**What is Bootstrap?**

Bootstrap is a free front-end framework for faster and easier web development. Bootstrap includes HTML and CSS based design templates for typography, forms, buttons, tables, etc. , as well as optional JavaScript plugins.

Bootstrap also gives you the ability to easily create responsive designs.

**What is Responsive Web Design?**

Responsive web design is about creating web sites which automatically adjust themselves to look good on all devices, from small phones to large desktops.

Bootstrap was developed by Mark Otto and Jacob Thornton at Twitter, and released as an open source product in August 2011 on GitHub.

In June 2014 Bootstrap was the No.1 project on GitHub!

**Advantages of Bootstrap:**

**Easy to use:** Anybody with just basic knowledge of HTML and CSS can start using Bootstrap.

**Responsive features:** Bootstrap's responsive CSS adjusts to phones, tablets, and desktops.

**Mobile-first approach:** In Bootstrap 3, mobile-first styles are part of the core framework.

**Browser compatibility:** Bootstrap is compatible with all modern browsers (Chrome, Firefox, Internet Explorer, Safari, and Opera).

**One advantage of using the Bootstrap CDN:**

Many users already have downloaded Bootstrap from MaxCDN when visiting another site. As a result, it will be loaded from cache when they visit your site, which leads to faster loading time. Also, most CDN's will make sure that once a user requests a file from it, it will be served from the server closest to them, which also leads to faster loading time.

Bootstrap use jQuery for JavaScript plugins (like modals, tooltips, etc). However, if you just use the CSS part of Bootstrap, you don't need jQuery.

**First Web Page With Bootstrap:**

**1. Add the HTML5 doctype -** Bootstrap uses HTML elements and CSS properties that require the HTML5 doctype. Always include the HTML5 doctype at the beginning of the page, along with the lang attribute and the correct character set:

<!DOCTYPE html>

<html lang=”en”>

<head>

<meta charset = “utf-8”>

</head>

</html>

**2. Bootstrap 3 is mobile-first -** Bootstrap 3 is designed to be responsive to mobile devices. Mobile-first styles are part of the core framework.

To ensure proper rendering and touch zooming, add the following <meta> tag inside the <head> element:

<meta name=”viewport”

content = “width=device-width,

initial-scale=1”>

The width=device-width part sets the width of the page to follow the screen-width of the device (which will vary depending on the device).

The initial-scale=1 part sets the initial zoom level when the page is first loaded by the browser.

**3. Containers** - Bootstrap also requires a containing element to wrap site contents. There are two container classes to choose from:

1. The .container class provides a responsive fixed width container.

2. The .container-fluid class provides a full width container, spanning the entire width of the viewport.

**Note:** Containers are not nestable (you cannot put a container inside another container).

**Bootstrap Grid System**

Bootstrap's grid system allows up to 12 columns across the page. If you do not want to use all 12 columns individually, you can group the columns together to create wider columns:

Bootstrap's grid system is responsive, and the columns will re-arrange automatically depending on the screen size.

he Bootstrap, grid system has four classes: xs (for phones), sm (for tablets), md (for desktops), lg (for larger desktops). These classes can be combined to create more dynamic and flexible layouts.

The following is a basic structure of a Bootstrap grid:

<div class=”row”> <!-- First create a row -->

<div class=”col-\*-\*”></div> <!-- Then, add the desired number of columns (tags with

</div> appropriate .col-\*-\* classes). -->

<div class="row">

<div class="col-\*-\*"></div>

<div class="col-\*-\*"></div>

<div class="col-\*-\*"></div>

</div>

<div class="row">

...

</div>

Note that numbers in .col-\*-\* should always add up to 12 for each row.

**Bootstrap's Default Settings:**

Bootstrap's global default font-size is 14px, with a line-height of 1.428. This is applied to the <body> element and all paragraphs (<p>).

In addition, all <p> elements have a bottom margin that equals half their computed line-height (10px by default).

Most of the HTML elements are a styled a little bit differently by Bootstrap than browser defaults.