**Web Designing Assignment**

**Module(Bootstrap Basic & Advanced)**

1. What are the advantages of 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, navigation, modals, image carousels and many other, as well as optional JavaScripts plugins
* Bootstrap also gives you the ability to easily create responsive design is about creating web sites which automatically adjust themselves to look good on all devices, from small phones to large desktops.

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

* A Bootstrap container is a basic building block in Bootstrap’s layout system. It’s essentially a wrapper that holds your website content and aligns it properly on the page with appropriate padding and margins. Containers ensure that your content is nicely centered and doesn’t stretch edge-to-edge on very wide screens, helping maintain readability and design structure.
* There are two types of containers in Bootstrap(especially from bootstrap5 onward):

The .container class provides a responsive fixed width container

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

1. What are the default Bootstrap text settings?

* Bootstrap 5 uses default font-size of 1rem (16px by default), and its line-height is 1.5.

In Addition, all <p> elements have margin-top: 0 and margin-bottom: 1rem(16px by default). <h1>-<h6> Bootstrap 5 styles HTML headings (<h1> to <h6>) with a bolder font-weight and a responsive font-size.

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

* The Bootstrap Grid System is a flexible layout system used in the Bootstrap framework to design responsive web pages. It’s based on a 12-column layout, meaning any row you create can be devided into up to 12 equal parts, and you can mix and match how wide each part is.
* Rows Must be placed within a .container (fixed width) or .container-fluid (full width) for proper alignment and padding. Use rows to create horizontal groups of columns. Content should be placed within columns, and only columns may be immediate children of rows. Predefined classes like .row and .col-sm-4 are available for quickly making grid layouts. Columns create gutters (gaps between column content) via padding. That padding is offset in rows for the first and last column via negative margin on .rows. Grid columns are created by specifying the number of 12 available columns you wish to span. Column widths are percentage, so they are always fluid and sized relative to their parent element.

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

* Grid System : -

BS4 :- It has 5 tier (xs, sm, md, lg, xl).

BS5 :- It has 6 tier (xs, sm, md, lg, xl, xxl).

* Color : -

BS4 :- It has limited colors.

BS5 :- Extra color added with the looks, A card improved color palette. There are various shades available to choose.

* Gutter : -

BS4 :- We use .glutter with fontsize in px

BS5 :- We use .g\* with fontsize in rem

* Vertical Classes : -

BS4 :- Columns can be positioned relative

BS5 :- Columns cannot be positioned relative

* Form elements : -

BS4 :- Radio buttons, checkboxes have different look in different OS and browsers. The Form uses whatever default browsers provide.

BS5 :- 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.

* Bootstrap Icons : -

BS4 :- Bootstrap 4 doesn’t have its own SVG icons, we have to use font-awesome for icons.

BS5 :- Bootstrap 5 have its own SVG icons

* RTL Support : -

BS4 :- It does not enable RTL (Right to left) switching.

BS5 :- It enables RTL (Right to left) switching.

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

* A Button Group in Bootstrap is a component that groups a series of buttons together on a single line. It helps organize buttons that are related to each other, giving a cleaner and more structured look. Button groups are useful when you want to present multiple actions side-by-side, like a set of formatting options or grouped controls.

The basic class for a button group in bootstrap is:

<div class=”btn-group” role=”group”>

<button type=”button” class=”btn btn-primary”>Left</button>

<button type=”button” class=”btn btn-primary”>Middle</buttton>

<button type=”button” class=”btn btn-primary”>Right</button></div>

* Btn-group This class wraps your buttons and makes them appear side-by-side as a group. Btn- This Class is used for styling each individual button. Btn-primary defines the color and style of the button.

1. How can you use Bootstrap to make thumbnails?

* In Bootstrap (especially versions 4 and 5), you can easily create thumbnails using the .img-thumbnail class. This class applies some padding, a border, and rounded corners to images, making them look like neat, framed thumbnails.

1. In Bootstrap 4, what is flexbox?

* Flexbox in Bootstrap 4 is a css layout system that helps you easily align, arrange, and distribute elements on a web page without using floats, clearfix, or old layout hacks. Flexbox lets you easily arrange your elements in straight line (row) or up and down (column), and position them in the center, left/right, or top/bottom that too by writing very little CSS code.

1. How can one create an alert in bootstrap?

* Creating an alert in bootstrap is very easy. You can create an alert using just the alert class and a contextual class (such as alert-success, alert-danger etc.)

Example of Basic Alert:

<div class =”alert alert-success” role=”alert”>

This is a success alert, check it out!

</div>

* Dismissible Alert (Which can be closed)

If you want the user to be able to close the alert, you wil need to set alert-dismissible fade, and show classes and add a close button.

<div class=”alert alert-warning alert-dismissible fade show” role=”alert”>

<strong>Warning</strong>Look at your work carefully.

<button type=”button” class=”btn-close” data-bs-dismiss=”alert” aria-label=”close”>

</button></div>

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

* A bootstrap card is a flexible and extensible content container provided by the Bootstrap framework. It is used to display content in a boxed layout with various options like headers, footers, images, lists, links, and more. Cards are commonly used for things like product previews, blog posts, user profile, or content summaries.