HTML хичээл 2

"Программист клуб"
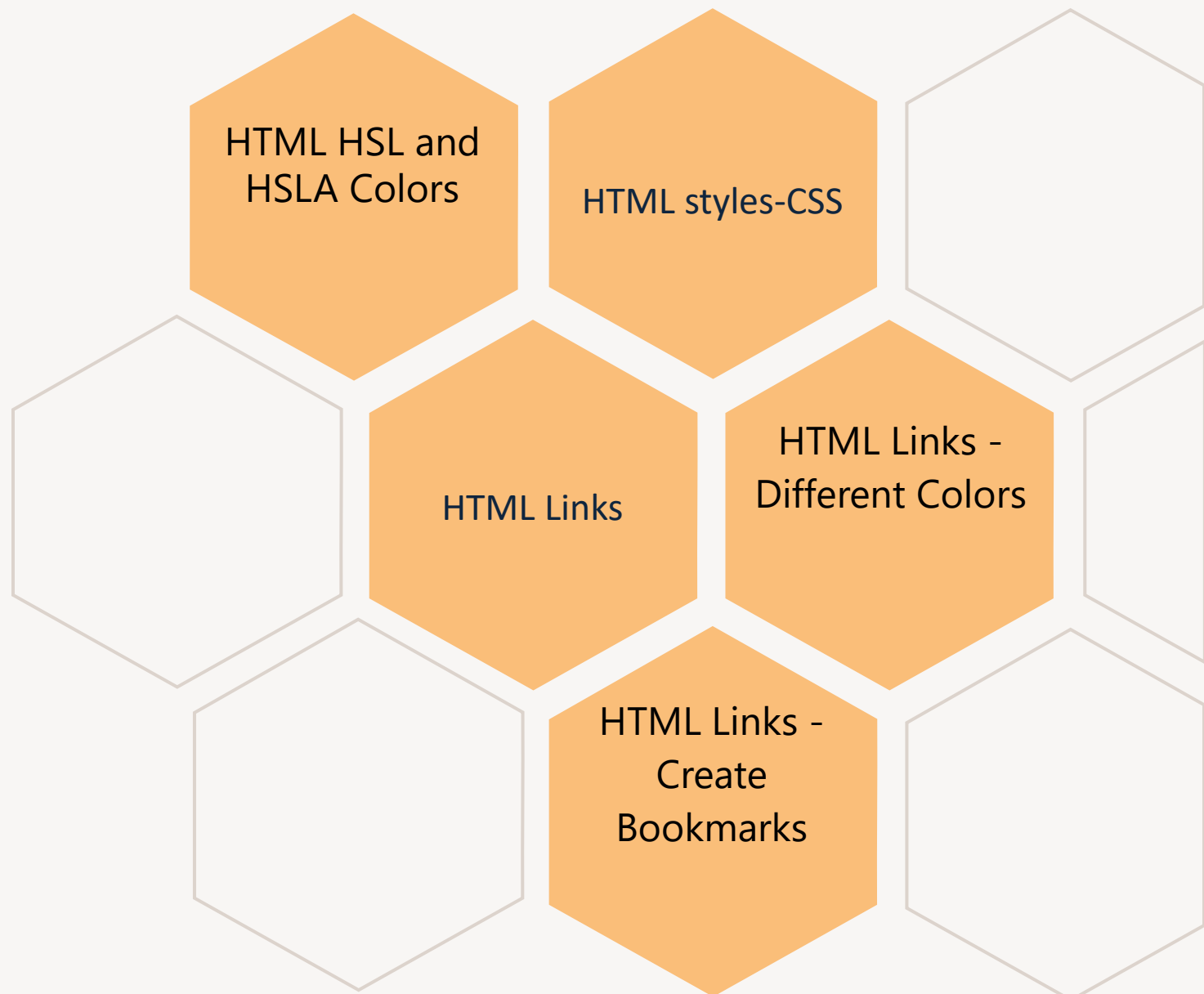
Агуулга

HTML HSL and HSLA Colors

HTML styles-CSS

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Агуулга

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HTML Image Maps

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HTML <picture> Element

HTML Favicon

Агуулга

HTML Page Title

HTML Tables

HTML Table Borders

HTML Table Sizes

HTML Table Headers

HTML HSL and HSLA Colors

```html
<!DOCTYPE html>
<html>
<body>

<h1 style="background-color:hsl(0, 100%, 0%);">hsl(0, 100%,
0%)</h1>
<h1 style="background-color:hsl(0, 100%, 25%);">hsl(0, 100%,
25%)</h1>
<h1 style="background-color:hsl(0, 100%, 50%);">hsl(0, 100%,
50%)</h1>
<h1 style="background-color:hsl(0, 100%, 75%);">hsl(0, 100%,
