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Welcome to this session:
Responsive Web Design

The session will start shortly...

Questions? Drop them in the chat.
We'll have dedicated moderators
answering questions.

Safeguarding & Welfare

We are committed to all our students and staff feeling safe and happy; we want to make sure there is always someone you can turn to if you are worried about anything.

If you are feeling upset or unsafe, are worried about a friend, student or family member, or you feel like something isn't right, speak to our safeguarding team:

Ian Wyles
Designated Safeguarding Lead

Simone Botes

Rafiq Manan

Charlotte Witcher

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Ronald Munodawafa

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or email the Designated Safeguarding Lead:
Ian Wyles
safeguarding@hyperiondev.com

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- The use of disrespectful language is prohibited in the questions, this is a supportive, learning environment for all - please engage accordingly. **(Fundamental British Values: Mutual Respect and Tolerance)**

- No question is daft or silly - **ask them!**

- There are **Q&A sessions** midway and at the end of the session, should you wish to ask any follow-up questions. Moderators are going to be answering questions as the session progresses as well.

- If you have any questions outside of this lecture, or that are not answered during this lecture, please do submit these for upcoming Academic Sessions. You can submit these questions here: **Questions**

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- For all **non-academic questions**, please submit a query:
  www.hyperiondev.com/support

- **Report a safeguarding incident: *www.hyperiondev.com/safeguardreporting***

- We would love your feedback on lectures: Feedback on Lectures

Which of the following are semantic HTML elements? (Select all that apply)

A. <header>
B. <div>
C. <article>
D. <span>

When adding a border to an HTML <table>, it is a good practice to make use of the border attribute.

A. True
B. False

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Learning Outcomes

- Utilize Visual Studio Code for web development tasks.
- Integrate CSS with HTML effectively to style web pages.
- Apply CSS properties for sizing, positioning, and styling elements to create a visually appealing landing page.

Lecture Overview

➔ Introduction to Responsive web design
➔ Responsive Units
➔ Flexible Design layouts

WHAT IS RESPONSIVE WEB DESIGN?

❖ Responsive design is a method of creating a web application that is able to adapt to different screen resolutions while maintaining interactivity.

❖ Responsive design approach combines the following components:

➢ Flexible design layouts

➢ Responsive images and units

➢ Media queries

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THE VIEWPORT

- ❖ The viewport is the screen size where the web page is in view.

- ❖ CSS has both absolute and relative units of measuring the viewport dimensions.

- ❖ Relative units or dynamic values depend on the screen's size and resolution or the root element's font sizes.

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THE VIEWPORT

- ❖ Common relative/responsive units are:
  - ➢ **em:** relative unit based on the font size of the parent element
  - ➢ **rem:** relative unit based on the font size of the root element
  - ➢ **vh; vw:** percent of the viewport's height or width
  - ➢ **%:** percentage of the parent element

Media queries

❖ Different media types are:

➤ **All:** default, which matches all devices

➤ **Print:** used with printers

➤ **Screen:** fits devices with a screen

➤ **Speech:** fits devices with text-to-speech functionality

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Media queries

- ❖ Media screen query allows the web page to respond to different screen sizes by applying specific styles based on the screen's viewport dimensions.
- ❖ It helps the page automatically adjust its layout to match the size of the device being used.

