

PICTURE



# WHAT'S CICSOFT?

CICSoft is an interest-oriented student organization fostering a collaborative environment for members to enhance their technical skills while developing applications from scratch.

Our aim is to empower students by delivering the means to build incredible apps and realize their ideas through code.



# ENVIRONMENT

## Installations

[Install VSCode](#)

[VSCode Extension : Live Server](#)

[VSCode Extension : HTML CSS](#)

# RECAP



- JavaScript
- More JavaScript
- Even More JavaScript

# FRONT END MAGIC

## — Git & Github

Git at a high level i.e. Cloud 9 ;)

How to save your files from not getting accidentally deleted. (Yes it happens).

## — HTML/CSS

Learning and understanding the concepts behind the visuals of a website.

## — Again JavaScript

Integrating JavaScript to complete your first step towards becoming a web programmer.

# Version Control

- Principle of tracking and handling changes to files
- Allows going back and forth between different versions of files
- Also known as source control, when talking about code



# Why have version control?

(You can revert errors)

- Scenario 1:
  - Built a calculator app with an error showing  $1 + 9 = 19$
  - You try to fix the app and make hundreds of changes
  - The calculator now shows  $1 + 9 = \text{“Nice phone”}$
  - What do you do?
    - 1) Delete your app and start fresh
    - 2) Go sleep and pray the app works when you wake up tomorrow
    - 3) Acknowledge your calculator provides good advice about OnePlus 9
    - 4) Use version control from the beginning



# Why have version control?

(You can collaborate concurrently)

- Scenario 2:
  - Building a really ambitious cryptocurrency trading app
  - Plan to work on it with 10 other people
  - Everyone wants to make some additions to the app
  - What do you do?
    - 1) Hire a person with a six-figure salary to manually combine your work
    - 2) Go sleep and pray everyone's work is merged when you wake up tomorrow
    - 3) Delete your team's work and just use your own
    - 4) Use version control to keep track of everyone's work



# Why have version control?

(You can backup your data)

- Scenario 3:
  - Your laptop crashed when you were saving your project
  - The source code for your project is gone/corrupted
  - What do you do?
    - 1) Be thankful because you have a reason to buy a new laptop
    - 2) Go sleep and pray the code is there when you wake up tomorrow
    - 3) Throw your laptop from the top of Coolidge along with all of your stuff
    - 4) Use version control to keep storing changes remotely



**Any questions so far?**





Source : xkcd

# Version Control System

- Tool that implements version control
- Provides commands for user to do version control tasks we saw
- A popular one:  **git**

