What is HTML?

Hyper text markup language.
It is the language of the world wide web.
It is the standard text formatting language used for creating and displaying pages on the web.
it is made of 2 things. content and the tags which format it for proper display on pages.

What are Tags?

Content is placed in between HTML tags in order to properly format it.
ex:
<strong>sample</sample>

List out the new APIs provided by HTML5 standard?

HTML 5 comes with number of new APIs

Media API
Text track API
Application Cache API
Data transfer API
User Interaction
Command API
Constraint Validation API
History API

Do all HTML tags come in pair?

No, there are single HTML tags that do not need a closing tag.
Ex:
<img>

Common list used when designing a page?

Ordered list:

unordered list:


```
</ul>
```

definition list:

```
<dl>
  <dt>Coffee</dt>
  <dd>Black hot drink</dd>
  <dt>Milk</dt>
  <dd>White cold drink</dd>
</dl>
```

menu list:

```
<menu>
    <menuitem>ol - ordered list</menuitem>
    <menuitem>ul - unordered list</menuitem>
    <menuitem>menu - menu list</menuitem>
  </menu>
```

directory list:

```
<dir>
  <li>html</li>
  <li>xhtml</li>
  <li>css</li>
</dir>                 // <dir> not supported in HTML5.
```

Tool tip?

It is possible to use "title" attribute which specifies a text that emerges when the mouse
cursor is moved above a link. This kind of text is called a tool tip.
----
comment in HTML?

```
<!-- A sample comment -->
```

Do all character entities display properly on all systems?

No, there are some character entities that cannot be displayed when the operating system
that the browser is running on does not support the characters. when that happens, these
characters are displayed as boxes.

What is image map?

image map let us to link to many different web pages using a single image.
we can define shapes in images that we want to make part of an image mapping.

Ex;
<img src="planets.gif" width="145" height="126" alt="Planets" usemap="#planetmap">

<map name="planetmap">
  <area shape="rect" coords="0,0,82,126" href="sun.htm" alt="Sun">
  <area shape="circle" coords="90,58,3" href="mercur.htm" alt="Mercury">
  <area shape="circle" coords="124,58,8" href="venus.htm" alt="Venus">
</map>

What does <img srcset=""> do?

Defines multiple sizes of the same image, allowing the browser to select the appropriate image source.

Using the srcset attribute has made responsive image sizing much simpler. It allows you to define a list of differently-sized versions of the same image, and provide information about the size of each one. Then, the client (browser) gets to make the decision.

The trick here is to start with the biggest possible image, or — at least — the biggest image you plan to serve up. Then scale it down to each individual version.
        Largest or original — image-4x.jpg
        Scaled down to 75% — image-3x.jpg
        Scaled down to 50% — image-2x.jpg
        Scaled down to 25% — image-1x.jpg

<img srcset=" /wp-content/uploads/flamingo4x.jpg 4025w,
/wp-content/uploads/flamingo3x.jpg 3019w, /wp-content/uploads/flamingo2x.jpg 2013w,
/wp-content/uploads/flamingo1x.jpg 1006w " src="/wp-content/uploads/flamingo-fallback.jpg"
>

Advantage of collapse white space?

white spaces are blank sequence of space characters, which is treated as a single space character in HTML. Because the browser collapses multiple space into a single space.
This makes the HTML code to make it readable format

Can attribute values be set to anything or are there specific values that they accept?

some attribute values can be set to only predefined values.
Ex;
text-align: center;

other attribute can accept any numerical value like pixels.
Ex;
width: 200px;

Inserting copyright symbol?

we need to type ©

How to create links to sections within the same page?

links can be created using <a> tag.
with the reference through the use of the number(#) symbol

Ex:

Back to top

How to keep list elements straight in HTML?

By using indents, we can keep the list elements straight.
a {
    text-indent: 50px;
}
horizontally,
a{
display:inline-block;

If you see a web address on a magazine, to which web page does it point?

