1.What are the advantages of Bootstrap?

**The Bootstrap is an open source Front-End framework, used for Web Application development, made up of HTML, CSS and Java script, which twitter has developed.**

**Advantages:**

**Saves Time- It increases the development speed and gets the work done in a very short time.**

**Easy to Use-** **If you have basic knowledge of HTML, CSS , then you can easily use Bootstrap.**

**Responsive Design- If your website is responsive then it adjusts itself according to the screen size in any platform or device like desktop, laptop, mobile etc.**

**Cross Browser Compatible- Bootstrap is designed in such a way that our web-page will look the same in almost all modern browsers like Firefox, Chrome, Internet Explorer, Opera etc.**

**Open Source-** **The best thing about it is that you can use it for free.**

**Customization- Bootstrap is easy to customize, customize means that if you do not want all the features of bootstrap, you can use a few features**.

2. What is a Bootstrap Container, and how does it work?

**Containers are** **the most basic layout element in Bootstrap and are required when using our default grid system**. **Containers are used to contain, pad, and (sometimes) center the content within them. While containers can be nested, most layouts do not require a nested container.**

**Bootstrap comes with three different containers:**

* **.container**, which sets a **max-width** at each responsive breakpoint
* **.container-fluid**, which is **width: 100%** at all breakpoints
* **.container-{breakpoint}**, which is **width: 100%** until the specified breakpoint

3. What are the default Bootstrap text settings?

**Bootstrap uses a default font-size of 1rem(16px) and its line-height is 1.5.**

**The default font-family is “Helvetica Neue ”, Helvetica, Arial, Sans-serif.**

**All <p> elements have margin-top: o and margin-bottom: 1rem.**

**<h1> - <h6>: HTML headings with a bolder font-weight and an increased font-size.**

**.display-1 - .display-4: Display headings are used to stand out more than normal headings , larger font-size and lighter font-weight.**

4. What do you know about the Bootstrap Grid System?

**Bootstrap’s Grid system allows up to 12 columns across the page. If we do not want to use all 12 columns individually, you can group the columns together to create wider columns.**

**Bootstrap grid system is responsive and the columns will re-arrange depending on the screen size.**

**The Bootstrap grid system has four classes:**

1. **Xs ( for phones)**
2. **Sm ( for tablets)**
3. **Md ( for small laptops)**
4. **Lg ( for laptops and desktops)**

Ex.

<!DOCTYPE html>

<html lang="en">

<head>

    <title>Bootstrap Example</title>

    <meta charset="utf-8">

    <meta name="viewport" content="width=device-width, initial-scale=1">

    <link rel="stylesheet" href="bootstrap@5.0.2-dist/css/bootstrap.css">

    <link rel="stylesheet" href="bootstrap@5.0.2-dist/css/bootstrap.css">

</head>

<body>

    <div class="container-fluid">

        <h1>Hello World!</h1>

        <p>Resize the browser window to see the effect.</p>

        <p>The columns will automatically stack on top of each other when the screen is less than 768px wide.</p>

