

DATA HACK 2023 MAKER WORKSHOP:

INTRODUCTION TO HTML/CSS AND GITHUB

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Agenda for Workshop

1. How does web publishing work?
2. Produce a web page with code editor such as **Visual Studio Code**.
3. Free hosting of static website on **Github**.
4. Mark up your web page structure in **HTML**.
5. Style your web page in **CSS** using base and custom **selectors (Id and Class)**.
6. Enhance your web design with free web design tools and web framework.

How does web publishing work?

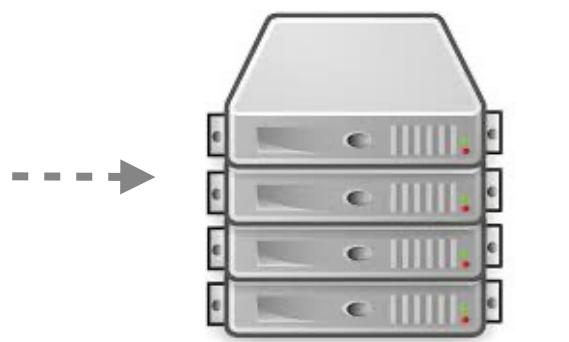
Browser

Screen Display



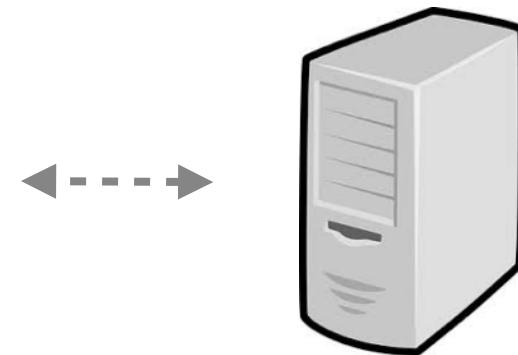
Web Server

HTML/CSS/JS



Database Server

Data



```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<title> A Tiny HTML Document </title>
<link href = "styles.css" rel="stylesheet">
<script src="scripts.js"></script>
</head>

<body>
<p>Let's rock the browser, HTML5 style.</p>
</body>
</html>
```

ID	PHONE	POPULARNAME	PREFERREDNAME	LATITUDE	LONGITUDE
1194520	00994614	popular_name_00994614	preferred_name_00994614	23.789875	88.897985
1194521	00994616	popular_name_00994616	preferred_name_00994616	23.789875	88.897985
1194522	00994618	popular_name_00994618	preferred_name_00994618	23.789875	88.897985
1194523	00994617	popular_name_00994617	preferred_name_00994617	23.789875	88.897985
1194524	00994619	popular_name_00994619	preferred_name_00994619	23.789875	88.897985
1194525	00994619	popular_name_00994619	preferred_name_00994619	23.789875	88.897985
1194526	00994620	popular_name_00994620	preferred_name_00994620	23.789875	88.897985
1194527	00994621	popular_name_00994621	preferred_name_00994621	23.789875	88.897985
1194528	00994622	popular_name_00994622	preferred_name_00994622	23.789875	88.897985
1194529	00994623	popular_name_00994623	preferred_name_00994623	23.789875	88.897985
1194530	00994624	popular_name_00994624	preferred_name_00994624	23.789875	88.897985
1194531	00994625	popular_name_00994625	preferred_name_00994625	23.789875	88.897985

Static Website vs. Dynamic Website

Browser

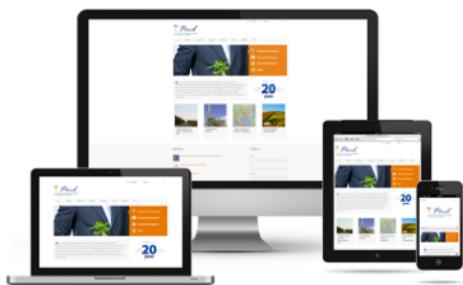
Screen Display



Web Server

HTML/CSS/JS

Static Website



```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4  <meta charset="utf-8">
5  <title> A Tiny HTML Document </title>
6  <link href = "styles.css" rel="stylesheet">
7  <script src="scripts.js"></script>
8  </head>
9
10 <body>
11 <p>Let's rock the browser, HTML5 style.</p>
12 </body>
13 </html>
```

Browser

Screen Display



Web Server

HTML/CSS/JS

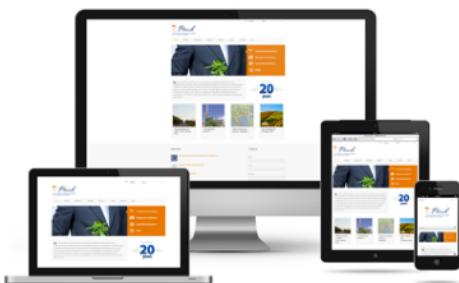


Database Server

Data



Dynamic Website



```
1 <!DOCTYPE html>
2 <html lang="en">
3   <head>
4     <meta charset="utf-8">
5     <title> A Tiny HTML Document </title>
6     <link href = "styles.css" rel="stylesheet">
7     <script src="scripts.js"></script>
8   </head>
9
10  <body>
11    <p>Let's rock the browser, HTML5 style.</p>
12  </body>
13  </html>
```

ID	PHONE	POPULARNAME	PREFERREDNAME	LATITUDE	LONGITUDE
1194820	00994614	popular_name_00994614	preferred_name_00994614	23.789875	88.897985
1194821	00994615	popular_name_00994615	preferred_name_00994615	23.789875	88.897985
1194822	00994616	popular_name_00994616	preferred_name_00994616	23.789875	88.897985
1194823	00994617	popular_name_00994617	preferred_name_00994617	23.789875	88.897985
1194824	00994618	popular_name_00994618	preferred_name_00994618	23.789875	88.897985
1194825	00994619	popular_name_00994619	preferred_name_00994619	23.789875	88.897985
1194826	00994620	popular_name_00994620	preferred_name_00994620	23.789875	88.897985
1194827	00994621	popular_name_00994621	preferred_name_00994621	23.789875	88.897985
1194828	00994622	popular_name_00994622	preferred_name_00994622	23.789875	88.897985
1194829	00994623	popular_name_00994623	preferred_name_00994623	23.789875	88.897985
1194830	00994624	popular_name_00994624	preferred_name_00994624	23.789875	88.897985
1194831	00994625	popular_name_00994625	preferred_name_00994625	23.789875	88.897985

Demo

**Browser (e.g. Chrome) translates HTML/
CSS/JS into web pages ordinary human
can understand.**

**We need a `code editor` to create
HTML/CSS/JS files.**

Version 1.47 is now available! Read about the new features and fixes from June.

Code editing. Redefined.

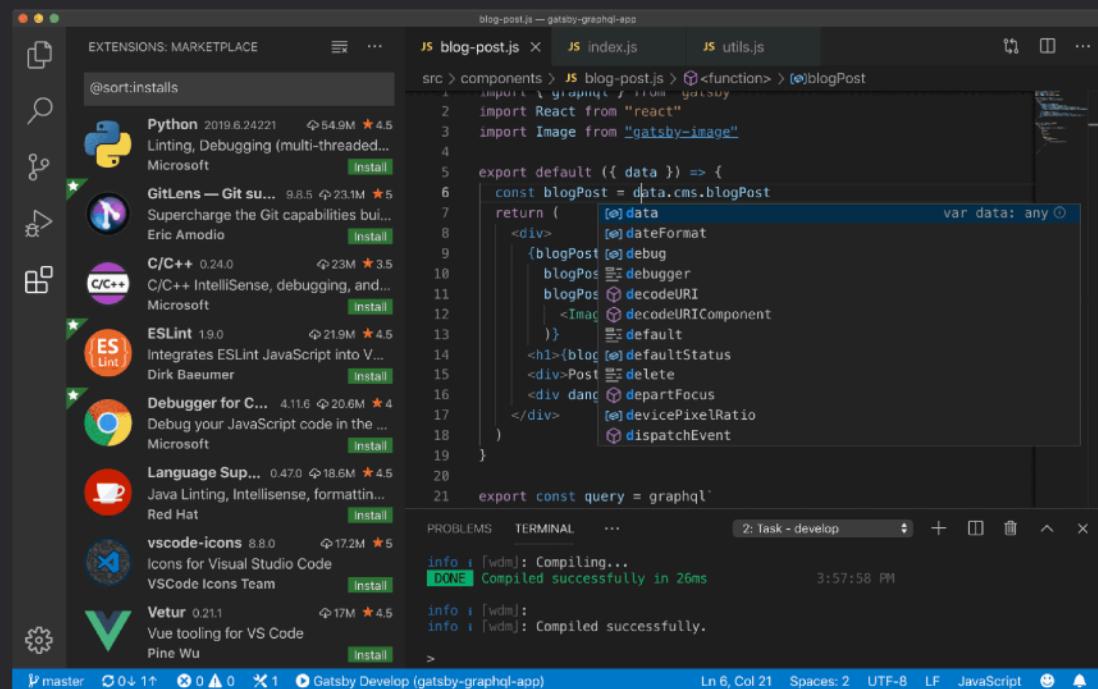
Free. Built on open source. Runs everywhere.

