

SHUBHAM KUMAR GUPTA

Bachelor of Computer Applications

About Me

As a Bachelor of Computer Application student with a passion for technology. I am seeking opportunities to apply my knowledge and contribute to the field. With understanding of programming languages such as Java. My coursework and projects have equipped me with valuable skills in database management, web development.



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Gudari Bazar Road, Ballia-277001
Uttar-Pradesh.

PROJECTS

These are the Projects that i've build in my academics.

1- Travel and Tourism Management System (using Java):

- ~ This is a Graphical User Interface based Application.
- ~ This App is built using JavaSwings.
- ~ It has its own database and it uses MYSQL as its database to store the data of users.
- ~ It does hotel booking ,room booking , availability of hotel and offer a lot more functionalites.

2- Bank Management System (using Java):

- ~ I build a Graphical User Interface based Application.
- ~ It simulates the exacts interface of an working ATM.
- ~ It has its own database and it uses MYSQL as its database to store the data of users.

3- Amazon Clone Website (using HTML , CSS and JS):

- ~ Developed a functional website and it is built using HTML5 , CSS3 and JavaScript.
- ~ It has responsive design to ensure seamless user experience across different devices.
- ~ this has a shopping cart feature with the ability to add, update, and remove items, providing a smooth checkout experience.

ABOUT MY EDUCATION

St.Thomas School - Ballia Uttar-Pradesh (2014-18)

- ~ I completed my high School.
- ~ Percentage - 69%
- ~ Important Subjects are Maths, Science and Social Studies.

Babu Banarsi Das University - Lucknow , Uttar-Pradesh (2021 - 2024)

- ~ I'm pursuing Bachelor of Computer Applications.
- ~ With a good understanding of Subjects like DSA, OS, DBMS, Programming Languages and COA.

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SKILLS AND KNOWLEDGE

- **Java:** Good understanding of object-oriented programming and build GUI applications using Java.
- **Python:** Studied concepts of OOPS and set, tuples and dictionaries.
- **C:** Proficient in C programming language, with understanding of concepts like Arrays, function and more.
- **C#:** Familiar with C# programming language, with knowledge of its syntax and object-oriented concepts.
- **SQL Database:** Worked in SQL databases, including creating and deleting and managing database with queries.
- **Web Development** (HTML5, CSS3, JavaScript): Build websites using front-end web development using HTML5, CSS3, and JavaScript. Worked with Bootstrap in building responsive and visually appealing web interfaces.

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NITIN YADAV

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- ~ This is a Graphical User Interface based Application.
- ~ This App is built using JavaSwings.
- ~ It has its own database and it uses MYSQL as its database to store the data of users.
- ~ It allows employees to access their Employee id, employee database and perform CRED operation.

2- Bank Management System (using Java):

- ~ I build a Graphical User Interface based Application.
- ~ It simulates the exacts interface of an working ATM.
- ~ It has its own database and it uses MYSQL as its database to store the data of users.

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ABOUT MY EDUCATION

H.S Memorial Senior Secondary School - Lucknow
Uttar-Pradesh (2008-20)

- ~ I completed both my high School and Intermediate.
- ~ High School Percentage - 81%
- ~ Intermediate Percentage - 77%
- ~ Important Subjects are Physics , Chemistry and Maths.

Babu Banarsi Das University -
Lucknow , Uttar-Pradesh
(2021 - 2024)

- ~ I'm pursuing Bachelor of Computer Applications
- ~ With a good understanding of Subjects like DSA, OS, DBMS, Programming Languages and COA.



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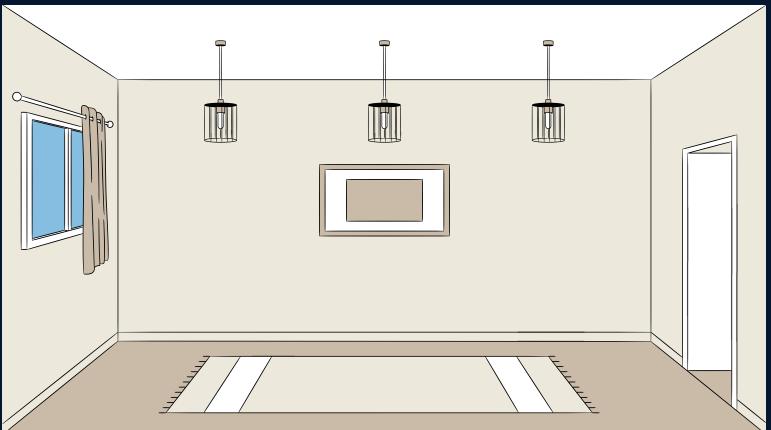
- ~ I'm pursuing Bachelor of Computer Applications.
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HTML

CSS

JS

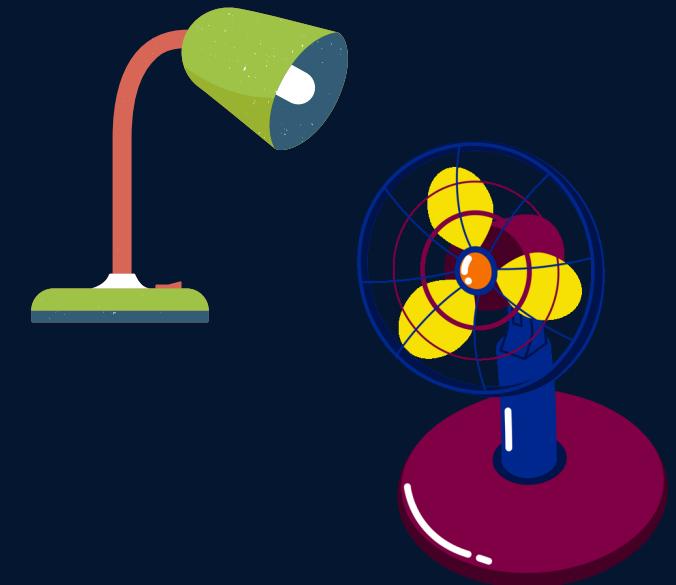
Structure/layout



Style



Logic



Level 1



HTML

Hyper Text Markup Language

HTML is the code that is used to structure a web page and its content.

