**N**

1. **What is HTML?**

HTML stands for Hyper Text Markup Language. It is a language of World Wide Web. It is a standard text formatting language which is used to create and display pages on the Web.

1. **What are Tags?**

HTML tags are composed of three things: opening tag, content and ending tag. Some tags are unclosed tags. HTML documents are made of two things:

* content, and
* tags

Content is placed between tags to display data on the web page.

* 1. **Do all HTML tags have end tag?**

No. There are some HTML tags that don't need a closing tag. For example: <image> tag, <br> tag.

* 1. **What is the difference between HTML elements and tags?**

HTML elements communicate to the browser to render text. When the elements are surrounded by brackets

<>, they form HTML tags. Most of the time, tags come in pair and surround content.

* 1. **How to insert a copyright symbol on a browser page?**

can insert a copyright symbol by using &copy; or &#169; in an HTML file.

* 1. **How do you keep list elements straight in an HTML file?**

You can keep the list elements straight by using indents.

* 1. **Does a hyperlink only apply to text?**

No, you can use hyperlinks on text and images both.

* 1. **What is a style sheet?**

A style sheet is used to build a consistent, transportable, and well designed style template. You can add these templates on several different web pages.

* 1. **Can you create a multi colored text on a web page?**

Yes. To create a multicolor text on a web page you can use <font color ="color"> </font> for the specific texts you want to color.

## Is it possible to change the color of the bullet?

The color of the bullet is always the color of the first text of the list. So, if you want to change the color of the bullet, you must change the color of the text.

## What is a marquee?

Marquee is used to put the scrolling text on a web page. You should put the text which you want to scroll within the <marquee>......</marquee> tag.

## How many tags can be used to separate section of texts?

There are three tags used to separate the texts. i.e. usually <br> tag is used to separate line of texts. Other tags are<p> tag and <blockquote> tag.

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

To make a picture a background image on a web page, you should put the following tag code after the

</head> tag.

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

Here, replace the "image.gif" with the name of your image file which you want to display on your web page.

## What is the use of iframe tag?

An iframe is used to display a web page within a web page.

**Syntax:** <iframe src="URL"></iframe>

**Example:** <iframe src="demo\_iframe.html" width="200px" height="200px"></iframe>

**Target to a link:** <iframe src=["h](http://www.javatpoint.com/)t[tp://www.javatpoint.com](http://www.javatpoint.com/)" name="iframe\_a"></iframe>

## What are the different new form element types in HTML 5?

* Color
* Date
* Datetime-local
* Email
* Time
* Url
* Range
* Telephone
* Number
* Search

## Is there any need to change the web browsers to support HTML5?

No. Almost all browsers (updated versions) support HTML 5. For example: Chrome, Firefox, Opera, Safari, IE

1. **What is XML?**

XML is called Extensible Markup Language which is designed to carry or transport and store data. XML tags are not as predefined as HTML, but we can define our own user tags for simplicity. It mainly concentrates on storing of data, not on displaying of data.

1. **What are the features of XML?**

* Very easy to learn and implement
* XML files are text files, and no editor is required
* Minimal and a limited number of syntax rules in XML
* It is extensible, and it specifies that structural rules of tags
  1. **What are the differences between HTML and XML?**
  2. **What is XML DOM Document?**

XML Document object represents the whole XML document, and it is the root of a document tree. It gives access to entire XML document – Nodes and Elements, and it has its own properties.

* 1. **What is an attribute?**

An attribute provides more or additional information about an element than otherwise.

* 1. **What are the advantages of XML DOM Document?**
* XML structure is traversable, and it can be randomly accessed by traversing the tree.
* XML structure is modifiable, and values can be added, changed and removed

**23. What are the basic rules while writing XML?**

* All XML should have a root element
* All tags should be closed
* XML tags are case sensitive
* All tags should be nested properly
* Tag names cannot contain spaces
* Attribute value should appear within quotes
* White space is preserved

1. **What is XML Element?**

An XML document contains XML Elements, and it starts from an element’s start tag to end tag. It can contain:

Other elements within main element

### ****Q1. What is the full form of CSS?****

CSS stands for [Cascading Style Sheets](https://www.edureka.co/blog/what-is-css/). It is a technology developed by the World Wide Web Consortium or W3C. It was developed to streamline the styling of webpages into a separate technology.

