HTML Image Maps

With HTML image maps, you can create clickable areas on an image.

Image Maps

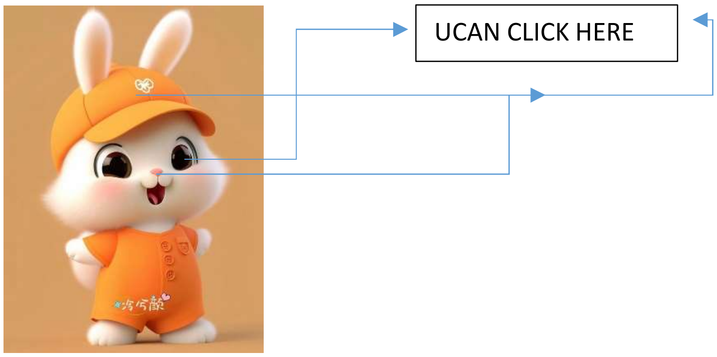
The HTML **<map>** tag defines an image map. An image map is an image with clickable areas. The areas are defined with one or more **<area>** tags.

1.Create a Clickable Links to an image.

Input:

```
<!DOCTYPE html>

<html>

<body>

<h2>Image Maps</h2>

<p>Click on the to go to a new page and read more about the topic</p>

<img src="rabbit.jpg " alt="Workplace" use map="#work map" width="400"
height="379">

<map name="work map">

 <area shape="rect" coords="34,44,270,350" alt="Eyes"
href="computer.htm">

<area shape="rect" coords="290,172,333,250" alt="Cap" href="phone.htm">

 <area shape="circle" coords="337,300,44" alt="Nose"
href="coffee.htm">

</map>

</body> </html>
```

Output



How Does it Work?

The idea behind an image map is that you should be able to perform different actions depending on where in the image you click.

To create an image map you need an image, and some HTML code that describes the clickable areas.

The **use map** value starts with a hash tag **#** followed by the name of the image map, and is used to create a relationship between the image and the image map.

Create Image Map

Then, add a **<map>** element.

The **<map>** element is used to create an image map, and is linked to the image by using the required **name** attribute.

Ex: **<map name="**work map**">**

The **name** attribute must have the same value as the **<img>'s** use map attribute.

The Areas

To add the clickable areas. The clickable area is defined using an **<area>** element.

Shape

You must define the shape of the clickable area, and you can choose one of these values:

- **rect** - defines a rectangular region
- **circle** - defines a circular region
- **poly** - defines a polygonal region
- **default** - defines the entire region

You must also define some coordinates to be able to place the clickable area onto the image.

HTML Background Images

To add a background image on an HTML element, use the **HTML style** attribute and the **CSS background image**

Property.

Ex: 1

Input

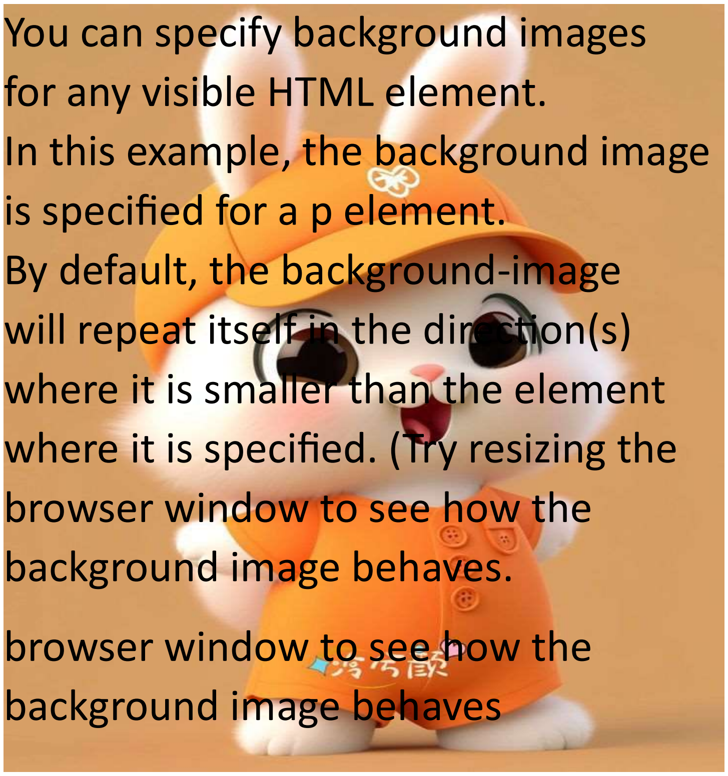
```
<!DOCTYPE html>

<html>

<body>

<h2>Background Image</h2>

<p>A background image for a p element</p>
```

```
<p style="background-image: url('rabbit.jpg');">
You can specify background images<br>where it is specified. (Try resizing the<br>browser window to see how the<br>background image behaves.
</p>
</body>
</html>
```