The component used to design the structure of websites are called **HTML tags.**

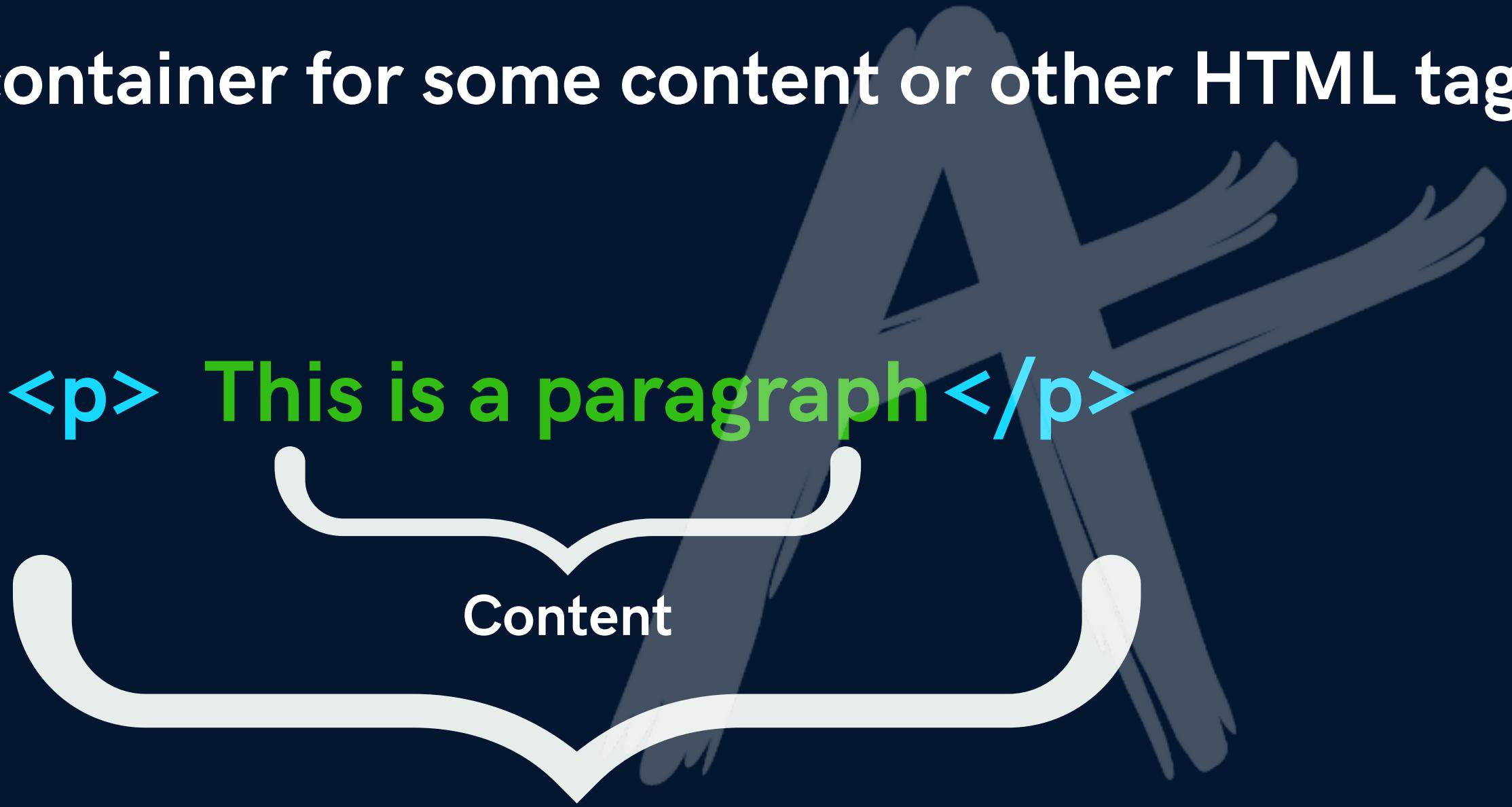
First HTML File

index.html

It is the default name for a website's **homepage**

HTML Tag

A container for some content or other HTML tags



The diagram illustrates the structure of an HTML tag. It features a dark blue background with a faint, stylized white outline of a person's head and shoulders. A large, white, wavy bracket is positioned over the text, highlighting its structure. The text itself is a code snippet: '<p> This is a paragraph </p>'. The word 'Content' is written in white at the top of the bracket, and 'Element' is written in white at the bottom. The entire image has a subtle shadow effect.

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

Content

Element

Basic HTML Page

```
<!DOCTYPE html>
```

tells browser you are using HTML5

```
<html>
```

root of an html document

```
<head>
```

container for metadata

```
    <title>My First Page</title>
```

page title

```
</head>
```

contains all data rendered by the browser

```
<body>
```

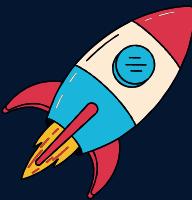
paragraph tag

```
    <p>hello world</p>
```

```
</body>
```

```
</html>
```

Quick Points



Html tag is parent of head & body tag

**Most of html elements have opening & closing tags
with content in between**

**Some tags have no content in between, eg -
**

We can use inspect element/view page source to edit html

Comments in HTML

This is part of code that should not be parsed.

<!-- This is an HTML Comment -->

HTML is NOT case sensitive

`<html> = <HTML>`

`<p> = <P>`

`<head> = <HEAD>`

`<body> = <BODY>`



Level 2



Basic HTML Tags

HTML Attributes

Attributes are used to add more information to the tag

```
<html lang="en">
```

Heading Tag

Used to display headings in HTML

h1

(most important)

h2

h3

h4

h5

h6

(least important)

Paragraph Tag

Used to add paragraphs in HTML

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

Anchor Tag

Used to add links to your page

```
<a href="https://google.com"> Google </a>
```

Image Tag

Used to add images to your page

```

```



relative url

Br Tag

Used to add next line(line breaks) to your page

Bold, Italic & Underline Tags

Used to highlight text in your page

** Bold **

<i> Italic </i>

<u> Underline </u>

Big & Small Tags

Used to display big & small text on your page

```
<big> Big </big>
```

```
<small> Small </small>
```

Hr Tag

Used to display a horizontal ruler, used to separate content

<hr>

Subscript & Superscript Tag

Used to display a horizontal ruler, used to separate content

_{subscript}



^{superscript}

$$\text{A}^n + \text{B}$$

Pre Tag

Used to display text as it is (without ignoring spaces & next line)

```
<pre> This  
    is a sample  
    text.  
</pre>
```

Level 3



Page Layout Techniques

using Semantic tags for layout

using the Right Tags

<header>

<main>

<footer>



Inside Main Tag

Section Tag For a section on your page

`<section>`

Article Tag For an article on your page

`<article>`

Aside Tag For content aside main content(ads)

`<aside>`

Revisiting Anchor Tag

```
<a href="https://google.com" target="_main"> Google </a>
```

↑
for new tab

```
<a href="https://google.com">  </a>
```

↑
clickable pic

Revisiting Image Tag

```

```



set height

```

```



set width

Div Tag

Div is a container used for other HTML elements

Block Element (takes full width)

List : Div Tags

<address>

<article>

<aside>

<blockquote>

<canvas>

<dd>

<div>

<dl>

<dt>

<fieldset>

<figcaption>

<figure>

<footer>

<form>

<h1>-<h6>

<header>

<hr>

<main>

<nav>

<noscript>

<p>

<pre>

<section>

<table>

<tfoot>

<video>

Span Tag

Span is also a container used for other HTML elements

Inline Element (takes width as per size)

List : Span Tags

- <a>
- <abbr>
- <acronym>
-
- <bdo>
- <big>
-

- <button>
- <cite>

- <code>
- <dfn>
-
- <i>
-
- <input>
- <kbd>
- <label>
- <map>
- <object>
- <tt>
- <var>
- <output>
- <q>
- <samp>
- <script>
- <select>
- <small>
-
-
- <sub>
- <sup>
- <textarea>
- <time>

Level Pro



List in HTML

Lists are used to represent real life list data.

unordered

```
<ul>  
  <li> Apple </li>  
  <li> Mango </li>  
</ul>
```

ordered

```
<ol>  
  <li> Apple </li>  
  <li> Mango </li>  
</ol>
```

Tables in HTML

Tables are used to represent real life table data.