75%)</h1>
<h1 style="background-color:hsl(0, 100%, 90%);">hsl(0, 100%,
90%)</h1>
<h1 style="background-color:hsl(0, 100%, 100%);">hsl(0, 100%,
100%)</h1>

<p>With HSL colors, 0% lightness means black, and 100
lightness means white.</p>

</body>
</html>
```
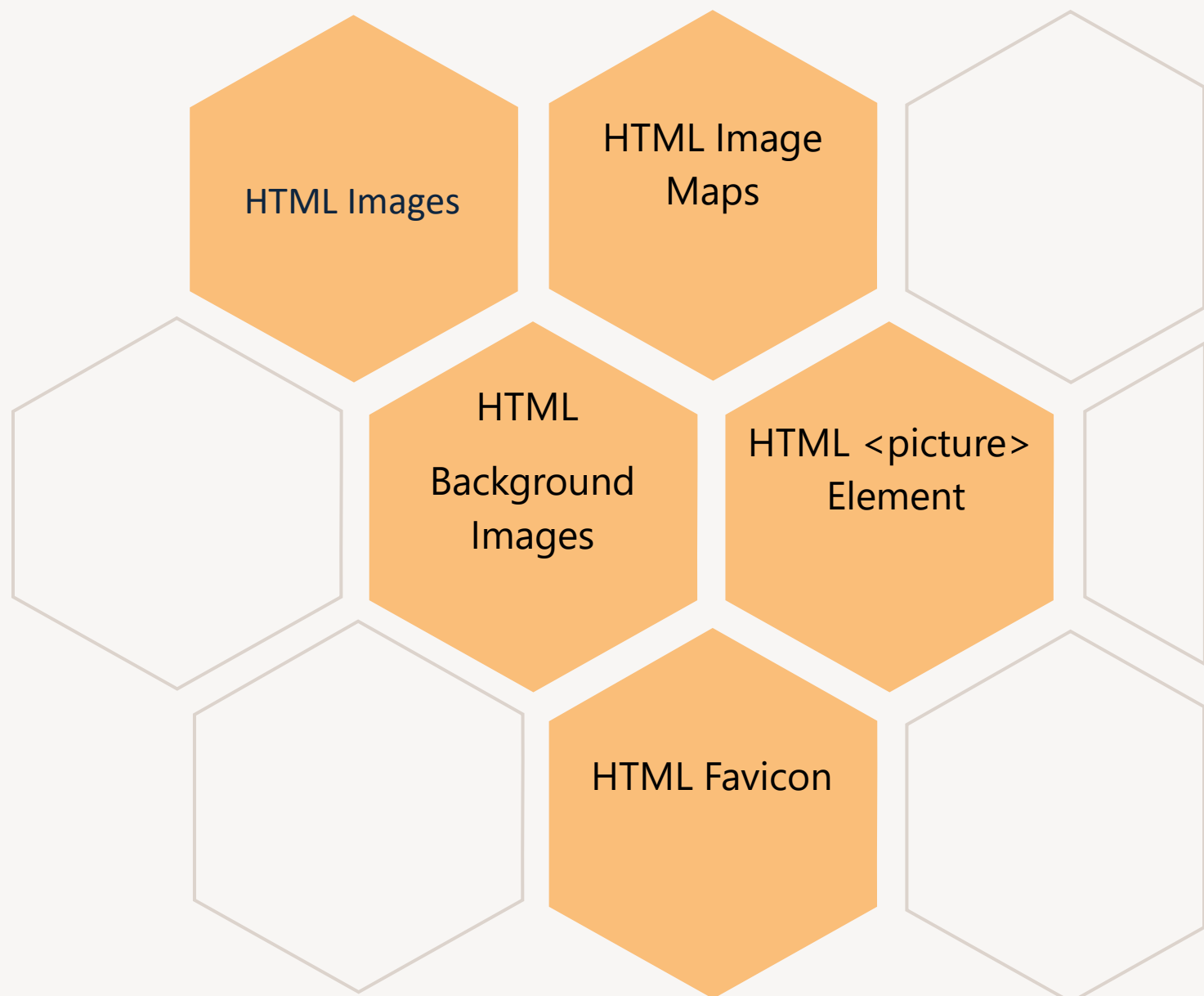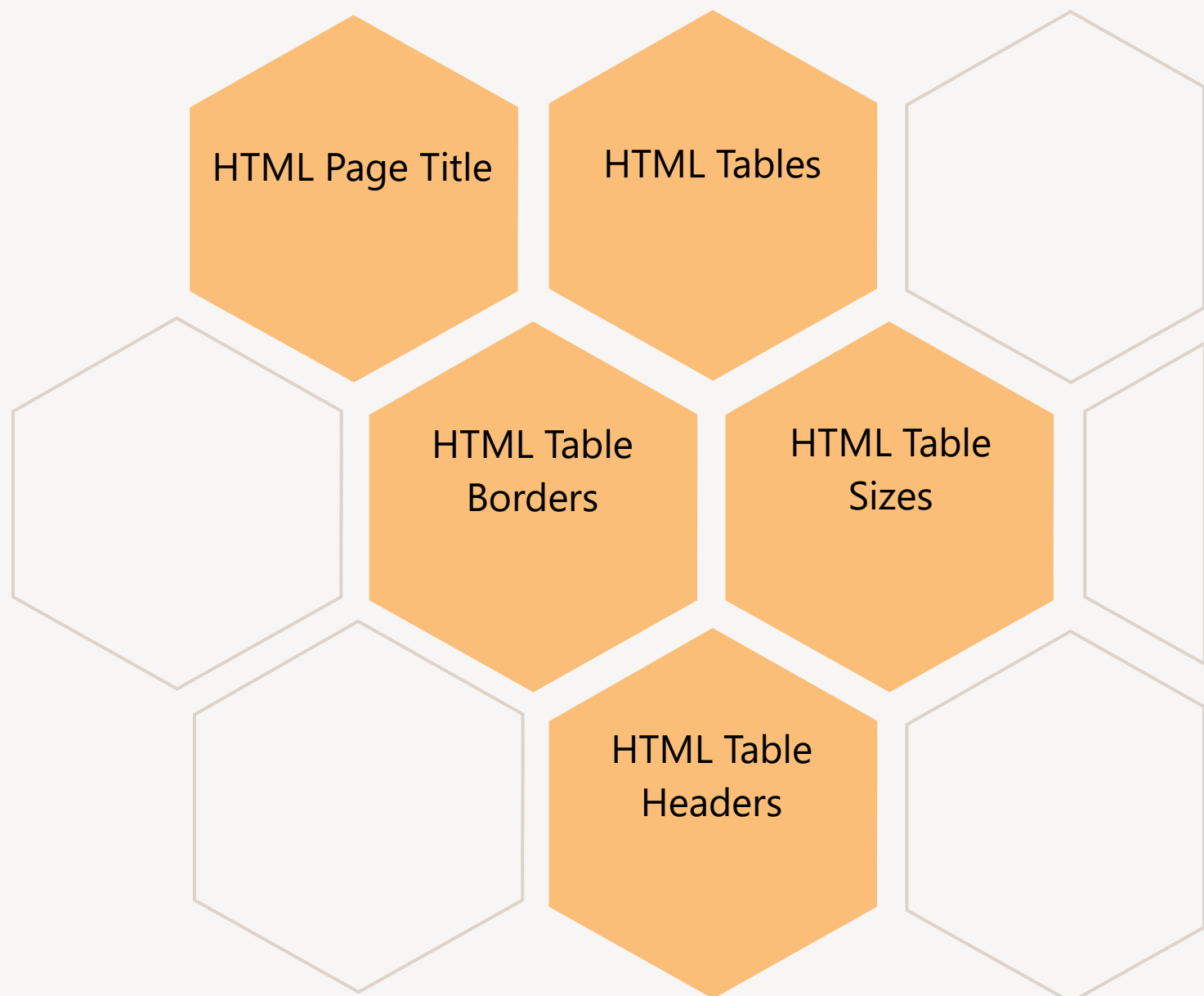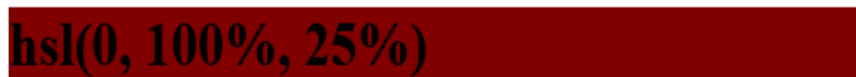
hsl(0, 100%, 25%)

hsl(0, 100%, 50%)

hsl(0, 100%, 75%)

hsl(0, 100%, 90%)

hsl(0, 100%, 100%)

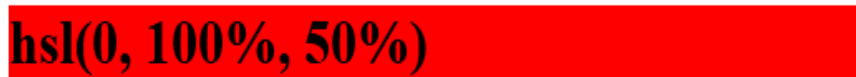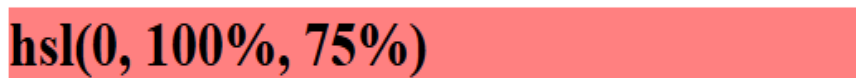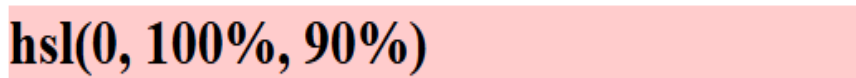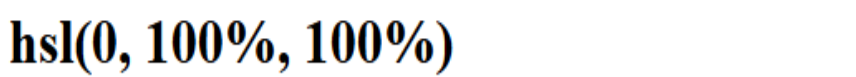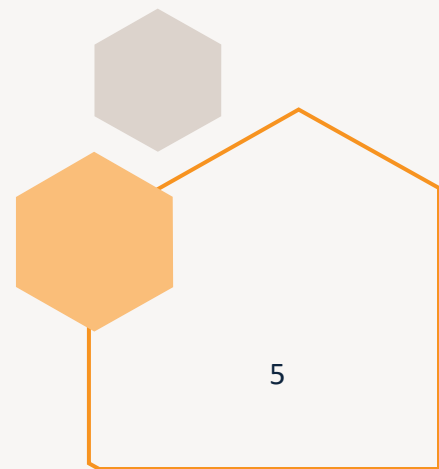With HSL colors, 0% lightness means black, and 100 lightness means white.

