

## Unit – I: Introduction to jQuery and Bootstrap Framework

### Understand basics of jQuery

#### Introduction to jQuery

- jQuery is a lightweight, "write less, do more", JavaScript library.
- The purpose of jQuery is to make it much easier to use JavaScript on your website.
- jQuery takes a lot of common tasks that require many lines of JavaScript code to accomplish, and wraps them into methods that you can call with a single line of code.
- jQuery also simplifies a lot of the complicated things from JavaScript, like AJAX calls and DOM manipulation.

#### Importance of jQuery, jQuery syntax, jQuery selectors, jQuery Events

The jQuery library contains the following features:

- HTML/DOM manipulation
- CSS manipulation
- HTML event methods
- Effects and animations
- AJAX
- Utilities

#### Downloading jQuery

There are two versions of jQuery available for downloading:

- Production version - this is for your live website because it has been minified and compressed
- Development version - this is for testing and development (uncompressed and readable code)

Both versions can be downloaded from [jquery.com](http://jquery.com).

The jQuery library is a single JavaScript file, and you reference it with the HTML `<script>` tag (notice that the `<script>` tag should be inside the `<head>` section):

```
<head>  
<script src="jquery-3.6.1.min.js"></script>  
</head>
```

Tip: Place the downloaded file in the same directory as the pages where you wish to use it.

## **Discuss importance of Bootstrap framework**

### **Bootstrap Framework**

- Bootstrap is the most popular CSS Framework for developing responsive and mobile-first websites.
- Bootstrap 5 is the newest version of Bootstrap
- Bootstrap is a free, open source front-end development framework for the creation of websites and web apps. Designed to enable responsive development of mobile-first websites, Bootstrap provides a collection of syntax for template designs.

### **Why Bootstrap?**

- Bootstrap makes responsive web design a reality. It makes it possible for a web page or app to detect the visitor's screen size and orientation and automatically adapt the display accordingly.
- The mobile-first approach assumes smartphones, tablets and task-specific mobile apps are employees' primary tools for getting work done.
- Bootstrap addresses the requirements of those technologies in design and includes UI components, layouts, JavaScript tools and the implementation framework.

### **History of Bootstrap**

Bootstrap was created at Twitter in mid-2010 by @mdo and @fat. Prior to being an open-sourced framework, Bootstrap was known as Twitter Blueprint. A few months into development, Twitter held its first Hack Week and the project exploded as developers of all skill levels jumped in without any external guidance. It served as the style guide for internal tools development at the company for over a year before its public release, and continues to do so today.

### **Advantages of Bootstrap Framework**

- Easy to prevent repetitions among multiple projects.
- Responsive design that can be used to adapt screen sizes and choose what shows and what doesn't on any given device.
- Maintaining consistency among projects when using multiple developer teams.
- Cross-browser compatibility

## Setting up environment to use Bootstrap framework

### Mobile-First Strategy

**Responsive for All Platforms:** One of the biggest advantages of going mobile-first is that your website is compatible with different types of platforms. The site visitors see on a smartphone should be similar to the one that will appear on a desktop computer.

### Setting up Environment

Use one of the following three methods to add Bootstrap to HTML:

#### Method 1: Using the Bootstrap Content Delivery Network (CDN)

Using the Bootstrap CDN is a great way to deliver the content from your website to your users quickly and efficiently based on their geographic location and improve your website server's performance. To link Bootstrap in HTML using this method:

#### Method 2: Using package managers to import Bootstrap to HTML.

#### Method 3: Downloading files locally.

Another way of importing Bootstrap to HTML is to directly download the files locally to your HTML project folder. The files can be downloaded from the following links:

- Link to download: <https://getbootstrap.com>

After the desired Bootstrap version files have been downloaded:

- **For CSS:**

Include a link to the bootstrap.min.css file in the <head> portion of your HTML file. Doing this enables you to use the Bootstrap CSS components as per your need.

- **For JS:**

Add a link to the bootstrap.min.js file before the end of the <body> portion of your HTML file. Doing this enables you to use Bootstrap JS components.

Note that the jquery.min.js and popper.min.js files must be included before loading bootstrap.min.js, even if you have downloaded the files locally.

