

Front-End Web Basic

Ground Rules

Observe the following rules to ensure a supportive, inclusive, and engaging classes



Give full attention
in class



Mute your microphone
when you're not talking



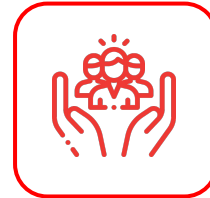
Keep your
camera on



Turn on the CC Feature
on Meet

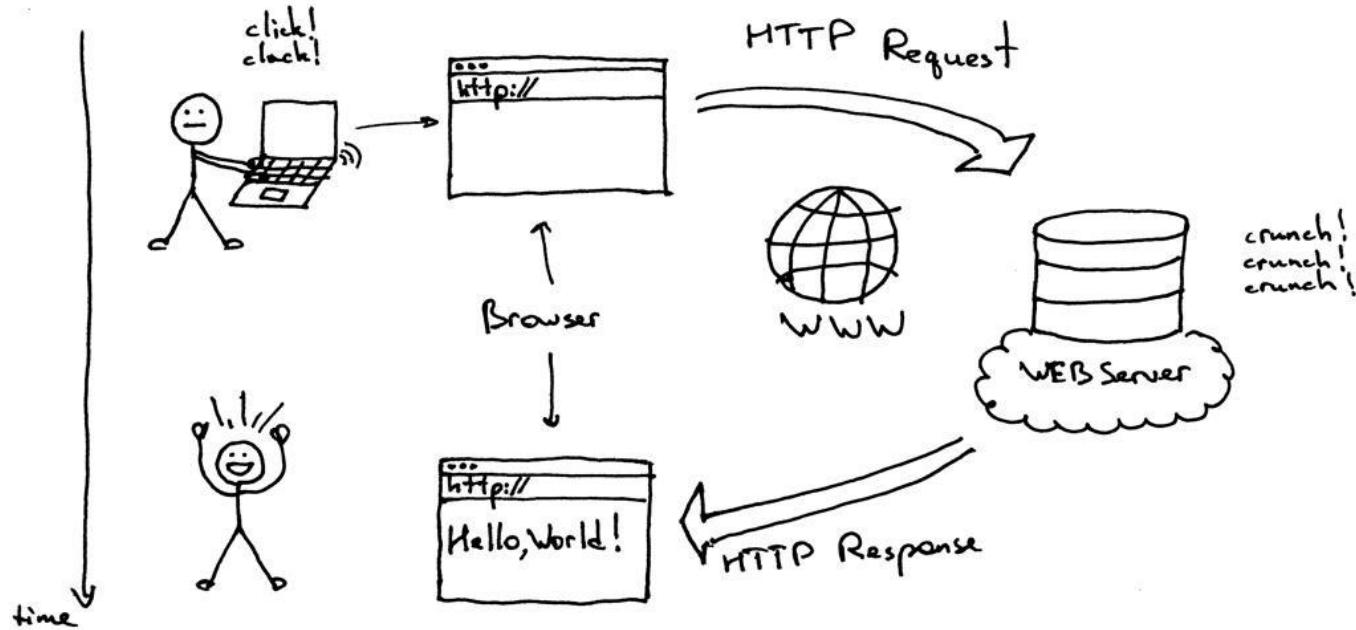


Use raise hand or chat
to ask questions



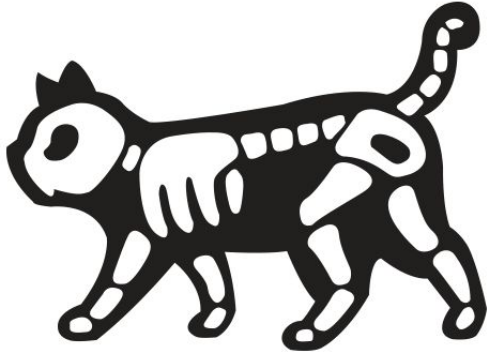
Make this room a safe place
to learn and share

How The Web Works?