### ****Q2. Why was CSS developed?****

CSS was first developed in 1997 as a way for web developers to define the visual appearance of the web pages that they were creating. It was intended to allow developers to separate the content and structure of a website’s code from the visual design, something that had not been possible prior to this time.

The separation of structure and style allows [HTML](https://www.edureka.co/blog/what-is-html/) to perform more of the function that it was originally based on — the markup of content, without having to worry about the design and layout of the page itself, something commonly known as the “look and feel” of the page.

### ****Q3. What are the major versions of CSS?****

The following are the major versions of CSS

1. CSS 1
2. CSS 2
3. CSS 2.1
4. CSS 3
5. CSS 4

### ****Q4. What are the different ways you could integrate CSS into your HTML page?****

There are three ways that you could integrate a certain CSS style:

1. You can integrate your style using the style-tags in the head section of your HTML page.
2. You can integrate your style using inline-styling.
3. You can write your CSS in a separate file and add it to your HTML page using the link tag.

### ****Q5. What is the meaning of cascading? How do style sheets cascade?****

CSS brought about a revolution in web-development and how people perceive the process of building a website. Prior to the existence of CSS, elements had to be styled in an in-line fashion or the style were implemented in the head section of an HTML page. This was changed due to the cascading nature of CSS. Here are the three major ways CSS cascades:

1. **Elements** –  The same CSS style can be applied to multiple elements to achieve the same style.
2. **Multiple Style One Element** – Multiple styles can be applied to a particular HTML element to achieve a unique style.
3. **Same style, Multiple Pages** – The same stylesheet can be applied to different HTML pages altogether to achieve a template styling very quickly.

### ****Q6. What are the advantages of using CSS?****

Following are the advantages of using CSS:

* The style of several documents can be controlled from a single site by using them.
* Multiple HTML elements can have many documents, where classes can be created.
* To group styles in complex situations, selector and grouping methods are used.

### ****Q7. What are the disadvantages of using CSS?****

Following are the disadvantages of using CSS:

* Ascending by selectors is not possible
* Limitations of vertical control
* No expressions
* No column declaration
* Pseudo-class not controlled by dynamic behaviour
* Rules, styles, targeting specific text not possible

### ****Q8. Name a few prominent CSS frameworks.****

Below are the prominent CSS frameworks in the web development industry today:

* **Bootstrap**

Bootstrap is the most popular **CSS framework** for developing responsive and mobile-first websites. **Bootstrap 4** is the newest version of Bootstrap

* **Foundation**

Foundation is a responsive front-end framework. Foundation provides a responsive grid and HTML and CSS UI components, templates, and code snippets, including typography, forms, buttons, navigation and other interface elements, as well as optional functionality provided by JavaScript extensions.

* **Semantic UI**Semantic UI is a modern front-end development framework, powered by LESS(CSS-preprocessor) and [jQuery](https://www.edureka.co/blog/jquery-tutorial/" \t "_blank). It has a sleek, subtle, and flat design look that provides a lightweight user experience.
* **Ulkit**

UIkit is a lightweight and modular front-end framework for developing fast and powerful web interfaces.

### ****Q9. What is the difference between the usage of an ID and a Class?****

**ID** – An ID is unique. A particular ID can be only assigned to a single element. IDs are used when specific styling is being tried to be achieved over a single element. Below is a pictorial example of how to use an ID.

**Class** – Just like the word suggests, a class is a collective way of targetting HTML elements for styling. Classes are not unique and multiple elements can have the same class. In fact, multiple classes can also be added to the same element to achieve the desired style and look. Below is an example of the usage of classes.

**NODE JS**

Q1. What is the difference between Node.js and JavaScript?

Q2. What is Node.js?

Q3. Briefly explain the working of Node.js.

Q4. Where is Node.js used?

Q5. What is the difference between Node.js and Angular?

Q6. Why is Node.js single-threaded?

Q7. What are the different API functions supported by Node.js?

Q8. What is the difference between synchronous and asynchronous functions?

Q9. What is the control flow function?

Q10. Why is Node.js so popular these days?

1) What is Express.js?