Every web page on the web have a separate web address.
Most of these addresses are relative to the top-most web page.
The published web address that appears within magazines typically points this top-most page.
From this top level page, you can access all other pages within the website.
----
use of alternative text in image mapping?

when we use image maps, it will be confusing and difficult to determine which hotspot correspond which links. Using alternative text lets us to put a text on each hotspot link.
Ex:
<img src="planets.gif" width="145" height="126" alt="Planets" usemap="#planetmap">

<map name="planetmap">
  <area shape="rect" coords="0,0,82,126" href="sun.htm" alt="Sun">
  <area shape="circle" coords="90,58,3" href="mercur.htm" alt="Mercury">
  <area shape="circle" coords="124,58,8" href="venus.htm" alt="Venus">
</map>

Do older HTML files work on newer browsers?

Yes, older HTML files are compliant to the HTML standard. Most older files work on the newer browsers, though some features may not work.

Does a hyperlink apply to text only?

No, hyperlinks can be used in the text as well as images

…

If the user's operating system does not support the needed character, how can the symbol be represented?

In cases wherein their operating system does not support a particular character, it is still possible to display that character by showing it as an image instead.

How do you change the number type in the middle of a list?

with type and value attributes we can change it.

```
<ol type="A" start="6">
  <li>List item 1</li>
  <li>List item 2</li>
  <li value="12">List item 3</li>
  <li>List item 4</li>
 </ol>
```

What are stylesheets?

Style sheets enable you to build consistent, transportable, and well-defined style templates. These templates can be linked to several different web pages, making it easy to maintain and change the look and feel of all the web pages within site.

----

bullet types available in HTML ?

The type attribute for unordered lists can be set to disc, square, or circle.

How do you create multi-colored text in a webpage?

To create text with different colors, use the … tags for every character that you want to apply color.

Why are there both numerical and named character entity values?

The numerical values are taken from the ASCII values for the various characters, but these can be difficult to remember. Because of this, named character entity values were created

to make it easier for web page designers to use.

HTML table tag sequence that outputs the following:

50 pcs 100 500
10 pcs 5 50

```
<table>
<tr>
<td>50 pcs</td>
<td>100</td>
<td>500</td>
</tr>
<tr>
<td>10 pcs</td>
<td>5</td>
<td>50</td>
</tr>
</table>
```

What is the advantage of grouping several checkboxes together?

checkboxes don't affect one another, grouping checkboxes together help to organize them.

 What will happen if you overlap sets of tags?

If two sets of HTML tags are overlapped, only the first tag will be recognized. You will find
this problem when the text does not display properly on the browser screen.

What are applets?

Applets are small programs that can be embedded within web pages to perform some
specific functionality, such as computations, animations, and information processing.
Applets are written using the Java language.

What if there is no text between the tags or if a text was omitted by mistake?
Will it affect the display of the HTML file?

f there is no text between the tags, then there is nothing to format. Therefore no formatting
will appear. Some tags, especially tags without a closing tag like the <img> tag, do not
require any text between them.

Is it possible to set specific colors for table borders?

You can specify a border color using style sheets, but the colors for a table that does not use
style sheets will be the same as the text color.

How do you create a link that will connect to another web page when clicked?

To create hyperlinks, or links that connect to another web page, use the href tag.
The general format for this is:
google

 What other ways can be used to align images and wrap text?

Tables can be used to position text and images. Another useful way to wrap text around an image is to use style sheets.

Can a single text link point to two different web pages?

No. The <a> tag can accept only a single href attribute, and it can point to only single web page.

What is the difference between the directory and menu lists and the unordered list?

The key difference is that the directory and menu lists do not include attributes for changing the bullet style.

Can you change the color of bullets?

The bullet color is always the same as that of the first character in the list item. If you surround the <li> and the first character with a set of <font> tags with the color attribute set, the bullet color, and the first character will be a different color from the text.

Do <th> tags always need to come at the start of a row or column?

Any <tr> tag can be changed to a <th> tag. This causes the text contained within the <th>
 tag to be displayed as bold in the browser. Although <th> tags are mainly used for headings,
they do not need to be used exclusively for headings.

What is the relationship between the border and rule attributes?