HSLA өнгөний утгуудHSLA өнгөний утга нь өнгөний тунгалаг байдлыг тодорхойлдог Альфа суваг бүхий HSL өнгөний утгын өргөтгөл юм.HSLA өнгөний утгыг дараах байдлаар тодорхойлно.hsla(өнгө, ханасан байдал, цайвар байдал, альфа)Альфа параметр нь 0.0 (бүрэн ил тод) ба 1.0 (огт ил тод биш) хоорондох тоо юм:

```html
<!DOCTYPE html>
<html>
<body>

<h1 style="background-color:hsla(9, 100%, 64%, 0);">hsla(9,
100%, 64%, 0)</h1>
<h1 style="background-color:hsla(9, 100%, 64%, 0.2);">hsla(9,
100%, 64%, 0.2)</h1>
<h1 style="background-color:hsla(9, 100%, 64%, 0.4);">hsla(9,
100%, 64%, 0.4)</h1>
<h1 style="background-color:hsla(9, 100%, 64%, 0.6);">hsla(9,
100%, 64%, 0.6)</h1>
<h1 style="background-color:hsla(9, 100%, 64%, 0.8);">hsla(9,
100%, 64%, 0.8)</h1>
<h1 style="background-color:hsla(9, 100%, 64%, 1);">hsla(9,
100%, 64%, 1)</h1>

</body>
</html>
```

hsla(9, 100%, 64%, 0)

hsla(9, 100%, 64%, 0.2)

hsla(9, 100%, 64%, 0.4)

hsla(9, 100%, 64%, 0.6)

hsla(9, 100%, 64%, 0.8)

hsla(9, 100%, 64%, 1)

Experiment by mixing the HSLA values below:

hsla(0, 100%, 50%, 0.5)

HUE	SATURATION	LIGHTNESS	ALPHA
0	100%	50%	0.5

HTML Styles - CSS

CSS нь Cascading Style Sheets гэсэн үгийн товчлол юм.CSS нь маш их ажлыг хэмнэдэг. Энэ нь олон вэб хуудасны байршлыг нэгэн зэрэг хянах боломжтой.

CSS гэж юу вэ?
Cascading Style Sheets (CSS) нь вэб хуудасны байршлыг форматлахад ашиглагддаг.CSS-ийн тусламжтайгаар та өнгө, фонт, текстийн хэмжээ, элементүүдийн хоорондын зай, элементүүдийг хэрхэн байрлуулж, байрлуулах, ямар дэвсгэр зураг эсвэл дэвсгэр өнгө ашиглах, өөр өөр төхөөрөмж, дэлгэцийн хэмжээ, өөр өөр дэлгэц зэргийг хянах боломжтой.
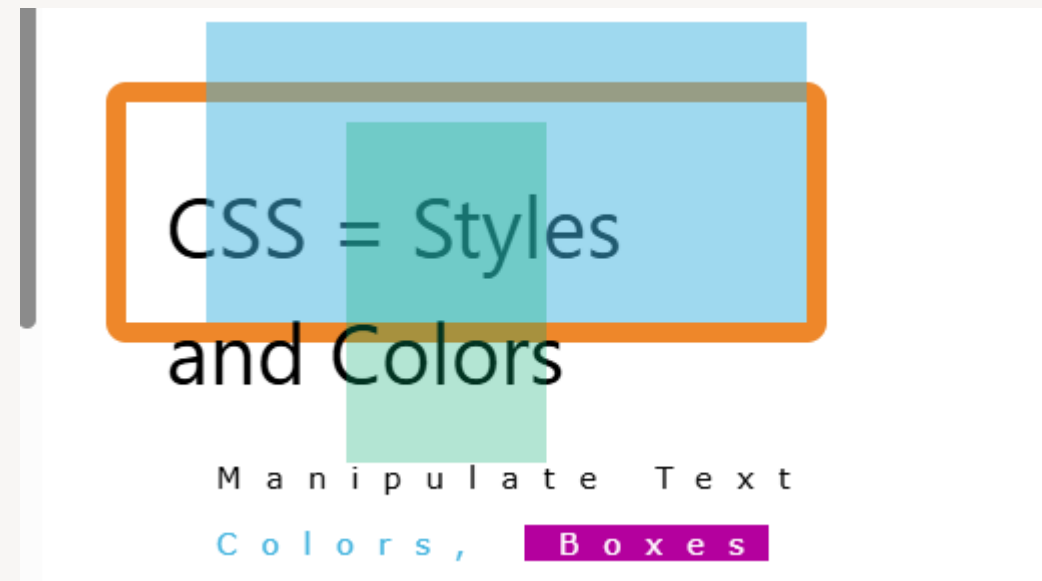
Using CSS

CSS-ийг HTML баримт бичигт 3 аргаар нэмж болно:

Inline - HTML элементүүдийн доторх загварын шинж чанарыг ашиглана

Internal- <head> хэсэгт <style> элемент ашиглана

External - гадаад CSS файл руу холбохын тулд <link> элемент ашиглана

CSS нэмэх хамгийн түгээмэл арга бол хэв маягийг гадаад CSS файлд хадгалах явдал юм. Гэсэн хэдий ч, энэ зааварт бид шугаман болон дотоод хэв маягийг ашиглах болно, учир нь үүнийг харуулах нь илүү хялбар бөгөөд та үүнийг өөрөө туршиж үзэхэд хялбар байдаг.

Inline CSS

Inline CSS нь нэг HTML элементэд өвөрмөц хэв маягийг хэрэглэхэд ашиглагддаг.Inline CSS нь HTML элементийн загварын шинж чанарыг ашигладаг.Дараах жишээнд <h1> элементийн текстийн өнгийг цэнхэр, <p> элементийн текстийн өнгийг улаан болгож тохируулсан:

```
<!DOCTYPE html>
<html>
<body>

<h1 style="color:blue;">A Blue Heading</h1>

<p style="color:red;">A red paragraph.</p>

</body>
</html>
```

A Blue Heading

A red paragraph.

Internal CSS

Дотоод CSS нь нэг HTML хуудасны хэв маягийг тодорхойлоход хэрэглэгддэг.Дотоод CSS нь HTML хуудасны <head> хэсэгт, <style> элемент дотор тодорхойлогддог.Дараах жишээнд БҮХ <h1> элементүүдийн (тухайн хуудсан дээрх) текстийн өнгийг цэнхэр, БҮХ <p> элементүүдийн текстийн өнгийг улаан болгож тохируулсан. Нэмж дурдахад хуудас нь "нунтаг цэнхэр" дэвсгэр өнгөөр харагдах болно:

```html
<!DOCTYPE html>
<html>
<head>
<style>
body {background-color: powderblue;}
h1   {color: blue;}
p    {color: red;}
</style>
</head>
<body>

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

This is a heading

This is a paragraph.

External CSS

Гадаад загварын хуудсыг олон HTML хуудасны хэв маягийг тодорхойлоход ашигладаг.Гадаад загварын хуудсыг ашиглахын тулд HTML хуудас бүрийн <head> хэсэгт холбоосыг нэмнэ үү.

```
<!DOCTYPE html>
<html>
<head>
  <link rel="stylesheet" href="styles.css">
</head>
<body>

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

This is a heading

This is a paragraph.

Here is what the "styles.css" file looks like:

"styles.css":

```
body {
  background-color: powderblue;
}
h1 {
  color: blue;
}
p {
  color: red;
}
```

CSS Colors, Fonts and Sizes

Энд бид өргөн хэрэглэгддэг CSS шинж чанаруудыг харуулах болно. Та дараа нь тэдний талаар илүү ихийг мэдэх болно.CSS өнгөний шинж чанар нь ашиглах текстийн өнгийг тодорхойлдог.CSS font-family шинж чанар нь ашиглах фонтыг тодорхойлдог.CSS font-size шинж чанар нь ашиглах текстийн хэмжээг тодорхойлдог.

```
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
  color: blue;
  font-family: verdana;
  font-size: 300%;

}
p  {
  color: red;
  font-family: courier;
  font-size: 160%;
}
</style>
</head>
<body>

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

This is a heading

This is a paragraph.

CSS Border

CSS border шинж чанар нь HTML элементийн эргэн тойрон дахь хүрээг тодорхойлдог.Зөвлөмж: Та бараг бүх HTML элементийн хүрээг тодорхойлж болно.

```
<!DOCTYPE html>
<html>
<head>
<style>
p {
  border: 2px solid powderblue;
}
</style>
</head>
<body>

<h1>This is a heading</h1>

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

</body>
</html>
```

This is a heading

This is a paragraph.

This is a paragraph.

This is a paragraph.

CSS Padding

CSS padding шинж чанар нь текст болон хүрээ хоорондын зайг (зай) тодорхойлдог.