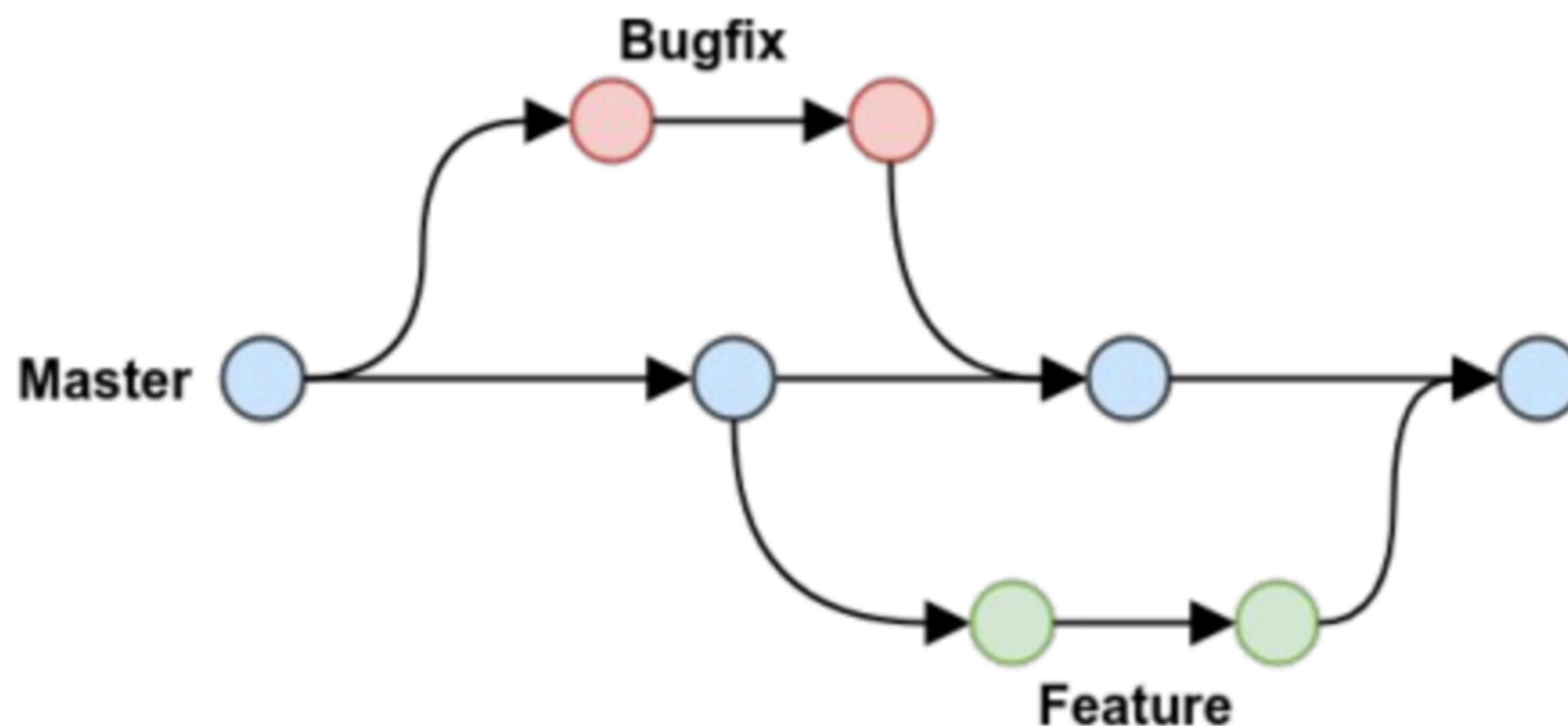




- Developed in 2005 by the creator of Linux - Linus Torvalds
- Supports faster version control, compared to other systems
- Allows for multiple 'branches' - instead of just one version, you can have many versions in development together
- Operates on a 'distributed' pattern:
  - Copy of code on your machine (local)
  - Copy of code on a server (remote)



# What do branches mean?





- Stores all the changes in the files in a directory as snapshots, similar to how backups operate
- These snapshots (metadata of changes) are stored in a folder named `.git` in your project directory
- Each small group of changes associated with a commit message
- Repositories: the project directory using git for version control (common term for directories as well)



# Installing git on your machine

- macOS: Run `git --version` and it should install on its own
- Windows: Check download from <https://git-scm.com/download/win>
- Linux: Run `sudo apt install git-all` on Terminal
- Check if it is installed: Run `git --version` on Terminal