Output:

Background Image

A background image for a <**p**> element:



You can specify background images
for any visible HTML element.
In this example, the background image
is specified for a p element.
By default, the background-image
will repeat itself in the direction(s)
where it is smaller than the element
where it is specified. (Try resizing the
browser window to see how the
background image behaves.

browser window to see how the
background image behaves

You can also specify the background image in the **<style>** element, in the **<head>** section

Ex:

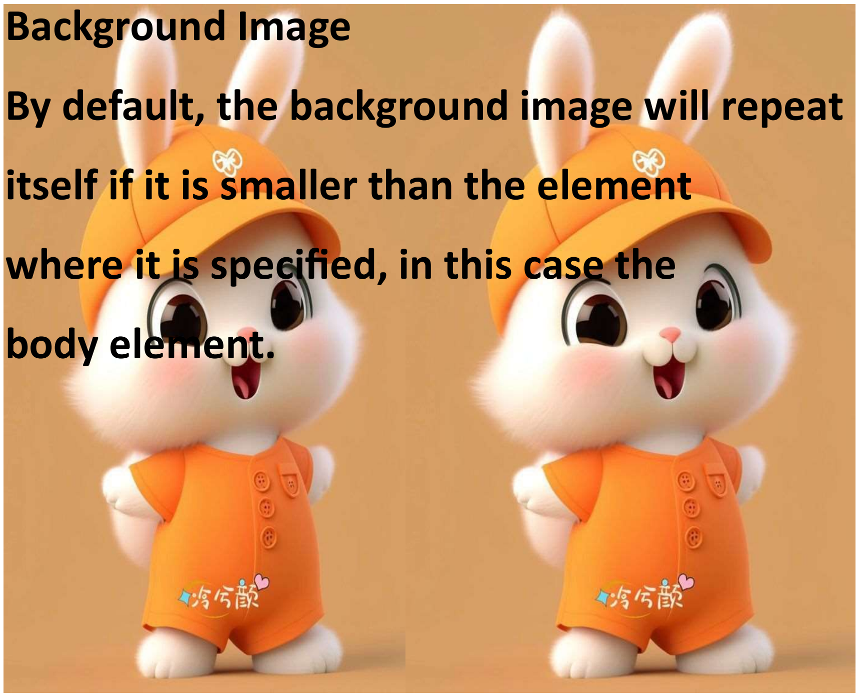
```
<!DOCTYPE html>
<html>
<head>
<style>
p {
  background-image: url('rabbit.jpg');
}
</style>
</head>
```

Background Image on a Page

If you want the entire page to have a background image, you must specify the background image on the **<body>** element