`<tr>` used to display table row

`<td>` used to display table data

`<th>` used to display table header

Tables in HTML

```
<table>
```

```
  <tr>
```

```
    <th> Name </th>
```

```
    <th> Roll No </th>
```

```
  </tr>
```

```
  <tr>
```

```
    <td> Shradha </th>
```

```
    <th> 1664 </th>
```

```
  </tr>
```

```
</table>
```

| Name | Roll No |
|---------|---------|
| Shradha | 1664 |

Caption in Tables

<caption> Student Data </caption>

Student Data

| Name | Roll No |
|---------|---------|
| Shradha | 1664 |

thead & tbody in Tables

<thead> to wrap table head

<tbody> to wrap table body

colspan attribute

`colspan="n"`

used to create cells which spans over multiple columns

| Data | |
|---------|------|
| Shradha | 1664 |
| Aman | 1890 |

Form in HTML

Forms are used to collect data from the user

Eg- sign up/login/help requests/contact me

`<form>`

form content

`</form>`

Action in Form

Action attribute is used to define what action needs to be performed when a form is submitted

```
<form action="/action.php" >
```

Form Element : Input

```
<input type="text" placeholder="Enter Name">
```

Label

```
<label for="id1">  
  <input type="radio" value="class X" name="class" id="id1">  
</label>  
  
<label for="id2">  
  <input type="radio" value="class X" name="class" id="id2">  
</label>
```

Class & Id

```
<div id="id1" class="group1">
```

```
</div>
```

```
<div id="id2"> class="group1">
```

```
</div>
```

Checkbox

```
<label for="id1">  
    <input type="checkbox" value="class X" name="class" id="id1">  
</label>  
  
<label for="id2">  
    <input type="checkbox" value="class X" name="class" id="id2">  
</label>
```

Textarea

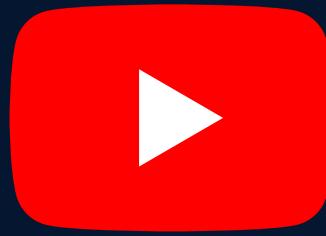
```
<textarea name="feedback" id="feedback" placeholder="Please add Feedback">  
</textarea>
```

Select

```
<select name="city" id="city">  
    <option value="Delhi"> Delhi </option>  
    <option value="Mumbai"> Mumbai </option>  
    <option value="Bangalore"> Bangalore </option>  
</select>
```

iframe Tag

website inside website



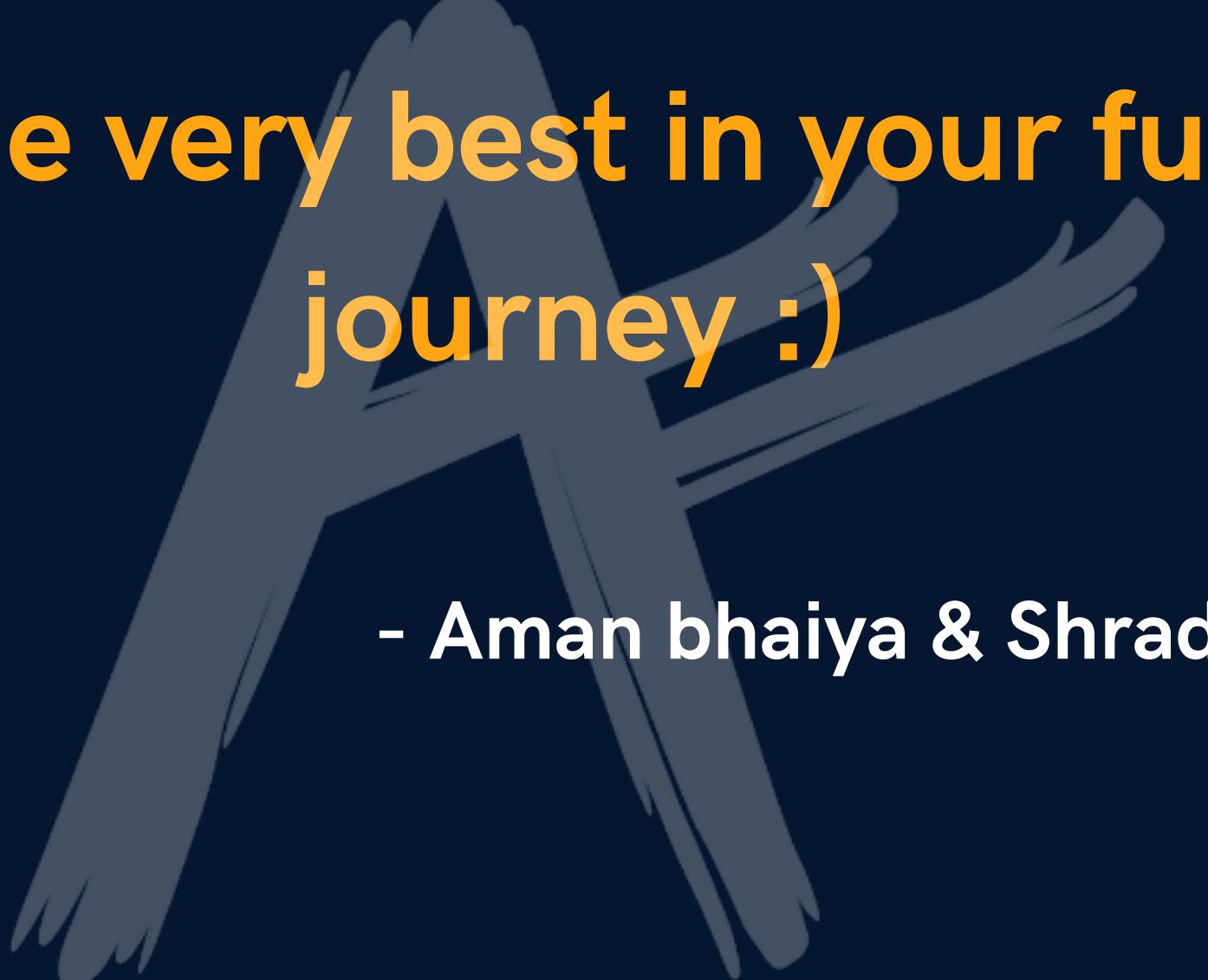
```
<iframe src="link"> Link </option>
```

Video Tag

```
<video src="myVid.mp4"> My Video </video>
```

Attributes

- controls
- height
- width
- loop
- autoplay



All the very best in your future
journey :)