## Design first basic responsive page based on Mobile First Strategy.

### Responsive web page

Responsive Web Design is about using HTML and CSS to automatically resize, hide, shrink, or enlarge, a website, to make it look good on all devices (desktops, tablets, and phones):

### Setting The Viewport

To create a responsive website, add the following <meta> tag to all your web pages:

Example:

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

This will set the viewport of your page, which will give the browser instructions on how to control the page's dimensions and scaling.

Here is an example of a web page without the viewport meta tag, and the same web page with the viewport meta tag:

#### Without the viewport meta tag:



#### With the viewport meta tag:



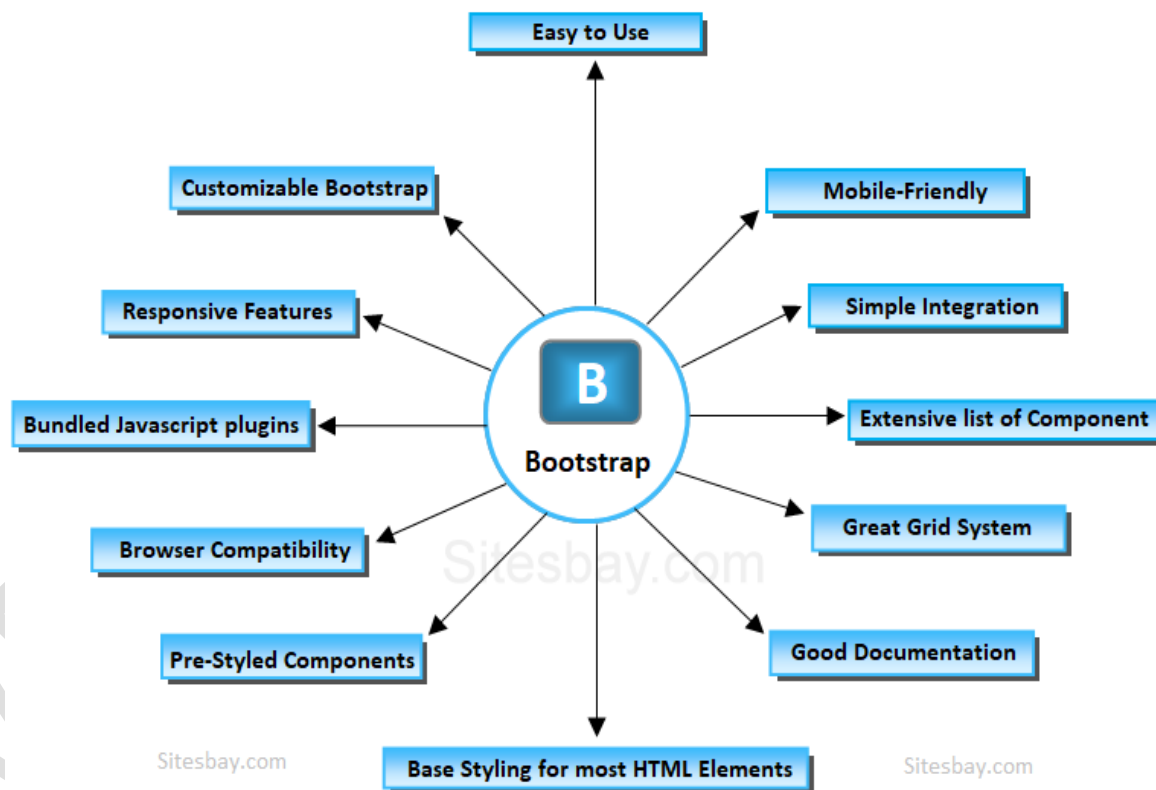
## How to remove Responsiveness

### Steps to disable page responsiveness

1. Remove the viewport tag from page which is responsible to disables the zooming aspect of sites in mobile devices.
2. Override the width on the .container for each grid tier with a single width for example width: 970px make sure that this comes after the default Bootstrap CSS.
3. Remove all navbar collapsing and expanding behavior.
4. For grid layouts, use .col-xs-\* classes in place of medium/large ones.

## Major Features of Bootstrap

Bootstrap is freely available for every. The main features of bootstrap is, it is very simple and easy to use, hug JavaScript plugins are available, easily design mobile friendly website.



### Features of Bootstrap