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
  background-image: url(‘rabbit.jpg');
}
</style>
</head>
<body>
<h2>Background Image</h2>
<p> By default, the background image will repeat itself if it is
smaller than the element where it is specified, in this case the
body element. </p>
</body>
</html>
```

Output:

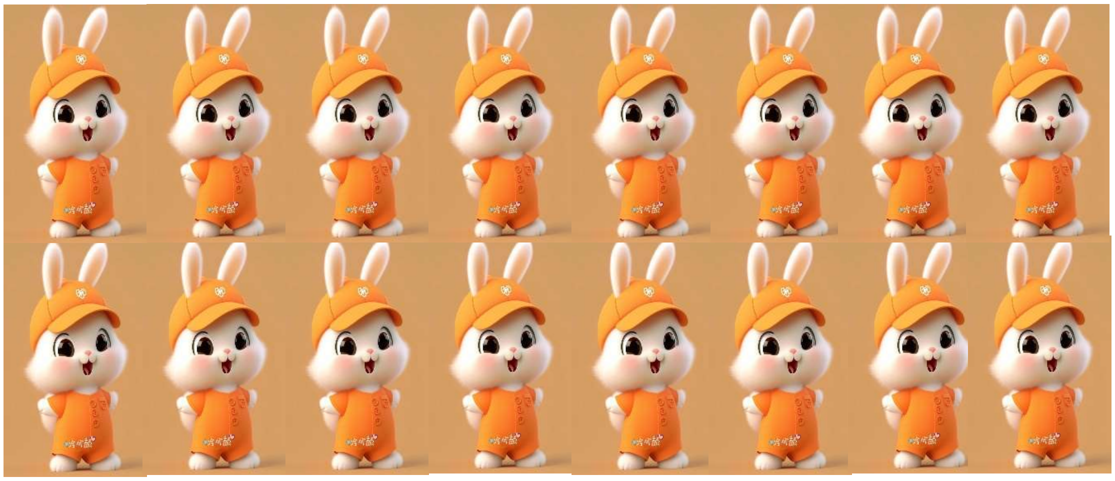


Background Image

By default, the background image will repeat itself if it is smaller than the element where it is specified, in this case the body element.

Background Repeat

If the background image is smaller than the element, the image will repeat itself, horizontally and vertically, until it reaches the end of the element

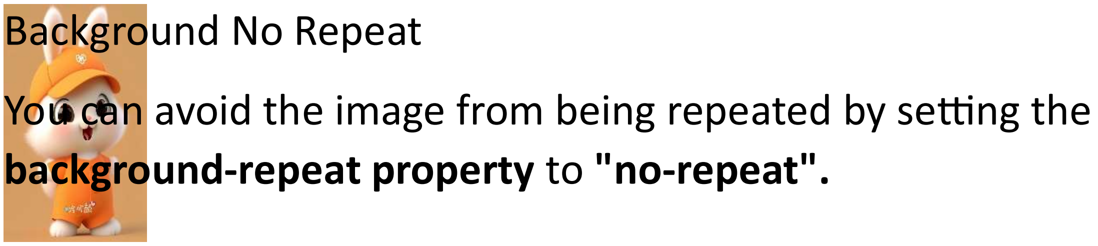


1. To avoid the background image from repeating itself, set the **background-repeat property to no-repeat.**

Input:

```
<!DOCTYPE html>

<html>

<head>

<style>

body {

  background-image: url('rabbit.jpg');

  background-repeat: no-repeat;

}

</style>

</head>

<body>

<h2>Background No Repeat</h2>

<p>You can avoid the image from being repeated by setting the
background-repeat property to "no-repeat". </p>