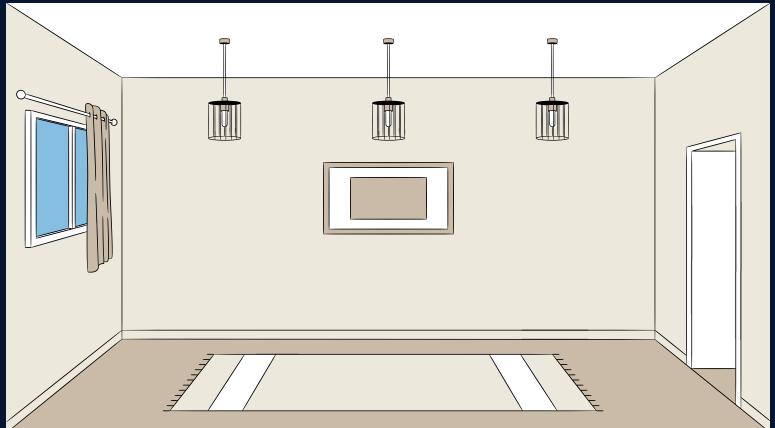
- Aman bhaiya & Shradha didi

HTML

CSS

JS

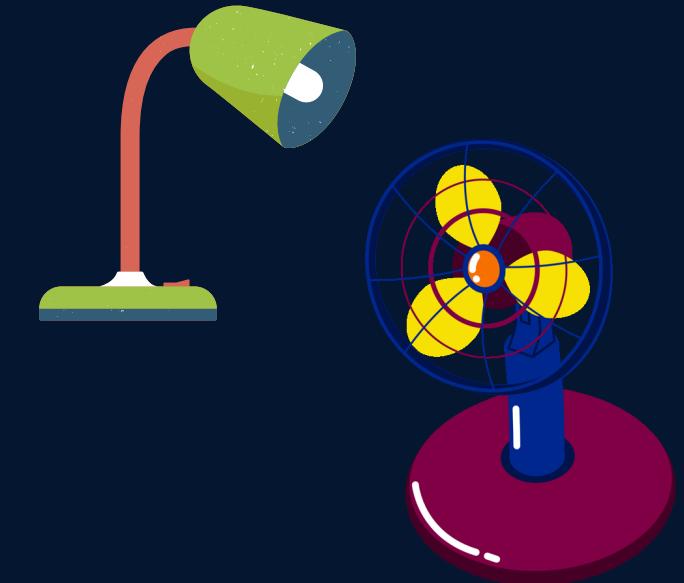
Structure/layout



**APNA
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Style

Logic



Level 1



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CSS

Cascading Style Sheet

It is a language that is used to describe the style of a document.

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Basic Syntax

Selector

```
h1 {
```

```
    color: red;
```

```
}
```

Property

Value

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Including Style

- Inline

```
<h1 style="color: red"> Apna College </h1>
```



- <style> tag

```
<style>
  h1 {
    color : red;
  }
</style>
```

Including Style

- External Stylesheet

Writing CSS in a separate document & linking it with HTML file



Color Property

Used to set the color of foreground

color: red;

color: pink;

color: blue;

color: green;

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Background Color Property

*Used to set the color of **background***

background-color: red;

background-color: pink;

background-color: blue;

background-color: green;



Color Systems

- RGB

color: `rgb(255, 0, 0);`

color: `rgb(0, 255, 0);`



Color Systems

- Hex (Hexadecimal)

color: #ff0000;

color: #00ff00;

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Selectors

- Universal Selector

* { }

- Element Selector

h1 { }

- Id Selector

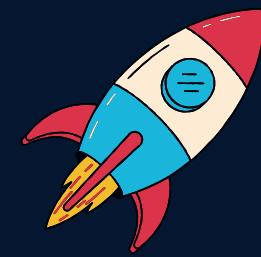
#myId { }

- Class Selector

.myClass { }



Practice Set 1



Q1: Create a simple div with an id "box".

Add some text content inside the div.

Set its background color to blue.

Q2: Create 3 headings with h1, h2 & h3.

Give them all a class "heading" & set color of "heading" to red.

Q3: Create a button & set its background color to :

- green using css stylesheet
- blue using <style> tag
- pink using inline style

Text Properties

text-align

text-align : left / right / center

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Text Properties

text-decoration

text-decoration : underline / overline / line-through



Text Properties

font-weight

font-weight : normal / bold / bolder / lighter

font-weight : 100-900

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Text Properties

font-family

font-family : arial

font-family : arial, roboto

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- **Generic font families:** Generic font families are determined by font family properties such as serifs—which are decorative strokes on the ends of letters—or cursive strokes. The generic font family name will specify the attribute that all fonts within that family share, like serif, sans-serif, or monospace.
- **Specific font families:** Specific font families are specific fonts with different styles within the one font family name, such as Arial, Times New Roman, and Tahoma.

5 Generic Font Families

Here is an overview of the generic font families found in many word processing programs:

1. **Serif:** Serif fonts are traditional typefaces using characters that have serifs which are small winged or flared tips extending off the tips of a letter. Serif fonts are typically used in printed books, newspapers, and magazines. Some popular serif fonts include Times New Roman, Garamond, Palatino, and Georgia.
2. **Sans-Serif:** Sans-serif fonts use characters without serifs and are more commonly seen in digital formats. A sans-serif font will typically be the default font in digital word processing programs. Sans-serif fonts include Arial, Helvetica, Verdana, Trebuchet MS, and Gill Sans.
3. **Cursive:** Cursive fonts use characters that have connective strokes which give the font a handwritten appearance. Cursive fonts include Comic Sans MS, Adobe Poetica, Sanvito, and Zapf-Chancery.
4. **Fantasy:** Fantasy fonts are stylized fonts that still maintain the characteristics of non-cursive, traditional alphabet glyphs. Examples include Cottonwood, Critter, and Alpha Geometrique.
5. **Monospace:** Fonts in the monospace font family have characters that are all the same width, giving text the appearance of a manual monospaced typewriter. Examples of monospaced fonts include Courier New, Monaco, Lucida Console, Consolas, and Everson Mono.



Units in CSS

Absolute

pixels (px)

$96\text{px} = 1 \text{ inch}$

`font-size: 2px;`

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Text Properties

line-height

line-height : 2px

line-height : 3

line-height : normal

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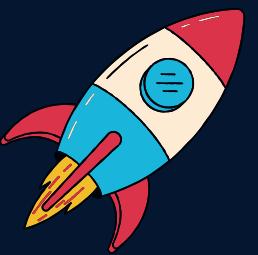
Text Properties

text-transform

text-transform : uppercase / lowercase / capitalize / none

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Practice Set 2



Q1: Create a heading centred on the page with all of its text capitalized by default.

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Q2: Set the font family of all the content in the document to "Times New Roman".

Set id & text "outer" for the first one & "inner" for the second one.

Set the outer div text size to 25px & inner div text size to 10px.

