



# Responsive Web Design

## With CSS Flexbox and CSS Grid

Dax Wann [daxwann@gmail.com](mailto:daxwann@gmail.com)  
42 Staff [pedago@42.fr](mailto:pedago@42.fr)

*Summary:* An introduction to designing responsive websites with HTML and CSS.

# Contents

I	Foreword	2
II	Introduction	3
III	Goals	4
IV	General instructions	5
V	Mandatory part	6
VI	Exercise 00: Responsive Web Design Principles	7
VII	Exercise 01: CSS Flexbox	8
VIII	Exercise 02: CSS Grid	9
IX	Exercise 03: Responsive Web Design Project	10
X	Exercise 04: Github	14
XI	Turn-in and peer-evaluation	15

# Chapter I

## Foreword



"You are a slow learner, Winston."

"How can I help it? How can I help but see what is in front of my eyes? Two and two are four."

"Sometimes, Winston. Sometimes they are five. Sometimes they are three. Sometimes they are all of them at once. You must try harder. It is not easy to become sane."

- *1984* by George Orwell

# **Chapter II**

## **Introduction**

Now that you have completed a static website with basic HTML and CSS, we will continue with Responsive Web Design.

With the skills of using CSS Flexbox and Grid, you will be able to design websites that's responsive to the user's devices.

# Chapter III

## Goals

Using FreeCodeCamp online curriculum, we will learn:

- Responsive web design principles
- CSS Flexbox
- CSS Grid

For our culminating project, we will apply what we learned to create a responsive gallery website similar to [Pinterest](#), where you share your interests through images of anything you like (but not offensive to others), like fashion, cars, technology, art, etc. We will push our project onto a Github repository and deploy our website with Github Pages to showcase.

# **Chapter IV**

## **General instructions**

1. Make sure you can explain to your peers about how you built your responsive website using CSS Flexbox and/or Grid
2. Reflect on what you learned in FreeCodeCamp and how you applied it to your project

# Chapter V

## Mandatory part

You must have finished **Web Design with Basic HTML and CSS** project.

Finish all exercises in these following sections on FreeCodeCamp Responsive Web Design Certificate:

- Responsive Web Design Principles
- CSS Flexbox
- CSS Grid

Create a responsive gallery website using HTML5 and CSS Flexbox and/or Grid.

Push your website project repository onto your Github. Deploy your website on [github.io](https://github.io).

# Chapter VI

## Exercise 00: Responsive Web Design Principles

	Responsive Web Design Principles on FreeCodeCamp
Topics to study :	
Files to turn in :	All exercises completed in section on FreeCodeCamp
Notes :	n/a

Since users can view our website with different devices in various sizes, such as on a laptop, a gaming monitor, a mobile phone, or an iPad, we need to make our website adapt to the screen size. We use responsive web design to create different styles and layouts for different device sizes.

# Chapter VII

## Exercise 01: CSS Flexbox

	CSS Flexbox on FreeCodeCamp
Topics to study :	
Files to turn in :	All exercises completed in section on FreeCodeCamp
Notes :	

CSS Flexbox is a new responsive layout feature that will help arrange elements within a parent container.

Learn more about CSS Flexbox here:

<https://css-tricks.com/snippets/css/a-guide-to-flexbox/>

# Chapter VIII

## Exercise 02: CSS Grid

	CSS Grid on FreeCodeCamp
Topics to study :	
Files to turn in :	All exercises completed in section on FreeCodeCamp
Notes :	

Similar to Flexbox, CSS Grid is another responsive layout feature that will help arrange elements within a parent container.

Learn more about CSS Grid here:

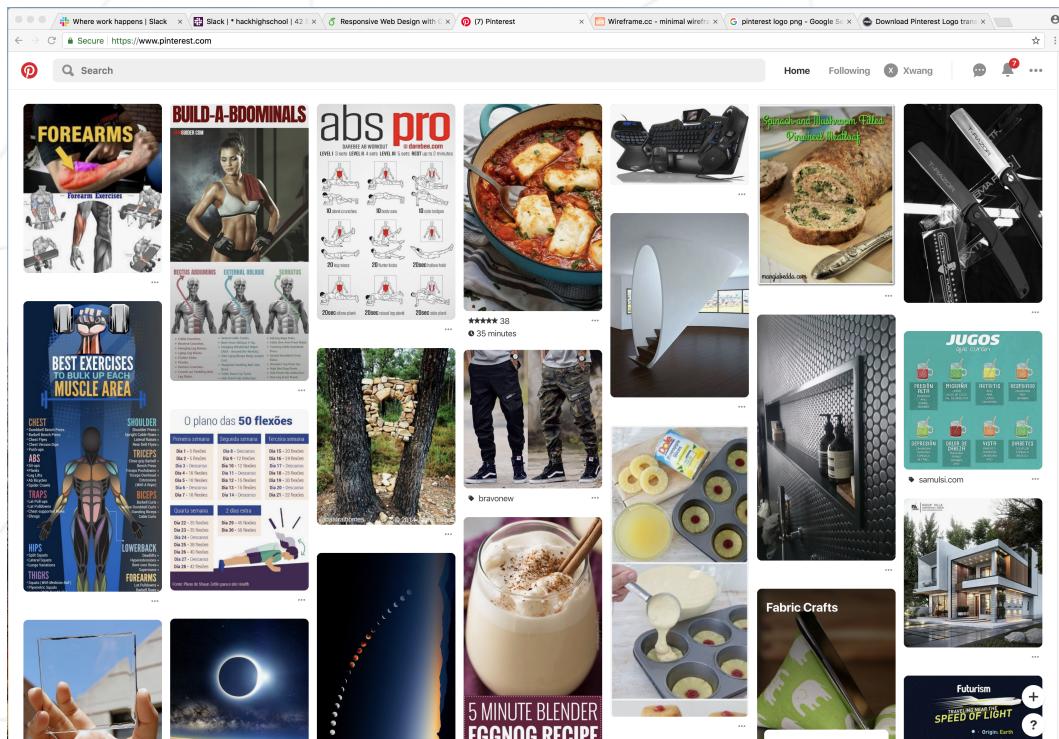
<https://css-tricks.com/snippets/css/complete-guide-grid/>

# Chapter IX

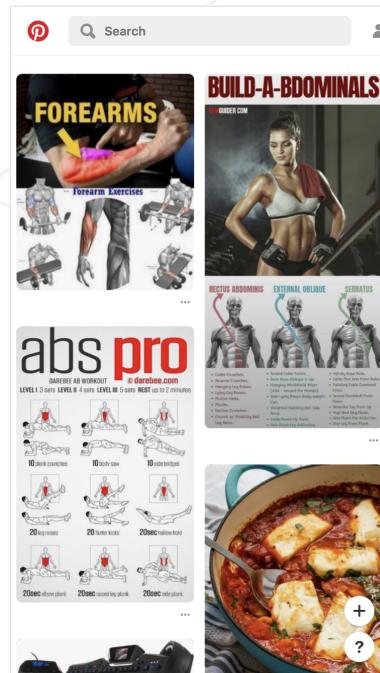
## Exercise 03: Responsive Web Design Project

	Responsive Web Design Project
Topics to study :	
Files to turn in : Your project folder should include index.html, style.css, and image files in "assets/" subdirectory	
Notes :	

Create a responsive image gallery with a similar layout as [Pinterest](#).