</body>
```

Output:



Background No Repeat

You can avoid the image from being repeated by setting the **background-repeat property** to **"no-repeat".**

Background Cover

If you want the background image to cover the entire element, you can set the **background-size property** to **cover.**

Also, to make sure the entire element is always covered, set the **background-attachment property** to **fixed**.

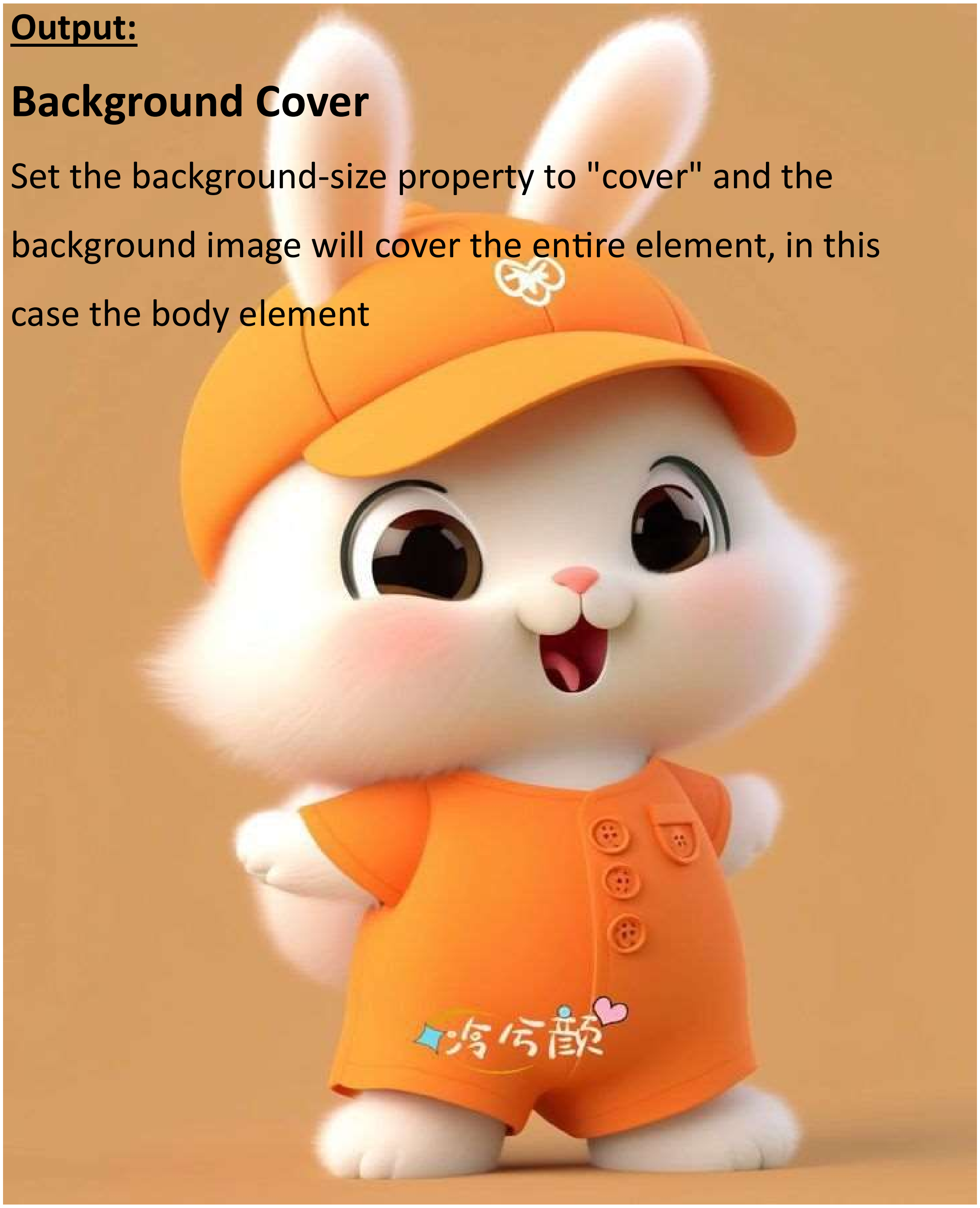
This way, the background image will cover the entire element, with no stretching.

Input:

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
  background-image: url('rabbit.jpg');
  background-repeat: no-repeat;
  background-attachment: fixed;
  background-size: cover;
}
</style>
</head>
<body>
<h2>Background Cover</h2>
```

```
<p>Set the background-size property to "cover" and the background image will cover the entire element, in this case the body element. </p>

</body>

</html>
```

Output:

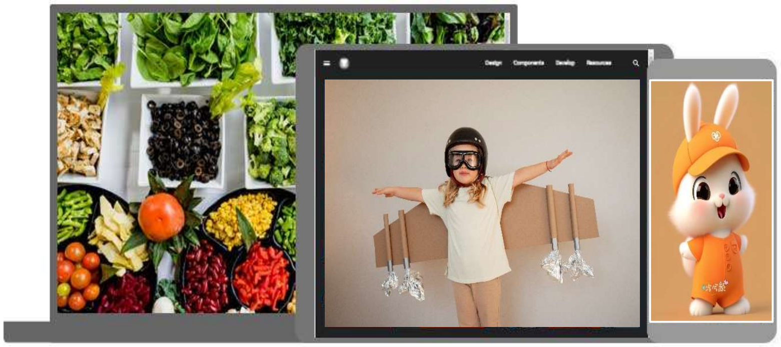


Background Cover

Set the background-size property to "cover" and the background image will cover the entire element, in this case the body element

HTML <picture> Element

The HTML **<picture>** element allows you to display different pictures for different devices or screen sizes.