Default cell borders, with a thickness of 1 pixel, are automatically added between cells if the border attribute is set to a nonzero value. Likewise, If the border attribute is not included, a default 1-pixel border appears if the rules attribute is added to the <table> tag.

What is a marquee?

A marquee allows you to put a scrolling text in a web page. To do this, place whatever text you want to appear scrolling within the <marquee> and </marquee> tags.

How do you create text on a webpage that will allow you to send an email when clicked?

To change text into a clickable link to send email, use the mailto command within the href tag. The format is as follows:

<A HREF="mailto:youremailaddress">text to be clicked</A>

Are <br> tags the only way to separate sections of text?

No. The <br> tag is only one way to separate lines of text. Other tags, like the <p> tag and <blockquote> tag, also separate sections of text.

Are there instances where the text will appear outside of the browser?

By default, the text is wrapped to appear within the browser window. However, if the text is part of a table cell with a defined width, the text could extend beyond the browser window.

How are active links different from normal links?

The default color for normal and active links is blue. Some browsers recognize an active link when the mouse cursor is placed over that link; others recognize active links when the link has the focus. Those that don't have a mouse cursor over that link is considered a normal link.

Do style sheets limit the number of new style definitions that can be included within the brackets?

Style sheets do not limit the number of style definitions that can be included within the brackets for a given selector. Every new style definition, however, must be separated from the others by a semicolon symbol.

Can I specify fractional weight values such as 670 or 973 for font weight?

Implementation largely depends on the browser, but the standard does not support fractional weight. Acceptable values must end with two zeroes.

What is the hierarchy that is being followed when it comes to style sheets?

Inline style takes priority
embedded style sheets
external style sheets.

Can several selectors with class names be grouped together?

yes. we can define several selectors with the same style definition by separating them with commas.

What happens if you open the external CSS file in a browser?

When you try to open the external CSS file in a browser, the browser cannot open the file because the file has a different extension. The only way to use an external CSS file is to reference it using <link/> tag within another HTML document.
Ex:
 <link rel="stylesheet" href="styles.css">

What happens if the list-style-type property is used on a non-list element like a paragraph?

If the list-style-type property is used on a non-list element like a paragraph, the property will be ignored and do not affect the paragraph.

How do you make a picture into a background image of a web page?

<body background = "image.gif">

When is it appropriate to use frames?

Frames can make navigating a site much easier. If the main links to the site are located in a frame that appears at the top or along the edge of the browser, the content for those links can be displayed in the remainder of the browser window.

What happens if the number of values in the rows or cols attribute doesn't add up to 100 percent?

If the cols attribute is set to 100%, 200% the browser displays two vertical frames with the second being twice as big as the first.

Which browsers support HTML5?

The latest versions of Google Chrome, Apple Safari, Mozilla Firefox, and Opera all support most of the HTML5 features.

Name two new tags included in the HTML 5

<Video> and <Audio> are new tags which are included in HTML5 version. They are mainly used as a replacement for Flash, Silverlight, and similar technologies to play multimedia items.

audio:

<audio controls>

```
  <source src="https://s3.amazonaws.com/freecodecamp/screen-reader.mp3"
type="audio/mpeg"/>

</audio>
```

Do you know which are two semantic tags are included in HTML5 version?

The <article> and <section> tags are two new tags that are included in HTML5.
Articles can be composed of multiple sections that can have multiple articles.
An article tag represents a full block of content which is a section of a bigger whole.

What is <figure> in HTML5?

This tag represents a piece of self-contained flow content. It is mostly used as a single unit
as a reference the main flow of the document.

What is the use of Canvas element?

The canvas element helps to build charts, graphs, bypass Photoshop to create 2D images
and place them directly into HTML5 code.

 What are the new FORM elements which are available in HTML5?

The new Form elements in HTML5 offers much better functionality than the
earlier versions.

The tags given provided to carry out these functions are:

1) <datalist> – This tag is use to specify a list of options for input controls.

2) <keygen> – This tag represents a key-pair generator field.

3) <output> – It represents the result of any scripting calculation.