Express.js, or simply Express, is a free, open-source, lightweight, and fast backend web application framework for Node.js. It is released as open-source software under the MIT License.

It is designed for building single-page, multi-page, and hybrid web applications and APIs. It is called the de facto standard server framework for Node.js. It was founded and developed by TJ Holowaychuk in 2010 and written in JavaScript.

2) What are some distinctive features of Express?

As Express is a lightweight, minimal and flexible Node.js web application framework, it provides a robust set of features for web and mobile applications. Following is the list of some distinctive features of this framework:

3) Is Express.js front-end or backend framework?

Express.js or Express is a JavaScript backend framework. It is mainly designed to develop complete web applications (single-page, multi-page, and hybrid web applications) and APIs. Express is the backend component of the MEAN stack where M stands for MongoDB, which handles database; E stands for Express, which handles backend; A stands for AngularJS, which is for the front-end, and N stands for Node.

4) Why do we use Express.js?

Express.js is an automatically prebuilt Node.js framework that facilitates us to create server-side web applications faster and smarter. The main reason for choosing Express is its simplicity, minimalism, flexibility, and scalability characteristics.

5) What is the difference between Express.js and Node.js?

Node.js is an open-source, cross-platform run-time environment used for executing JavaScript code outside of a browser. Node.js is not a framework or a programming language; it is a platform that acts as a web server. Many big companies such as Paypal, Uber, Netflix, Wallmart, etc., are using this. On the other hand, Express is a small framework based on the functionality of Node.js.

8) What do you understand by Scaffolding in Express.js?

Scaffolding is a technique used for creating the skeleton structure of an application. It facilitates users to easily create their public directories, routes, views, etc., or a web application skeleton. Generally, users manually create their public directory, add middleware, create separate route files, etc. Using a scaffolding tool, they can set up all these things to directly get started with building their application.

There are two ways to install Scaffolding and use it in your application.

Express application generator

Yeoman

Express application generator: This is used to create an application skeleton quickly. Use the following command to install the Express application generator.

npm install express-generator -g

express myApp

By using the above command, a project named "myApp" will be created along with following the files/folders in the project.

Bin: The bin folder contains one file called www is the main configuration file of the app.

Public: The public folder contains JavaScript, CSS, and images, etc.

Routes: This folder contains the routing files.

Views: The view folder contains the view files of the application.

js: The app.js file is the main file of the application.

json: The package.json file is the manifest file. It contains all metadata of the project, such as the packages used in the app (called dependencies) etc.

**Which are the arguments available to an Express JS route handler function?**

Following are the arguments that are available to an Express.js route handler-function:

Req: the request object

Res: the response object

Next (optional): It is a function employed to pass management to one of the above route handlers.

**Bootstrap**

**1) Explain what is Bootstrap?**

**Bootstrap is a HTML, CSS, and JS framework for building the rich web applications with minimal effort. This framework emphasis more on building mobile web applications.**

**2) Explain why to choose Bootstrap for building the websites?**

**There are few reason why we choose Bootstrap for building websites**

**Mobile Support: For mobile devices it provides full support in one single file rather than in separate file. It supports the responsive design including adjusting the CSS based on the different types of device, size of the screen etc. It reduces extra effort for developers.**

**Easy to Learn: Writing application in bootstrap is easy if you know CSS and HTML**

**Browser Support: It supports all the popular browsers like Firefox, Opera, Safari, IE etc.**

### 3) What are the key components of Bootstrap?

The key components of Bootstrap are

* **CSS :** It comes with plenty of CSS files
* **Scaffolding :** It provides a basic structure with Grid system , link styles and background
* **Layout Components :** List of layout components
* **JavaScript Plugins :** It contains many [jQuery](https://career.guru99.com/top-50-jquery-interview-questions/" \o "jQuery) and JavaScript plugins
* **Customize :** To get your own version of framework you can customize your components

### 4) Explain what are class loaders in Bootstrap?

Class loader is a part of JRE (Java Runtime Environment) which loads Java classes into Java virtual environment. Class loaders also does the process of converting a named class into its equivalent binary form.