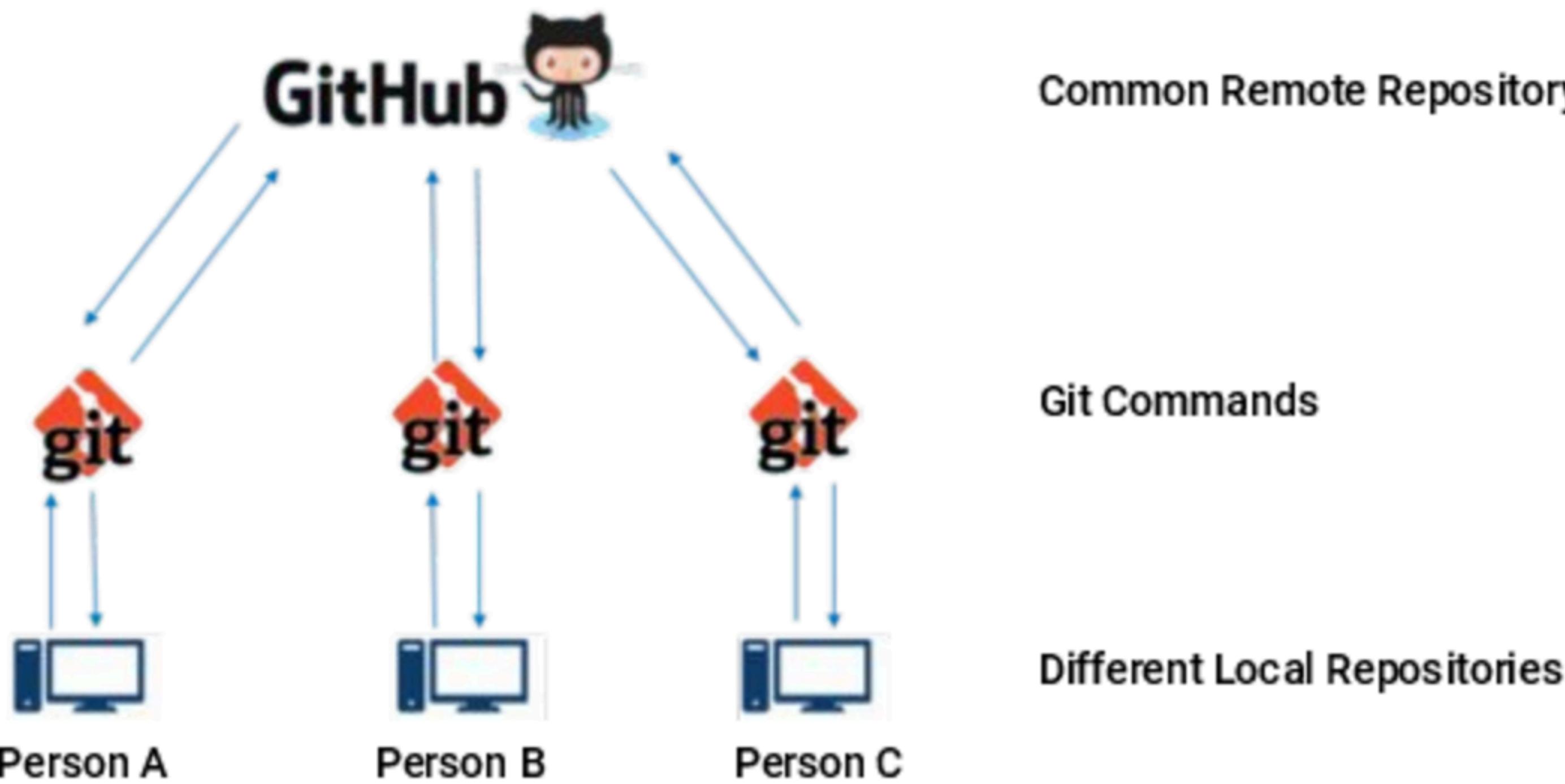
# GitHub

- Internet-hosting platform owned by Microsoft
- Provides a remote server for git repositories to be stored in
- Commonly used for open-source projects, but allows private projects
- Also provides other features like issue tracking, changelogs and documentation support





# git + GitHub



# Basic Git Workflow

- Make changes in the files in your project directory
- Stage the changes - indicate which changed portions/files you want
- Commit the staged changes - store the changes permanently in the git record



**Any questions so far?**





**Pew! That was a lot of information,  
let us get to the interesting part already:**

**Git commands to the rescue!**



<HTML>

# HTML

## What is it?

- HyperText Markup Language
- Markup Languages are symbols within text to help format/structure the text document.
- Example : HTML, XML, md files, etc.

# HTML Structure

```
<html>
```

```
  <head>
    <title>Document</title>
  </head>
```

```
  <body>
    <h1>Hello World!</h1>
  </body>
```

```
</html>
```

# HTML Tags

- `<html> </html>` : Encloses the HTML doc
- `<head> </head>` : Contains Metadata
- `<body> </body>` : Contains the Actual fun stuff

# HTML

## Tags

- <html> </html>
- <head> </head>
- <body> </body>
- <h1> </h1>, <h2> </h2> ...
- <p> </p>
- <br>
- <a href="https://google.com"> </a>
- 

# HTML

## More Tags

- w3schools

### NOTE

- HTML today is used for mainly structuring content and not for styling (We use css for that).
- For example:  
`<h1>,<h2>, etc.`  
h1 is not used for font sizes, but instead for order of importance

# HTML Websites

- Prof. Marius Minea
- CICS Prof. Marius Minea
- chess.com

# CAR WEBSITE

## Live Coding

### Ford Mustang!

Hi, I am the [Ford Mustang Shelby GT500](#).  
I was made in a factory by daddy [Ford](#).

#### Contact

Connect with a Ford representative, who's available to answer your questions about SYNC®, vehicle features, service and maintenance, warranty plans and more. We're here to help.

Chat Hours

Monday-Friday 8:30AM - 10:00PM Eastern Time  
Saturday 11:00AM - 7:00PM Eastern Time  
Sunday 11:00AM - 7:00PM Eastern Time

[Support Page](#)

#### Pros and Cons

##### Good Stuff

1. Fast
2. Good looking
3. leather seats

##### Bad Stuff

- Expensive
- Pollution

#### Would you buy the car?

Yes





# CAR WEBSITE

## Live Coding

Open VSCode :)

.css

# CSS

## What is it?

CSS is the language we use to style an HTML document.

CSS describes how HTML elements should be displayed.

-w3schools

# CSS

## Ancient Websites to now

Ancient times:

In line styling. - Less Flexibility.

Today:

CSS Files. - Clean code, efficient coding.

Like a template. Style multiple sheets at the same time.

# CSS

## Integrating CSS into HTML

[https://www.w3schools.com/html/html\\_css.asp](https://www.w3schools.com/html/html_css.asp)

# CSS

## Same page, different themes

[https://www.w3schools.com/css/css\\_intro.asp](https://www.w3schools.com/css/css_intro.asp)



# CSS

## Live Example

VSCode :)

# CSS

- So how do we stop making websites look like from the 90s?

