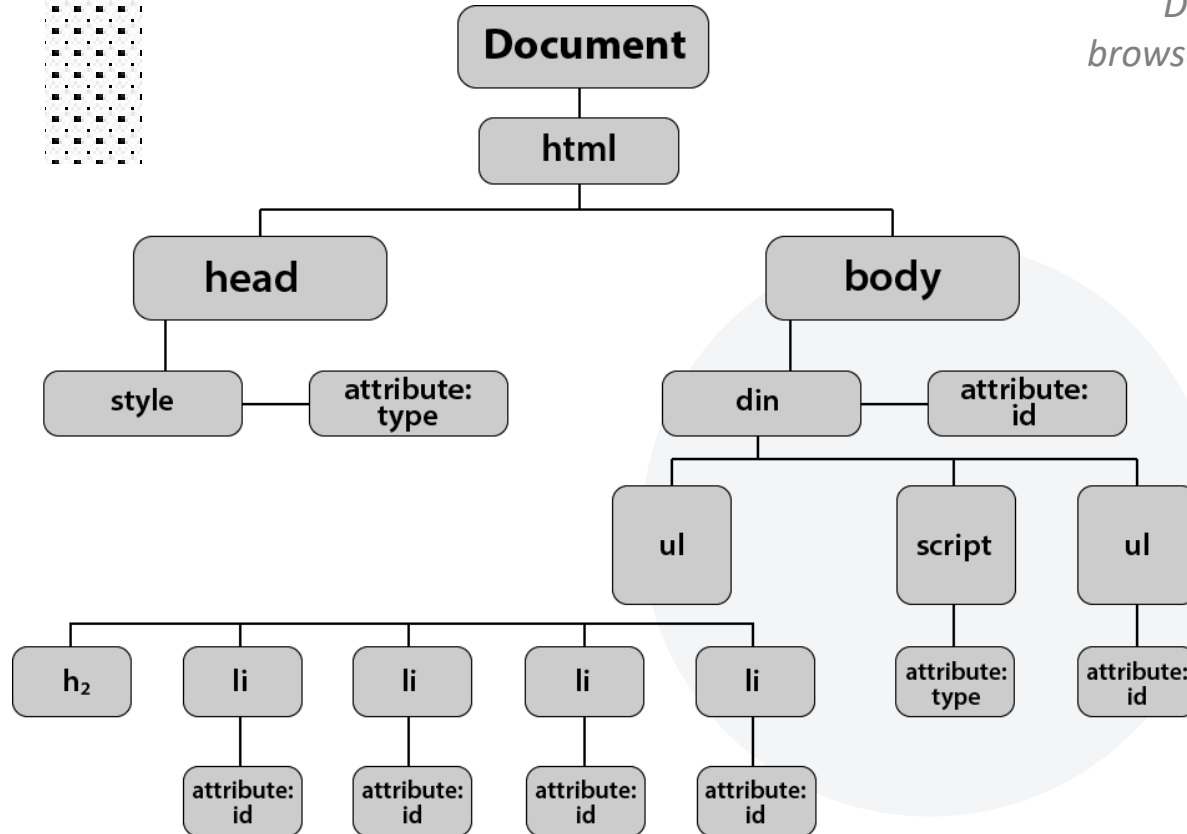
Illustrations by Pixeltrue on icons8

Task statement

1. Learn the principles of creating an Adaptive Layout.
2. Understand how to work with Cascade Style Sheets (CSS) and how to apply them
3. Get acquainted with SASS
4. Learn the basics of JavaScript and DOM

Theory

DOM, SASS
Adaptive layout

DOM — Document Object Model

DOM is an object model of a document that the browser creates in the computer's memory based on the HTML code it received from the server.

Such a tree is necessary for the correct display of the site and making changes to the pages using *JavaScript*

Visual Studio Code

VS Code is a code editor, which is used for building and debugging applications, especially web-applications. It's suitable for many languages and free for use.

Figma

Figma is an application for interface design, which has a rich selection of vector graphics editor and prototyping tools.

Git & GitHub

Git is free and open source software for distributing version control.

GitHub is based on Git and is used for hosting remote project repositories. Although it provides to users an abilities of a social network.

Vanilla JavaScript

Vanilla JS is a pure JavaScript without any type of additional libraries. It's one of the lightest solutions for non-complex web-development.