### 5) What are the types of layout available in Bootstrap?

In Bootstrap there are two types of Layout available

* **Fluid Layout:** Fluid layout is used when you want to create a app that is 100% wide and use up all the width of the screen
* **Fixed Layout:** For a standard screen you will use fixed layout (940 px) option

### 6) Explain what is Bootstrap Grid System?

For creating page layout through a series of rows and columns that house your content Bootstrap Grid Sytem is used.

### 7) What are offset columns in Bootstrap?

For more specialized layouts offsets are a useful feature. For more spacing they can be used by pushing column over.

**For example,** .**col-xs=\* classes** do not support offset but they are easily replicated using an empty cell

### 8) What is column ordering in Bootstrap?

Column ordering is one of the feature available in bootstrap and you can easily write columns in an order and show them in another one. With **.col-md-push-\*** and **.col-md-pull-\***

the order of the column can be easily changed.

### ****Q9. Give an example of a basic grid structure in Bootstrap.****

Example of a basic grid structure:

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9 | <div class = "container">  <div class = "row">  <div class = "col-\*-\*"></div>  <div class = "col-\*-\*"></div>  </div>    <div class = "row">...</div>  </div>  <div class = "container">.... |

### ****Q10. Why do we use Jumbotron in Bootstrap?****

Jumbotron is used for highlighting content in bootstrap. It could either be a slogan or probably a headline. It increases the heading size and gives a margin for the content of the landing page. To implement Jumbotron in a Bootstrap, you have to use:

Create a container <div> with the class of .jumbotron

### ****Q11. What are the two codes used for code display in Bootstrap?****

There are two simple ways to display code in Bootstrap:

* **<code> tag**: This tag is used to display an inline code.
* **<pre> tag**: If you have a code with several lines or even a block element, you can display it using this.

### ****Q12. Explain the typography and links in Bootstrap.****

Bootstrap sets a basic global display (background), typography, and link styles.

* **Basic Global display** − It sets background-color: #fff; on the <body> element.
* **Typography** − This uses the @font-family-base, @font-size-base, and @line-height-base attributes as the typographic base
* **Link styles** − It sets the global link color via attribute @link-color and applies link underlines only on :hover.

### ****Q13. What is a progress bar in bootstrap?****

Progress bar is used with [HTML tag style](https://www.edureka.co/blog/html-meta-tags/) in HTML element using <progress> keyword. In bootstrap we use html5 <progress> with CSS classes that have special features in bootstrap, that is only made for the progress bar.

### ****Q14. How do you make images responsive?****

Bootstrap allows to make the images responsive by adding a class .img-responsive to the <img> tag. This class applies max-width: 100%; and height: auto; to the image so that it scales nicely to the parent element.

### ****Q16. What are the steps for creating basic or vertical forms?****

The steps for creating basic or vertical forms include:

* Add a role form to the parent**<form>** element
* Wrap labels and controls in a **<div>** with class .form-group. This is required to achieve optimum spacing
* Add a class of .form-control to all texturl **<input>** , **<textarea>** , and **<select>** elements

### ****Q18. Explain types of lists supported by Bootstrap.****

Bootstrap supports three types of lists such as:

1. **Ordered lists** − An ordered list is a list that falls in some sort of sequential order and is prefaced by numbers.
2. **Unordered lists** − An unordered list is a list that doesn’t have any particular order and is traditionally styled with bullets. If you do not want the bullets to appear then you can remove the styling by using the class .list-unstyled.
3. **Definition lists** − In this type of list, each list item can consist of both the <dt> and the <dd> elements. <dt> stands for definition term. Subsequently, the <dd> is the definition of the <dt>.

### ****Q19. What is media object in Bootstrap and what are their types?****

Media objects in Bootstrap help you to put media object like image, video or audio to the left or right of the content blocks. Media element can be created using the class .media and the source is specified in using the class .media-object. Media-objects are of two types.

The two types of media object are:

* **.media**
* **.media-list**

### ****Q20. Explain the uses of carousel plugin in Bootstrap.****

Carousel plugin in bootstrap is used to make sliders in the web pages or your site. There are several carousel plugins that are used in bootstrap to display large contents within a small space by adding sliders.