# CSS

## Introducing Flexboxes

### Sample flexbox example

First article	Second article	Third article	Fourth article	Fifth article	Sixth article	Seventh article	Eigh
Tacos actually microdosing, pour-over semiotics banjo chicharrones retro fanny pack portland everyday carry vinyl typewriter. Tacos PBR&B pork belly, everyday carry ennui pickled sriracha normcore hashtag polaroid single-origin coffee cold-pressed. PBR&B tattooed trust fund twee, leggings salvia iPhone photo booth photo booth	Tacos actually microdosing, pour-over semiotics banjo chicharrones retro fanny pack portland everyday carry vinyl typewriter. Tacos PBR&B pork belly, everyday carry ennui pickled sriracha normcore hashtag polaroid single-origin coffee cold-pressed. PBR&B tattooed trust fund twee, leggings salvia iPhone photo booth photo booth	Tacos actually microdosing, pour-over semiotics banjo chicharrones retro fanny pack portland everyday carry vinyl typewriter. Tacos PBR&B pork belly, everyday carry ennui pickled sriracha normcore hashtag polaroid single-origin coffee cold-pressed. PBR&B tattooed trust fund twee, leggings salvia iPhone photo booth photo booth	Tacos actually microdosing, pour-over semiotics banjo chicharrones retro fanny pack portland everyday carry vinyl typewriter. Tacos PBR&B pork belly, everyday carry ennui pickled sriracha normcore hashtag polaroid single-origin coffee cold-pressed. PBR&B tattooed trust fund twee, leggings salvia iPhone photo booth photo booth	Tacos actually microdosing, pour-over semiotics banjo chicharrones retro fanny pack portland everyday carry vinyl typewriter. Tacos PBR&B pork belly, everyday carry ennui pickled sriracha normcore hashtag polaroid single-origin coffee cold-pressed. PBR&B tattooed trust fund twee, leggings salvia iPhone photo booth photo booth	Tacos actually microdosing, pour-over semiotics banjo chicharrones retro fanny pack portland everyday carry vinyl typewriter. Tacos PBR&B pork belly, everyday carry ennui pickled sriracha normcore hashtag polaroid single-origin coffee cold-pressed. PBR&B tattooed trust fund twee, leggings salvia iPhone photo booth photo booth	Tacos actually microdosing, pour-over semiotics banjo chicharrones retro fanny pack portland everyday carry vinyl typewriter. Tacos PBR&B pork belly, everyday carry ennui pickled sriracha normcore hashtag polaroid single-origin coffee cold-pressed. PBR&B tattooed trust fund twee, leggings salvia iPhone photo booth photo booth	Tacos actual microdosing, pour-over semiotics banjo chicharrones retro fanny pack portland everyday carry vinyl typewriter. Tacos PBR&B pork belly, everyday carry ennui pickled sriracha normcore hashtag polaroid single-origin coffee cold-pressed. PBR&B tattooed trust fund twee, leggings salvia iPhone photo booth photo booth

# CSS Flexboxes

Resource : [css-tricks guide to flexboxes](#)

# CSS

## Think like Flexboxes

<div>

</div>

# CSS

## Think like Flexboxes

<div>

</div>

Container!

# CSS

## Think like Flexboxes

<div>

</div>

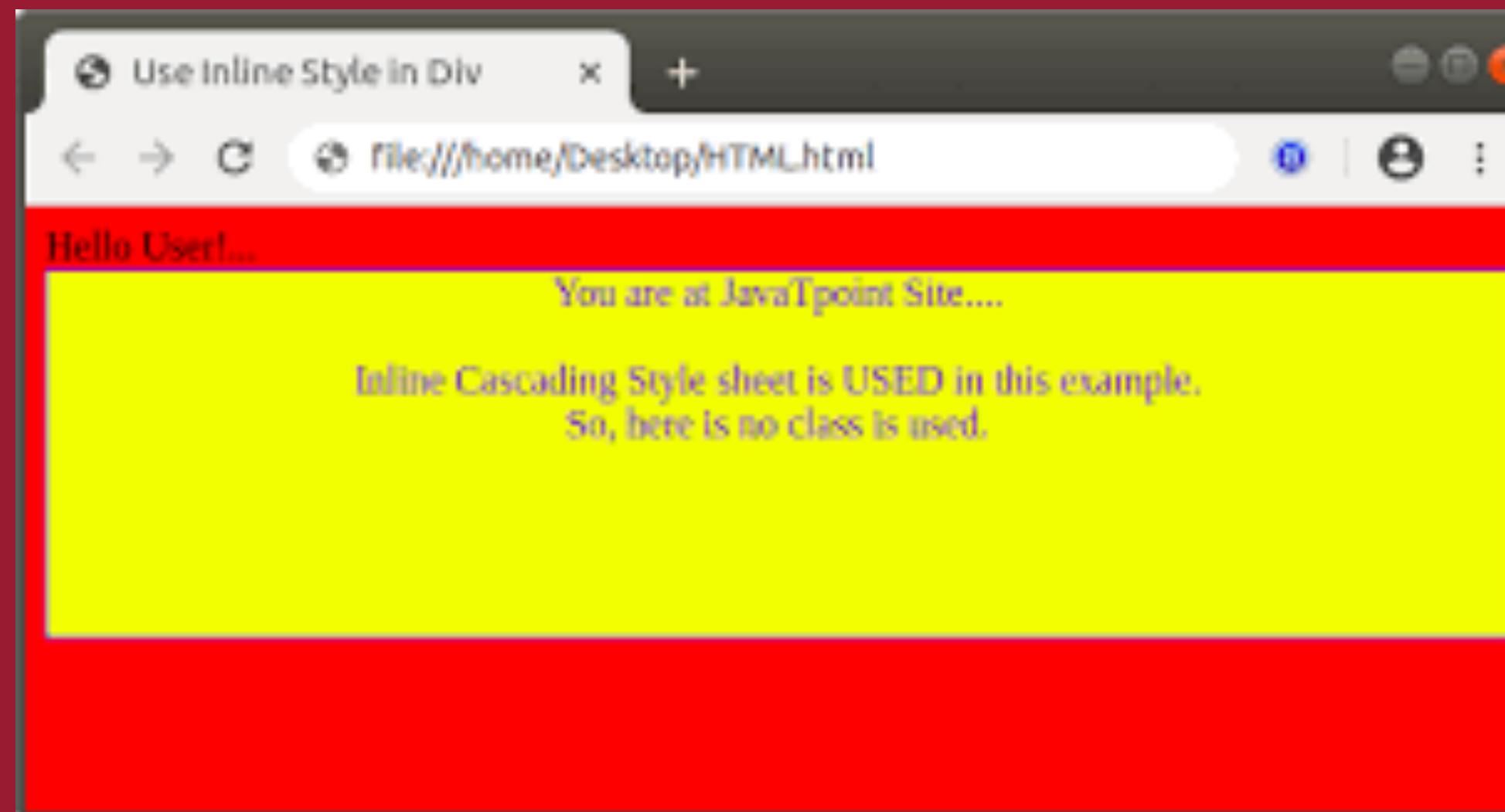
Container!