CSS + SASS

SASS is a metalanguage, based on the CSS and is used for simplifying yet extending CSS usage.

HTML

HTML is the standart markup language for Web pages.

Adaptive Layout methods

Responsive Layout

Page layout is build with both relative units of measurement and CSS media queries. Which implies using the advantages of both a "liquid" and an adaptive layout.

Fluid Layout

It uses relative units of measurement in CSS styles instead of fixed ones. Typically, "liquid" template layouts use percentages instead of pixels.

Adaptive Layout (MediaQueries)

The page uses CSS media queries to determine the width of the browser and change the page layout accordingly.

SASS

01 **Preprocessing**

When we have to deal with a huge CSS, SASS helps us to structurize our work with using nested code, mixines and other nice things

02 **Nesting**

In one hand CSS has a clear nested and visual hierarchy, on the other hand, doesn't. Sass will let you nest your CSS selectors in a way that follows the same visual hierarchy of your HTML. Be aware that overly nested rules will result in over-qualified CSS that could prove hard to maintain and is generally considered bad practice.
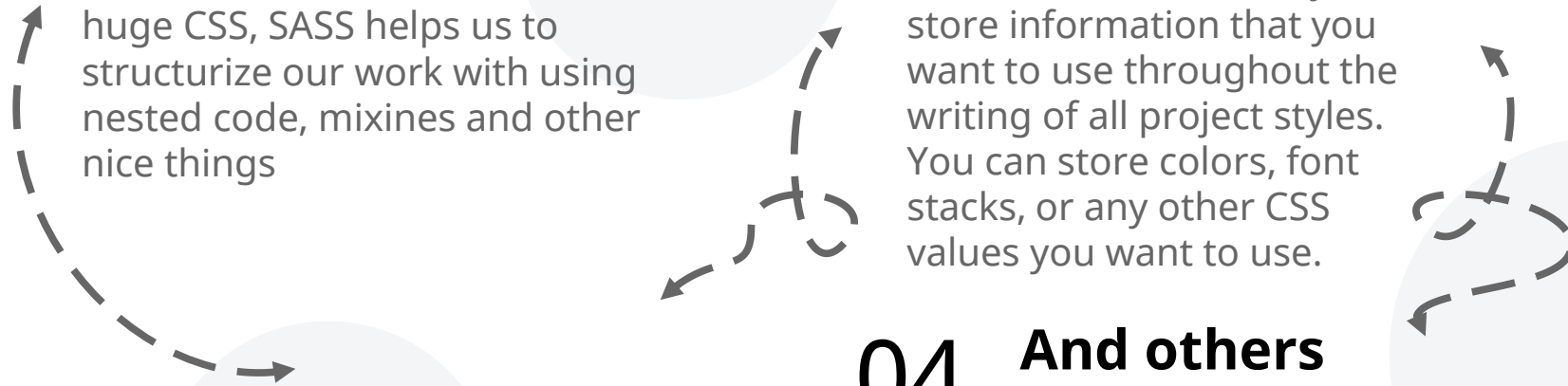
03 **Variables**

Variables work as a way to store information that you want to use throughout the writing of all project styles. You can store colors, font stacks, or any other CSS values you want to use.

04 **And others**

01 Explore the prototype

Figma allows designers to divide your project into blocks and layers. Thus it would be useful for developer to understand and follow the project structure.

02 Create a layout and set up styles

You can start from making a Static Layout. Then enhance it with applying an Adaptive Layout approaches. In conclusion set up adaptive styles and animations.
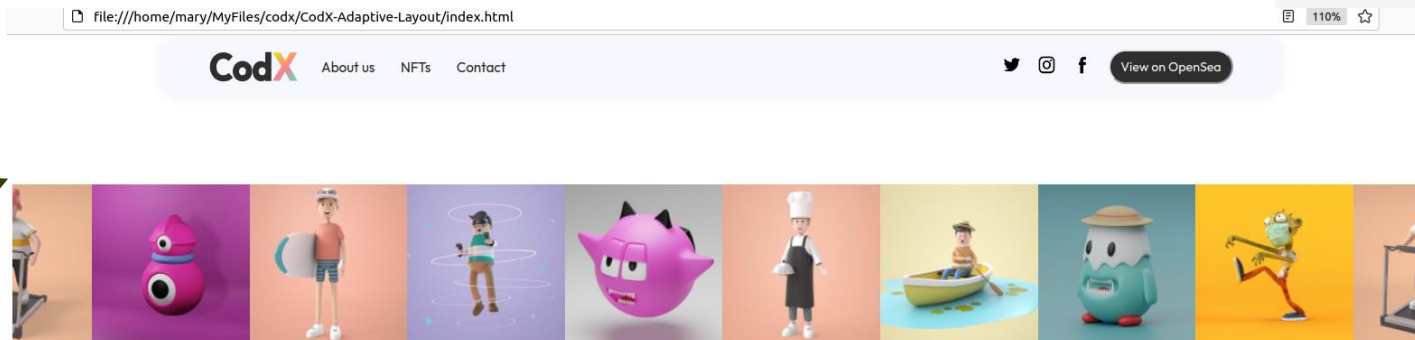
03 Add a script