The HTML **<picture>** Element

The HTML **<picture>** element gives web developers more flexibility in specifying image resources. The **<picture>** element contains one or more **<source>** elements, each referring to different images through the src set attribute. This way the browser can choose the image that best fits the current view and/or device. Each **<source>** element has a media attribute that defines when the image is the most suitable.

1.Show different images for different screen sizes:

Input:

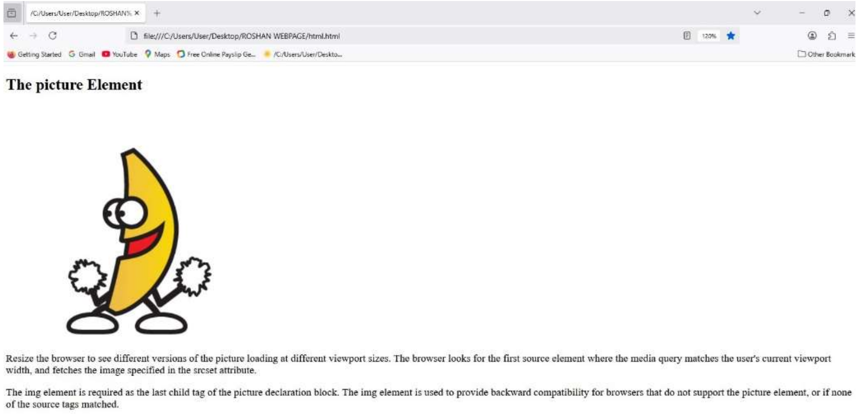
```
<!DOCTYPE html>

<html>

<head>

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<h2>The picture Element</h2>

<picture>

  <source media="(min-width: 650px)" srcset="img_food.jpg">

  <source media="(min-width: 465px)" srcset="rabbit.jpg">

  <img src="img_girl.jpg" style="width: auto;">

</picture>

<p>Resize the browser to see different versions of the picture loading at different viewport sizes. The browser looks for the first source element where the media query matches the user's current viewport width, and fetches the image specified in the srcset attribute. </p>
```

```
<p>The img element is required as the last child tag of the picture declaration block.
The img element is used to provide backward compatibility for browsers that do not support the picture element, or if none of the source tags matched.
</p>
</body>
</html>
```

Output:

1

In this 1 image we will see the banana dancing image in **"Full Screen"**


/C:/Users/User/Desktop/ROSHAN%
file:///C:/Users/User/Desktop/ROSHAN WEBPAGE/html.html
120%
Getting Started
Gmail
YouTube
Maps
Free Online Payslip Ge...
/C:/Users/User/Deskto...
Other Bookmark

The picture Element

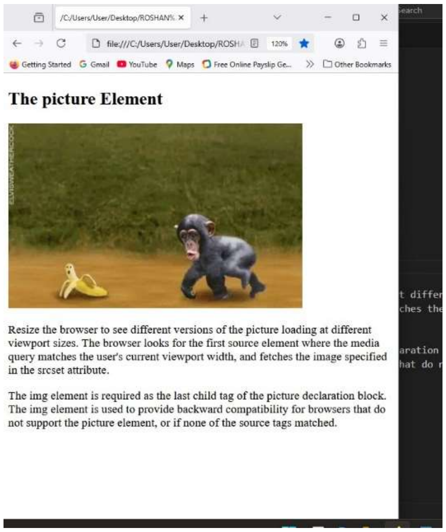
Resize the browser to see different versions of the picture loading at different viewport sizes. The browser looks for the first source element where the media query matches the user's current viewport width, and fetches the image specified in the srcset attribute.