[Download for Mac](#)

Stable Build

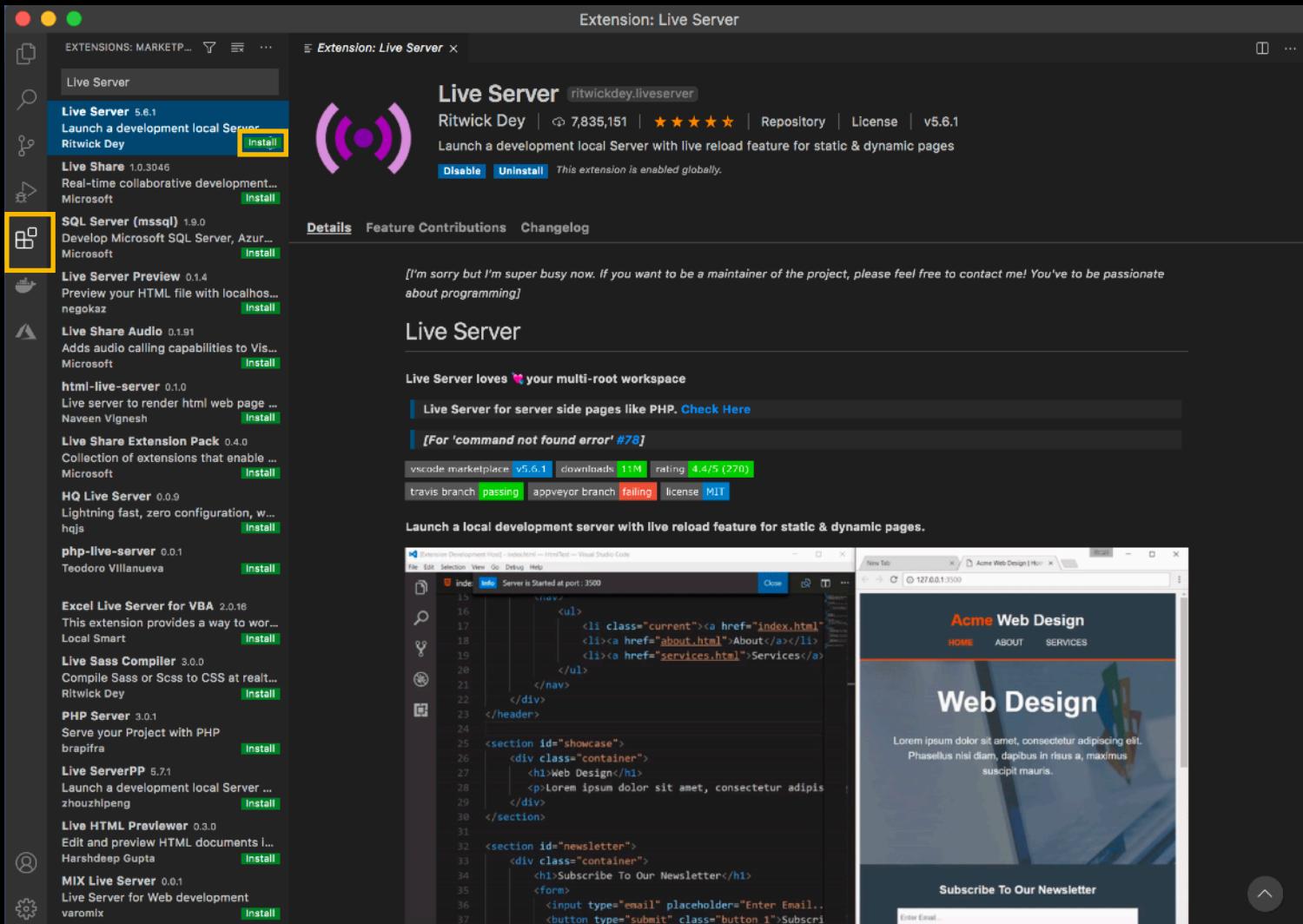
[Other platforms and Insiders Edition](#)

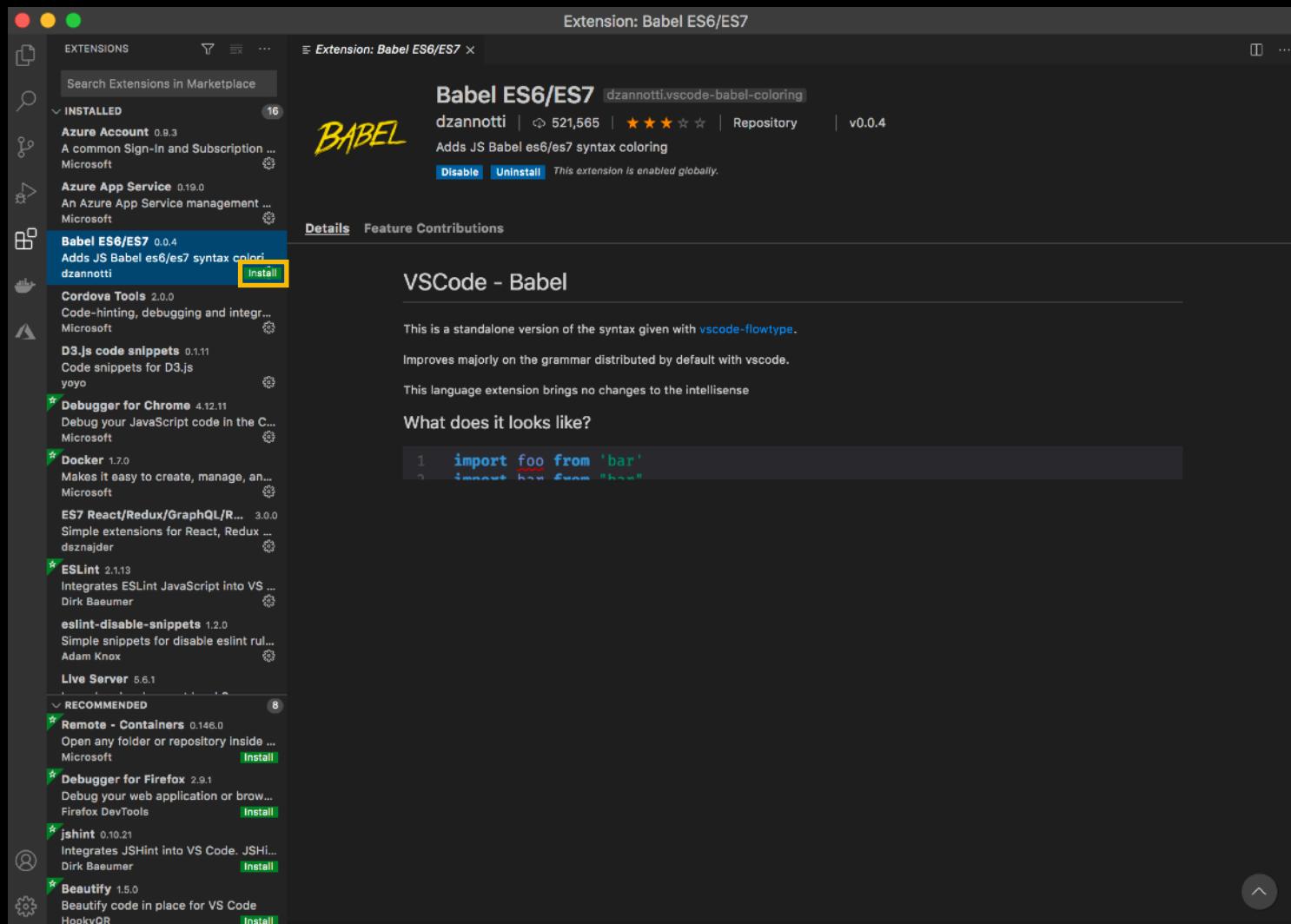
By using VS Code, you agree to its
[license](#) and [privacy statement](#).



<https://code.visualstudio.com/>

Adding plugins.





Free hosting of static website on Github.

1. Sign-up for a **Github** account (the free account)
2. Install **Github Desktop** and create a new repository
(You can treat the repository as a folder) by
creating a new folder associated with it.



Product ▾ Solutions ▾ Open Source ▾ Pricing

Search GitHub

Sign in Sign up

Let's build from here

Harnessed for productivity. Designed for collaboration.
Celebrated for built-in security. Welcome to the platform
developers love.



Email address

Sign up for GitHub

Start a free enterprise trial >

<https://github.com>



Already have an account? [Sign in](#)

Welcome to GitHub!
Let's begin the adventure

[Enter your email](#)



[Continue](#)

By creating an account, you agree to the [Terms of Service](#). For more information about GitHub's privacy practices, see the [GitHub Privacy Statement](#). We'll occasionally send you account-related emails.

<https://github.com>



Overview Release Notes Help

GitHub Desktop

Focus on what matters instead of fighting with Git. Whether you're new to Git or a seasoned user, GitHub Desktop simplifies your development workflow.



[Download for macOS](#)



Feeling brave?

Try new features in the [Beta](#) Channel before they're released.

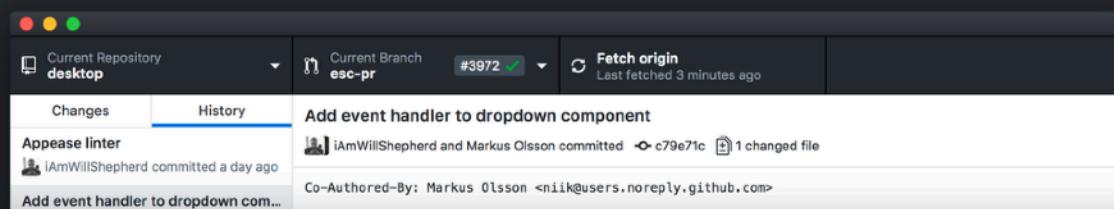
Apple silicon?

Download for an [Apple silicon Mac](#). See the [Apple docs](#) about Apple vs Intel chips.

Windows?

[Download for Windows](#)

By downloading, you agree to the [Open Source Applications Terms](#).



<https://desktop.github.com/>



Sign in to GitHub
to continue to GitHub Desktop

Username or email address

Password

[Forgot password?](#)

[Sign in](#)

File Edit View Repository Branch Help

Current repository
codercoder

Current branch
master

Fetch origin
Last fetched 42 minutes ago

Changes History

0 changed files

No local changes

There are no uncommitted changes in this repository. Here are some friendly suggestions for what to do next.



Open the repository in your external editor
Select your editor in [Options](#)
Repository menu or **Ctrl Shift A** [Open in Visual Studio Code](#)

View the files of your repository in Explorer
Repository menu or **Ctrl Shift F** [Show in Explorer](#)

Open the repository page on GitHub in your browser
Repository menu or **Ctrl Shift G** [View on GitHub](#)

Preferences



Accounts

Integrations

Git

Appearance

Prompts

Advanced

GitHub.com



suentze2020
@suentze2020

[Sign Out](#)

GitHub Enterprise

If you have a GitHub Enterprise or AE account at work, sign in to it to get access to your repositories.

[Sign In](#)



Add an Existing Repository from your Hard Drive...

Preferences



Accounts

Integrations

Git

Appearance

Prompts

Advanced

Applications

External Editor

Visual Studio Code

Shell

Terminal

Cancel

Save

Preferences



Accounts

Integrations

Git

Appearance

Prompts

Advanced

Name

suentze2020

Email

suentze2020@gmail.com



Default branch name for new repositories

main

master

Other...

These preferences will edit your global Git config.

Cancel

Save



Preferences

Accounts

Integrations

Git

Appearance

Prompts

Advanced



Add an Existing Repository from
your Hard Drive...

Light

The default theme of GitHub Desktop

Dark

GitHub Desktop is for you too, creatures of the night

System

Automatically switch theme to match system theme

Let's get started!

Add a repository to GitHub Desktop to start collaborating



Create a Tutorial Repository...

Filter your repositories



Clone a Repository from the Internet...



Create a New Repository on your Hard Drive...



Add an Existing Repository from your Hard Drive...