```
<!DOCTYPE html>
<html>
<head>
<style>
p {
  border: 2px solid powderblue;
  padding: 30px;
}
</style>
</head>
<body>

<h1>This is a heading</h1>

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

</body>
</html>
```

This is a heading

This is a paragraph.

This is a paragraph.

This is a paragraph.

CSS Margin

CSS margin шинж чанар нь border гадна талын зайг (зай) тодорхойлдог.

```
<!DOCTYPE html>
<html>
<head>
<style>
p {
  border: 2px solid powderblue;
  margin: 50px;
}
</style>
</head>
<body>

<h1>This is a heading</h1>

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

</body>
</html>
```

This is a heading

This is a paragraph.

This is a paragraph.

This is a paragraph.

Inline загварт HTML загварын шинж чанарыг ашиглана уу

Дотоод CSS-ийг тодорхойлохын тулд

HTML <style> элементийг ашиглана уу

HTML <link> элементийг ашиглан гадаад CSS файл руу хандаарай

HTML <head> элементийг ашиглан

<style> болон <link> элементүүдийг хадгална

Текстийн өнгөний хувьд CSS өнгөний шинж чанарыг ашиглана уу

Текстийн фонтуудад CSS font-family шинж чанарыг ашиглана уу

Текстийн хэмжээг CSS үсгийн хэмжээтэй шинж чанарыг ашиглана уу

border хувьд CSS border шинж чанарыг ашиглана уу

border доторх зайд CSS padding шинж чанарыг ашиглана уу

border гадна зайд CSS margin шинж чанарыг ашиглана уу

HTML Links

Холбоосыг бараг бүх вэб хуудаснаас олж болно. Холбоос нь хэрэглэгчдэд хуудаснаас хуудас руу товших боломжийг олгодог.

HTML Links - HyperLinks
HTML холбоосууд нь гипер холбоосууд юм.Та холбоос дээр дараад өөр баримт бичиг рүү шилжих боломжтой.Холбоос дээр хулганыг хөдөлгөхөд хулганы сум жижиг гар болж хувирна.

HTML холбоосууд – Синтакс
HTML <a> таг нь гипер холбоосыг тодорхойлдог. Энэ нь дараах синтакстай:
 холбоос текст <a> элементийн хамгийн чухал шинж чанар бол холбоосын очих газрыг заадаг href шинж чанар юм. Холбоос текст нь уншигчдад харагдах хэсэг юм.Холбоос текст дээр дарснаар уншигч заасан URL хаяг руу илгээгдэнэ.

```
<!DOCTYPE html>
<html>
<body>

<h1>HTML Links</h1>

<p><a href="https://www.w3schools.com/">Visit W3Schools.com!
</a></p>

</body>
</html>
```

HTML Links

Visit W3Schools.com!

HTML Links - The target Attribute

Анхдагч байдлаар, холбосон хуудас нь одоогийн хөтөчийн цонхонд харагдах болно. Үүнийг өөрчлөхийн тулд та холбоосын өөр зорилтыг зааж өгөх ёстой.

Зорилтот атрибут нь холбосон баримт бичгийг хаана нээхийг зааж өгдөг.

Зорилтот шинж чанар нь дараах утгуудын аль нэгтэй байж болно.

❖ _self - Өгөгдмөл. Баримт бичгийг товшсонтой ижил цонх/таб дээр нээнэ
❖ _blank - Баримт бичгийг шинэ цонх эсвэл таб дээр нээнэ
❖ _parent - Баримт бичгийг эх хүрээ дотор нээнэ
❖ _top - Баримт бичгийг цонхны бүтэн хэсэгт нээнэ

Example

Use target="_blank" to open the linked document in a new browser window or tab:

```
<a href="https://www.w3schools.com/" target="_blank">Visit W3Schools!</a>
```

Try it Yourself »

Absolute URLs vs. Relative URLs

Дээрх хоёр жишээ нь href шинж чанарт үнэмлэхүй URL (бүтэн вэб хаяг) ашиглаж байна.Орон нутгийн холбоосыг (нэг вэбсайт дахь хуудасны холбоос) харьцангуй URL ("https://www" хэсэггүйгээр) зааж өгсөн болно.

```
<!DOCTYPE html>
<html>
<body>

<h2>Absolute URLs</h2>
<p><a href="https://www.w3.org/"
target="_blank">W3C</a></p>
<p><a href="https://www.google.com/"
target="_blank">Google</a></p>

<h2>Relative URLs</h2>
<p><a href="html_images.asp">HTML Images</a></p>
<p><a href="/css/default.asp">CSS Tutorial</a></p>

</body>
</html>
```

Absolute URLs

W3C

Google

Relative URLs

HTML Images

CSS Tutorial

HTML Links – Use an Image as a Link

To use an image as a link, just put the `<img>` tag inside the `<a>` tag:

Example

```
<a href="default.asp">
<img src="smiley.gif" alt="HTML tutorial" style="width:42px;height:42px;">
</a>
```

Link to an Email Address

Use `mailto:` inside the `href` attribute to create a link that opens the user's email program (to let them send a new email):

Example

```
<a href="mailto:someone@example.com">Send email</a>
```

Button as a Link

To use an HTML button as a link, you have to add some JavaScript code.

JavaScript allows you to specify what happens at certain events, such as a click of a button:

Example

```
<button onclick="document.location='default.asp'">HTML Tutorial</button>
```

Try it Yourself »

Tip: Learn more about JavaScript in our JavaScript Tutorial.

Link Titles

The `title` attribute specifies extra information about an element. The information is most often shown as a tooltip text when the mouse moves over the element.

Example

```
<a href="https://www.w3schools.com/html/" title="Go to W3Schools HTML section">Visit our HTML
Tutorial</a>
```

Холбоосыг тодорхойлохын тулд <a> элементийг ашиглана

Холбоосын хаягийг тодорхойлохын тулд href шинж чанарыг ашиглана

Холбогдсон баримтыг хаана нээхийг тодорхойлохын тулд зорилтот атрибутыг ашиглана

Зургийг холбоос болгон ашиглахын тулд <img> элементийг (<a> дотор) ашиглана

Хэрэглэгчийн имэйлийн програмыг нээх холбоос үүсгэхийн тулд href атрибут доторх mailto: схемийг ашиглана

Exercise [?]

What is a correct syntax for an HTML hyperlink?

- ○ `<a href='/home.htm'>Visit W3Schools.com!</a>`
- ○ `<link href='/home.htm'>Visit W3Schools.com!</link>`
- ○ `<alink href='/home.htm'>Visit W3Schools.com!</alink>`

HTML Images

Зураг нь вэб хуудасны дизайн болон харагдах байдлыг сайжруулж чадна.

Example

```
<img src="pic_trulli.jpg" alt="Italian Trulli">
```

Try it Yourself »

Example

```
<img src="img_girl.jpg" alt="Girl in a jacket">
```

Try it Yourself »

Example

```
<img src="img_chania.jpg" alt="Flowers in Chania">
```

Try it Yourself »

HTML Images Syntax

HTML <img> тагийг вэб хуудсанд зураг оруулахад ашигладаг.

Зургийг вэб хуудсанд техникийн хувьд оруулаагүй; зургуудыг вэб хуудсуудтай холбосон. <img> шошго нь иш татсан дүрсийг хадгалах зайг үүсгэдэг.

<img> таг хоосон, зөвхөн шинж чанаруудыг агуулсан, хаах таг байхгүй.

<img> tag нь шаардлагатай хоёр шинж чанартай:

- src - Зурганд хүрэх замыг зааж өгнө
- alt - Зургийн өөр текстийг зааж өгнө

Syntax

```
<img src="url" alt="alternatetext">
```

src шинж чанар

Шаардлагатай src шинж чанар нь зураг руу хүрэх замыг (URL) зааж өгдөг.Тэмдэглэл: Вэб хуудас ачаалагдах үед вэб серверээс зургийг авч, хуудсанд оруулах нь хөтөч юм. Тиймээс, зураг нь вэб хуудастай холбоотой яг ижил газар байгаа эсэхийг шалгаарай, эс тэгвээс таны зочдод эвдэрсэн холбоосын дүрс гарч ирнэ. Хөтөч зургийг олж чадахгүй бол эвдэрсэн холбоосын дүрс болон өөр текстийг харуулна.