The img element is required as the last child tag of the picture declaration block. The img element is used to provide backward compatibility for browsers that do not support the picture element, or if none of the source tags matched.

2

By changing the screen size 50% we will see another image**.**

"The Monkey Chasing Banana"


/C:/Users/User/Desktop/ROSHAN%
Search
file:///C:/Users/User/Desktop/ROSHA
120%
Getting Started
Gmail
YouTube
Maps
Free Online Payslip Ge...
Other Bookmarks
ELVISWEATHERCOCK

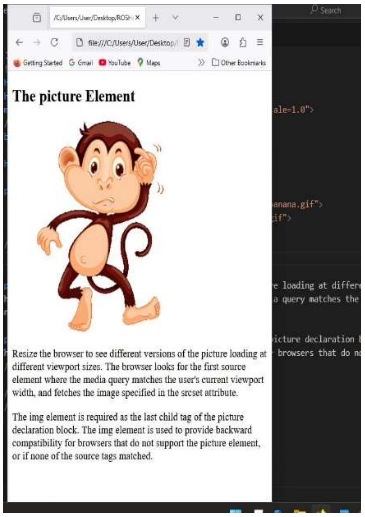
The picture Element

Resize the browser to see different versions of the picture loading at different viewport sizes. The browser looks for the first source element where the media query matches the user's current viewport width, and fetches the image specified in the srcset attribute.

The img element is required as the last child tag of the picture declaration block. The img element is used to provide backward compatibility for browsers that do not support the picture element, or if none of the source tags matched.

3

By changing the screen size 25% we will see another image**.**



The picture Element

Resize the browser to see different versions of the picture loading at different viewport sizes. The browser looks for the first source element where the media query matches the user's current viewport width, and fetches the image specified in the srcset attribute.

The img element is required as the last child tag of the picture declaration block. The img element is used to provide backward compatibility for browsers that do not support the picture element, or if none of the source tags matched.

Note: Always specify an **<img>** element as the last child element of the **<picture> element**. The **<img>** element is used by browsers that do not support the **<picture> element**, or if none of the **<source> tags** match.

2.When to use the Picture Element?

There are two main purposes for the **<picture>** element:

1. Bandwidth

If you have a small screen or device, it is not necessary to load a large image file. The browser will use the first **<source>** element with matching attribute values, and ignore any of the following elements.

2. Format Support

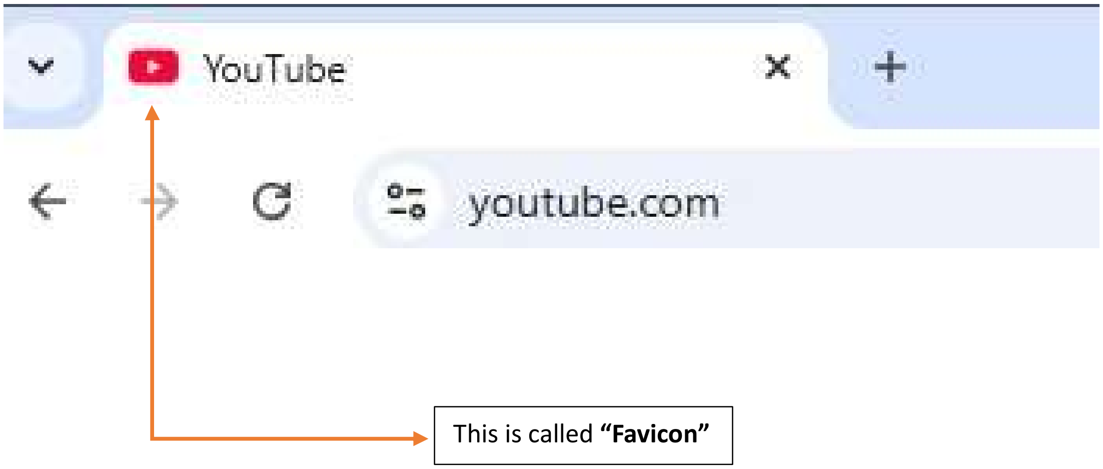
Some browsers or devices may not support all image formats. By using the **<picture>** element, you can add images of all formats, and the browser will use the first format it recognizes, and ignore any of the following elements.