Looks like there are no repositories for `suentze2020` on GitHub.com. [Refresh this list](#) if you've created a repository recently.



Let's get started!



Add a

Start tutorial

X

This will create a repository on your local machine, and push it to your account `@suentze2020` on GitHub.com. This repository will only be visible to you, and not visible publicly.



Cancel

Continue



Create a New Repository on your Hard Drive...

recently.



Add an Existing Repository from your Hard Drive...

Current Repository
desktop-tutorial

Current Branch
main

Fetch origin
Last fetched just now

Changes History

0 changed files

Summary (required)

Description

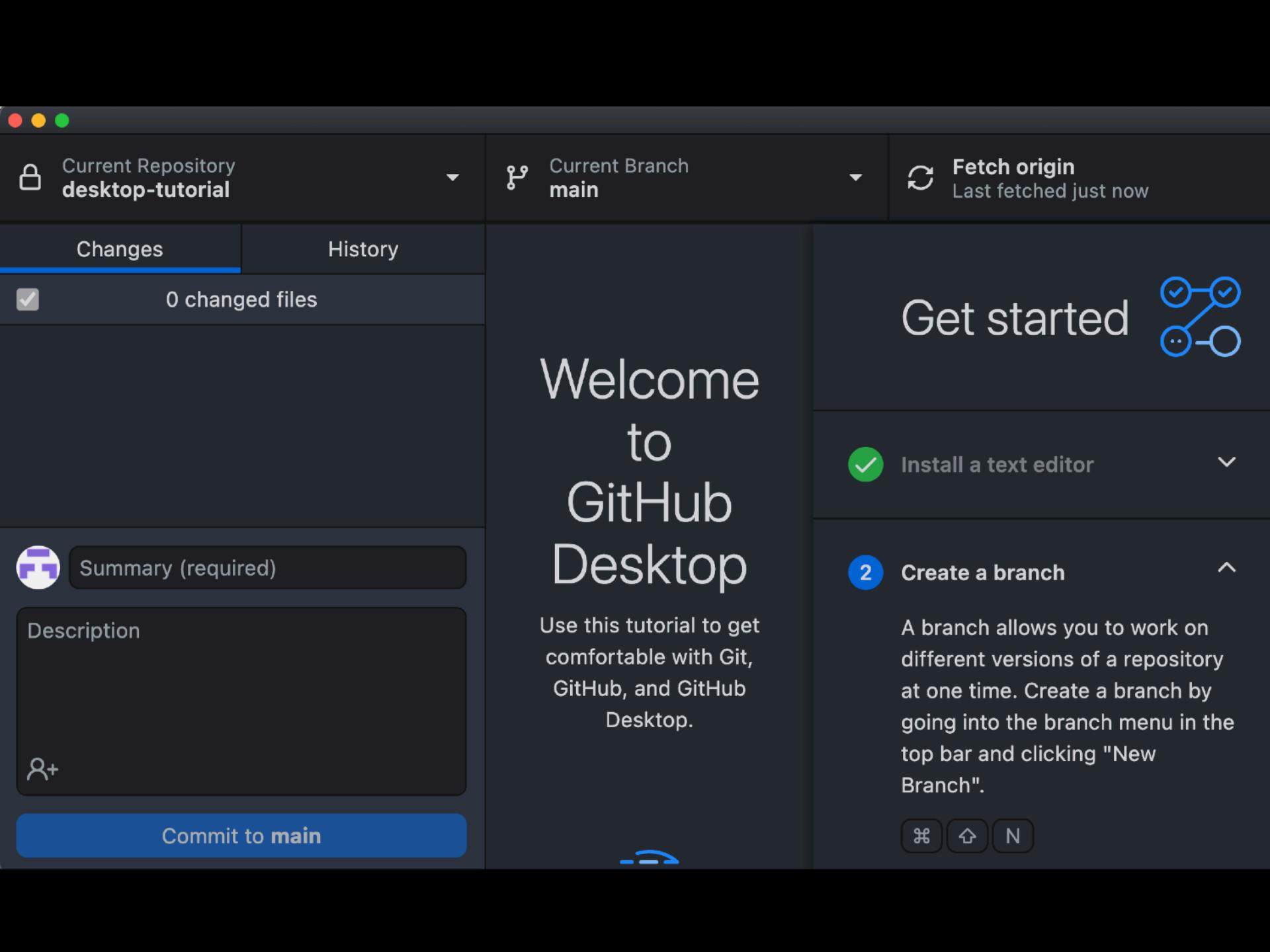
Commit to main

Get started

Install a text editor

Create a branch

A branch allows you to work on different versions of a repository at one time. Create a branch by going into the branch menu in the top bar and clicking "New Branch".



This screenshot shows the GitHub Desktop application interface. At the top, there are three status indicators: 'Current Repository' (desktop-tutorial), 'Current Branch' (main), and 'Fetch origin' (last fetched just now). Below these are two tabs: 'Changes' (selected) and 'History'. A message indicates '0 changed files'. On the left, there's a sidebar with icons for 'Summary (required)', 'Description', and a user icon. A large central area displays the 'Welcome to GitHub Desktop' tutorial. The first step, 'Install a text editor', is marked as completed with a green checkmark. The second step, 'Create a branch', is currently being described. At the bottom right, there are keyboard shortcut keys for '⌘', '↶', and 'N'.

What does HTML stand for?

(H)yper (T)ext (M)arkup (L)anguage

(M)arkup is made up of a collection of “**tags**” (special angular brackets <?>) used to control the behaviour of text surrounded by the tags.

NOUN

HTML

```
<html>, <head>, <title>, <meta>, <style>, <script>, <body>, <header>, <footer>, <nav>,  
<main>, <section>, <aside>, <p>, <br>, <a>, <ol>, <ul>, <li>, <table>, <div>, <form>
```

Tag **Elements**
Has
properties

(e.g. color, background-color, position, font-family, font-size,
font-style, display, width, margin, border, padding)

Structure the “tags” to design HTML page layout.

```
<html>
  <head>
    <title>Page title </title>
  </head>

  <body>
    <h1>This is a heading </h1>

    <p> This is a paragraph </p>
    <p> This is a paragraph </p>
  </body>
</html>
```

```
<html>
```

```
  <head>
```

```
    <title>Page title </title>
```

```
  </head>
```

```
<body>
```

```
  <h1>This is a heading </h1>
```

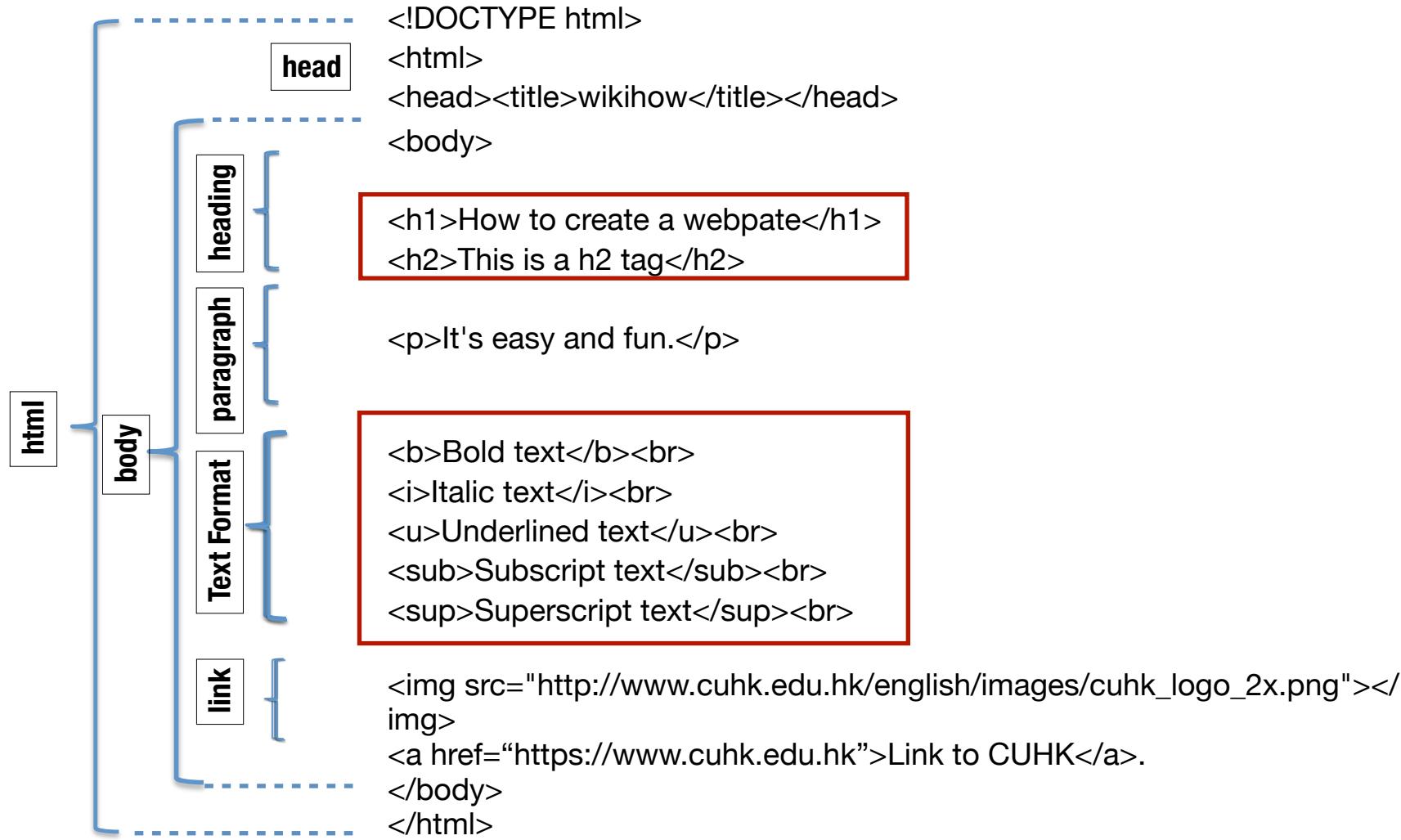
```
  <p> This is a paragraph </p>
```

```
  <p> This is a paragraph </p>
```

```
</body>
```

```
</html>
```

Basic DOM elements: Headings, Paragraphs, Links, and HTML Format Tags



Browser View

How to create a webpate

This is a h2 tag

It's easy and fun.

Bold text

Italic text

Underlined text

Subscript text

Superscript text



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[Link to CUHK](#)

Lists



Browser View

Welcome to My Page!