The Web Anatomy

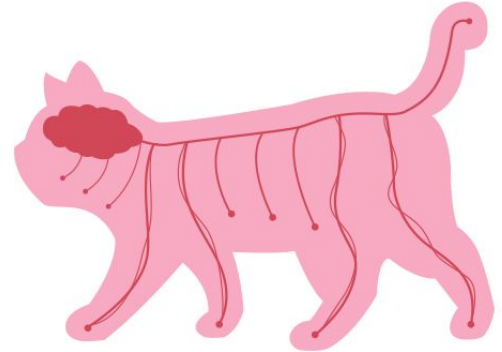
HTML
the Skeleton



CSS
the Skin



Javascript
the Brain

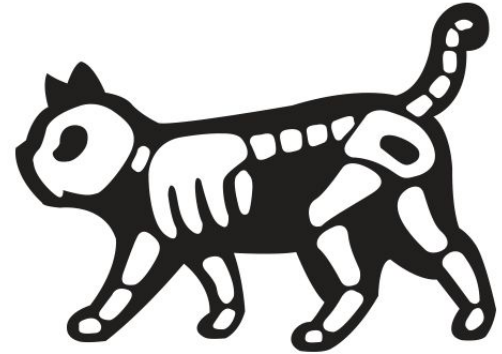




HTML

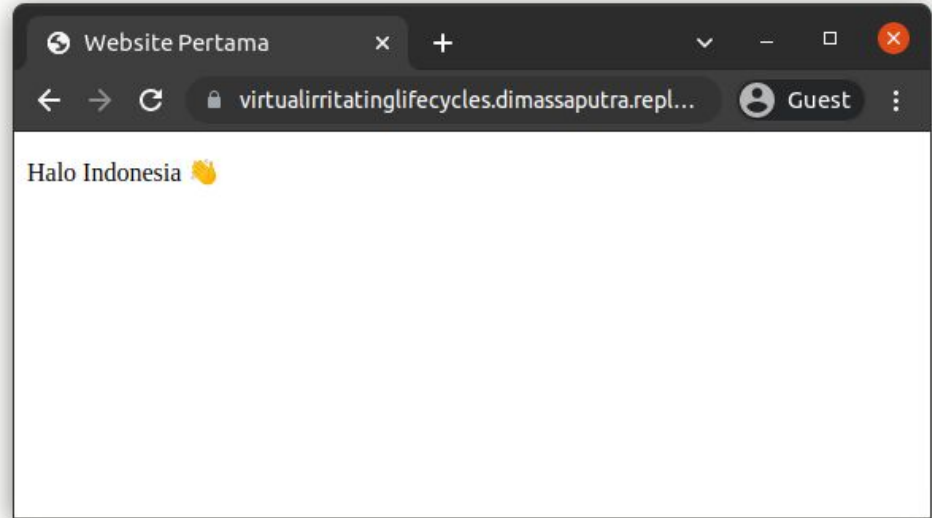
HTML

HTML (Hypertext Markup Language) is the code that is used to structure a web page and its content.^[1]



Basic **HTML Document** Structure

```
<!DOCTYPE html>
<html>
<head>
  <title>Website Pertama</title>
</head>
<body>
  <p>Halo Indonesia 🙌</p>
</body>
</html>
```



Anatomy of **HTML** Element

- Elements are represented by a tag.
- Some elements require **opening and closing** tags:

```
<h1>...</h1>
```

- Some elements **don't need a closing** tag:

```
<img>, <br>, <meta>, <link>
```

- HTML elements can have **attributes**:

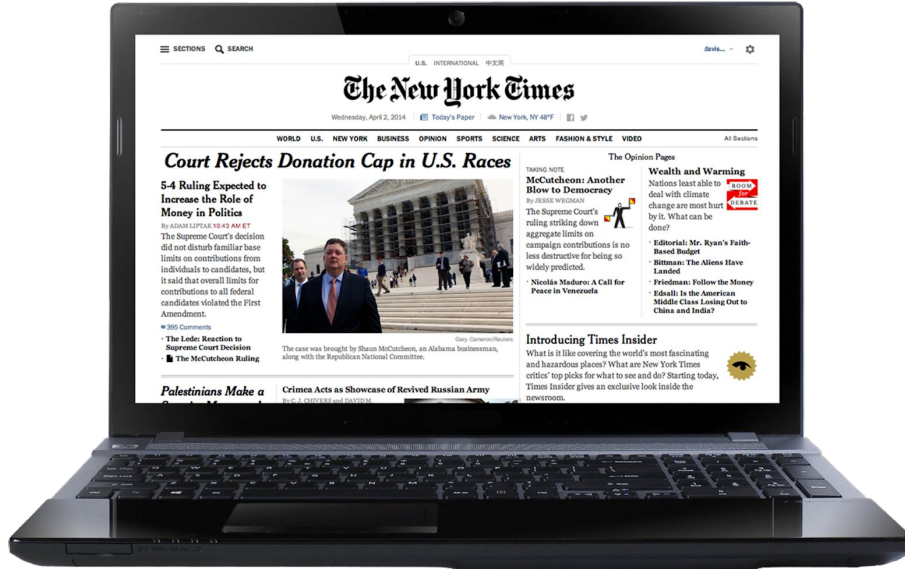
```

```

```
<footer hidden>...</footer>
```

```
<div id="article">...</div>
```


Websites Have the Same Structure as Conventional Media



Writing Semantic HTML

- Using HTML elements that represent their content.
- Why?
 - **Improving Developer Experience** -> Developer can understand the code easier.
 - **Improving search result rankings** -> It help search engines to understand structure and content of the web page. Thereby it can.
 - **Improving Accessibility** -> Makes it easy for screen readers to read parts of web pages.



CSS

CSS

CSS (Cascading Style Sheets) is the code that styles web content^[2].

Through CSS you can provide colors, adjust the layout, or change the font size so that the website looks beautiful, easy to consume.



The **CSS** Anatomy

- **Selector:** Select which element that will apply the style.
- **Declaration:** Collection of property pairs and their values.
- **Property:** The visual characteristics of the element to be changed.
- **Value:** The value of the property.

CSS ruleset

selector
h1 {
 color: green;
}

declaration block
h1 {
 color: green;
}

declaration
h1 {
 color: green;
}

property value
h1 {
 color: green;
}

CSS inline style

opening tag
<h1 style="color: green;">Halo Bandung!</h1>

attribute
<h1 style="color: green;">Halo Bandung!</h1>

declaration
<h1 style="color: green;">Halo Bandung!</h1>

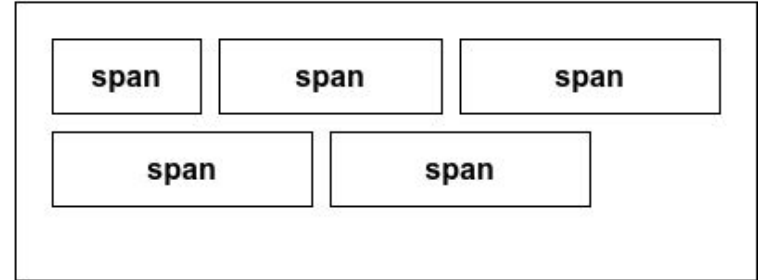
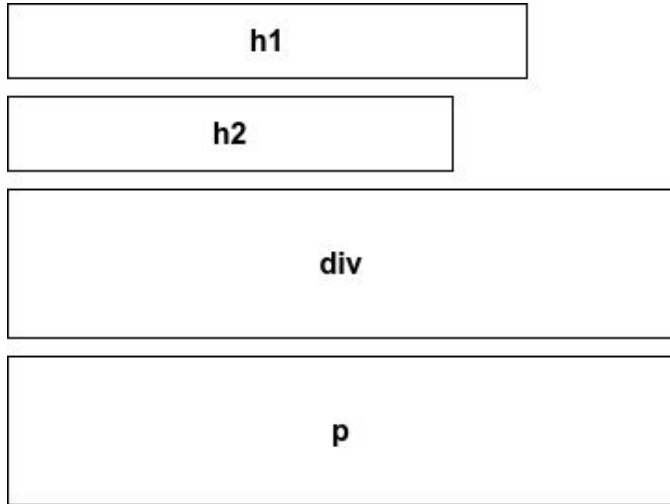
property value
<h1 style="color: green;">Halo Bandung!</h1>

Concepts in **CSS**

- Inheritance
- Group selector
- The cascade (rule order)