```
<!DOCTYPE html>
<html>
<body>

<h2>Alternative text</h2>

<p>The alt attribute should reflect the image
content, so users who cannot see the image get an
understanding of what the image contains:</p>

<img src="img_chania.jpg" alt="Flowers in Chania"
width="460" height="345">

</body>
</html>
```

Alternative text

The alt attribute should reflect the image content, so users who cannot see the image get an understanding of what the image contains:

Alt шинж чанар

Шаардлагатай alt шинж чанар нь хэрэглэгч ямар нэг шалтгаанаар (холболт удаашрал, src шинж чанарт алдаа гарсан эсвэл хэрэглэгч дэлгэц уншигч ашиглаж байгаа) түүнийг харж чадахгүй байгаа тохиолдолд зургийн өөр текстийг өгдөг.

Example

```
<img src="img_chania.jpg" alt="Flowers in Chania">
```

Try it Yourself »

If a browser cannot find an image, it will display the value of the `alt` attribute:

Example

```
<img src="wrongname.gif" alt="Flowers in Chania">
```

Image Size - Width and Height

You can use the `style` attribute to specify the width and height of an image.

Example

```
<img src="img_girl.jpg" alt="Girl in a jacket" style="width:500px;height:600px;">
```

Try it Yourself »

Alternatively, you can use the `width` and `height` attributes:

Example

```
<img src="img_girl.jpg" alt="Girl in a jacket" width="500" height="600">
```

Try it Yourself »

The `width` and `height` attributes always define the width and height of the image in pixels.

Width and Height, or Style?

The `width`, `height`, and `style` attributes are all valid in HTML.

However, we suggest using the `style` attribute. It prevents styles sheets from changing the size of images:

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
img {
  width: 100%;
}
</style>
</head>
<body>

<img src="html5.gif" alt="HTML5 Icon" width="128" height="128">

<img src="html5.gif" alt="HTML5 Icon" style="width:128px;height:128px;">

</body>
</html>
```

Images in Another Folder

If you have your images in a sub-folder, you must include the folder name in the `src` attribute:

Example

```
<img src="/images/html5.gif" alt="HTML5 Icon" style="width:128px;height:128px;">
```

Images on Another Server/Website

Some web sites point to an image on another server.

To point to an image on another server, you must specify an absolute (full) URL in the `src` attribute:

Example

```
<img src="https://www.w3schools.com/images/w3schools_green.jpg" alt="W3Schools.com">
```

Image as a Link

To use an image as a link, put the `<img>` tag inside the `<a>` tag:

Example

```
<a href="default.asp">
  <img src="smiley.gif" alt="HTML tutorial" style="width:42px;height:42px;">
</a>
```

Image Floating

Use the CSS `float` property to let the image float to the right or to the left of a text:

Example

```
<p><img src="smiley.gif" alt="Smiley face" style="float:right;width:42px;height:42px;">
The image will float to the right of the text.</p>
```

```
<p><img src="smiley.gif" alt="Smiley face" style="float:left;width:42px;height:42px;">
The image will float to the left of the text.</p>
```

Common Image Formats

Here are the most common image file types, which are supported in all browsers (Chrome, Edge, Firefox, Safari, Opera):

Abbreviation	File Format	File Extension
APNG	Animated Portable Network Graphics	.apng
GIF	Graphics Interchange Format	.gif
ICO	Microsoft Icon	.ico, .cur
JPEG	Joint Photographic Expert Group image	.jpg, .jpeg, .jfif, .pjpeg, .pjp
PNG	Portable Network Graphics	.png
SVG	Scalable Vector Graphics	.svg

Use the HTML `<img>` element to define an image
Use the HTML `src` attribute to define the URL of the image
Use the HTML `alt` attribute to define an alternate text for an image, if it cannot be displayed
Use the HTML `width` and `height` attributes or the CSS `width` and `height` properties to define the size of the image
Use the CSS `float` property to let the image float to the left or to the right

HTML Image Tags

Tag	Description
<img>	Defines an image
<map>	Defines an image map
<area>	Defines a clickable area inside an image map
<picture>	Defines a container for multiple image resources

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HTML Background Images

Бараг бүх HTML элементийн дэвсгэр зургийг зааж өгч болно.

HTML элемент дээрх дэвсгэр зураг

HTML элемент дээр дэвсгэр зураг нэмэхийн тулд HTML загварын шинж чанар болон

CSS background-image шинж чанарыг ашиглана уу:

Example

Add a background image on a HTML element:

```
<p style="background-image: url('img_girl.jpg');">
```

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

<h2>Background Image</h2>

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

</body>
</html>
```

Background Image

You can specify background images
for any visible HTML element.
In this example, the background image
is specified for a div 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.

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:

Example

Add a background image for the entire page:

```
<style>
body {
  background-image: url('img_girl.jpg');
}
</style>
```

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 (the image will keep its original proportions):

Example

```
<style>
body {
  background-image: url('img_girl.jpg');
  background-repeat: no-repeat;
  background-attachment: fixed;
  background-size: cover;
}
</style>
```

Background Stretch

If you want the background image to stretch to fit the entire element, you can set the `background-size` property to `100% 100%`:

Try resizing the browser window, and you will see that the image will stretch, but always cover the entire element.

Example

```
<style>
body {
  background-image: url('img_girl.jpg');
  background-repeat: no-repeat;
  background-attachment: fixed;
  background-size: 100% 100%;
}
```

HTML Favicon

Favicon нь хөтчийн таб дахь хуудасны гарчгийн хажууд харагдах жижиг зураг юм.

How To Add a Favicon in HTML

You can use any image you like as your favicon. You can also create your own favicon on sites like https://www.favicon.cc.

Tip: A favicon is a small image, so it should be a simple image with high contrast.

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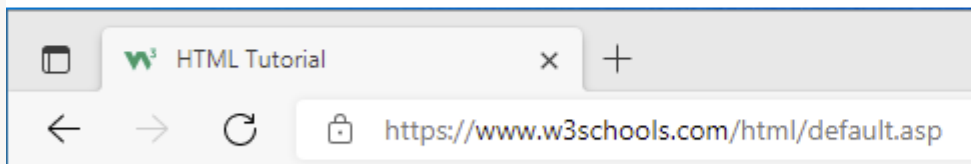
To add a favicon to your website, either save your favicon image to the root directory of your webserver, or create a folder in the root directory called images, and save your favicon image in this folder. A common name for a favicon image is "favicon.ico".

Next, add a `<link>` element to your "index.html" file, after the `<title>` element, like this:

Example

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

<h1>This is a Heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

HTML Page Title

Вэб хуудас бүр хуудасны утгыг тайлбарлах хуудасны гарчигтай байх ёстой.<title>
элемент нь таны хуудсанд гарчигийг нэмнэ:

Example

```
<!DOCTYPE html>
<html>
<head>
  <title>HTML Tutorial</title>
</head>
<body>

The content of the document......

