



Responsive Web Design

FreeCodeCamp edition

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

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Chapter I

Foreword



[Thor is trying to access on the Quinjet's computer]
Quinjet Computer: Welcome. Voice activation required.
Thor: Thor.
Quinjet Computer: Access denied.
Thor: Thor, son of Odin.
Quinjet Computer: Access denied.
Thor: God of Thunder.
Quinjet Computer: Access denied.
Thor: Strongest Avenger.
Quinjet Computer: Access denied.
Thor: Strongest Avenger.
Quinjet Computer: Access denied.
Thor: Damn you, Stark. Point Break.
Quinjet Computer: Welcome, Point Break.

- *Thor: Ragnarok*

Chapter II

Introduction

It's time to learn how to build a website for the world to see! We will first focus on making a static website. A simple static website consists of HTML (HyperText Markup Language) and CSS (Cascading Style Sheet). HTML is used to create the structure of the website, such as text, images, and other media. CSS is used to style those structures, such as changing the color of the text, the size of the images, and layout of the page.

HTML: structure and content of the website

CSS: style and layout of the website

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

Chapter III

Goals

Using FreeCodeCamp online curriculum, we will learn:

- basic HTML
- basic CSS
- applied visual design
- Responsive web design principles
- CSS Flexbox
- CSS Grid

For our culminating project, we will apply what we learned to create a responsive tribute website of a personal hero. We will push our project onto a Github repository and deploy our website with Github Pages to showcase.

Chapter IV

General instructions

1. Create an account on <https://www.freecodecamp.org/> using your personal email
2. Click on "Curriculum" in the top right corner
3. Finish the mandatory sections listed on the next page
4. Create **responsive** website of a personal hero using HTML5 and CSS3
5. Create a free account on <https://github.com/> using your personal email
6. Push project onto a new Github repository
7. Deploy website on Github Pages

Chapter V

Mandatory part

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


- Basic HTML and HTML5
- Basic CSS
- Applied Visual Design
- Responsive Web Design Principles
- CSS Flexbox
- CSS Grid

Create a responsive website about a personal hero using HTML5, CSS3, CSS Flexbox and/or Grid.

Push your website project repository onto your Github. Deploy your website on github.io.

Chapter VI


Exercise 00: FreeCodeCamp

	Sign up on FreeCodeCamp
Topics to study :	
Files to turn in : n/a	
Notes : n/a	

Go to <https://www.freecodecamp.org/> and create an account using a personal email. In "Curriculum", go to Responsive Web Design Certificate section.

Chapter VII


Exercise 01: Basic HTML and HTML5

	Basic HTML and HTML5 on FreeCodeCamp
Topics to study :	
Files to turn in : All exercises completed in section on FreeCodeCamp	
Notes :	

HTML is used to create a structure for contents in the website. Usually websites will have a header and a body. A website can also include text, images, videos, and other media.

Chapter VIII


Exercise 02: Basic CSS

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

CSS is used to style the structures created in HTML. For example, we use CSS to change fonts, text sizes, background color, image sizes, etc. We also use CSS to create overall layout of the website. You will learn more layout functionalities later with CSS Flexbox and CSS Grid.

Chapter IX


Exercise 03: Applied Visual Design

	Applied Visual Design on FreeCodeCamp
Topics to study :	
Files to turn in : All exercises completed in section on FreeCodeCamp	
Notes :	

We will now learn more about designing a website using CSS. A website would be frustrating for the users if its design was not well thought out. For example, we should make the text big enough for users to read easily. We should highlight the important content. We should use colors and images to support our main content.

Chapter X


Exercise 04: 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 :	

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 XI

Exercise 05: 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 XII

Exercise 05: 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 XIII

Exercise 06: Responsive Web Design Project

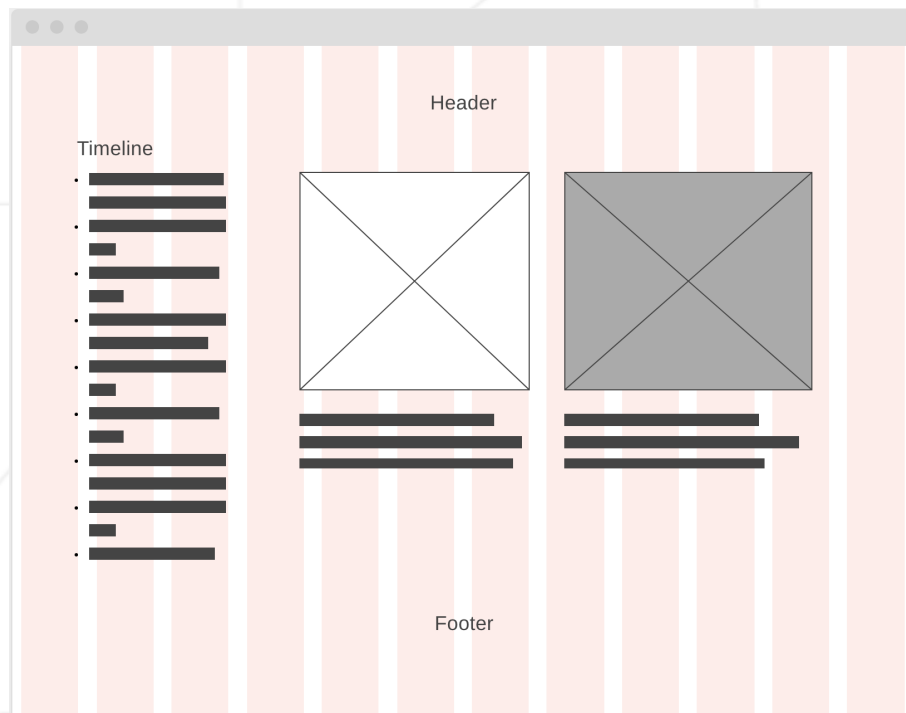
	Responsive Web Design Project
Topics to study :	
Files to turn in : Your project folder should include index.html, style.css, and image files in "assets/" subdirectory	
Notes :	

Create a tribute website of a person you are inspired by, like an artist, athlete, author, actor, etc.

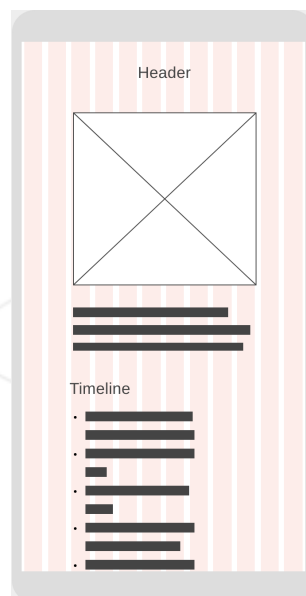
The website should:

- be responsive to mobile, iPad, and desktop screens
- have header, main content, a sidebar, and a footer
- should have two or more columns in desktop view
- should have one column in mobile view
- include mostly images with captions, one or two lists, few texts, two or more background colors, and one or more custom fonts
- should use CSS Flexbox and/or CSS Grid in the responsive design

Use the wireframes below for inspiration



desktop 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 XIV

Exercise 07: Github

	Create github account
Topics to study :	
Files to turn in : Your Github repository should include <code>index.html</code> , <code>style.css</code> , and image files in "assets/" subdirectory	
Notes :	

1. Go to <https://github.com/> and create a free account using your personal email
2. Create a new public repository named "H2S_responsive_tribute_page"
3. Follow instructions on connecting your tribute website 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 link (`<username>.github.io/H2S_responsive_tribute_page`) to view website.

Chapter XV

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 work in using your **Github** repository. Only work present on your repository will be graded in defense.