Tell me two benefits of HTML5 Web Storage
Two main benefits of HTML5 Web Storage:

It can store up to 10 MB data which is certainly more than what cookies have.
Web storage data cannot be transferred with the HTTP request.
It helps to increase the performance of the application.

What are two types of Web Storage in HTML5?

Two storage types of HTML5 are:

Session Storage:

It stores data of current session only. It means that the data stored in session storage clear automatically when the browser is closed.

Local Storage:

Local storage is another type of HTML5 Web Storage. In local storage, data is not deleted automatically when the current browser window is closed.

What is the Application Cache in HTML5 and why it is used?

The Application Cache concept means that a web application is cached. It can be accessible without the need for internet connection.

Some advantages of Application Cache:

Offline browsing – Web users can also use the application when they are offline.
Speed – Cached resources load quicker
Reduce the server load – The web browser will only download updated
resources from the server.

Explain five new input types provided by HTML5 for forms?

Following are the important, new data types offered by HTML5:

Date: It allows the user to select a date.
datetime-local: This input type allows the user to select a date and time without time zone.
datetime: This input type allows the user to select a date and time with time zone.
month: It enables the user to select a month and year
email: These input fields used to contain an e-mail address.

What are attributes and how do you use them?

Each tag can also have additional attributes.

Ex:
<input type="text"/>
<input type="radio" value="on"/>
☐

----

difference between a block-level element and an inline element?

block level element:
It will take up full width.
Ex:
<div>, <img>, <section>, <form>, <nav>.

inline elements:
It will take only necessary width
Ex:
<span>, <b>, <strong>, <a>, <input>.

 How is an HTML document structured?

```
<!DOCTYPE html>
<html>
   <head>
      <title>The title of your page</title>
      <meta charset="UTF-8">
      <meta name="description" content="A description of your page">
   </head>
   <body>
      <h1>Welcome to my website!</h1>
      <p>This is where I'll put some content :)</p>
   </body>
</html>
```

New features of HTML5?

Some of the new semantic elements are <header>, <footer>, <section>, and <article>

There are additional form element types, like "number", "date", "calendar" and "range". Video and audio elements have also been added, as well as new graphic elements, such as <svg> and <canvas>.

DOCTYPE for HTML5?

<!DOCTYPE html>

How do you apply CSS styles to a web page?

Inline styles

<div style="background-color: red;">A container with a red background.</div>

A style block

```
<head>
   <style>
      body {
         font-size: 16px;
      }
```

```
        .button {
            padding: 10px;
        }
    </style>
</head>
```

Link to a CSS file

```
<head>
    <link rel="stylesheet" href="styles.css">
</head>
```

How do you apply JavaScript to a web page?

Inline

```
<button onclick="alert('You clicked on me!');">Click me!</button>
```

A script block

```
<script>
    var x = 5;
    var y = 6;
    var result = x + y;
    alert("X + Y is equal to " + result);
</script>
```

Link to a JavaScript file

```
<script src="my-code.js"></script>
```

How to create a hyperlink in HTML?

The HTML provides an anchor tag to create a hyperlink that links one
page to another page.

Unvisited link - It is displayed, underlined and blue.
Visited link - It is displayed, underlined and purple.
Active link - It is displayed, underlined and red.

Which HTML tag is used to display the data in the tabular form?

Tag   Description
<table>   It defines a table.

<tr>   It defines a row in a table.

<th>   It defines a header cell in a table.

<td>   It defines a cell in a table.

<caption>   It defines the table caption.

<colgroup> It specifies a group of one or more columns in a table for formatting.

<col>   It is used with <colgroup> element to specify column

properties for each column.

<tbody>   It is used to group the body content in a table.

<thead>   It is used to group the header content in a table.

<tfooter>   It is used to group the footer content in a table.

----

semantic HTML?

Semantic HTML is the tags which has direct meaning.

EX:

In semantic HTML   tag is not used for bold statement as well as <i> </i> tag is used for italic.Instead of these we use and tags.