My Favourite Fruits

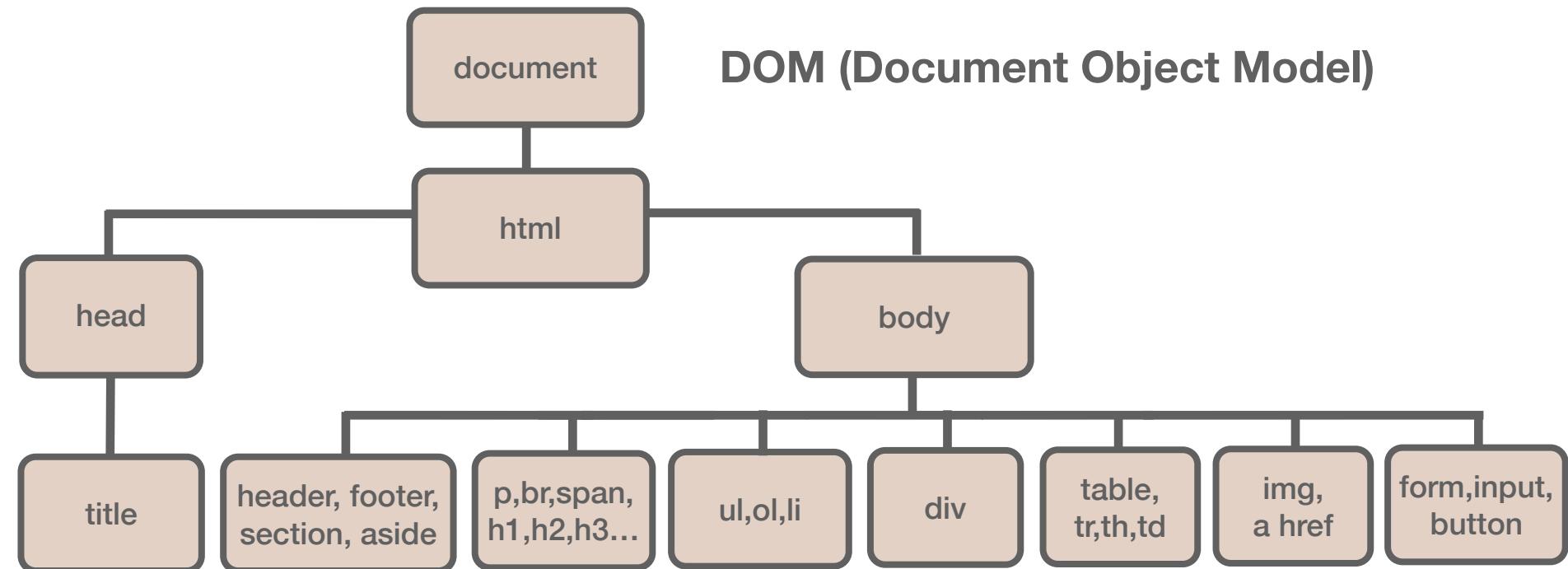
- apples
- oranges
- pineapples



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DOM (Document Object Model)



<https://www.runoob.com/htmldom/htmldom-tutorial.html>

Learning by Copy and Paste



HTML

CSS

JAVASCRIPT

SQL

PYTHON

JAVA

PHP

BOOTSTRAP

HOW TO

W3.CSS

C

C++

C#

REACT

R

JQUERY

DJANGO



HTML Tutorial

[HTML HOME](#)[HTML Introduction](#)[HTML Editors](#)[HTML Basic](#)[HTML Elements](#)[HTML Attributes](#)[HTML Headings](#)[HTML Paragraphs](#)[HTML Styles](#)[HTML Formatting](#)[HTML Quotations](#)[HTML Comments](#)[HTML Colors](#)[HTML CSS](#)[HTML Links](#)[HTML Images](#)[HTML Favicon](#)[HTML Tables](#)[HTML Lists](#)[HTML Block & Inline](#)[HTML Classes](#)[HTML Id](#)[HTML Iframes](#)[HTML JavaScript](#)

HTML Tutorial

[Home](#)[Next](#)

HTML is the standard markup language for Web pages.

With HTML you can create your own Website.

HTML is easy to learn - You will enjoy it!

[Study our free HTML Tutorial »](#)**NEW**[Watch our Video Tutorial »](#)

Easy Learning with HTML "Try it Yourself"

<https://www.w3schools.com/html/>

The **Grammar** of HTML Elements

- Start with `<>` tag (e.g. `<p>`).
- End with `</>` tag (e.g. `</p>`).
- Element content is everything between the start and end tags.
- Some elements have empty content and no end tag (e.g. `
`).
- Most elements have attributes.

What does CSS stand for?

(C)ascading (S)tyle (S)heet

CSS Demonstration:

https://www.w3schools.com/css/css_intro.asp

CSS Demo - One HTML Page - Multiple Styles!

Here we will show one HTML page displayed with four different stylesheets. Click on the "Stylesheet 1", "Stylesheet 2", "Stylesheet 3", "Stylesheet 4" links below to see the different styles:

The screenshot shows a web page with the following structure:

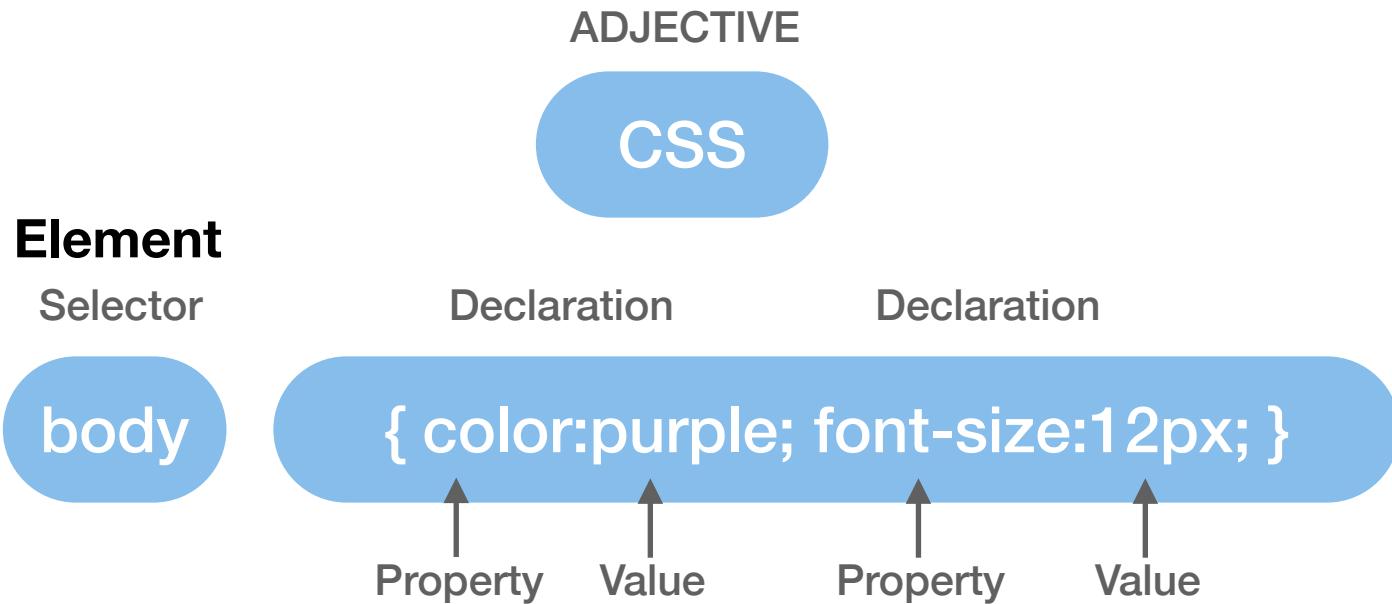
- Header:** A green header bar containing the text "Welcome to My Homepage" in white and "Use the menu to select different Stylesheets" in a smaller font.
- Sidebar:** A vertical sidebar on the left side with a light gray background. It contains a menu titled "Stylesheet 1" with five options: "Stylesheet 2", "Stylesheet 3", "Stylesheet 4", and "No Stylesheet".
- Main Content:** The main content area has a white background. It features large, bold, black text that reads "Same Page Different Stylesheets". Below this, there is a block of text explaining the demonstration: "This is a demonstration of how different stylesheets can change the layout of your HTML page. You can change the layout of this page by selecting different stylesheets in the menu, or by selecting one of the following links: [Stylesheet1](#), [Stylesheet2](#), [Stylesheet3](#)".

MOST IMPORTANT LESSON TO REMEMBER IN CSS:

To **style** a HTML element, you need to have a way to access it. In CSS, this is done through the **SELECTOR**.

There are two types of selector: **Element** and **Custom**. The **CUSTOM** selectors are further divided into **CLASS** and **ID**. CUSTOM selectors let you **define** the names for referencing them.

Once an element is selected, it can be styled by changing the **values** of its **properties**.



Custom (e.g. **class** or **id**)
Selector

ADJECTIVE

CSS

Declaration

Declaration

.box

#nav

{ color:blue; font-size:12px; }

class

id

Property

Value

Property

Value

**Inspecting CSS codes through the Chrome
inspector.**

Welcome to My Page!

My Favourite Fruits

- apples
- oranges
- pineapples



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Back
Forward
Reload

Save As...
Print...
Cast...
Search Images with Google

Create QR code for this page

Translate to English

View Page Source

Inspect

Welcome to My Page!