</body>
</html>
```
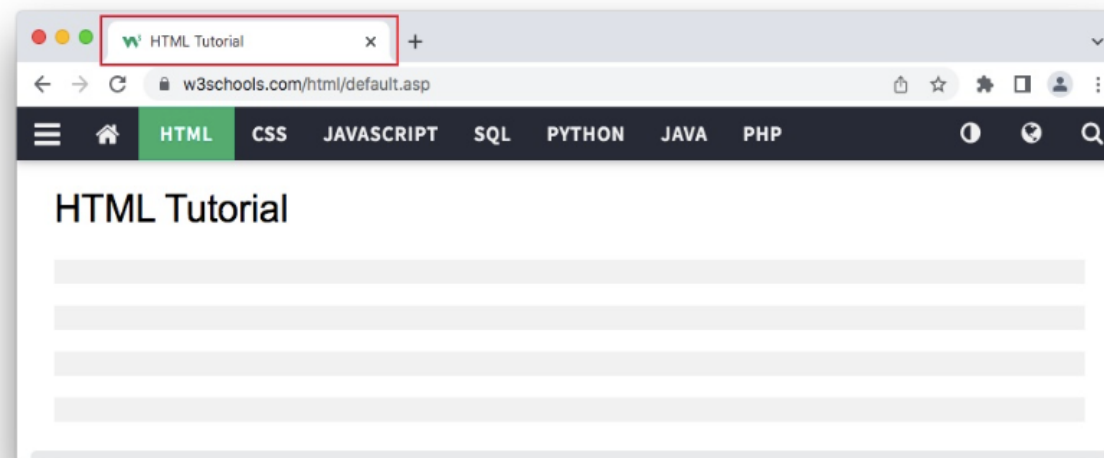
The title is shown in the browser's title bar:

HTML Tables
 сайн анхаарай !!!

HTML хүснэгтүүд нь вэб хөгжүүлэгчдэд өгөгдлийг мөр, багана болгон цэгцлэх боломжийг олгодог.

```
<!DOCTYPE html>
<html>
<head>
<style>
table {
  font-family: arial, sans-serif;
  border-collapse: collapse;
  width: 100%;
}

td, th {
  border: 1px solid #dddddd;
  text-align: left;
  padding: 8px;
}

tr:nth-child(even) {
  background-color: #dddddd;
}
</style>
</head>
<body>

<h2>HTML Table</h2>

<table>
  <tr>
    <th>Company</th>
    <th>Contact</th>
    <th>Country</th>
  </tr>
  <tr>
    <td>Alfreds Futterkiste</td>
    <td>Maria Anders</td>
    <td>Germany</td>
  </tr>
  <tr>
    <td>Centro comercial Moctezuma</td>
    <td>Francisco Chang</td>
    <td>Mexico</td>
  </tr>
  <tr>
    <td>Ernst Handel</td>
    <td>Roland Mendel</td>
    <td>Austria</td>
  </tr>
  <tr>
    <td>Island Trading</td>
    <td>Helen Bennett</td>
    <td>UK</td>
  </tr>
  <tr>
    <td>Laughing Bacchus Winecellars</td>
    <td>Yoshi Tannamuri</td>
    <td>Canada</td>
  </tr>
  <tr>
    <td>Magazzini Alimentari Riuniti</td>
    <td>Giovanni Rovelli</td>
    <td>Italy</td>
  </tr>
</table>

</body>
</html>
```

HTML Table

Company	Contact	Country
Alfreds Futterkiste	Maria Anders	Germany
Centro comercial Moctezuma	Francisco Chang	Mexico
Ernst Handel	Roland Mendel	Austria
Island Trading	Helen Bennett	UK
Laughing Bacchus Winecellars	Yoshi Tannamuri	Canada
Magazzini Alimentari Riuniti	Giovanni Rovelli	Italy

Table Cells

Each table cell is defined by a `<td>` and a `</td>` tag.

`td` stands for table data.

Everything between `<td>` and `</td>` are the content of the table cell.

Example

```
<table>
  <tr>
    <td>Emil</td>
    <td>Tobias</td>
    <td>Linus</td>
  </tr>
</table>
```

Table Rows

Each table row starts with a `<tr>` and ends with a `</tr>` tag.

`tr` stands for table row.

Example

```
<table>
  <tr>
    <td>Emil</td>
    <td>Tobias</td>
    <td>Linus</td>
  </tr>
  <tr>
    <td>16</td>
    <td>14</td>
    <td>10</td>
  </tr>
</table>
```

Table Headers

Sometimes you want your cells to be table header cells. In those cases use the `<th>` tag instead of the `<td>` tag:

`th` stands for table header.

Example

Let the first row be table header cells:

```
<table>
  <tr>
    <th>Person 1</th>
    <th>Person 2</th>
    <th>Person 3</th>
  </tr>
  <tr>
    <td>Emil</td>
    <td>Tobias</td>
    <td>Linus</td>
  </tr>
  <tr>
    <td>16</td>
    <td>14</td>
    <td>10</td>
  </tr>
</table>
```

HTML Table Tags

Tag	Description
<table>	Defines a table
<th>	Defines a header cell in a table
<tr>	Defines a row in a table
<td>	Defines a cell in a table
<caption>	Defines a table caption
<colgroup>	Specifies a group of one or more columns in a table for formatting
<col>	Specifies column properties for each column within a <colgroup> element
<thead>	Groups the header content in a table
<tbody>	Groups the body content in a table
<tfoot>	Groups the footer content in a table

HTML Table Borders

HTML хүснэгтүүд нь өөр өөр загвар, хэлбэрийн хүрээтэй байж болно.

How To Add a Border

To add a border, use the CSS `border` property on `table`, `th`, and `td` elements:


```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
}
</style>
</head>
<body>

<h2>Table With Border</h2>

<p>Use the CSS border property to add a border
to the table.</p>

<table style="width:100%">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
  </tr>
</table>
```

Table With Border

Use the CSS border property to add a border to the table.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

Collapsed Table Borders

To avoid having double borders like in the example above, set the CSS `border-collapse` property to `collapse`.

This will make the borders collapse into a single border:

<table>
<tr><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
</table>

Example

```css
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
```

Style Table Borders

If you set a background color of each cell, and give the border a white color (the same as the document background), you get the impression of an invisible border:

Example

```
table, th, td {
   border: 1px solid white;
   border-collapse: collapse;
}
th, td {
   background-color: #96D4D4;
}
```

Round Table Borders

With the `border-radius` property, the borders get rounded corners

Example

```
table, th, td {
   border: 1px solid black;
   border-radius: 10px;
}
```

Dotted Table Borders

With the `border-style` property, you can set the appearance of the border.

The following values are allowed:

- `dotted`
- `dashed`
- `solid`
- `double`
- `groove`
- `ridge`
- `inset`
- `outset`
- `none`
- `hidden`
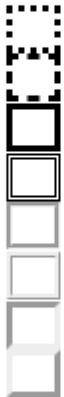
Example

```
th, td {
  border-style: dotted;
}
```

Border Color

With the `border-color` property, you can set the color of the border.

Example

```
th, td {
  border-color: #96D4D4;
}
```

HTML Table Sizes

HTML хүснэгтүүд нь багана, мөр, хүснэгт бүрийн хувьд өөр өөр хэмжээтэй байж болно.

Use the `style` attribute with the `width` or `height` properties to specify the size of a table, row or column.

HTML Table Width

To set the width of a table, add the `style` attribute to the `<table>` element:

Example

Set the width of the table to 100%:

```
<table style="width:100%">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
</table>
```

HTML Table Column Width

To set the size of a specific column, add the `style` attribute on a `<th>` or `<td>` element:

```
<table style="width:100%">
  <tr>
    <th style="width:70%">Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
</table>
```

HTML Table Row Height

```
<table style="width:100%">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr style="height:200px">
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
</table>
```


To set the height of a specific row, add the `style` attribute on a table row element:

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HTML Table Headers

HTML tables can have headers for each column or row, or for many columns/rows.

EMIL	TOBIAS	LINUS

8:00		
9:00		
10:00		
11:00		
12:00		
13:00		

	MON	TUE	WED	THU	FRI
8:00					
9:00					
10:00					
11:00					
12:00					

DECEMBER		

```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
</style>
</head>
<body>

<h2>Table Headers</h2>

<p>Use the TH element to define table headers.</p>

<table style="width:100%">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
</table>

</body>
</html>
```

Table Headers

Use the TH element to define table headers.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94