How to create a nested webpage in HTML?

```
<!DOCTYPE html>
<html>
<body>
<h2>HTML Iframes example</h2>
<p>Use the height and width attributes to specify the size of the iframe:</p>
<iframe src="https://www.javatpoint.com/" height="300" width="400"></iframe>
</body>
</html>
```

----

the layout of HTML?

<header>: It is used to define a header for a document or a section.

<nav>: It is used to define a container for navigation links

<section>: It is used to define a section in a document

<article>: It is used to define an independent, self-contained article

<aside>: It is used to define content aside from the content (like a sidebar)

<footer>: It is used to define a footer for a document or a section

----

What is a marquee?

Marquee is used to put the scrolling text on a web page. It scrolls the image
or text up, down, left or right automatically. You should put the
text which you want to scroll within the <marquee>......</marquee> tag.

How to make a picture of a background image of a web page?

```
<body background = "image.gif">
```

What are empty elements?

```
<br>, <hr> etc.
```

What is the use of a span tag?

For adding color on text
For adding background on text
Highlight any color text

Ex:
```
<p>
<span style="color:#ffffff;">
In this page we use span.
</span>
</p>
```

What is the canvas element in HTML5?

The <canvas> element is a container that is used to draw graphics on the web page using scripting language like JavaScript. It allows for dynamic and scriptable rendering of 2D shapes and bitmap images. There are several methods in canvas to draw paths, boxes, circles, text and add images.

```
<canvas id="myCanvas1" width="300" height="100" style="border:2px solid;">
Your browser does not support the HTML5 canvas tag.
</canvas>
```

What is SVG?

HTML SVG is used to describe the two-dimensional vector and vector/raster graphics

Ex:
```
<svg width="100" height="100">
 <circle cx="50" cy="50" r="40" stroke="yellow" stroke-width="4" fill="red" />
</svg>
```

What are the different new form element types in HTML5?

Color
Date
Datetime-local
Email

Time
Url
Range
Telephone
Number
Search

Which type of video formats are supported by HTML5?
HTML5 supports three types of video format:

mp4
WebM
Ogg

Is audio tag supported in HTML5?
Yes. It is used to add sound or music files on the web page. There are
three supported file formats for HTML5 audio tag.

mp3
WAV
Ogg

Ex:
<audio controls>
  <source src="koyal.mp3" type="audio/mpeg">
Your browser does not support the html audio tag.
</audio>

What is the difference between progress and meter tag?

Progress - the progress of the task only
meter - meter tag is used to measure data within a given range.

----

the use of figure tag in HTML5?

<p>The Taj Mahal is widely recognized as "the jewel of Muslim art in India
 and one of the universally admired masterpieces of the world's heritage."</p>
<figure>

</figure>

----

the use of figcaption tag in HTML5?

he <figcaption> element is used to provide a caption to an image.

<figure>

```
    <img src="htmlpages/images/tajmahal.jpg" alt="Taj Mahal"/>
<figcaption>Fig.1.1 - A front view of the great Taj Mahal in Agra.</figcaption>
</figure>
```

What is button tag?

he button tag is used in HTML5. It is used to create a clickable button
within the HTML form on the web page.

```
<button name="button" type="button">Click Here</button>
```

---

the use of details and summary tag?

The details tag is used to specify some additional details on the web page.
It can be viewed or hidden on demand.
The summary tag is used with details tag.

```
<details>
  <summary>Copyright 1999-2014.</summary>
  <p> - by Refsnes Data. All Rights Reserved.</p>
  <p>All content and graphics on this web site are the property of the
company Refsnes Data.</p>
</details>
```

What is datalist tag?

The HTML5 datalist tag provides an autocomplete feature on the form element. It facilitates
users to choose the predefined options to the users to select data.

```
<label>
 Enter your favorite cricket player: Press any character<br />
 <input type="text" id="favCktPlayer" list="CktPlayers">
 <datalist id="CktPlayers">
 <option value="Sachin Tendulkar">
 <option value="Brian Lara">
 <option value="Jacques Kallis">
 <option value="AB diVilliers">
 <option value="Mahendra Singh Dhoni">
 <option value="Adam Gilchrist">
 </datalist>
</label>
```

How are tags migrated from HTML4 to HTML5?

