**FSD Laboratory 02**

Aim: Design and develop a responsive web page using Bootstrap front end framework.

Objectives:

1. To understand HTML tags

2. To learn the styling of web pages using CSS

3. To learn Bootstrap Front End Framework.

Theory:

1. Bootstrap Grid System.

The Bootstrap grid system is a responsive, mobile-first layout system that helps developers create a flexible grid-based structure for web page layouts. It consists of a 12-column grid that can be customized and rearranged to create different layouts. Key components include rows, columns, and various responsive classes (e.g., col-md-6) that define how content should be displayed on different screen sizes.

2. Bootstrap .container and .container-fluid class.

In Bootstrap, the .container and .container-fluid classes are used to create containers for your page content:-

* .container: It creates a fixed-width container that centers the content and adjusts the width based on the screen size.
* .container-fluid: It creates a full-width container that spans the entire width of the viewport, making it suitable for responsive designs.

FAQ:

1. What is a responsive website?

A responsive website is a website design approach that ensures web pages adapt and render optimally on various devices and screen sizes. Responsive design aims to provide an excellent user experience regardless of whether the user accesses the site on a desktop computer, tablet, or smartphone. Key elements of responsive design include flexible layouts, fluid images, and media queries that adjust content presentation based on the device's characteristics.

2. How Bootstrap helps to design a responsive website?

Bootstrap simplifies the process of designing responsive websites through its grid system and responsive classes. Here's how Bootstrap helps:

* Grid System: Bootstrap's grid system allows developers to create responsive layouts easily. It provides a predefined grid with 12 columns that automatically stack or reorganize content based on screen size.
* Responsive Classes: Bootstrap provides responsive utility classes (e.g., col-md-6) that enable developers to specify how content should behave on different screen sizes without writing custom CSS.
* Responsive Components: Many Bootstrap components, such as navigation bars and carousels, are designed to be responsive by default, saving developers time and effort in creating mobile-friendly interfaces.
* CSS Flexbox and Grid: Bootstrap 4 and later versions leverage CSS Flexbox and Grid for enhanced responsiveness and layout control.
* Media Queries: Bootstrap includes media queries that target various screen sizes, making it easier to design responsive styles and behavior.

Output: Screenshots of the output to be attached.

**Problem Statement:**

Design and develop a responsive web page (For example student registration, course enrollment, library management system, online shopping system etc.) using Bootstrap front end framework. Web pages should contain HTML5 elements (Use all possible formatting for example font, colour etc.). Use all possible formatting for example,

* font,
* colour etc.

Web page should include various

* images,
* links within the page,
* tables
* lists
* form elements
* paragraphs
* links to other pages for navigation,
* new tabs.

Use Cascaded Style Sheets (CSS) to style the web pages designed. Make use of

* Three types of styles (Inline, Internal and External)
* border,
* margins,
* padding,
* navigation,
* dropdown list
* tag selector
* class selector
* id selector
* exploring background image and position property etc.