The screenshot shows a web browser window titled "The <div> Tag". The URL in the address bar is "https://www.w3docs.com". The main content of the page is titled "The <div> Tag" in large, bold, black font. Below the title, there is a green box containing text: "We use the <div> tag to group two paragraphs for applying background to the text, and to add color to this word we place it within <span> tag." At the bottom of the green box, another message reads: "Pay attention, that the <div> tag is a block-level element, so a line break is placed before and after it." The overall background of the slide is dark red.

# CSS

## Think like Flexboxes



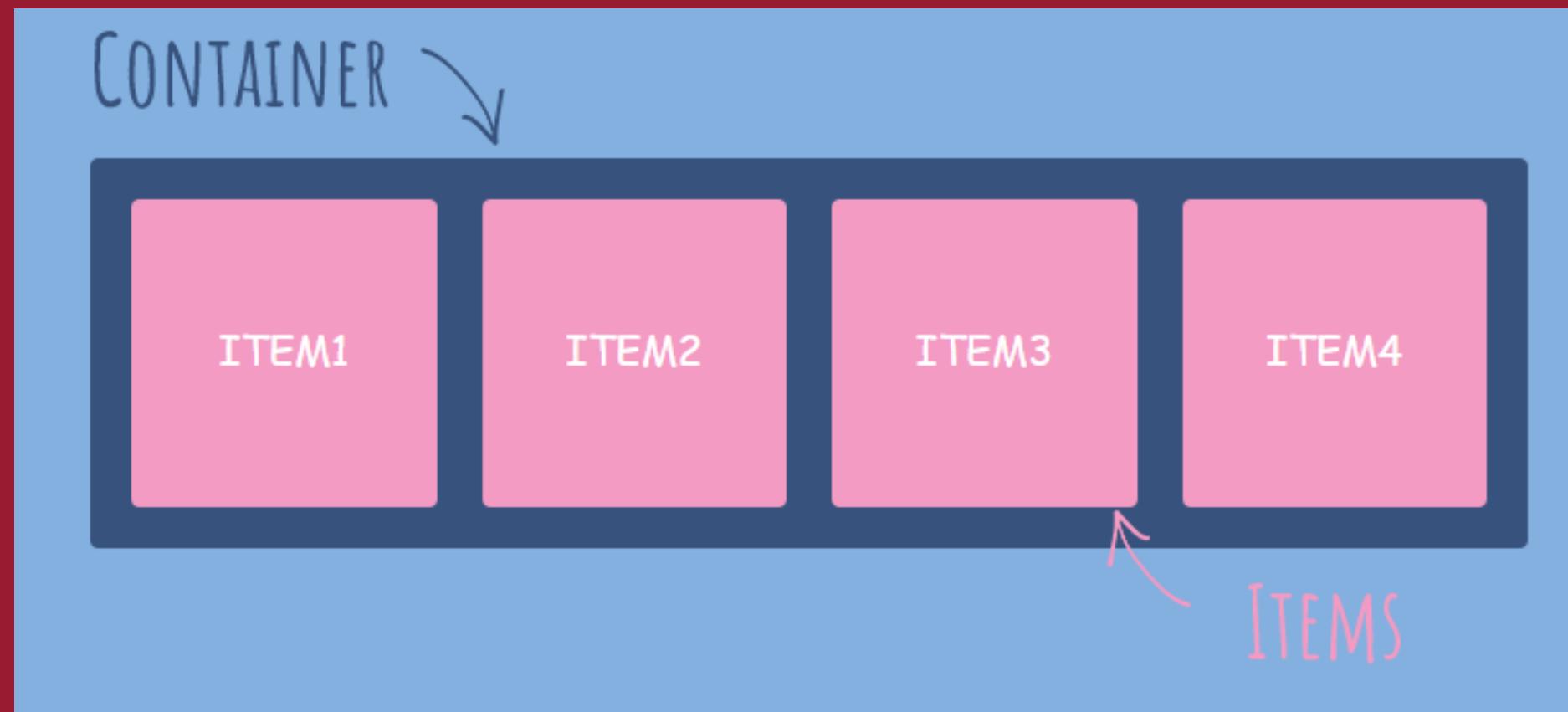
## The <div> Tag

We use the <div> tag to group two paragraphs for applying background to the text, and to add color to this word we place it within <span> tag.