My Favourite Fruits

- apples
- oranges
- pineapples



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[This is the link to CUHK's website.](http://www.cuhk.edu.hk)

The screenshot shows a browser developer tools interface with the "Elements" tab selected. The code pane displays the following HTML structure:

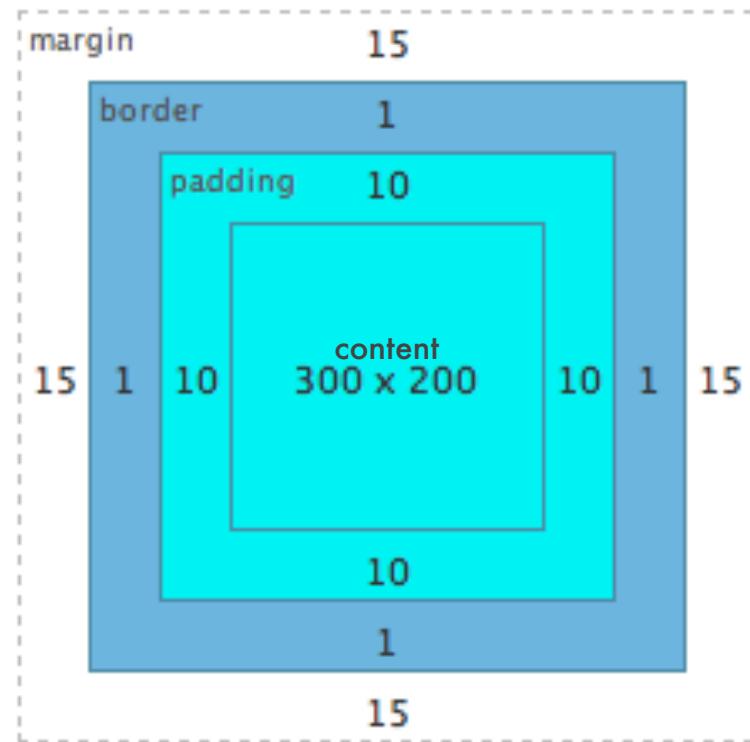
```
<!DOCTYPE html>
...<html> == $0
  ><head>...</head>
  ><body cz-shortcut-listen="true">
    <h1>Welcome to My Page!</h1>
    ><p>...</p>
    ><ul>...</ul>
    
    <a href=""www.cuhk.edu.hk"">This is the link to CUHK's website</a>
    " .
    <!-- Code injected by live-server -->
    ><script>...</script>
  </body>
</html>
```

The "html" tab is selected in the styles pane, showing the visual representation of the page structure. A specific element, likely the header or main content area, is highlighted with a dashed orange border. Inside this highlighted area, the following CSS properties are listed:

- margin -
- border -
- padding -
- 812x297.875 -
-
-

Understanding the Box model

The Box Model



**Understanding the Box model display
property using the <DIV> tag.**

```
.box {  
    display:block;  
    border-style: solid;  
    width: 7%;  
}
```

The following is a DIV box.

I am a box.

```
<b>The following is a DIV box.</b>  
<div class="box">I am a box.</div>
```

```
comment /* ... */  
  
.box {  
    /* display:block */  
    display:inline;  
    border-style: solid;  
    width: 7%;  
}
```

width property disabled.

The following is a DIV box.

I am a box.

```
<b>The following is a DIV box.</b>  
<div class="box">I am a box.</div>
```

```
.box {  
display:inline-block;  
border-style: solid;  
width: 7%;  
}
```

width property enabled.

The following is a DIV box.

I am a box.

The following is a DIV box.
<div class="box">I am a box.</div>

```
.box {  
    display:none;  
    border-style: solid;  
    width: 7%;  
}
```

The following is a DIV box.

The following is a DIV box.
<div class="box">I am a box.</div>

Summary of box model **display properties.**

- **Inline**
- **Block**
- **Inline-block**
- **Grid (will discuss about this later)**
- **Flex (will discuss about this later)**
- **None**

**Targeting HTML elements for styling
through selectors.**

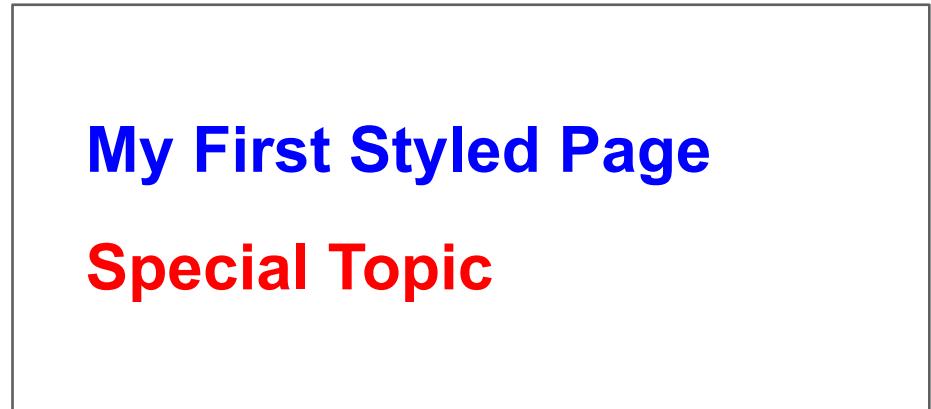
1. **Combination** of selectors for choosing styling target.
 - 1.1 **Multiple** selectors for choosing target.
 - 1.2 **Parent-child** selector hierarchy for choosing target.
 - 1.3 **Same styles** for different targets.
2. Apply **multiple classes** to target.

1.1 Multiple selectors combined to choose element to be styled (**no space in between**).

```
h1.first_page {  
    color: blue;  
}
```

```
h1.first_page#special {  
    color: red;  
}
```

```
.....  
<h1 class="first_page">My First Styled Page</h1>  
.....  
<h1 class="first_page" id="special">Special Topic</h1>
```



1.2 Parent-child selector hierarchy for choosing target (space between).

```
.rundown .morning h1 {  
    color: gold;  
}  
.....  
<div class="rundown">  
    <div class="morning">  
        <h1>Day 1</h1>  
        1. 9:30-10:30am Introduction<br>  
        2. 10:30-11:30am HTML Elements<br>  
        3. 11:30-12:30pm The DOM<br>  
    </div>  
</div>
```

Day 1

1. 9:30-10:30am Introduction
2. 10:30-11:30am HTML Elements
3. 11:30-12:30pm The DOM

1.3 Same styles for different targets (**separated with comma**)

```
.levels, .values {  
    font-size:20px;  
    color:olive;  
}
```

Difficulty Level of CSS

1. High
2. Medium
3. Low

Values of Learning CSS

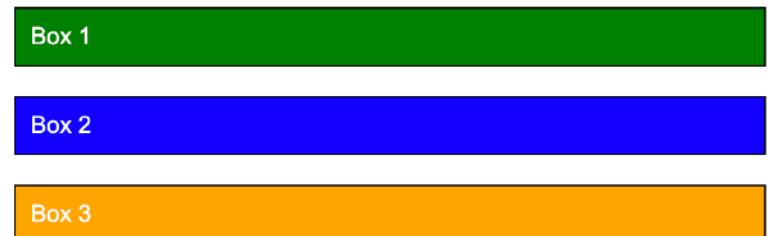
- Make web publishing fun.
- Create appealing content.
- Support easy reading.

```
<h1>Difficulty Level of CSS</h1>  
<ol class="levels">  
    <li>High</li>  
    <li>Medium</li>  
    <li>Low</li>  
</ol>  
<h1>Values of Learning CSS</h1>  
<ul class="values">  
    <li>Make web publishing fun.</li>  
    <li>Create appealing content.</li>  
    <li>Support easy reading.</li>  
</ul>
```

2. Apply Multiple Classes to Target

```
.box {  
    padding: 10px;  
    border-style: solid;  
    border-width: 1px;  
    border-color: black;  
    width: 30%;  
    margin: 20px 0px 2px 0px;  
}  
  
.box-1 {  
    background-color: green;  
    color: white;  
}  
  
.box-2 {  
    background-color: blue;  
    color: white;  
}  
  
.box-3 {  
    background-color: orange;  
    color: white;  
}
```

```
<div class='box box-1'>  
    Box 1  
</div>  
<div class='box box-2'>  
    Box 2  
</div>  
<div class='box box-3'>  
    Box 3  
</div>
```



Create navigation bar using CSS.

```
<nav>
  <ul>
    <li><a href="#">Work</a></li>
    <li><a href="#">About</a></li>
    <li><a href="#">Resume</a></li>
    <li><a href="#">Blog</a></li>
  </ul>
</nav>
```

- [Work](#)
- [About](#)
- [Resume](#)
- [Blog](#)

- [Work](#)
- [About](#)
- [Resume](#)
- [Blog](#)

```
<nav>
  <ul>
    <li><a href="#">Work</a></li>
    <li><a href="#">About</a></li>
    <li><a href="#">Resume</a></li>
    <li><a href="#">Blog</a></li>
  </ul>
</nav>
```

```
nav ul {  
    list-style-type: none;  
    margin: 0;  
    padding: 0;  
}
```

Work
About
Resume
Blog

```
<nav>  
    <ul>  
        <li><a href="#">Work</a></li>  
        <li><a href="#">About</a></li>  
        <li><a href="#">Resume</a></li>  
        <li><a href="#">Blog</a></li>  
    </ul>  
</nav>
```

```
nav ul {  
    list-style-type: none;  
    margin: 0;  
    padding: 0;  
    display:flex;  
    flex-direction: row;  
}
```

[Work](#)[About](#)[Resume](#)[Blog](#)

```
<nav>  
    <ul>  
        <li><a href="#">Work</a></li>  
        <li><a href="#">About</a></li>  
        <li><a href="#">Resume</a></li>  
        <li><a href="#">Blog</a></li>  
    </ul>  
</nav>
```

```
nav ul {  
    list-style-type: none;  
    margin: 0;  
    padding: 0;  
    display:flex;  
    flex-direction: row;  
}
```

```
nav ul li a {  
    color: #555;  
    padding: 10px;  
    background-color: #F5ECCE;  
    text-decoration: none;  
}
```



```
<nav>  
    <ul>  
        <li><a href="#">Work</a></li>  
        <li><a href="#">About</a></li>  
        <li><a href="#">Resume</a></li>  
        <li><a href="#">Blog</a></li>  
    </ul>  
</nav>
```

```
nav ul {  
    list-style-type: none;  
    margin: 0;  
    padding: 0;  
    display:flex;  
    flex-direction: row;  
  
}  
  
nav ul li a {
```

```
    color: #555;  
    padding: 10px;  
    background-color: #F5ECCE;  
    text-decoration: none;  
}
```

```
nav ul li a:hover {  
    background-color: #555;  
    color: #F5ECCE;  
}
```

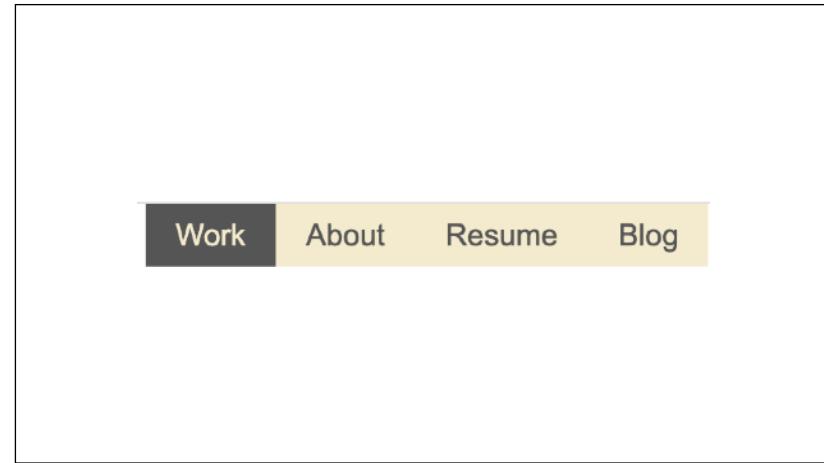


```
<nav>  
    <ul>  
        <li><a href="#">Work</a></li>  
        <li><a href="#">About</a></li>  
        <li><a href="#">Resume</a></li>  
        <li><a href="#">Blog</a></li>  
    </ul>  
</nav>
```

```
nav ul {  
    list-style-type: none;  
    margin: 0;  
    padding: 0;  
    display:flex;  
    flex-direction: row;  
    justify-content:center;  
}  
  
nav ul li a {
```

```
    color: #555;  
    padding: 10px;  
    background-color: #F5ECCE;  
    text-decoration: none;  
}
```