Level 2

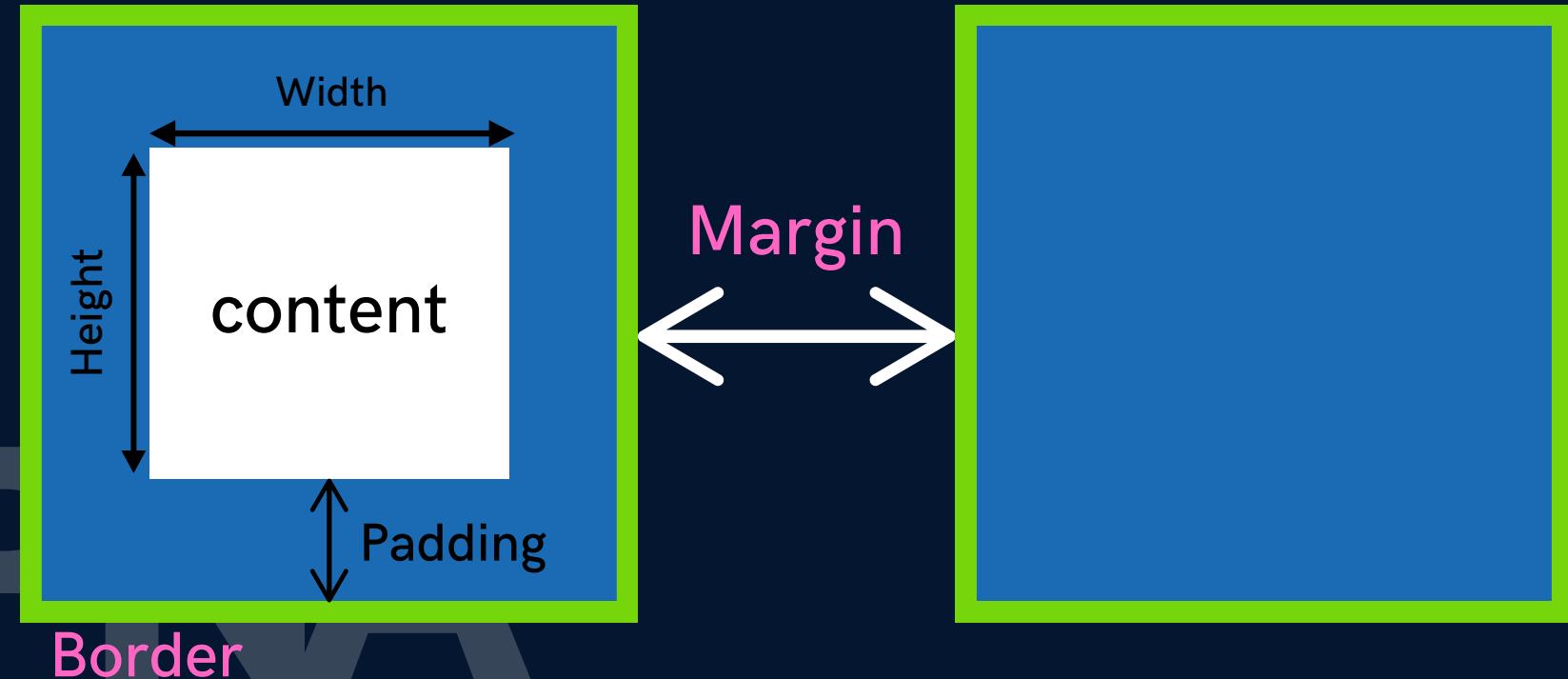


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Box Model in CSS

- Height
- Width
- Border
- Padding
- Margin

A
F
COLLEGE

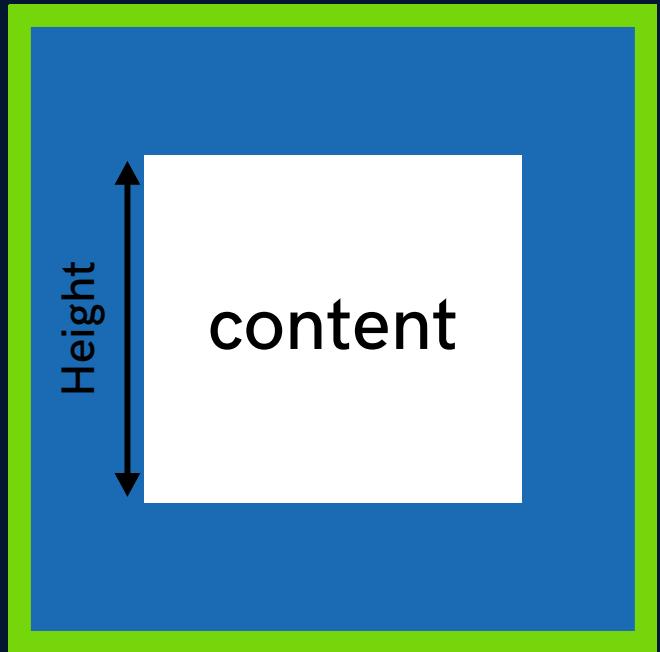


Height

By default, it sets the content area **height** of the element

```
div {  
    height: 50px;  
}
```

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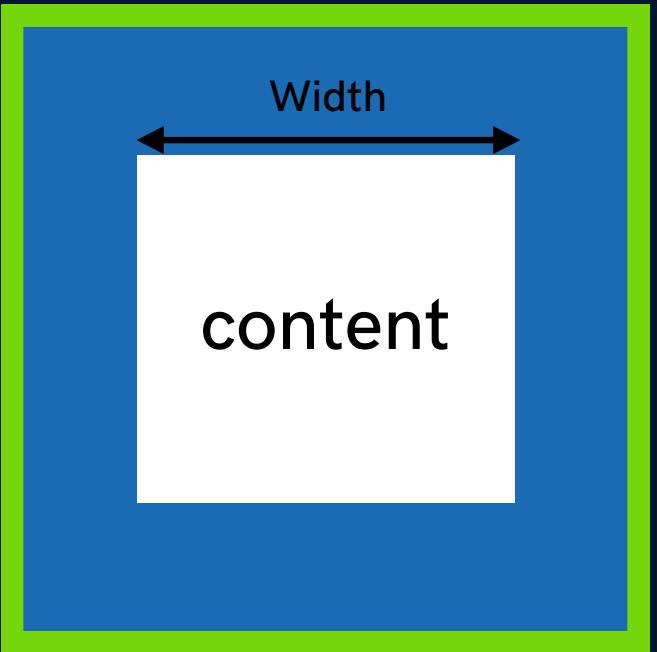


Width

By default, it sets the content area **width** of the element

```
div {  
    width: 50px;  
}
```

APNA
COLLEGE



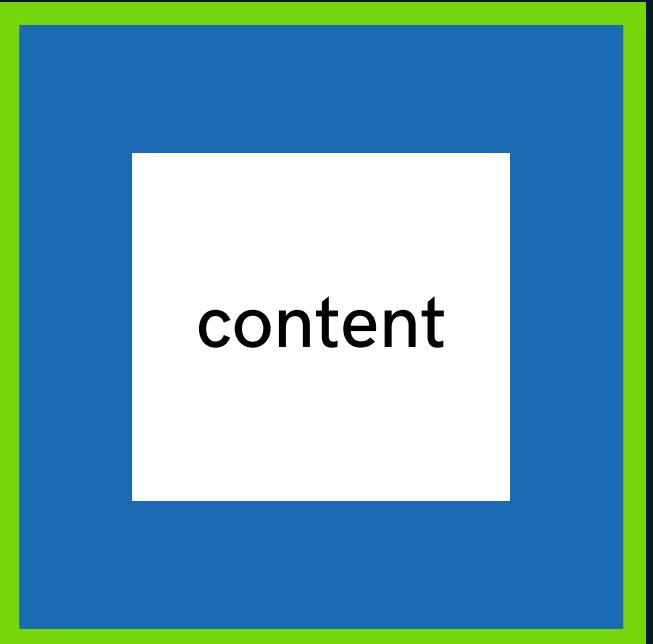
Border

Used to set an element's **border**

border-width : 2px;

border-style : solid / dotted / dashed

border-color : black;



Border

Border

Shorthand

border : 2px solid black;