Pay attention, that the <div> tag is a block-level element, so a line break is placed before and after it.

# CSS

## Think like Flexboxes



The screenshot shows a web browser window titled "The <div> Tag" with the URL "https://www.w3docs.com". The main content area displays the following text:

## The <div> Tag

We use the `<div>` tag to group two paragraphs for applying background to the text, and to add color to this word we place it within `<span>` tag.

Pay attention, that the `<div>` tag is a block-level element, so a line break is placed before and after it.

# CSS

## How do we build this?

Sample flexbox example							
First article	Second article	Third article	Fourth article	Fifth article	Sixth article	Seventh article	Eighth article
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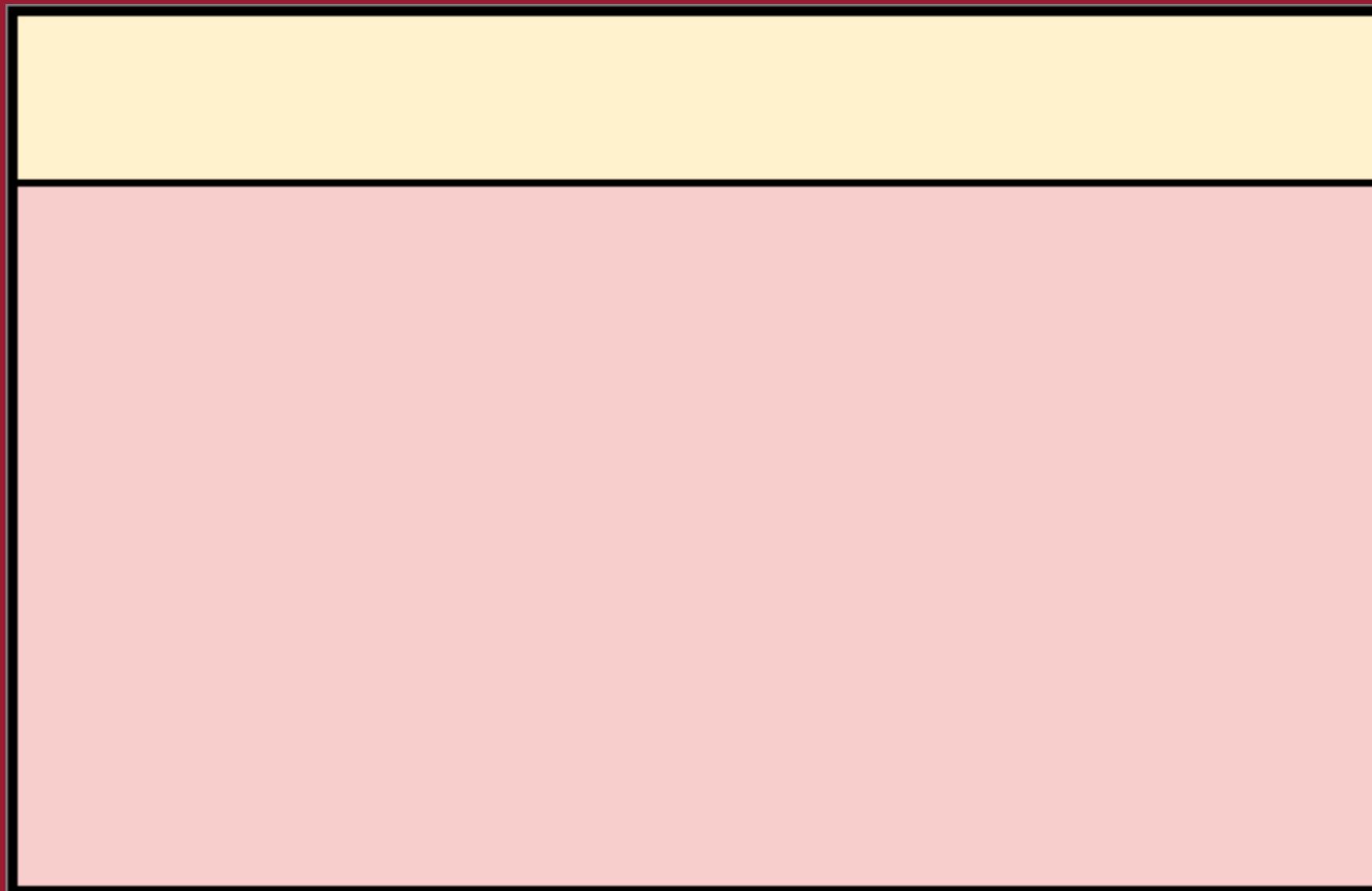
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## Think like Flexboxes