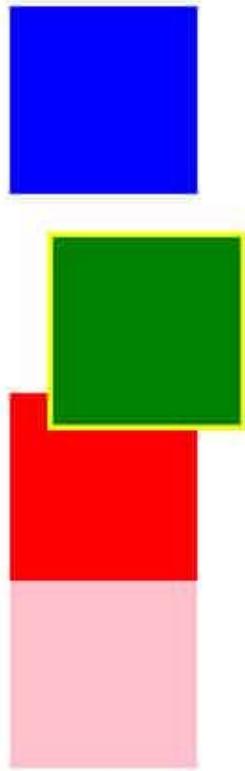
```
nav ul li a:hover {  
    background-color: #555;  
    color: #F5ECCE;  
}
```



```
<nav>  
    <ul>  
        <li><a href="#">Work</a></li>  
        <li><a href="#">About</a></li>  
        <li><a href="#">Resume</a></li>  
        <li><a href="#">Blog</a></li>  
    </ul>  
</nav>
```

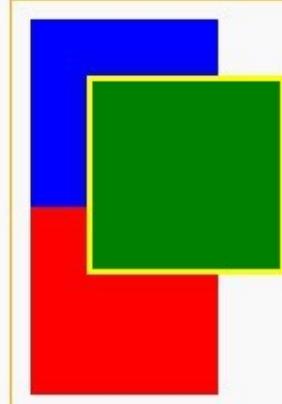
4 ways of positioning display box.

- **Static** - default position of a box following the normal document flow (not affected by top, left, right, bottom pos.)
- **Fixed** - it always stay on the same location as defined by the positions (top and left or bottom or right) even the page is scrolled. Unlike absolute, its parent is the viewport.
- **Relative** - relative when used with top and left position pair or bottom and right position pair will allow the object box to be moved to a new location relative to its current position (not container).
- **Absolute** - take the positioning out of the document flow and place it at a location (top and left position) as defined in relationship to its containing (or parent) element (context). The container/parent should be set to relative.



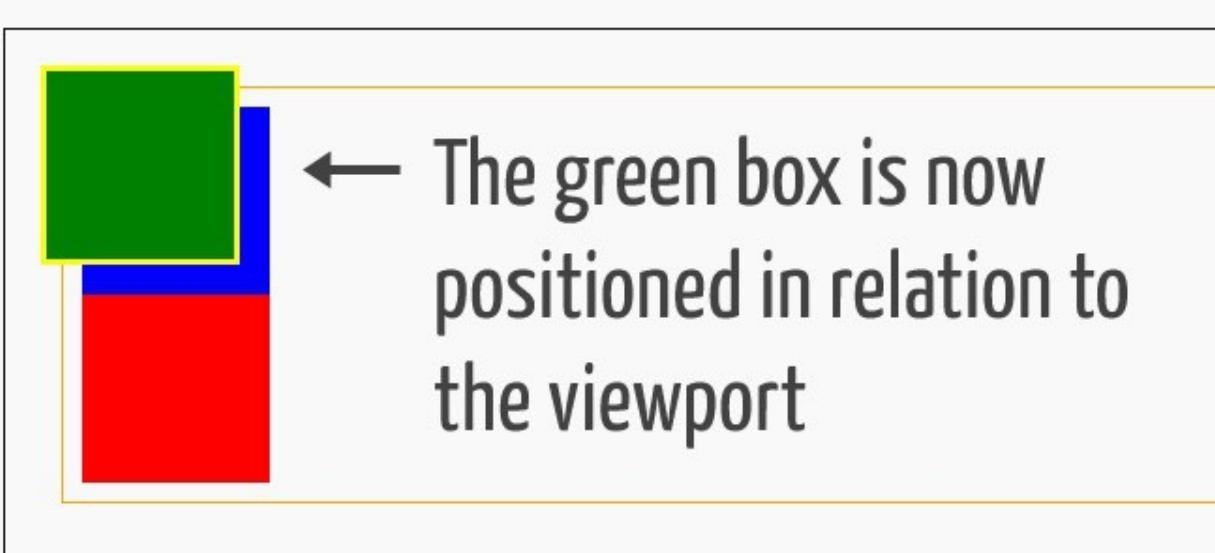
The second box is set to “position: relative” and is offset using top and left values.

Source: CSS Positioning: A Comprehensive Look
(<http://blog.teamtreehouse.com/css-positioning>)



The second box is set to “position: absolute” and is offset in relation to the “.container” element

Source: CSS Positioning: A Comprehensive Look
(<http://blog.teamtreehouse.com/css-positioning>)



Source: CSS Positioning: A Comprehensive Look
(<http://blog.teamtreehouse.com/css-positioning>)

- [Work](#)
- [About](#)
- [Resume](#)
- [Blog](#)

Box 1
Box 2
Box 3

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Fusce feugiat rutrum libero vitae vulputate. Morbi convallis ornare metus vel lacinia. Sed in dolor magna. Nullam euismod venenatis convallis. Suspendisse potenti. Curabitur dignissim mauris nisi, vel consectetur turpis lobortis nec. Maecenas lobortis et mi dapibus faucibus. Suspendisse ipsum nisi, scelerisque ornare fringilla vel, auctor sit amet magna. Mauris nisi lectus, interdum cursus auctor ut, tincidunt sit amet magna. Integer sed enim non purus laoreet porttitor vitae eu neque. Praesent ut augue sed nisl sodales aliquet dignissim sed nisi. Quisque volutpat urna vitae porta ultricies. Phasellus mattis blandit augue ac finibus.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Fusce feugiat rutrum libero vitae vulputate. Morbi convallis ornare metus vel lacinia. Sed in dolor magna. Nullam euismod venenatis convallis. Suspendisse potenti. Curabitur dignissim mauris nisi, vel consectetur turpis lobortis nec. Maecenas lobortis et mi dapibus faucibus. Suspendisse ipsum nisi, scelerisque ornare fringilla vel, auctor sit amet magna. Mauris nisi lectus, interdum cursus auctor ut, tincidunt sit amet magna. Integer sed enim non purus laoreet porttitor vitae eu neque. Praesent ut augue sed nisl sodales aliquet dignissim sed nisi. Quisque volutpat urna vitae porta ultricies. Phasellus mattis blandit augue ac finibus.

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html05.html:49

... **div.box.box-1** == \$0

.box-1 {
background-color: green;
color: white;
position: static;
left: 200px; i
top: 50px; i
}
div {
display: block;
}

Elements Console Sources Performance insights Network Performance Memory >

x 113 1 settings close

<!DOCTYPE html>
<html lang="en">
 <head>...</head>
 <body cz-shortcut-listen="true">
 <div class="container">
 <nav>...</nav>
 <div class="box box-1">...</div> == \$0
 <div class="box box-2">...</div>
 <div class="box box-3">...</div>
 <p>...</p>
 <p>...</p>
 <p>...</p>
 <n> </n>
 </div>
 </body>
</html>

html body div.container div.box.box-1

3 places where style is defined + cascading Rule

- **Inline style definition (Highest priority)**
- **Internal style definition (Middle priority)**
- **External style definition (Lowest priority)**
- **Style defined last has priority over style defined earlier**

The Grammar of CSS

- Styles define how to display HTML elements
- Each style description is made up of a Selector and Declaration
- Selector defines which HTML element should be used for display and the declaration defines how
- Each declaration contains properties and values
- There are base and custom selectors (ID and CLASS are custom selectors)
- Style definition can be placed inline, in the head section or in an external file (e.g. `style.css`)

HTML Colors

[Picker](#)[Convert](#) ▾[Chart](#)[Names](#) ▾[Library](#)[Tutorials](#)[Resources](#)[Font Generator](#)

HTML COLOR CODES



Get HTML color codes, Hex color codes, RGB and HSL values with our color picker, color chart and HTML color names. Let's go!

Ad removed. [Details](#)

HEX **#CDF7F3** RGB **205, 247, 243** HSL **174, 17%, 89%**

HELPFUL TIPS

- Picking
- Saving
- Exporting

CDF7F3
R **205**
G **247**
B **243**
H **174**

<https://htmlcolorcodes.com/>

Standard Font Families

- **Serif** (Times New Roman, Garamond, Georgia, etc.)
- **Sans-serif** (Arial, Helvetica, Verdana, etc.)
- **Cursive** (Comic Sans MS, Adobe Poetica, etc.)
- **Fantasy** (Cottonwood, Critter, etc.)
- **Monospace** (Courier New, Monaco, etc.)

Google Font Families

fonts.google.com

Search fonts Sentence Type something 40px Update

認，乃是世界自由、正義與和平的基礎

Lato Łukasz Dziedzic 10 styles Whereas recognition of the inherent dignity

Poppins Indian Type Foundry, Jonny Pinhorn 18 styles Whereas recognition of the inherent dignity

Fuzzy Bubbles Robert Leuschke 2 styles Whereas recognition of the inherent dignity

Roboto Condensed Christian Robertson 6 styles Whereas recognition of the inherent dignity

Source Sans Pro Paul D. Hunt 12 styles Whereas recognition of the inherent dignity

Noto Serif Gujarati Google Variable કેમ કે માનવકુટુંબના દરેક સત્યની પરંપરાપ્રામ પ્રતિષ્ઠાને અને

Oswald Variable Whereas recognition of the inherent dignity

Roboto Mono Variable Whereas recognition of the inherent dignity

Noto Sans 18 styles Whereas recognition of the inherent dignity

Whereas recognition of the inherent dignity

Hiç kimse keyfi olarak tutuklanamaz, alikonulanamaz veya sürülemez. Herkes, haklarının, vecibelerinin veya kendisine karşı cezai mahiyette herhangi bir isnadın tespitinde, tam bir eşitlikle, davasının bağımsız ve tarafsız bir mahkeme tarafından adil bir şekilde ve açık olarak görülmemesi hakkına sahiptir. Her şahsin dinlenmeye, eğlenmeye, bilhassa çalışma müddetinin makul surette sınırlanılmasına ve muayyen devrelerde ücretli tatillere hakkı vardır.