APNA
COLLEGE

Border

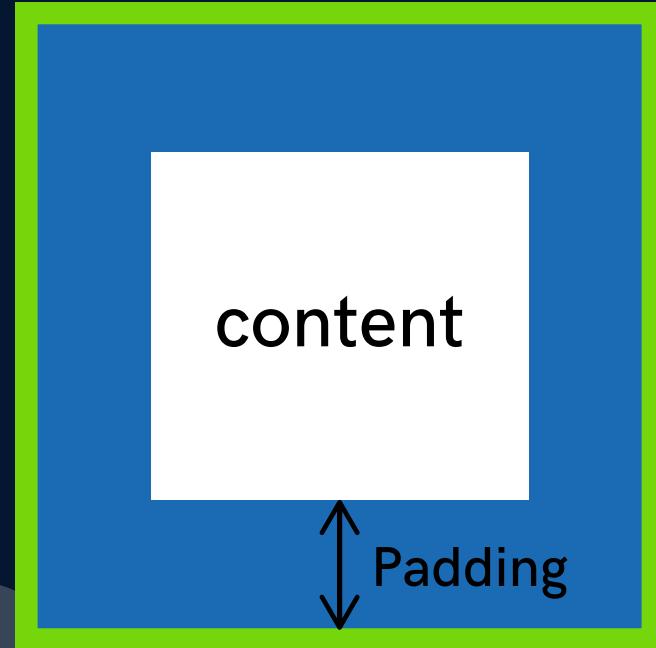
Used to round the corners of an element's outer border edge

border-radius : 10px; APNA
border-radius : 50%; COLLEGE

Padding

- padding-left
- padding-right
- padding-top
- padding-bottom

APNA
COLLEGE



Padding

Shorthand

padding: 50px;



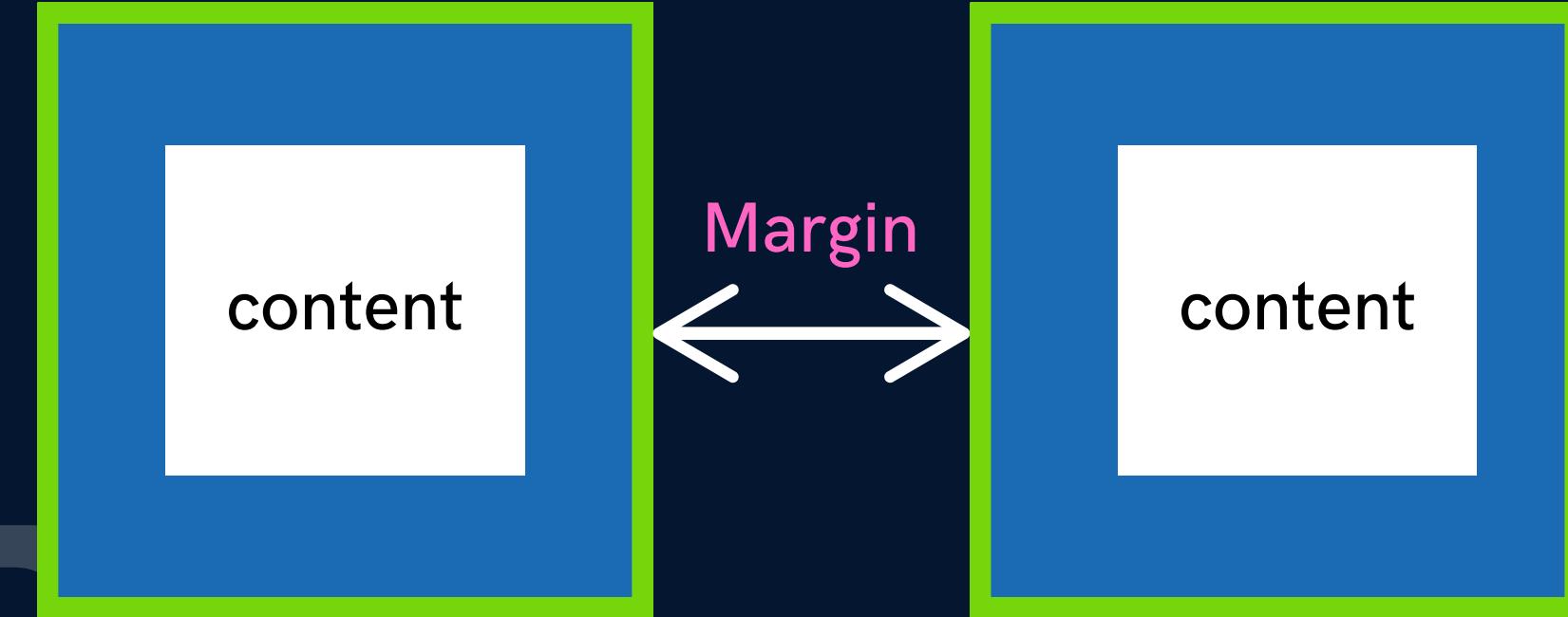
padding: 1px 2px 3px 4px;

top | right | bottom | left -> clockwise

Margin

- margin-right
- margin-left
- margin-top
- margin-bottom

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Margin

Shorthand

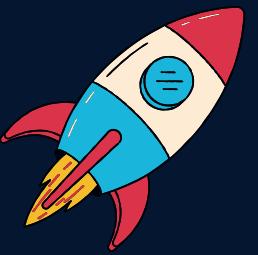
margin: 50px;



margin: 1px 2px 3px 4px;

top | right | bottom | left -> clockwise

Practice Set 3



Q1: Create a div with height & width of 100px.
Set its background color to green & the border radius to 50%.

Q2: Create the following navbar.

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amazon.in

Account

My Cart

Contact Us

search Amazon.in

Search



25px
(text)

#0f1111
(black)

Account

My Cart

Contact Us

60px
(height)

search Amazon.in

Search

anchor tags
(links)

#f08804
(yellow)

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Display Property

display: inline / block / inline-block / none

- **inline** - Takes only the space required by the element. (no margin/ padding)
- **block** - Takes full space available in width.
- **inline-block** - Similar to inline but we can set margin & padding.
- **none** - To remove element from document flow.

Visibility

visibility: hidden;

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Note : When visibility is set to none, space for the element is reserved.

But for display set to none, no space is reserved or blocked for the element.

Alpha Channel

opacity (0 to 1)

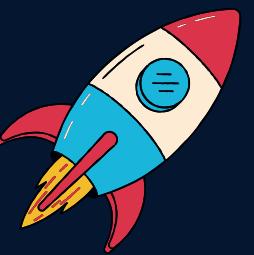
- RGBA

color: `rgba(255, 0, 0, 0.5);`

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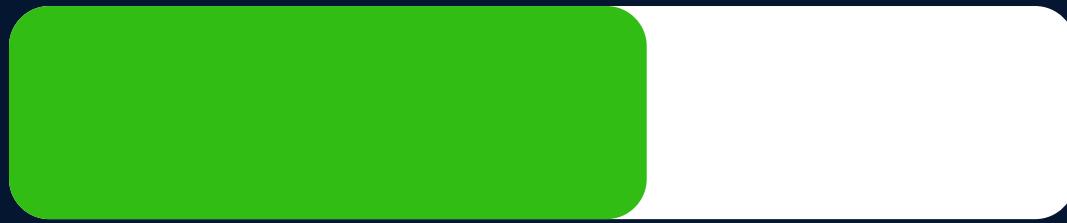
color: `rgba(255, 0, 0, 1);`

Practice Set 4



- Q1: Create a webpage layout with a header, a footer & a content area containing 3 divs.
Set the height & width of divs to 100px.
(add the previous navbar in the header)
- Q2: Add borders to all the divs.
- Q3: Add a different background color to each div with an opacity of 0.5
- Q4: Give the content area an appropriate height.