No.	Typical HTML4	Typical HTML5
1)	<div id="header">	<header>
2)	<div id="menu">	<nav>

3) <div id="content">   <section>
4) <div id="post">   <article>
5) <div id="footer">   <footer>

----

 the use of the required attribute in HTML5?

It forces a user to fill text on the text field or textarea before submitting the form.

Name: <input type="text" name="name" required>

----

the new <input> types for form validation in HTML5?

The new input types for form validation are email, URL, number, tel, and date.

<input type="number">
<input type="date">
<input type="datetime-local">
<input type="email">
<input type="file">
<input type="hidden">
<input type="image">
<input type="month">
<input type="password">
<input type="range">
<input type="reset">
<input type="search">
<input type="tel">
<input type="text">
<input type="time">
<input type="url">
<input type="week">

 Does a hyperlink apply to text only?

No, hyperlinks can be used in the text as well as images. That means you can convert an image into a link that will allow users to link to another page when clicked. Surround the image within the … tag combinations.

  <img src="smiley.gif" alt="HTML tutorial" style="width:42px;height:42px;border:0;">

Is it possible to set specific colors for table borders?

You can specify a border color using style sheets, but the colors for a table that does not use style sheets will be the same as the text color.

What other ways can be used to align images and wrap text?

Tables can be used to position text and images. Another useful way to wrap text around an image is to use style sheets.

What is the difference between the directory and menu lists and the unordered list?

The key difference is that the directory and menu lists do not include attributes for changing the bullet style.

 Can you change the color of bullets?

The bullet color is always the same as that of the first character in the list item. If you surround the <li> and the first character with a set of <font> tags with the color attribute set, the bullet color, and the first character will be a different color from the text.

What are the limits of the text field size?

The default size for a text field is around 13 characters. However, if you include the size attribute, you can set the size value to be as low as 1. The maximum size value will be determined by the browser width. If the size attribute is set to 0, the size will be set to the default size of 13 characters.

 Do <th> tags always need to come at the start of a row or column?

Any <tr> tag can be changed to a <th> tag. This causes the text contained within the <th> tag to be displayed as bold in the browser.

```
<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>
```

Are <br> tags the only way to separate sections of text?

No. The <br> tag is only one way to separate lines of text. Other tags, like the <p> tag and <blockquote> tag, also separate sections of text.

Can several selectors with class names be grouped together?

You can define several selectors with the same style definition by separating them with commas. This same technique also works for selectors with class names.

```
p.red, #sub
{
color: #f00;
 }
```

 What happens if you open the external CSS file in a browser?

When you try to open the external CSS file in a browser, the browser cannot open the file, because the file has a different extension. The only way to use an external CSS file is to reference it using
<link/> tag within another HTML document.

```
<link rel="stylesheet" type="text/css" href="mystyle.css">
```

What is a physical tag and logical tag in HTML?

 physical tags are: <big>, <b>, <i>
the logical tag is <strong>, <em> tag.

How would you help our content creation team get better search engine results?

 "I would like to do several things to make sure your websites get the
highest rankings possible.
I would start by creating a sitemap that helps search engine spiders navigate the site. Next,
I would check each page to make sure it's using helpful tags, including title tags.
Finally, I would use a link checker to locate any broken links on the site."

What does a doctype do?

The doctype declaration should be the very first thing in an HTML document, before the tag. The doctype declaration is not an HTML tag; it is an instruction to the web browser about what version of the markup language the page is written in. The doctype declaration refers to a Document Type Definition (DTD).

How do you serve a page with content in multiple languages?

By changing the lang attribute on the html element.
<html lang="en">
<html lang="es">
<html lang="fr">

What kind of things must you be wary of when design or developing for multilingual sites?

hreflang attr in link
dir attr indicating language direction, such as rtl
<meta charset='UTF-8'>
font-size for :lang({language_code}) selectors in CSS
difference in word length for each language

What are data- attributes good for?