Considerato che il riconoscimento della dignità inherente a tutti i membri della famiglia umana e dei loro diritti, uguali ed inalienabili, costituisce il fondamento della libertà, della giustizia e della pace nel mondo; Considerato che il disconoscimento e il disprezzo dei diritti umani hanno portato ad atti di barbarie che offendono la coscienza dell'umanità, e che l'avvento di un mondo in cui gli esseri umani godano della libertà di parola e di credo e della libertà dal timore e dal bisogno è stato proclamato come la più alta aspirazione dell'uomo; Considerato che è indispensabile promuovere lo sviluppo di rapporti amichevoli tra le Nazioni;

3 styles

Remove all styles

Regular 400

Remove

Regular 400

Remove

Regular 400

Remove

You can now share your selected families with others.

Dismiss

Fuzzy Bubbles

Regular 400

[Add more styles](#) [Remove all](#)

Use on the web

To embed a font, copy the code into the <head> of your html

 <link> @import

```
<link rel="preconnect" href="https://fonts.googleapis.com">
<link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
<link href="https://fonts.googleapis.com/css2?family=Fuzzy+Bubbles&display=swap" rel="stylesheet">
```

CSS rules to specify families

```
font-family: 'Fuzzy Bubbles', cursive;
```

Read our FAQs

Choosing type

[View all articles](#)[API docs](#)[Download all](#)

- [Work](#)
- [About](#)
- [Resume](#)
- [Blog](#)



Lorem ipsum dolor sit amet, consectetur adipiscing elit. Fusce feugiat rutrum libero vitae vulputate. Morbi convallis ornare metus vel lacinia. Sed in dolor magna. Nullam euismod venenatis convallis. Suspendisse potenti. Curabitur dignissim mauris nisi, vel consectetur turpis lobortis nec. Maecenas lobortis et mi dapibus faucibus. Suspendisse ipsum nisi, scelerisque ornare fringilla vel, auctor sit amet magna. Mauris nisi lectus, interdum cursus auctor ut, tincidunt sit amet magna. Integer sed enim non purus laoreet porttitor vitae eu neque. Praesent ut augue sed nisl sodales aliquet dignissim sed nisi. Quisque volutpat urna vitae porta ultricies. Phasellus mattis blandit augue ac finibus.

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The screenshot shows the Chrome DevTools interface. The top navigation bar includes tabs for Elements, Console, Sources, Performance insights, Network, Performance, Memory, and a status bar showing 119 errors and 1 warning. The main area displays the DOM structure under the Elements tab. A red box highlights a section of the code where several `link` tags are listed within the `<head>` section. To the right, the Styles panel shows the CSS rules for the `.box-1` class, which includes `background-color: green`, `color: white`, `position: static`, `left: 200px`, and `top: 50px`. The `div` element also has a `display: block` rule. The bottom status bar shows the path: html > body > div.container > div.box.box-1.

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <link rel="preconnect" href="https://fonts.googleapis.com">
    <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
    <link href="https://fonts.googleapis.com/css2?family=Roboto&display=swap" rel="stylesheet">
  </head>
  <style>...</style>
</html>
```

html body div.container div.box.box-1

Styles	Computed	Layout	...
Filter	:hov .cls + ↻		
element.style {			
}			
.box-1 {	html05.html:60		
background-color: green;			
color: white;			
position: static;			
left: 200px; ⓘ			
top: 50px; ⓘ			
}			
div {	user agent stylesheet		
display: block;			

Responsive Design in Web Development.

Example

VIEW PORT

```
<meta name="viewport" content="width=device-width, initial-scale=1.0, user-scalable=0">
```

Desktop

Laptop



Tablet

Mobile

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0, user-scalable=0">
<title>Workshop</title>
<!--link href="http://fonts.googleapis.com/css?family=Average|Courgette" rel='stylesheet' type='text/css'-->
<!--link href="https://fonts.googleapis.com/css?family=Open+Sans|Oswald" rel="stylesheet"-->
<link href="https://fonts.googleapis.com/css?family=Baloo+Bhaina|Baloo+Paaji|Merriweather" rel="stylesheet">
<link href="mq_demo.css" rel="stylesheet" type="text/css">
</head>
<body>
<div class="showview">
    <div class="desktop"><h1>Desktop</h1></div>
    <div class="laptop"><h1>Laptop</h1></div>
    <div class="tablet"><h1>Tablet</h1></div>
    <div class="mobile"><h1>Mobile</h1></div>
</div>
</body>
</html>
```

```
body {  
    background-color: grey; /* desktop color */  
    font-family: 'Fuzzy Bubbles', cursive;  
}
```

```
.showview {  
    display: flex;  
    align-items: center; /* centre vertically */  
    justify-content:center; /* centre horizontally */  
    height:100vh; /* height of display */  
}
```

```
.desktop {  
    display:block;  
}
```

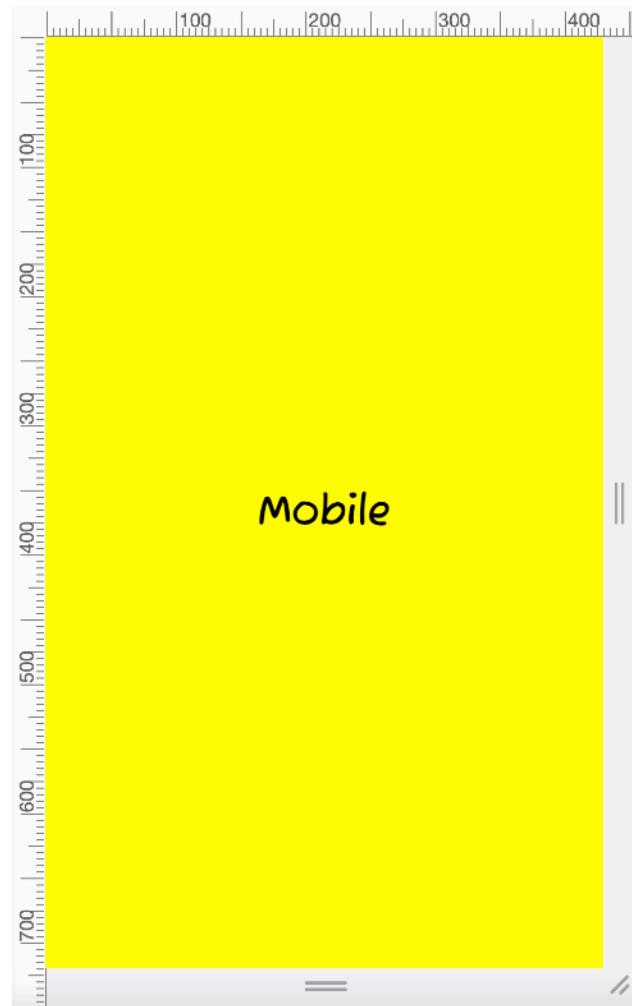
```
.laptop {  
    display:none;  
}  
.tablet {  
    display:none;  
}  
.mobile {  
    display:none;  
}
```

MEDIA QUERY + MAX/MIN WIDTH SETTING

mq_demo.css

```
@media screen and (max-width: 1280px) {  
    body {  
        background-color: red; /* laptop color */  
    }  
    .desktop {  
        display:none;  
    }  
    .laptop {  
        display:block;  
    }  
    .tablet {  
        display:none;  
    }  
    .mobile {  
        display:none;  
    }  
}  
  
@media screen and (max-width: 1024px) {  
    body {  
        background-color: orange; /* tablet color */  
    }  
    :  
}
```

```
:  
.tablet {  
    display:block;  
}  
.  
}  
@media screen and (max-width: 600px) {  
    body {  
        background-color: yellow; /* mobile color */  
    }  
.desktop {  
    display:none;  
}  
.laptop {  
    display:block;  
}  
.tablet {  
    display:none;  
}  
.mobile {  
    display:none;  
}  
}  
}
```



**Introducing Bootstrap — a responsive
web design framework.**

New in v5.2 CSS variables, responsive offcanvas, new utilities, and more!



Build fast, responsive sites with Bootstrap

Powerful, extensible, and feature-packed frontend toolkit. Build and customize with Sass, utilize prebuilt grid system and components, and bring projects to life with powerful JavaScript plugins.

\$ npm i bootstrap@5.2.2



[Read the docs](#)

Currently v5.2.2 · [Download](#) · [v4.6.x docs](#) · [All releases](#)



Couchbase Capella DBaaS: Get the power of SQL with the flexibility of JSON
ads via Carbon

<https://getbootstrap.com/>

Getting started

Introduction

Download
Contents
Browsers & devices
JavaScript
Webpack
Parcel
Vite
Accessibility
RFS
RTL
Contribute

Customize

Overview
Sass
Options
Color
Components
CSS variables
Optimize

Layout

Breakpoints
Containers
Grid
Columns
Gutters
Utilities
Z-index
CSS Grid

Get started with Bootstrap

[View on GitHub](#)

Bootstrap is a powerful, feature-packed frontend toolkit. Build anything—from prototype to production—in minutes.

Quick start

Get started by including Bootstrap's production-ready CSS and JavaScript via CDN without the need for any build steps. See it in practice with this [Bootstrap CodePen demo](#).

1. Create a new `index.html` file in your project root. Include the `<meta name="viewport">` tag as well for proper responsive behavior in mobile devices.

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <title>Bootstrap demo</title>
  </head>
  <body>
    <h1>Hello, world!</h1>
  </body>
</html>
```

2. Include Bootstrap's CSS and JS. Place the `<link>` tag in the `<head>` for our CSS, and the `<script>` tag for our JavaScript bundle (including Popper for positioning dropdowns, poppers, and tooltips) before the closing `</body>`. Learn more about our [CDN links](#).

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <title>Bootstrap demo</title>
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">
  </head>
  <body>
```

On this page

Quick start
CDN links
Next steps
JS components
Important globals
HTML5 doctype
Responsive meta tag
Box-sizing
Reboot
Community

<https://getbootstrap.com/docs/5.2/getting-started/introduction/>

Screen Layout (Composition)

Using Bootstrap

twitter-bootstrap

The most popular front-end framework for developing responsive, mobile first projects on the web.