Level 3



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position

Units in CSS

Relative

%

em

rem

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Percentage (%)

It is often used to define a size as relative to an element's parent object.

width : 33% ;

margin-left : 50% ;



Em

Unit	Relative to
em	Font size of the parent, in the case of typographical properties like <code>font-size</code> , and font size of the element itself, in the case of other properties like <code>width</code> .

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Rem (Root Em)

Unit	Relative to
rem	Font size of the root element.



Others

vh: relative to 1% viewport height

vw : relative to 1% viewport width



Position

The position CSS property sets **how an element is positioned** in a document.

position : static / relative / absolute / fixed

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Position

- **static** - default position (The top, right, bottom, left, and z-index properties have no effect)
- **relative** - element is relative to itself. (The top, right, bottom, left, and z-index will work)
- **absolute** - positioned relative to its closest positioned ancestor. (removed from the flow)
- **fixed** - positioned relative to browser. (removed from flow)
- **sticky** - positioned based on user's scroll position

z-index

It decides the **stack level** of elements

Overlapping elements with a larger z-index cover those with a smaller one.

z-index : auto (0)

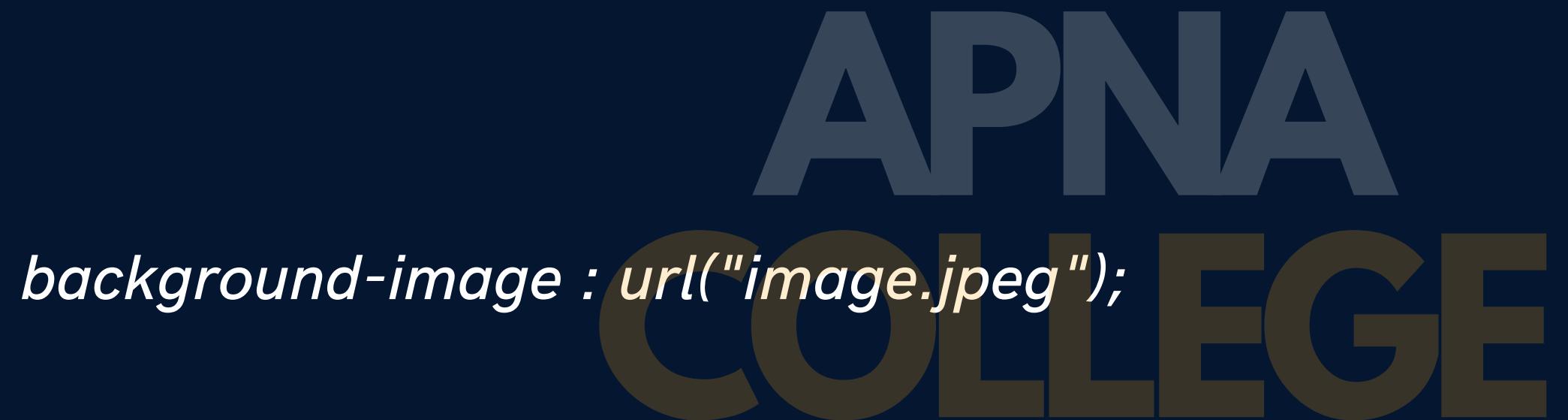
z-index : 1 / 2 / ...

z-index : -1 / -2 / ...



Background Image

Used to set an image as background

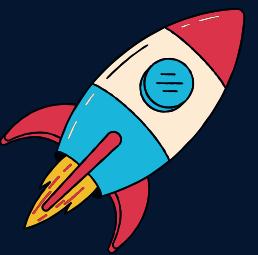


Background Size

background-size : cover / contain / auto

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Practice Set 5



Qs: Create the following layout using the given html.

- Give the div a height, width & some background image.
- Use the appropriate position property for the div element to place it at the right end of the page. (The div should not move even on scroll)
- Use z-index to place the div on top of page.

```
<p> lorem*5 </p>
<div> Love Nature </div>
<p> lorem*5 </p>
```

Level 4



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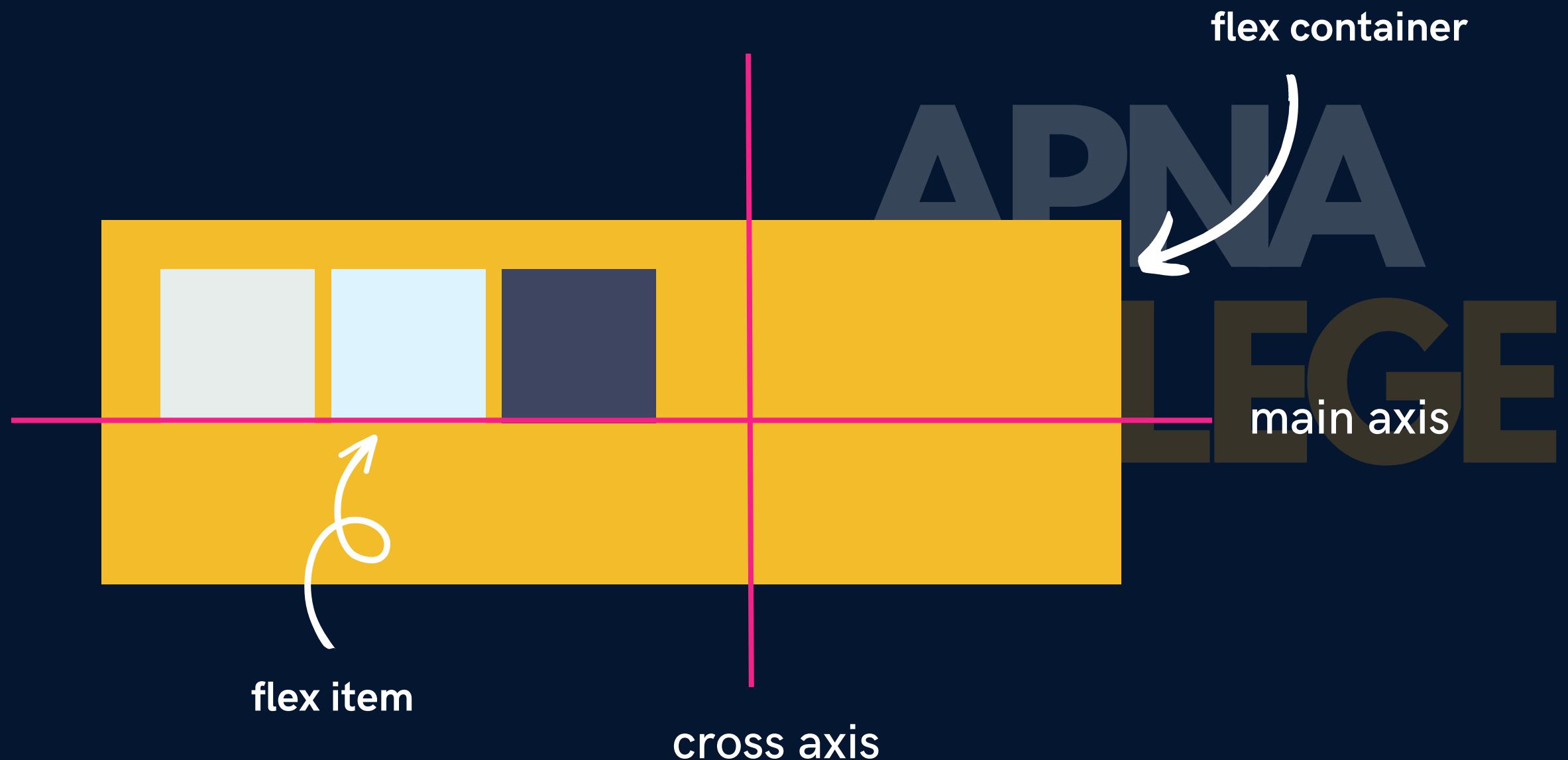
Flexbox

Flexible Box Layout

It is a one-dimensional layout method for arranging items in rows or columns.