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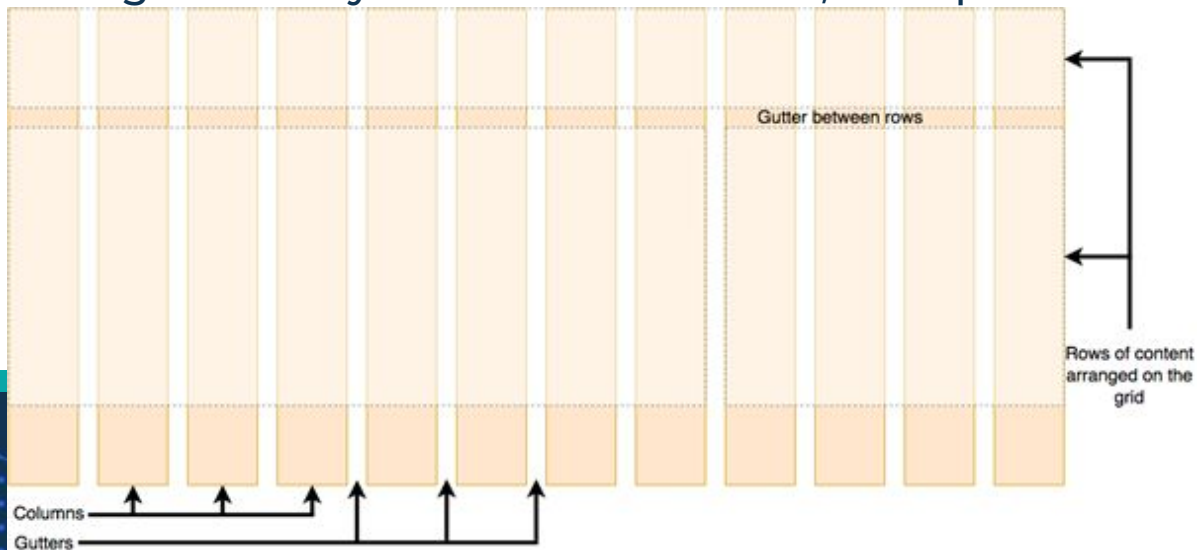# Let's take a break

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Flexible design layouts

❖ With a flexible design, the widths of page elements will be proportional to the width of the screen or browser window.

❖ Flexible design ensures that the layout remains consistent.

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Flexible design layouts

❖ Grid Layout:

   ➤ A CSS grid is like a table that is designed to make it easier to position elements on a web page

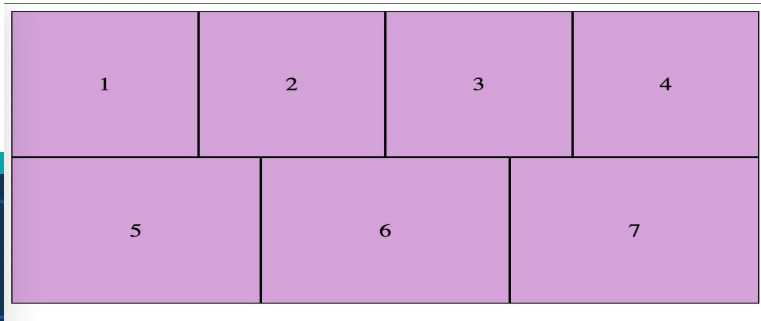   ➤ The grid usually contains 12 columns, as depicted below:

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Flexible design layouts

❖ Flexbox layout

➤ Flexbox is a CSS module designed to more efficiently position multiple elements, even when the size of the contents inside the container is unknown.

➤ Items in a flex container expand or shrink to the available space.

❖ Flexbox container layout:

1	2	3	4
5	6	7	

Responsive images

- ❖ Responsive images follow the same concept as a fluid layout, using a dynamic unit to control the width or height
- ❖ One way to create a responsive image is by setting the img width property to a percentage value
- ❖ The percentage unit approximates a single percentage of the viewport's width or height and ensures the image remains in proportion to the screen.

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Responsive images

❖ Examples include the following:

```css
img {
  max-width: 100%;
  height: auto;
}
```

```css
img {
  width: 100%;
  height: auto;
}
```

Why is it important to create responsive HTML pages?

A. Ensures compatibility with different devices (desktops, tablets, smartphones)
B. Increases printing costs
C. Improves loading times
D. Reduces user engagement

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Pixels are a responsive unit.

A. True
B. False

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Questions and Answers

Thank you
for attending

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