EXAMPLE:

```html
<!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
<h2>The picture Element</h2>
<picture>
  <source srcset="avatar.png">
  <source srcset="girl.jpg">
  <img src="beatles.gif" alt="Beatles" style="width: auto;">
</picture>
<p>The picture element can be used when the image format is not supported by all devices. </p>
<p>The device will use the first image format it supports, and ignore the rest of the images. </p>
</body>
</html>
```

HTML Favicon

A favicon is a small image displayed next to the page title in the browser tab.



This is called **“Favicon”**

A favicon image is displayed to the left of the page title in the browser tab, like this. To add a favicon to your website, either save your favicon image to the root directory of your webserver, or create a folder in the root directory called images, and save your favicon image in this folder. A common name for a favicon image is **"favicon.ico"**. Next, add a **<link>** element to your **"index.html"** file, after the **<title>** element, like this:

EX:

```
<!DOCTYPE html>
<html>
<head>
  <title>My Page Title</title>
  <link rel="icon" type="image/icon" href="/images/favicon.ico">
</head>
```

Favicon File Format Support

The following table shows the file format support for a favicon image

Browser	ICO	PNG	GIF	JPEG	SVG
Edge	Yes	Yes	Yes	Yes	Yes
Chrome	Yes	Yes	Yes	Yes	Yes
Firefox	Yes	Yes	Yes	Yes	Yes
Opera	Yes	Yes	Yes	Yes	Yes
Safari	Yes	Yes	Yes	Yes	Yes

HTML Page Title

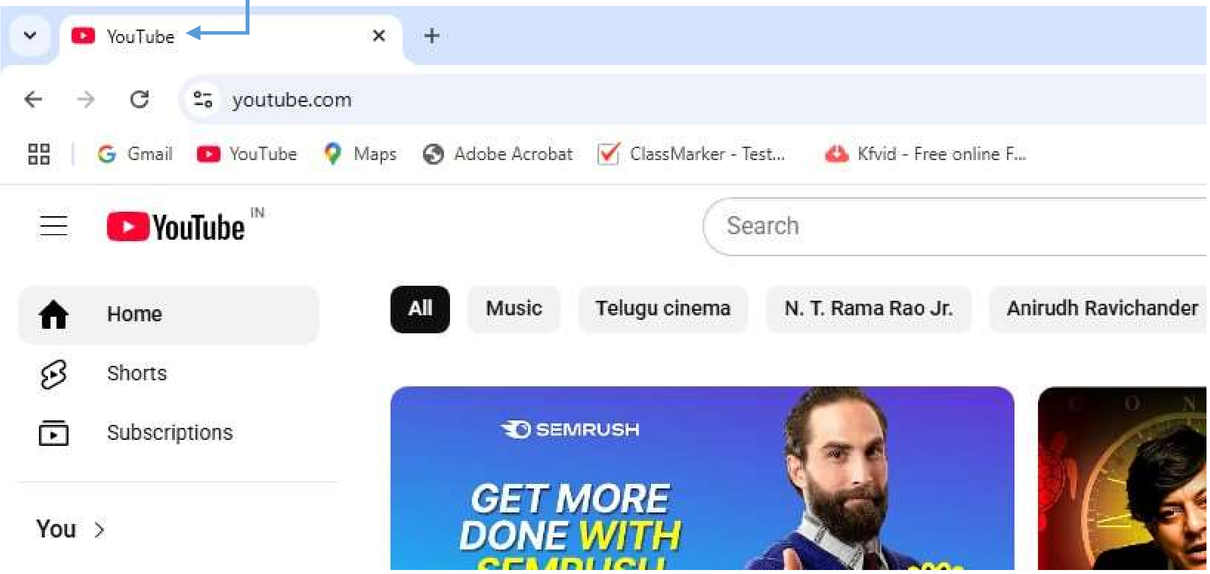
Every web page should have a page title to describe the meaning of the page.