★ 160k  GitHub  package  0 vulnerabilities

MIT licensed <http://getbootstrap.com/>

Tags: css, less, mobile-first, responsive, front-end, framework, web, twitter, bootstrap

Version **5.2.2**

Asset Type **All**

Some files are hidden, click to show all files

<https://cdnjs.cloudflare.com/ajax/libs/twitter-bootstrap/5.2.2/js/bootstrap.min.js>

<https://cdnjs.cloudflare.com/ajax/libs/twitter-bootstrap/5.2.2/css/bootstrap-grid.min.css>

<https://cdnjs.cloudflare.com/ajax/libs/twitter-bootstrap/5.2.2/css/bootstrap-grid rtl.min.css>

<https://cdnjs.cloudflare.com/ajax/libs/twitter-bootstrap/5.2.2/css/bootstrap-reboot.min.css>

<https://cdnjs.cloudflare.com/ajax/libs/twitter-bootstrap/5.2.2/css/bootstrap-reboot rtl.min.css>

Use CDN link to access remote CSS and JS libraries for Bootstrap 5.5.2.

<https://cdnjs.com/libraries/twitter-bootstrap/5.2.2>

Bootstrap Examples, Components, and Icons



Examples

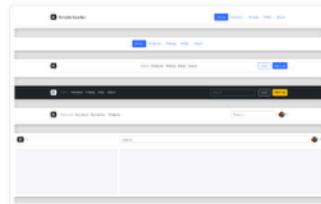
Quickly get a project started with any of our examples ranging from using parts of the framework to custom components and layouts.

[Download examples](#)[Download source code](#)

Your new development career awaits. Check out the latest listings.
ads via Carbon

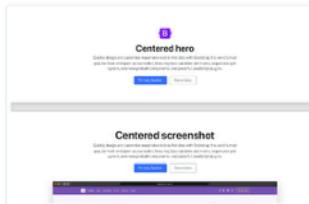
Snippets

Common patterns for building sites and apps that build on existing components and utilities with custom CSS and more.



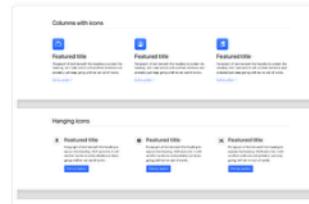
Headers

Display your branding, navigation, search, and more with these header components



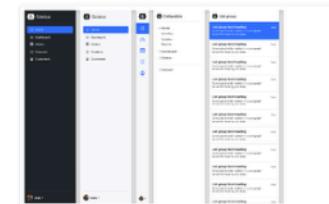
Heroes

Set the stage on your homepage with heroes that feature clear calls to action.



Features

Explain the features, benefits, or other details in your marketing content.



Sidebars

Common navigation patterns ideal for offcanvas or multi-column layouts.

Custom Components

Brand new components and templates to help folks quickly get started with Bootstrap and demonstrate best practices for adding onto the framework.



<https://getbootstrap.com/docs/5.2/examples/>



Example headline.

Some representative placeholder content for the first slide of the carousel.

[Sign up today](#)



Heading

Some representative placeholder content for the three columns of text below the carousel. This is the first column.

[View details »](#)



Heading

Another exciting bit of representative placeholder content. This time, we've moved on to the second column.

[View details »](#)



Example headline.

Some representative placeholder content for the first slide of the carousel.

[Sign up today](#)



Heading

Some representative placeholder content for the three columns of text below the carousel. This is the first column.

[View details »](#)



<https://getbootstrap.com/docs/5.2/examples/carousel/>

Accordion

[View on GitHub](#)

Build vertically collapsing accordions in combination with our Collapse JavaScript plugin.



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ads via Carbon

How it works

The accordion uses `collapse` internally to make it collapsible. To render an accordion that's expanded, add the `.open` class on the `.accordion`.

The animation effect of this component is dependent on the `prefers-reduced-motion` media query. See the [reduced motion section of our accessibility documentation](#).

Example

Click the accordions below to expand/collapse the accordion content.

Accordion Item #1



This is the first item's accordion body. It is shown by default, until the collapse plugin adds the appropriate classes that we use to style each element. These classes control the overall appearance, as well as the showing and hiding via CSS transitions. You can modify any of this with custom CSS or overriding our default variables. It's also worth noting that just about any HTML can go within the `.accordion-body`, though the transition does limit overflow.

<https://getbootstrap.com/docs/5.2/components/>

On this page

[How it works](#)
[Example](#)
[Flush](#)
[Always open](#)
[Accessibility](#)
[CSS](#)
[Variables](#)
[Sass variables](#)



Docs Examples **Icons** Themes Blog



New in v1.9.0: 140+ new icons!

Bootstrap Icons

Free, high quality, open source icon library with over 1,600 icons. Include them anyway you like—SVGs, SVG sprite, or web fonts. Use them with or without [Bootstrap](#) in any project.

\$ npm i bootstrap-icons



[Open in Figma](#)



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Currently [v1.9.1](#) • [Icons](#) • [Install](#) • [Usage](#) • [Styling](#) • [Accessibility](#) • [GitHub repo](#)

Icons

Start typing to filter...

<https://icons.getbootstrap.com/>

Popular Components

- a. Container
- b. Navbar/Navs
- c. Icons
- d. Grid/Row/Column
- e. Images
- f. Buttons/Alerts
- g. Form
- h. Panel/Wells/Jumbotron
- i. Carousel/Collapse
- j. Scrollspy/Offcanvas
- k. Table
- l. Pagination
- m. Badges/List Group/Cards
- n. Modal/Tooltip/Toast/Popover

<https://www.w3schools.com/bootstrap5/index.php>

Bootstrap 5 Tutorial

BS5 HOME

BS5 Get Started

BS5 Containers

BS5 Grid Basic

BS5 Typography

BS5 Colors

BS5 Tables

BS5 Images

BS5 Jumbotron

BS5 Alerts

BS5 Buttons

BS5 Button Groups

BS5 Badges

BS5 Progress Bars

BS5 Spinners

BS5 Pagination

BS5 List Groups

BS5 Cards

BS5 Dropdowns

BS5 Collapse

BS5 Navs

BS5 Navbar

BS5 Carousel

BS5 Modal

Cards

A card in Bootstrap 5 is a bordered box with some padding around its content. It includes options for headers, footers, content, colors, etc.



John Doe

Some example text some example text. John Doe is an architect and engineer

[See Profile](#)

https://www.w3schools.com/bootstrap5/bootstrap_cards.php

[+ GRID SYSTEM](#) [?](#)

12	drag
6 6	drag
8 4	drag
4 4 4	drag
2 6 4	drag

[+ BASE CSS](#) [?](#)
[+ COMPONENTS](#) [?](#)
[+ JAVASCRIPT](#) [?](#)

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our new
product



Hello, world!

This is a template for a simple marketing or informational website. It includes a large callout called the hero unit and three supporting pieces of content. Use it as a starting point to create something more unique.

[Learn more](#)

Using [Bootstrap 4.0.0](#)

<https://www.layoutit.com/build>

More free themes/templates.

1. <https://bootstraptaste.com/>
2. <http://blacktie.co/>

Free images.

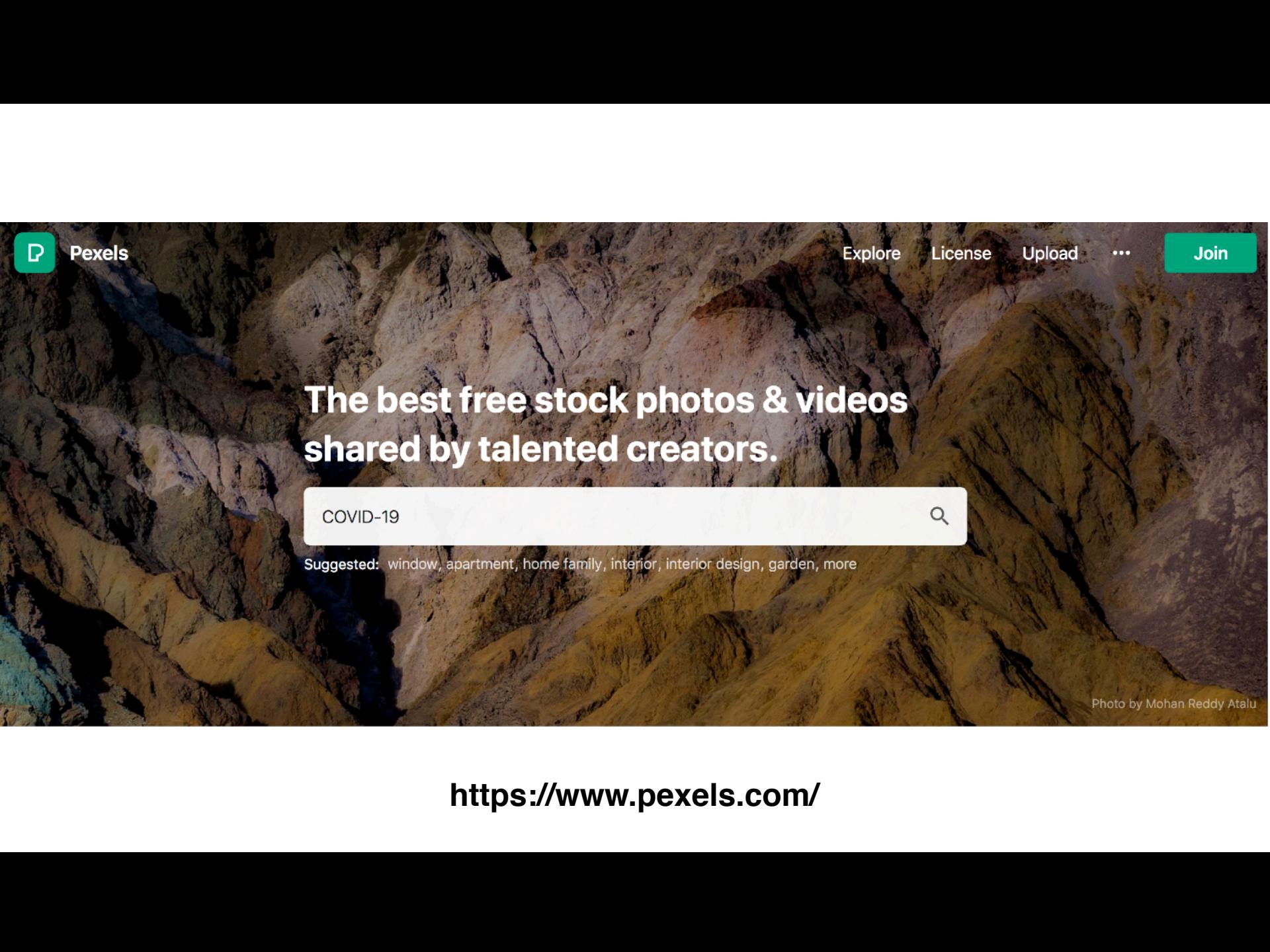
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Thank you for your time!