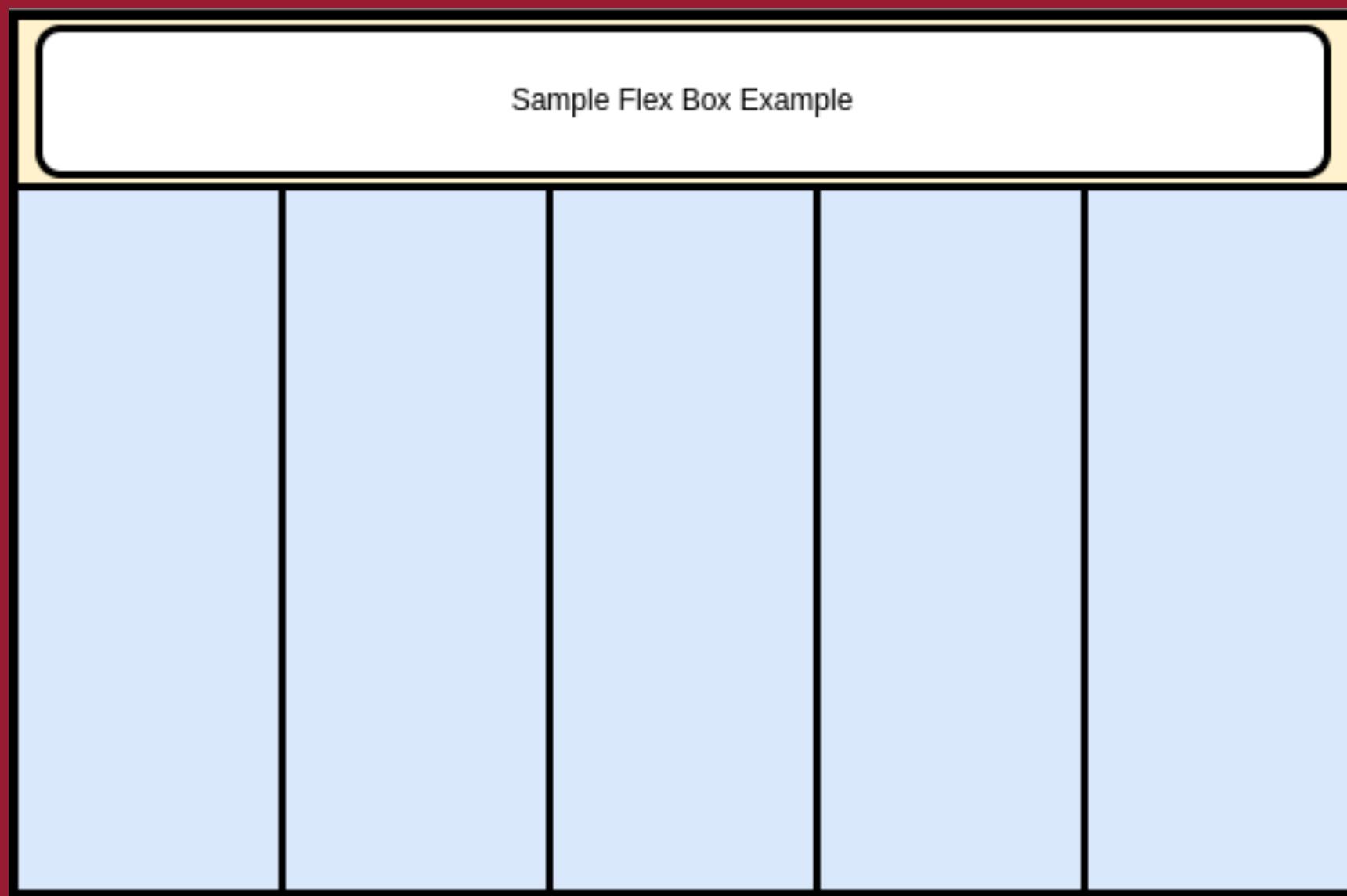
# CSS

## Think like Flexboxes



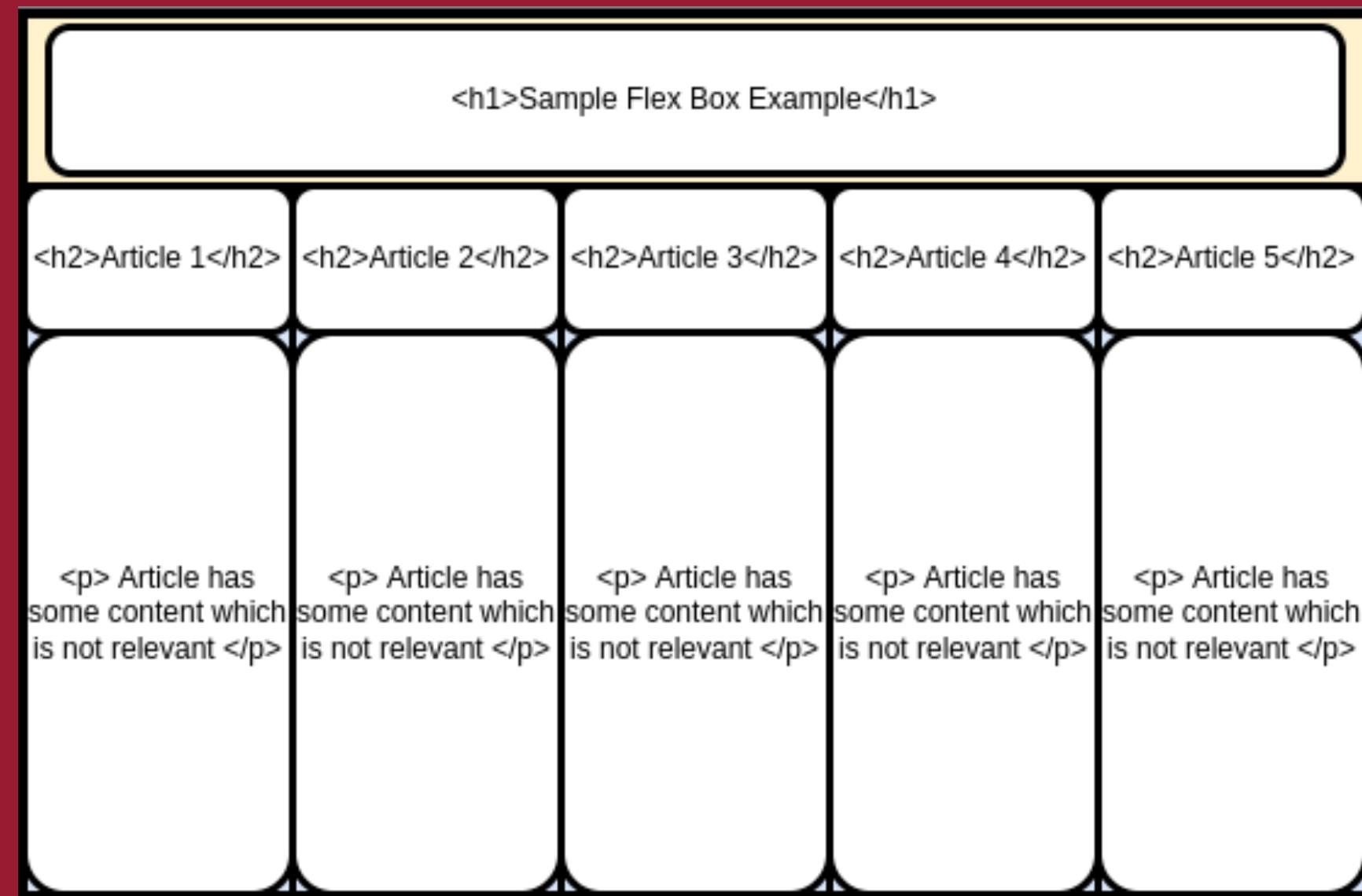
# CSS

## Think like Flexboxes



# CSS

## Think like Flexboxes



# CSS

## Think like Flexboxes

Sample Flex Box Example				
Article 1	Article 2	Article 3	Article 4	Article 5
Article has some content which is not relevant	Article has some content which is not relevant	Article has some content which is not relevant	Article has some content which is not relevant	Article has some content which is not relevant

# CSS

## Think like Flexboxes

Sample Flex Box Example				
Article 1	Article 2	Article 3	Article 4	Article 5
Article has some content which is not relevant	Article has some content which is not relevant	Article has some content which is not relevant	Article has some content which is not relevant	Article has some content which is not relevant

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# CSS

## Think like CSS

## Moodle