The Title Element

The **<title>** element adds a title to your page.

Ex:

```
<!DOCTYPE html>
<html>
<head>
  <title>My First Web Page </title>
</head>
```



This is **"Page Title"**

What is a Good Title?

The title should describe the content and the meaning of the page.

The page title is very important for **search engine optimization (SEO)**. The text is used by search engine algorithms to decide the order when listing pages in search results.

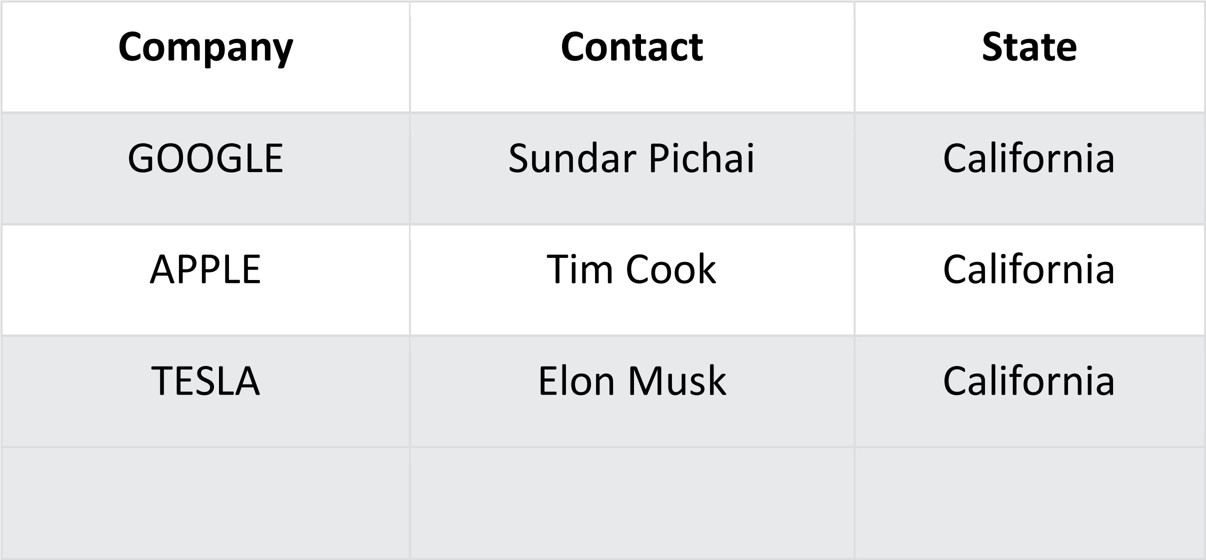
The **<title>** element:

- Defines a title in the browser toolbar
- provides a title for the page when it is added to favourites
- displays a title for the page in search engine-results

So, try to make the title as accurate and meaningful as possible!

HTML Tables

HTML tables allow web developers to arrange data into rows and columns.



Company	Contact	State
GOOGLE	Sundar Pichai	California
APPLE	Tim Cook	California
TESLA	Elon Musk	California

A simple HTML Table

```
<!DOCTYPE html>
<html>
<style>
table, th, td {
  border:1px solid black;
}
</style>
<body>
<h2>A basic HTML table</h2>
<table style="width:100%">
  <tr>
    <th>Company</th>
    <th>Contact</th>
    <th>State</th>
  </tr>
   <tr>
    <td> GOOGLE </td>
    <td> Sundar Pichai </td>
    <td> California </td>
  </tr>
```

```
<tr>
    <td>APPLE </td>
    <td>TIM COOK </td>
    <td> California </td>
  </tr>
 <tr>
    <td>TESLA </td>
    <td>Elon Musk</td>
    <td> California </td>
  </tr>
</table>
<p>To understand the example better, we have added borders to the table. </p>
</body>
</html>
```

Output:

Company	Contact	Country
GOOGLE	**Sundar Pichai**	**California**
APPLE	**Tim Cook**	**California**
TESLA	**Elon Musk**	**California**