It makes HTML elements contain extra information without using non-standard attributes, or other hacks like that.

Consider HTML5 as an open web platform. What are the building blocks of HTML5?

This question is a bit confusing, as when you say building blocks, my head goes to block elements. The HTML5 specific ones are:

<article>
<aside>
<audio>
<canvas>
<figcaption>
<figure>
<footer>
<header>
<hgroup>
<section>
<video>
The numerous APIs and the more semantic tags, could also be said to be the building blocks.

Describe the difference between a cookie, sessionStorage and localStorage.

Cookie:
Max size of 4093 bytes
Can set expiration date
Sent on every request

sessionStorage:
Max size of 2.5MBs+ depending on browser
Stored in browser and not sent with every request
If you close a tab using sessionStorage, open a new tab, or exit the browser -
you'll lose that specific sessionStorage data.

localStorage:
Max size of 2.5MBs+ depending on browser
Stored in browser and not sent with every request
Will persist if browser/tabs are closed.

Describe the difference between <script>, <script async> and <script defer>.

A regular <script> tag will block rendering of the page, and the page will not continue to load
until the script finishes.

<script async> will run the script asynchronously, meaning that it will not block rendering, but
will run as soon as the script is available. This is usually intended for CDN files, or other such
files, which do not change the page structure.

<script defer> will defer the script to run after the page is done parsing and before an onload
event.

Why is it generally a good idea to position CSS <link>s between <head></head> and JS
<script>s just before </body>? Do you know any exceptions?

CSS should be loaded in the head section to so that styling can be loaded before the page
body loads, else the page will appear without styling. JS should be loaded after all content
has loaded, ie just before the closing body tag, so that loading of possibly large JS files does
not initial page load.

What is progressive rendering?

Progressive rendering is the name given to techniques used to improve the performance of a
webpage (in particular, improve perceived load time) to render content for display as quickly
as possible.

It used to be much more prevalent in the days before broadband internet but it is still used in
modern development as mobile data connections are becoming increasingly popular (and
unreliable)!

Examples of such techniques:

Lazy loading of images - Images on the page are not loaded all at once. JavaScript will be
used to load an image when the user scrolls into the part of the page that displays the
image.

Prioritizing visible content (or above-the-fold rendering) - Include only the minimum CSS/content/scripts necessary for the amount of page that would be rendered in the users browser first to display as quickly as possible, you can then use deferred scripts or listen for the DOMContentLoaded/load event to load in other resources and content.

Async HTML fragments - Flushing parts of the HTML to the browser as the page is constructed on the back end. More details on the technique can be found here.

Why you would use a srcset attribute in an image tag? Explain the process the browser uses when evaluating the content of this attribute.

The srcset attribute specifies the URL of the image to use in different situations.

This attribute is required when <source> is used in <picture>.

<source srcset="URL">

Ex:
<picture>
  <source media="(min-width: 650px)" srcset="img_pink_flowers.jpg">
  <source media="(min-width: 465px)" srcset="img_white_flower.jpg">
  <img src="img_orange_flowers.jpg" alt="Flowers" style="width:auto;">
</picture>

Have you used different HTML templating languages before?

Yes, Pug (formerly Jade), ERB, Slim, Handlebars, Jinja, Liquid, just to name a few. In my opinion, they are more or less the same and provide similar functionality of escaping content and helpful filters for manipulating the data to be displayed. Most templating engines will also allow you to inject your own filters in the event you need custom processing before display.

How can you generate a public key in html?

The <keygen> element generates a public-private key pair and sends the public key to the server with form submission. The element is expected to be deprecated and does not have broad browser support.

How do you change the direction of html text?

Set the text direction to "right-to-left":

p.rtl {
  direction: rtl;
}

How can you highlight text in html?

Highlight parts of a text:

`<p>Do not forget to buy <mark>milk</mark> today.</p>`

Can you apply css to a part of html document only?

yes.

What is an optional tag?

img, input, br, hr, meta, etc.

What are the differences between div and span?

div is a block element, span is inline.