desktop view

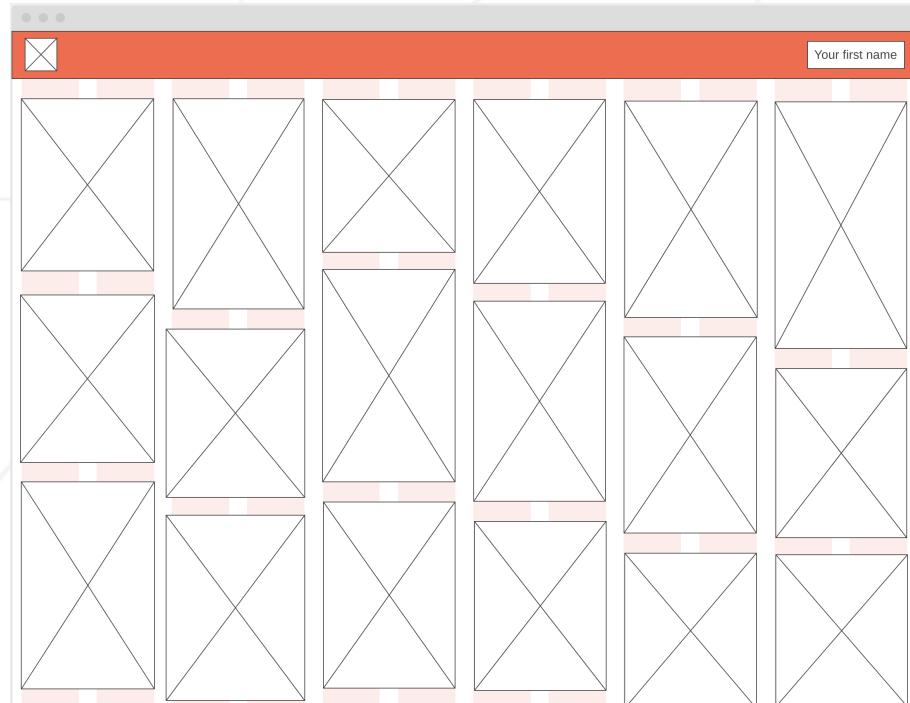


mobile view

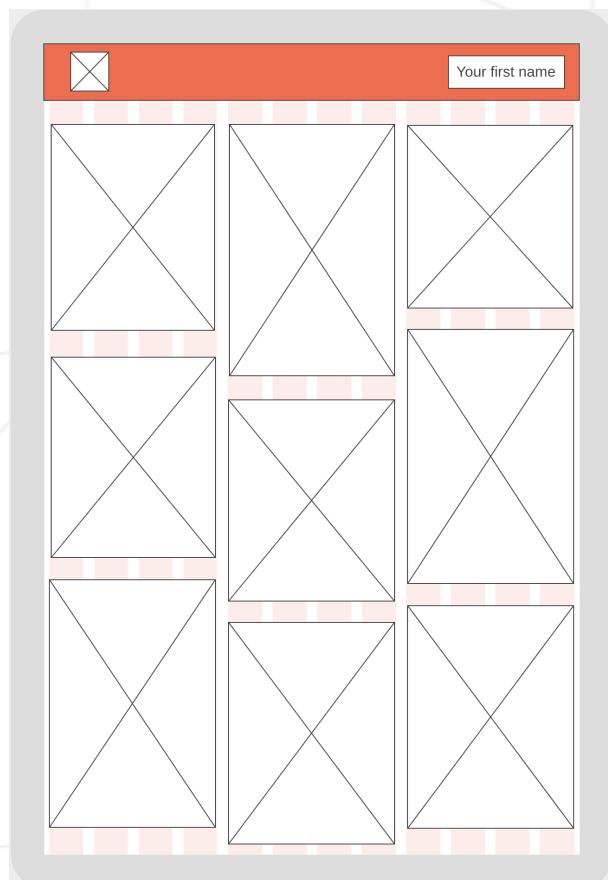
### Requirements:

- The page should have a fixed navbar that will stick to the top of the screen as you scroll down.
- The navbar should have the included Pinterest logo on the left side, and your first name on the right side.
- The main body of the gallery should have 20 or more images that represent your personal interests.
- The images should have the same width, but their individual height is adjusted according to the original image dimensions.
- There should be two images per row on mobile view.
- There should be between three to five images per row on ipad view.
- There should be six or more images per row on desktop view.
- Navbar should have display set to flex; Main gallery container should have display set to grid.

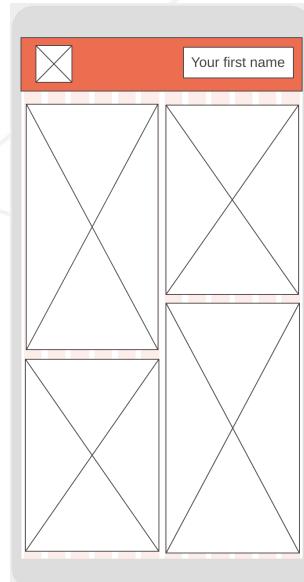
The final layout should be similar to the wireframes below



desktop view



ipad view



mobile view

### Suggestions

1. Create a project folder along with files `index.html` and `style.css`. Create a subfolder named `assets/` for images
2. Use Visual Studio Code IDE to open the folder and start writing the HTML and CSS
3. Apply what you learned in FreeCodeCamp to create the structure of the website and style it
4. Use Chrome browser to test your website. You can access your website by opening the html file with Chrome or typing in its file path in the browser. If you are stuck, google first.
5. Be sure to make the website responsive. Use [Chrome Developer Tools](#) to help you view your website on different devices.

# Chapter X

## Exercise 04: Github

	Deploy on Github
Topics to study :	
Files to turn in : Your Github repository should include index.html, style.css, and image files in assets/ subdirectory	
Notes :	

1. You should already have a Github account.
2. Create a new public repository named `H2S_responsive_gallery`
3. Follow [instructions](#) on connecting your project to the new Github repository
4. Push your project onto the Github repository
5. Go to your Github repository settings, under "Github Pages", publish your project as a website. Follow the URL formatted as

`<username>.github.io/H2S_responsive_gallery`

to view website.

6. Create a `README.md` in the root directory of your project folder and copy the website URL into it. Follow this [guide](#).

# Chapter XI

## Turn-in and peer-evaluation

Check that all exercises in the previously listed FreeCodeCamp sections have been completed.

Check website is published on Github Pages.

Turn your source code in using your [42 Git repository](#). Only work present on your repository will be graded in defense.