        <div class="row">

            <div class="col-sm-4" style="background-color:lavender;">.col-sm-4</div>

            <div class="col-sm-4" style="background-color:lavenderblush;"> . col-sm- 4</div>

            <div class="col-sm-4" style="background-color:lavender;">.col-sm-4</div>

        </div>

    </div>

</body>

</html>

5.What is the difference between Bootstrap 4 and Bootstrap 5

| **BASIS OF** | **BOOTSTRAP 4** | **BOOTSTRAP 5** |
| --- | --- | --- |
| **Grid System** | **It has 5 tier (xs, sm, md, lg, xl).** | **It has 6 tier (xs, sm, md, lg, xl, xxl).** |
| **Color** | **It has limited colors.** | **Extra colors added with the looks, A card improved color palette. there are various shades available to choose.** |
| **Jquery** | **It has jquery and all related plugins.** | **Jquery is removed and switched to vanilla JS with some working plugins** |
| **Internet Explorer** | **Bootstrap 4 supports both IE 10 and 11.** | **Bootstrap 5 doesn’t support IE 10 and 11.** |
| **Form elements** | **Radio buttons, checkboxes have different look in different OS and browsers. The form uses whatever default browsers provide.** | **The look of form elements will not change, on different OS or browser. The forms can be customized and form controls can be added, they would not depend on browser.** |
| **Utilities API** | **We cannot modify utilities in bootstrap 4** | **Bootstrap 5 gave freedom to modify and also create our own utility** |
| **Gutter** | **We use .glutter with fontsize in px** | **We use .g\* with fontsize in rem** |
| **Vertical Classes** | **Columns can be positioned relative** | **Columns cannot be positioned relative** |
| **Bootstrap Icons** | **Bootstrap 4 doesn’t have its own SVG icons, we have to use font-awesome for icons.** | **Bootstrap 5 have its own SVG icons** |
| **Jumbotron** | **It supports.** | **It doesn’t support jumbotron.** |
| **Card deck** | **The card deck is used to create an isset of cards with equal width and height.** | **Card deck class in removed in bootstrap** |
| **Navbar** | **We have inline-block property and we will get white dropdown as default for dropdown-menu-dark class.** | **Inline-block property is removed and we will get black dropdown as default for dropdown-menu-dark class.** |
| **Static Site Generator** | **Bootstrap 4 uses Jekyll software.** | **Bootstrap 5 uses Hugo software as it is fast static site generator.** |
| **flexbox grid** | **this makes easier to implement vertical designs, and the columns and rows can easily be implemented. the classes justify-center-content can directly be used to align according to the requirement.** | **advanced grid system is made available , also columns don’t have relative positions.** |
| **RTL Support** | **It does not enable RTL(Right to Left) switching.** | **It enables RTL(Right to Left) switching.** |
| **Offcanvas Component** | **It does not support Offcanvas Component.** | **It supports Offcanvas Component(that is it is available now).** |

6.What is a Button Group, and what is the class for a basic Button Group?

**Button Group is a series of buttons together on a single line or a stack them in a vertical column.**

**Button Group class:**

**Use a <div> element with class .btn-group to create a button group**

Ex.

<!DOCTYPE html>

<html lang="en">

<head>

    <title>Bootstrap Example</title>

    <meta charset="utf-8">

    <meta name="viewport" content="width=device-width, initial-scale=1">

    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css" rel="stylesheet">

    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js"></script>

</head>

<body>

    <div class="container mt-3">

        <h2>Button Group</h2>

        <p>The .btn-group class creates a button group:</p>

        <div class="btn-group">

            <button type="button" class="btn btn-primary">Apple</button>

            <button type="button" class="btn btn-primary">Samsung</button>

            <button type="button" class="btn btn-primary">Sony</button>

        </div>

    </div>

</body>

</html>

7. How can you use Bootstrap to make thumbnails?

**Bootstrap - Thumbnails**

**1. Add an tag with the class of . thumbnail around an image.**

**2. This adds four pixels of padding and a gray border.**

**3. On hover, an animated glow outlines the image.**

8. In Bootstrap 4, what is flexbox?

**Flexbox. The biggest difference between Bootstrap 3 and Bootstrap 4 is that Bootstrap 4 now uses flexbox, instead of floats, to handle the layout. The Flexible Box**

**Layout Module, makes it easier to design flexible responsive layout structure without using float or positioning.**

9. How can one create an alert in Bootstrap?

* **Be sure you’ve loaded the alert plugin, or the compiled Bootstrap JavaScript.**
* **If you’re building our JavaScript from source, it requires util.js. The compiled version includes this.**
* **Add a dismiss button and the .alert-dismissible class, which adds extra padding to the right of the alert and positions the .close button.**
* **On the dismiss button, add the data-dismiss="alert" attribute, which triggers the JavaScript functionality. Be sure to use the element with it for proper behavior across all devices.**
* **To animate alerts when dismissing them, be sure to add the .fade and .show classes**

10.What is a bootstrap card and how would you create one?

https://github.com/Ahir1203/MODULE-6-Bootstrap-Basic-Advance-/tree/main/Card%20bootstrap