```html
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
</style>
</head>
<body>

<h2>Vertical Table Headers</h2>

<p>The first column becomes table headers if you
set the first table cell in each table row to a TH
element:</p>

<table style="width:100%">
  <tr>
    <th>Firstname</th>
    <td>Jill</td>
    <td>Eve</td>
  </tr>
  <tr>
    <th>Lastname</th>
    <td>Smith</td>
    <td>Jackson</td>
  </tr>
  <tr>
    <th>Age</th>
    <td>50</td>
    <td>94</td>
  </tr>
</table>

</body>
</html>
```

Vertical Table Headers

The first column becomes table headers if you set the first table cell in each table row to a TH element:

Firstname	Jill	Eve
Lastname	Smith	Jackson
Age	50	94

Align Table Headers

By default, table headers are bold and centered:

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94

To left-align the table headers, use the CSS `text-align` property:

Example

```css
th {
  text-align: left;
}
```

```html
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
th {
  text-align: left;
}
</style>
</head>
<body>

<h2>Left-align Headers</h2>

<p>To left-align the table headers, use the CSS
text-align property.</p>

<table style="width:100%">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
</table>
</body>
</html>
```

Left-align Headers

To left-align the table headers, use the CSS text-align property.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94

Header for Multiple Columns

You can have a header that spans over two or more columns.

Name		Age
Jill	Smith	50
Eve	Jackson	94

To do this, use the `colspan` attribute on the `<th>` element:

Example

```
<table>
  <tr>
    <th colspan="2">Name</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
</table>
```

Table Caption

You can add a caption that serves as a heading for the entire table.

Monthly savings

Month	Savings
January	$100
February	$50

To add a caption to a table, use the `<caption>` tag:

Example

```
<table style="width:100%">
  <caption>Monthly savings</caption>
  <tr>
    <th>Month</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>January</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>February</td>
    <td>$50</td>
  </tr>
</table>
```

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HTML Table Padding & Spacing

HTML tables can adjust the padding inside the cells, and also the space between the cells.

With Padding

hello	hello	hello
hello	hello	hello
hello	hello	hello

With Spacing

hello	hello	hello
hello	hello	hello
hello	hello	hello

HTML Table - Cell Padding

Cell padding is the space between the cell edges and the cell content.

By default the padding is set to 0.

To add padding on table cells, use the CSS `padding` property:

Example

```
th, td {
  padding: 15px;
}
```

```
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
th, td {
  padding: 15px;
}
</style>
</head>
<body>
<h2>Cellpadding</h2>
<p>Cell padding specifies the space between the cell content and its
borders.</p>
<table style="width:100%">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
  </tr>
</table></body></html>
```

Cellpadding

Cell padding specifies the space between the cell content and its borders.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

Tip: Try to change the padding to 5px.

To add padding only above the content, use the `padding-top` property.

And the others sides with the `padding-bottom` , `padding-left` , and `padding-right` properties:

Example

```
th, td {
  padding-top: 10px;
  padding-bottom: 20px;
  padding-left: 30px;
  padding-right: 40px;
}
```

```html
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
}
table {
  border-spacing: 30px;
}
</style>
</head>
<body>

<h2>Cellspacing</h2>
<p>Change the space between the cells with the border-spacing property.</p>

<table style="width:100%">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
  </tr>
</table>
```

Cellspacing

Change the space between the cells with the border-spacing property.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

HTML Table Colspan & Rowspan

HTML tables can have cells that span over multiple rows and/or columns.

NAME		

APRIL		

2022		
FIESTA		

```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
</style>
</head>
<body>

<h2>Cell that spans two columns</h2>
<p>To make a cell span more than one column, use the colspan attribute.</p>

<table style="width:100%">
  <tr>
    <th colspan="2">Name</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>43</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>57</td>
  </tr>
</table>
</body>
</html>
```

Cell that spans two columns

To make a cell span more than one column, use the colspan attribute.

Name		Age
Jill	Smith	43
Eve	Jackson	57

```html
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
</style>
</head>
<body>

<h2>Cell that spans two rows</h2>
<p>To make a cell span more than one row, use the rowspan attribute.</p>

<table style="width:100%">
  <tr>
    <th>Name</th>
    <td>Jill</td>
  </tr>
  <tr>
    <th rowspan="2">Phone</th>
    <td>555-1234</td>
  </tr>
  <tr>
    <td>555-8745</td>
  </tr>
</table>
</body>
</html>
```

Cell that spans two rows

To make a cell span more than one row, use the rowspan attribute.

Name	Jill
Phone	555-1234
	555-8745

HTML Table Styling

HTML Table - Zebra Stripes

If you add a background color on every other table row, you will get a nice zebra stripes effect.

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20

To style every other table row element, use the `:nth-child(even)` selector like this:

```html
<!DOCTYPE html>
<html>
<head>
<style>
table {
  border-collapse: collapse;
  width: 100%;
}
th, td {
  text-align: left;
  padding: 8px;
}
tr:nth-child(even) {
  background-color: #D6EEEE;
}
</style>
</head>
<body>
<table>
  <tr>
  <th>First Name</th>
  <th>Last Name</th>
  <th>Points</th>
  </tr>
  <tr>
  <td>Peter</td>
  <td>Griffin</td>
  <td>$100</td>
  </tr>
  <tr>
  <td>Lois</td>
  <td>Griffin</td>
  <td>$150</td>
  </tr>
  <tr>
  <td>Joe</td>
  <td>Swanson</td>
  <td>$300</td>
  </tr>
  <tr>
  <td>Cleveland</td>
  <td>Brown</td>
  <td>$250</td>
  </tr>
</table>

</body>
</html>
```

Zebra Striped Table

For zebra-striped tables, use the nth-child() selector and add a background-color to all even (or odd) table rows:

First Name	Last Name	Points
Peter	Griffin	$100
Lois	Griffin	$150
Joe	Swanson	$300
Cleveland	Brown	$250

```html
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}

th:nth-child(even),td:nth-child(even) {
  background-color: #D6EEEE;
}
</style>
</head>
<body>

<h2>Striped Table</h2>
<p>For zebra-striped tables, use the nth-child() selector and add a background-color to all even (or odd) table rows:</p>

<table style="width:100%">
  <tr>
    <th>MON</th>
    <th>TUE</th>
    <th>WED</th>
    <th>THU</th>
    <th>FRI</th>
    <th>SAT</th>
    <th>SUN</th>
  </tr>
  <tr>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
  </tr>
  <tr>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
  </tr>
  <tr>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
  </tr>
  <tr>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
  </tr>
</table>

</body>
</html>
```
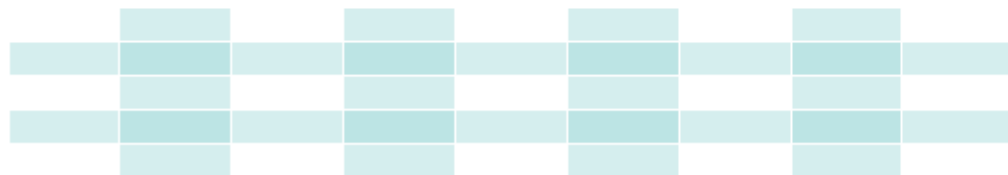
Striped Table

For zebra-striped tables, use the nth-child() selector and add a background-color to all even (or odd) table rows:

MON	TUE	WED	THU	FRI	SAT	SUN

Combine Vertical and Horizontal Zebra Stripes

You can combine the styling from the two examples above and you will have stripes on every other row and every other column.

If you use a transparent color you will get an overlapping effect.

Use an `rgba()` color to specify the transparency of the color:

Example

```css
tr:nth-child(even) {
  background-color: rgba(150, 212, 212, 0.4);
}

th:nth-child(even),td:nth-child(even) {
  background-color: rgba(150, 212, 212, 0.4);
}
```