JS script wil allow you to change styles and animations, as well as respond to changes in the web-page scale.
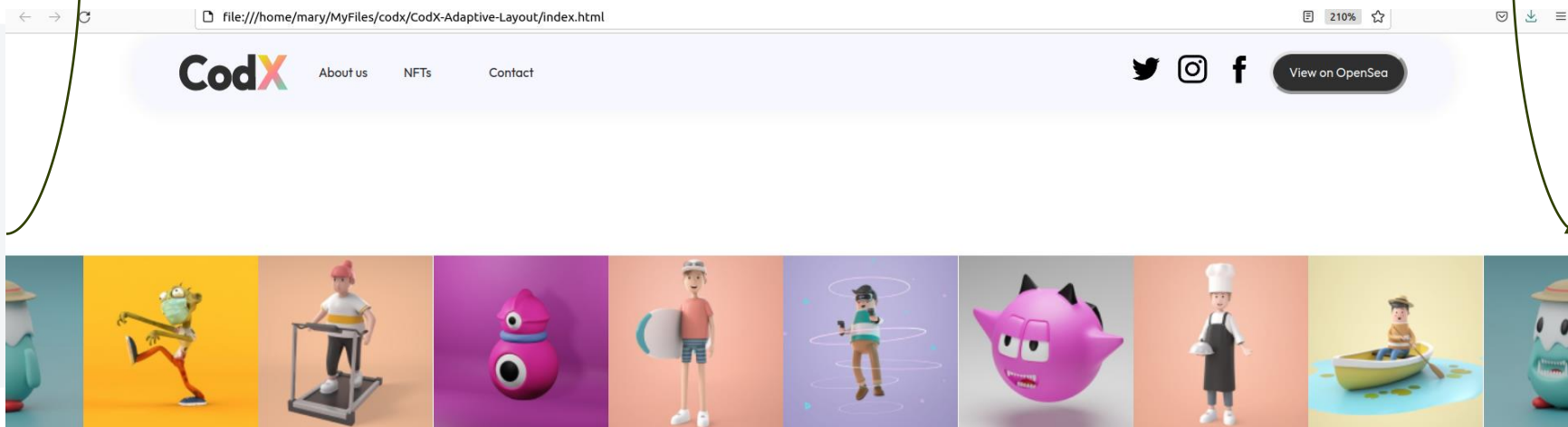
Project

How & why

Resin Layout allows to keep static size to images,
no matter hom much scaled the web-page was.

EXTRAORDINARY NFTs

Change your Digital Experience

Suspendisse sem neque, auctor a elementum ut, varius vel leo. Donec diam arcu, porta et magna at

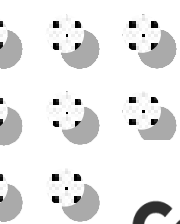EXTRAORDINARY NFTs

Change your Digital Experience

Suspendisse sem neque, auctor a elementum ut, varius vel leo. Donec diam arcu, porta et magna at

Lee Stone
Lee Stone

Scaling the web-page leads to the changing of images position.
It works due to a
Responsive Layout

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Grid Layout allows to place
the content inside the cells
and keep the structure of
the grid.

Conclusion

- Every tag is an object, due to DOM
- Adaptive Layout uses Responsive, Fluent and MediaQueries methods and combine them
- SASS is used to ease CSS implementing
- Native JavaScript can easily manipulate all kinds of HTML elements, change and modify their styles, connect logic to them.

END OF PRESENTATION

SLIDE: 16

THANK YOU FOR YOUR ATTENTION