**Examples:** .carousel(options), .carousel(‘pause’), .carousel(cycle’), .carousel(‘prev’), .carousel(‘next’).

### ****Q21. How can you create Nav elements in Bootstrap?****

Bootstrap offers various options for styling navigation elements. All of these use the same markup and base class .nav. You need to perform the following steps to create Tabular Navigation or Tabs:

* Start with a basic unordered list with the base class of .nav
* Add class .nav-tabs

### ****Q22. What are glyphicons? How to use them?****

Glypphicons are icon fonts which can be used in your web projects. Glyphicons Halflings are not free and require licensing. However, their creator has made them available for Bootstrap projects without any cost.

To use the icons, you just have to use the following code just about anywhere in your code. Leave a space between the icon and text for proper padding.

|  |  |
| --- | --- |
| 1 | <span class = "glyphicon glyphicon-search"></span> |

### ****Q23. What are the steps to create basic or vertical forms?****

The steps involved in creating vertical or basic forms are:

* Firstly, a role form can be added to the parent **<form>** element.
* Next, you have to add appropriate spacing by wrapping labels and control in **<div>** and using the function ‘class .form-group’.
* Finally, apply the function ‘class .form-control’ to different elements such as text url **<input> , <textarea>** and **<select>**

### ****Q24. What do you mean by Bootstrap well?****

Bootstrap well is nothing but a container that makes the content appear sunken. Sometimes it may also give an inset effect on the webpage. Thus, a developer can create a well and also wrap the content in the well with the help of **<div>** and class .well. The content would appear as per your wish.

### ****Q25. What are the input groups in Bootstrap?****

Input groups are extended Form Controls. You can easily prepend and append text or buttons to the text-based inputs with the help of input groups. Also, you can add common elements to the user’s input. For example, you can add the dollar symbol, the @ for a Twitter username, or anything else that might be common for your application interface.

To prepend or append elements to a .form-control you need to do the following:

* Wrap it in a **<div>** with class .input-group
* In the next step, place your extra content inside a **<span>** with class .input-group-addon.
* Now place this <span> either before or after the **<input>** element.

### ****Q26. What is Bootstrap breadcrumb?****

Breadcrumbs are a great way to show hierarchy-based information for a site. In the case of blogs, breadcrumbs can show the dates of publishing, categories, or tags. They indicate the current page’s location within a navigational hierarchy.

A breadcrumb in Bootstrap is simply an unordered list with a class of .breadcrumb. The separator is automatically added by CSS.

### ****Q27. How to create thumbnails using Bootstrap?****

To create thumbnails using Bootstrap you need to do the following:

* Add an [<a> tag](https://www.edureka.co/blog/a-tag-in-html/) with the class of .thumbnail around an image.
* It will add four pixels of padding and a gray border.
* Now, on hover, an animated glow will outline the image.

### ****Q28. What is a Bootstrap Container?****

A bootstrap container is a class which is useful and creates a central area within the page where our site content can be put within. The advantage of the bootstrap .container is that it is responsive and will place all our other HTML code.

### ****Q29. What is pagination in bootstrap and how are they classified?****

Pagination is the handling of an unordered list by bootstrap. If you want to handle pagination, bootstrap provides the following classes:

* **.pagination**: To get pagination on your page you have to add this class
* **.disabled, .active**: Customize links by .disabled for unclickable links and .active to indicate the current page
* **.pagination-Ig, .pagination-sm**: Use these classes to get different size item

### ****Q30. What are bootstrap alerts and how will you create them?****

Bootstrap Alerts provide a way to style messages to the user. They provide contextual feedback messages for typical user actions. You can add an optional close icon to alert. Also, you can add a basic alert by creating a wrapper <div> and adding a class of .alert and one of the four contextual classes.

### ****Q31 How will you create a Bootstrap Dismissal Alert?****

You need to follow a few steps to build a dismissal alert:

* First, you have to add a basic alert by creating a wrapper <div> and adding a class of .alert and one of the four contextual classes.
* Also add optional .alert-dismissable to the above <div> class.
* Next, you have to add a close button.
* Finally, use the <button> element with the data-dismiss = “alert” data attribute.

### ****Q32. What are the steps to create a progress bar using bootstrap?****

To create a basic progress bar, you need to do the following:

* Add a **<div>** with a class of .progress.
* Next, inside the above <div>, add an empty <div> with a class of **.progress-bar.**
* Add a style attribute with the width expressed as a **percentage.** For example, style = “40%”;

### ****Q33. What are the bootstrap media objects?****

The media objects are abstract object styles for building various types of components like blog comments, Tweets, etc. It features a left-aligned or right-aligned image alongside the textual content. The goal of the media object is to make the code for developing these blocks of information drastically shorter. And, this goal is achieved by applying classes to some of the simple markups.