This means that to use them semantically, divs should be used to wrap sections of a document, while spans should be used to wrap small portions of text, images, etc.

How would you differentiate between div, section, and article?

The <div> tag defines a division or a section in an HTML document.
The <div> tag is used to group block-elements to format them with CSS.

The <section> tag defines sections in a document, such as chapters,
headers, footers, or any other sections of the document.

<article>
The <article> element represents a independent item section of content.
It must have a <h1> tag for title.

Independent item section of content:
— forum post
— magazine article
— newspaper article
— blog entry [Example A]
— user-submitted comment [Example B] …
In principle, content in the article element should be independently distributable
or reusable.

How would you select svg or canvas for your site?

Each technology has its own uses — it is not like one can abandon Canvas in
favor of SVG, or vice-versa.

You should use Canvas for:

Interactive image editing: cropping, resizing, filters (think red eye removal, sepia, colorize, etc.)
Generating raster graphics: data visualizations, data plots, rendering fractals, function plots.
Image analysis: read pixels to gather data for histograms, color usage, and anything else you can imagine.
Rendering game graphics, such as sprites and backgrounds.

You should use SVG for:

Resolution-independent Web application user interfaces.
Highly interactive animated user interfaces.
Data charts and plots.
Vector image editing.
In short, you should use both technologies. In a game you might want to render raster graphics dynamically using Canvas, then animate them with SVG. In an image editor you might want to render both vector and raster graphics.

Explain standard and quirks mode.

Standard mode: <!DOCTYPE html>
quirks mode: without <!DOCTYPE html> the default mode is quirks. so the handling html page will be left to the browsers.

What is a semantic tag?

which has direct meaning

Could you list major HTML5 tags? - @doc--mdn

<article>
<nav>
<aside> ...
<figcaption> ...
<figure> ...
<header> ...
<footer> ...
<main> ...
<mark>

When and how to preload resources? - @answer--medium

```
<link rel="preload" href="style.css" as="style">
  <link rel="preload" href="main.js" as="script">
```

The preload value of the <link> elements rel attribute allows you to write declarative fetch requests in your HTML <head>, specifying resources that your pages will need very soon after loading, which you therefore want to start preloading early in the lifecycle of a page load, before the browser's main rendering machinery kicks in. This ensures that they are made available earlier and are less likely to block the page's first render, leading to performance improvements.

What is the difference between id and class?

In the CSS, a class selector is a name preceded by a full stop (".")
and an ID selector is a name preceded by a hash character ("#").

The difference between an ID and a class is that an ID can be used to identify one element, whereas a class can be used to identify more than one.

In the context of CSS styling can you explain what does display-style: inline-block stand for?

block - Displays an element as a block element (like <p>).
It starts on a new line, and takes up the whole width.

inline - Displays an element as an inline element (like <span>).
Any height and width properties will have no effect.

inline-block - Displays an element as an inline-level block container.
The element itself is formatted as an inline element,
but you can apply height and width values.

If you have a <ul> element with several <li> elements, how would you go about setting up these elements in a row by using HTML and CSS?

HTML

```
<ul id="horizontal-list">
    <li>item 1</li>
    <li>item 2</li>
    <li>item 3</li>
    <li>item 4</li>
  </ul>
```

CSS

```
li {
display: inline;
        }
```

In CSS styling when would you use floats? How do they work?

The CSS float property specifies how an element should float.

float: right;
 or float: left;

The CSS clear property specifies what elements can float beside the cleared element and on which side.

When would you use: clear: both;?

Means no floating elements allowed on either the left or the right side.

What is Bootstrap? When would you use it? How does its grid system work?

Bootstrap is the most popular HTML, CSS, and JS framework for developing responsive, mobile first projects on the web.

Explain the notion of responsive design and how it works? Use an example if you like.

Responsive Web design is the approach that suggests that design and development should respond to the user's behavior and environment based on screen size, platform and orientation. The practice consists of a mix of flexible grids and layouts, images and an intelligent use of CSS media queries.

What distinguishes HTML from CSS?

HTML - defines the structure of a web page.
CSS - defines styling and how the web page should look.