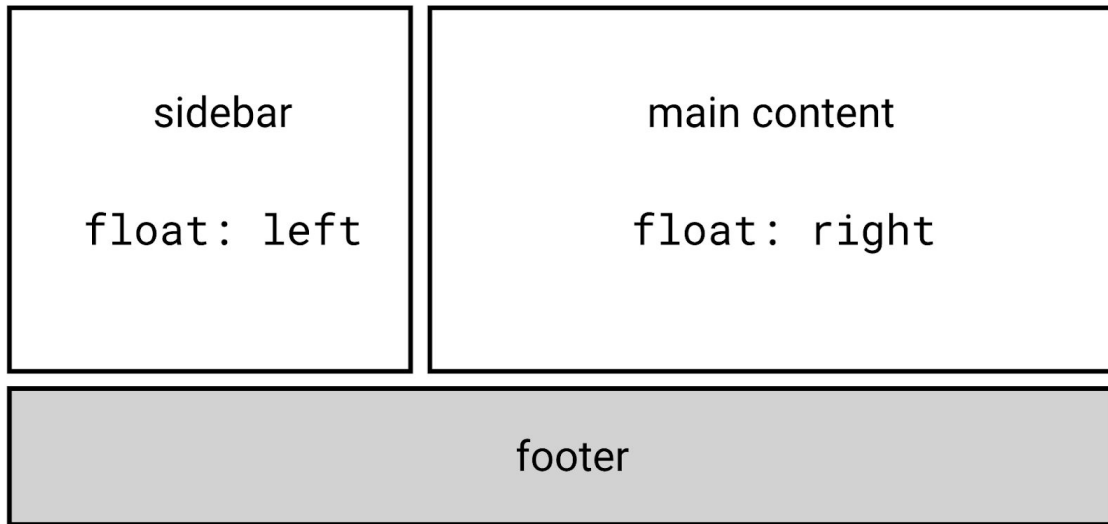
Layouting Using CSS

Block and Inline Element



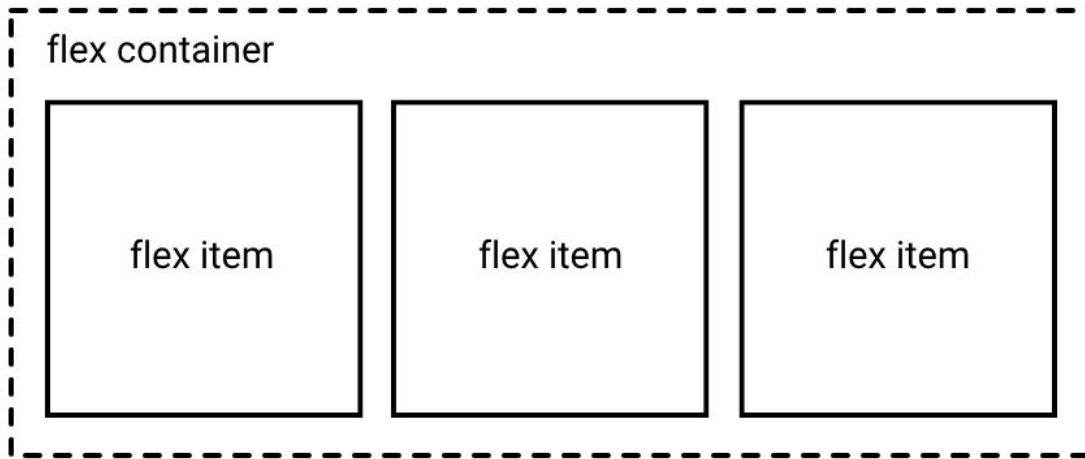
Layouting using **Float**

```
#sidebar {  
  float: left;  
}  
  
#main-content {  
  float: right;  
}  
  
#footer {  
  clear: both;  
}
```



Layouting using Flexbox

```
.flex-container {  
  display: flex;  
}
```



4 Tips to Build **Responsive Layout**

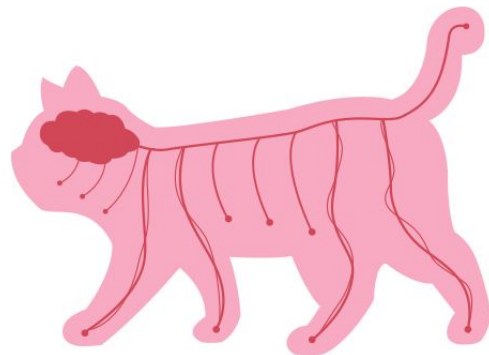
- Add **Viewport Configuration**.
- Use **Relative Units**.
- Use **Media Query**.
- Use **Mobile First Approach**.

JavaScript

JavaScript

JavaScript is a programming language that adds interactivity to your website[3].

With JavaScript, you can make interactive websites like games. You can also give events to a button or process structured data to display on the page dynamically.