### ****Q34. What are the steps to create an animated progress bar using bootstrap?****

The steps to create an animated progress bar are as follows:

* Add a <div> with a class of .progress and .progress-striped. Also add class .active to .progress-striped.
* Next, inside the above <div>, add an empty <div> with a class of .progress-bar.
* Add a style attribute with the width expressed as a percentage. For example, style = “60%”; indicates that the progress bar was at 60%.

### ****Q35. What do you mean by column ordering in Bootstrap?****

Column ordering is one of the most interesting features found in bootstrap. By using appropriate functions, the columns can be written easily and also in a defined order. You can also show them in another column. In order to change or alter the order of the column easily, the functions **.col-md-push-\*** and **.col-md-pull-\*** can be used.

### ****Q36. What is the Bootstrap Grid System?****

The Bootstrap Grid System is a responsive, mobile-first system that scales up to 12 columns as per the increase in the device or viewport size. The system features predefined classes for easy layout options and powerful**mix-ins** for generating effectively semantic layouts.

### ****Q37. What Are Bootstrap Media Queries?****

Media Queries in Bootstrap allow you to move, show and hide content based on viewport size.  Here is an example to show the basic structure of Bootstrap grid:

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9 | <div class = "container">  <div class = "row">  <div class = "col-\*-\*"></div>  <div class = "col-\*-\*"></div>  </div>    <div class = "row">...</div>  </div>  <div class = "container">.... |

### ****Q38. What is Normalize in Bootstrap?****

Bootstrap uses Normalize to establish **cross-browser** consistency.

Normalize.css is a modern, HTML5-ready alternative to CSS resets. It is a small CSS file that provides better cross-browser consistency in the default styling of HTML elements.

### ****Q39. What are Bootstrap panels? Explain how to create a Bootstrap panel with a heading.****

Bootstrap panel components are used for putting your DOM component in a box. To get a basic panel, simply add .panel and .panel-default classes to the <div> element. There are two ways of adding panel heading to a Bootstrap panel:

* Use any of the **<h1>, <h2>, <h3>, <h4>, <h5>,**or**<h6>** tags with a .panel-title class
* You can also use the **.panel-heading** class

### ****Q40. What is the purpose of using the Scrollspy plugin?****

The purpose of using the **Scrollspy plugin** in Bootstrap is that it allows you to target certain sections of the page based on the scroll position. Thereafter, you can add .active classes, based on the scroll position, to the Bootstrap navbar.

### ****Q41. Why do we use the affix plugin in Bootstrap?****

We use the affix plugin in Bootstrap for affixing a <div> to some certain location on a webpage. The plugin also allows toggling pinning on and off for the affixed <div>. Social icons are the most popular example of using the affix plugin in Bootstrap.

The affixed **<div>** starts from a particular location on the webpage and scrolls with it. However, after a certain mark, it will be locked in place, thus stopping scrolling with the rest of the webpage.

### ****Q42. What is the Bootstrap Panel?****

When there is a need for putting the contents in a bordered box with some padding around, the panel components are used. They can be created with the .panel class and content inside the panel consists of a .panel-body class. For creating a basic panel, you need to add class .panel to the <div> element and add class .panel-default to this element.

### ****Q43. What is Button group and which class is used for basic button group?****

Button groups allow multiple buttons to be stacked together on a single line. You can use this when you want to place items like alignment buttons together.

For basic button group, **.btn-group** class is used. Here, you can wrap a series of buttons with class .btn in .btn-group.

### ****Q44. What will be the default Bootstrap look of the alert created with this following code:****

|  |  |
| --- | --- |
| 1 | <div class="alert" role="alert">Warning! I'm missing something.</div> |

Alert messages are used to provide feedback message and they usually require the attention of the user. Here it is important to note that Bootstrap Alerts don’t have default class. If a contextual class such as .alert-success, .alert-info, .alert-warning, or .alert-danger, is not provided, a default gray alert will be created.