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The Flex Model



Flexbox Direction

It sets how flex items are placed in the flex container, along which axis and direction.

- `flex-direction : row;` (default)
- `flex-direction : row-reverse;`
- `flex-direction : column;`
- `flex-direction : column-reverse;`



Flex Properties

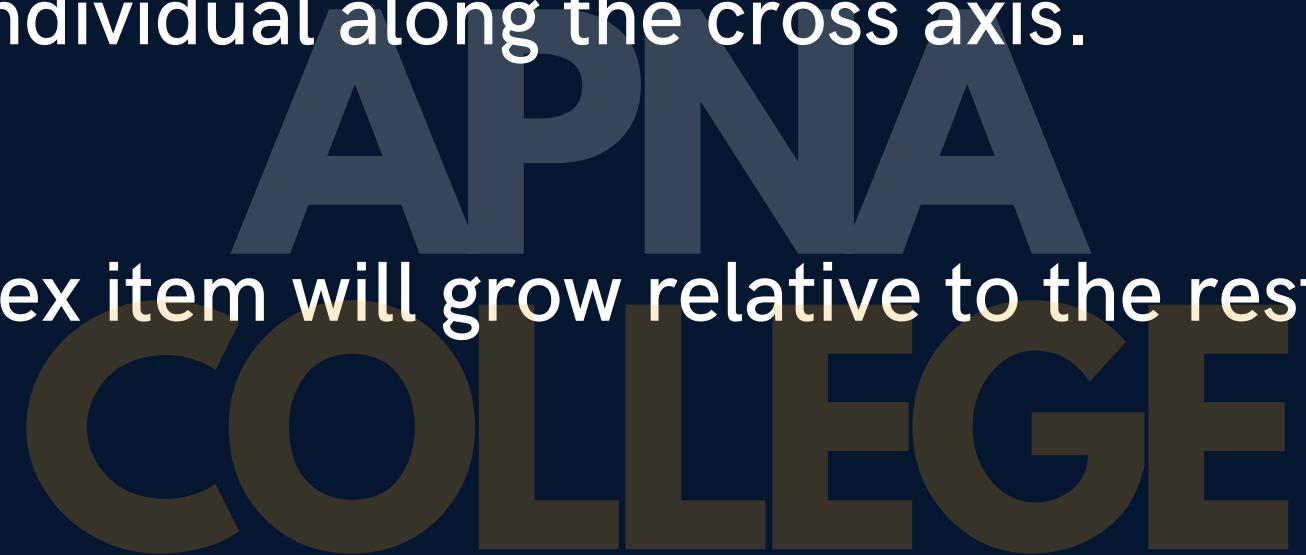
for Flex Container

- **justify-content** : alignment along the main axis.
flex-start / flex-end / centre / space-evenly /
- **flex-wrap** : nowrap / wrap / wrap-reverse
- **align-items** : alignment along the cross axis.
- **align-content** : alignment of space between & around the content along cross-axis

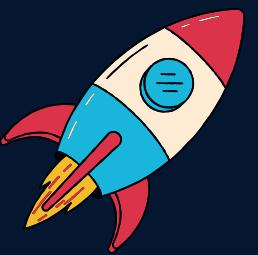
Flex Properties

for Flex Item

- **align-self** : alignment of individual along the cross axis.
- **flex-grow** : how much a flex item will grow relative to the rest of the flex items if space is available
- **flex-shrink** : how much a flex item will shrink relative to the rest of the flex items if space is available



Practice Set 6



Qs: Create a navbar with 4 options in the form of anchor tags inside list items.
Now, use flexbox to place them all spaced equally in a single line.

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Qs: Use flexbox to center one div inside another div.

Qs: Which has higher priority - align-items or align-self?

Media Queries

Help create a **responsive** website

```
@media (width : 600px) {  
    div {  
        background-color : red;  
    }  
}
```

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```
@media (min-width : 600px) {  
    div {  
        background-color : red;  
    }  
}
```

Media Queries

```
@media (min-width : 200px) and (min-width : 300px) {
```

```
    div {
```

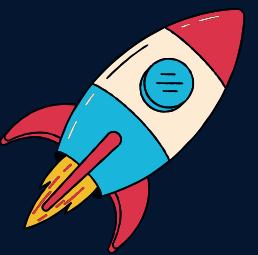
```
        background-color : red;
```

```
}
```

```
}
```



Practice Set 7



Qs: Add a media query to implement the following:

- the color of a div changes to green for viewport width less than 300px
- the color of a div changes to pink for width between 300px & 400px
- the color of a div changes to red for width between 400px & 600px
- the color of a div changes to blue for width above 600px

Level 5



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Transitions

Transitions enable you to define the transition between two states of an element.

- **transition-property** : property you want to transition (font-size, width etc.)
- **transition-duration** : 2s / 4ms ..
- **transition-timing-function** : ease-in / ease-out / linear / steps ..
- **transition-delay** : 2s / 4ms ..

Transition Shorthand

property name | duration | timing-function | delay

transition: font-size 2s ease-in-out 0.2s;

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CSS Transform

Used to apply 2D & 3D transformations to an element

- rotate

transform: rotate(45deg);

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CSS Transform

- scale

transform: scale(2);

transform: scale(0.5);

transform: scale(1, 2);

transform: scaleX(0.5);

transform: scaleY(0.5);

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CSS Transform

- translate

transform: translate(20px);

transform: translate(20px, 50px);

transform: translateX(20px);

transform: translateY(20px);



CSS Transform

- skew

transform: skew(30deg);

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Animation

To animate CSS elements

```
@keyframe myName {  
    from { font-size : 20px; }  
    to { font-size : 40px; }  
}
```

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Animation Properties

- animation-name
- animation-duration
- animation-timing-function
- animation-delay
- animation-iteration-count
- animation-direction

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Animation Shorthand

animation : myName 2s linear 3s infinite normal

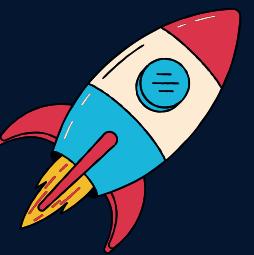
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% in Animation

```
@keyframe myName {  
    0% { font-size : 20px; }  
    50% { font-size : 30px; }  
    100% { font-size : 40px; }  
}
```

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Practice Set 8



Qs: Create a simple loader using CSS

Step1 : create a div with circular shape & a thick border from one end
(top/bottom/left/right)

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Step2 : To make it spin create an animation which transforms it from 0deg to 360deg

Step3 : Add the animation property to the loader with infinite duration