```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}

tr:nth-child(even) {
  background-color: rgba(150, 212, 212, 0.4);
}

th:nth-child(even),td:nth-child(even) {
  background-color: rgba(150, 212, 212, 0.4);
}
</style>
</head>
<body>

<h2>Striped Table</h2>
<p>For zebra-striped tables, use the nth-child() selector and add a background-
color to all even (or odd) table rows:</p>

<table style="width:100%">
  <tr>
    <th>MON</th>
    <th>TUE</th>
    <th>WED</th>
    <th>THU</th>
    <th>FRI</th>
    <th>SAT</th>
    <th>SUN</th>
  </tr>
  <tr>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
  </tr>
  <tr>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
  </tr>
  <tr>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
  </tr>
  <tr>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
    <td> </td>
  </tr>
</table>

</body>
</html>
```

Striped Table

For zebra-striped tables, use the nth-child() selector and add a background-color to all even (or odd) table rows:

MON	TUE	WED	THU	FRI	SAT	SUN

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Horizontal Dividers

First Name	Last Name	Savings
Peter	Griffin	$100
Lois	Griffin	$150
Joe	Swanson	$300

If you specify borders only at the bottom of each table row, you will have a table with horizontal dividers.

Add the `border-bottom` property to all `tr` elements to get horizontal dividers:

Example

```css
tr {
    border-bottom: 1px solid #ddd;
}
```

Try it Yourself »

Hoverable Table

Use the `:hover` selector on `tr` to highlight table rows on mouse over:

First Name	Last Name	Savings
Peter	Griffin	$100
Lois	Griffin	$150
Joe	Swanson	$300

Example

```css
tr:hover {background-color: #D6EEEE;}
```

HTML Table Colgroup

If you want to style the two first columns of a table, use the `<colgroup>` and `<col>` elements.

MON	TUE	WED	THU	FRI	SAT	SUN
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

The `<colgroup>` element should be used as a container for the column specifications.

Each group is specified with a `<col>` element.

The `span` attribute specifies how many columns that get the style.

The `style` attribute specifies the style to give the columns.

```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
</style>
</head>
<body>

<h2>Colgroup</h2>
<p>Add the a colgroup with a col element that spans over two columns to define a
style for the two columns:</p>

<table style="width: 100%;">
<colgroup>
  <col span="2" style="background-color: #D6EEEE">
</colgroup>
<tr>
<th>MON</th>
<th>TUE</th>
<th>WED</th>
<th>THU</th>
<th>FRI</th>
<th>SAT</th>
<th>SUN</th>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
</tr>
</table>

</body>
</html>
```

Colgroup

Add the a colgroup with a col element that spans over two columns to define a style for the two columns:

MON	TUE	WED	THU	FRI	SAT	SUN
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

Legal CSS Properties

There is only a very limited selection of CSS properties that are allowed to be used in the colgroup:

`width` property
`visibility` property
`background` properties
`border` properties

All other CSS properties will have no effect on your tables.

Multiple Col Elements

If you want to style more columns with different styles, use more `<col>` elements inside the `<colgroup>` :

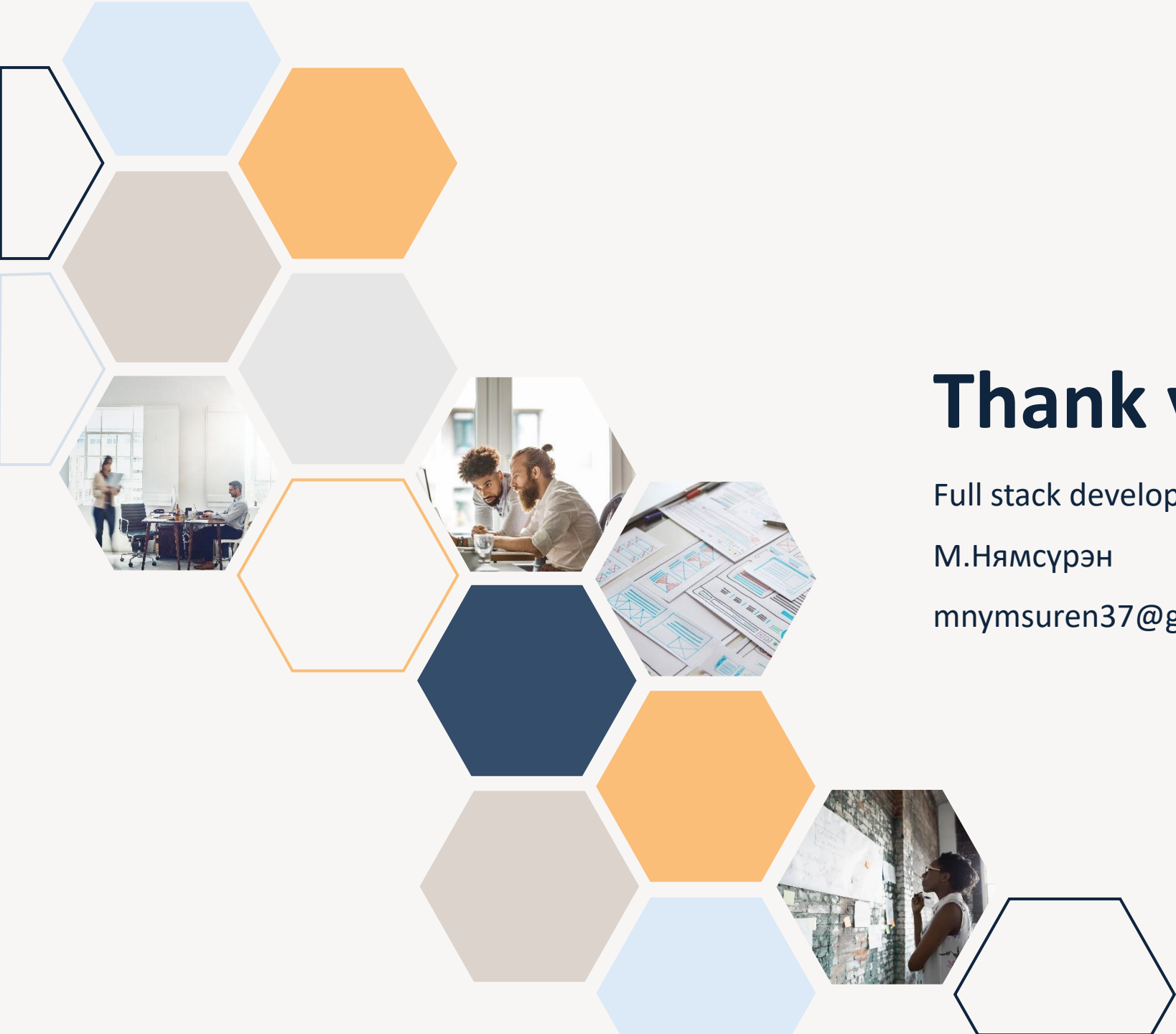## Example

```
<table>
  <colgroup>
    <col span="2" style="background-color: #D6EEEE">
    <col span="3" style="background-color: pink">
  </colgroup>
  <tr>
    <th>MON</th>
    <th>TUE</th>
    <th>WED</th>
    <th>THU</th>
```

Empty Colgroups

If you want to style columns in the middle of a table, insert a "empty" `<col>` element (with no styles) for the columns before:

Example

```
<table>
  <colgroup>
    <col span="3">
    <col span="2" style="background-color: pink">
  </colgroup>
  <tr>
    <th>MON</th>
    <th>TUE</th>
    <th>WED</th>
    <th>THU</th>
...
```

Hide Columns

You can hide columns with the `visibility: collapse` property:

Example

```
<table>
  <colgroup>
    <col span="2">
    <col span="3" style="visibility: collapse">
  </colgroup>
  <tr>
    <th>MON</th>
    <th>TUE</th>
    <th>WED</th>
    <th>THU</th>
```

Thank you

Full stack developer

М.Нямсүрэн

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