The Basic You should Learn

- Variable
- Data Type
- Object
- Array
- Control Flow
- Loop
- Function

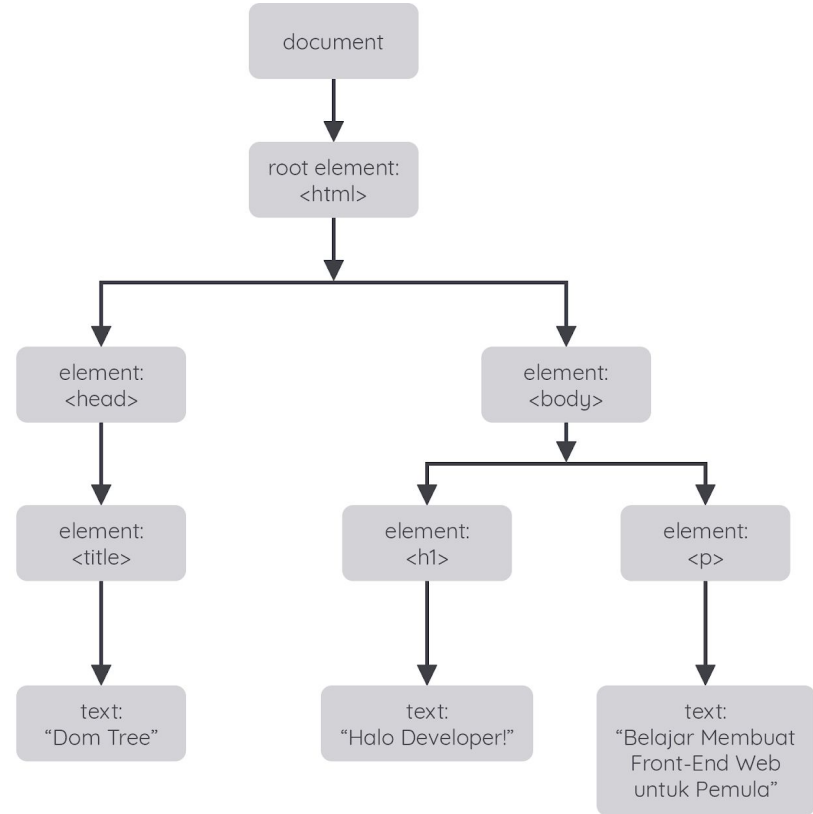
Browser Global Object (**w**indow)

Property	Description
document	Get the structure of the website page in the form of DOM.
console	Prints the value on the console.
alert	Displays a pop-up message in the browser.
localStorage	Save data on local browser storage.

See all window properties in the documentation:
<https://developer.mozilla.org/en-US/docs/Web/API/Window>

Document Object Model (DOM)

```
<!DOCTYPE html>
<html>
  <head>
    <title>DOM Tree</title>
  </head>
  <body>
    <h1>Hello Developer Front-End Web!</h1>
    <p>Belajar Membuat Front-End Web untuk
Pemula</p>
  </body>
</html>
```



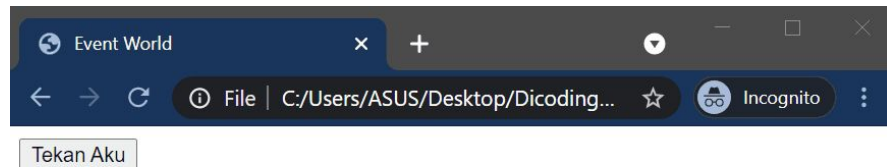
Function Property of The DOM

Function Property	Description
querySelector	Get a single element in the DOM based on the CSS selector.
querySelectorAll	Get all elements (NodeList) in the DOM based on CSS selector.
addEventListener	Adding event handlers to HTML element.
createElement	Create HTML elements.
appendChild	Adding an HTML element as a child to another HTML element.

See the whole document (DOM) properties in the documentation:
<https://developer.mozilla.org/en-US/docs/Web/API/Document>

Event in HTML Element

- Conditions that occur in HTML elements.
- Provide a *handler function* via:
 - `addEventListener`.
 - event atribut.



```
const buttonElement =  
document.querySelector('#buttonElement');  
  
buttonElement.addEventListener('click', function () {  
  alert('Halo! Apa kabar');  
});
```

Event in HTML Element

Type	Name	HTML Attribute	Description
Window	load	onload	This event will occur after the web page has finished loading and displaying.
Form	submit	onsubmit	This event will occur when the user presses the “submit” button on the form.
Keyboard	keydown	onkeydown	This event will occur when a key on the keyboard is pressed.
Clipboard	copy	oncopy	This event will occur when we copy the content of the element.
Mouse	click	onclick	This event will occur when the element is clicked/touched with the cursor/touch screen.

Sharing Session

Demo Link

<https://github.com/dicodingacademy/ilt-cloud-1-bangkit-demo>

Discussion

Quiz

Thank You

