School of Computer Engineering & Technology
Class: Third Year B.Tech CSE (Semester V)
Course: Full Stack Development

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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.
2. Bootstrap .container and .container-fluid class.
FAQ:
1. What is a responsive website?
2. How Bootstrap helps to design a responsive website?

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.

Theory:

Ans 1. The Bootstrap grid system is a fundamental layout tool in the popular Bootstrap framework, ensuring responsive and appealing web designs. It's based on a 12-column structure, enabling flexible content organization across various screens.

Bootstrap's grid system is inherently responsive, adapting seamlessly to mobile, tablet, and desktop screens without extensive custom CSS, thanks to media queries and CSS classes.

Grid classes, like col-6, define column widths for different screen sizes, making layout control simple.

Nested grids allow for complex layouts, and offset and alignment options ensure precision.

Containers, including .container and .container-fluid, manage layout width and center elements within the grid-based design.

Ans 2. Bootstrap provides two important classes, .container and .container-fluid, for structuring the layout of web pages:

> .container Class:
> - .container creates a fixed-width container for your web content.
> - It ensures that your content is centered on the page and maintains a maximum width based on the user's screen size.
> - The width of the container is responsive, meaning it adjusts to various screen sizes, but it has a maximum width to prevent content from becoming too wide.
> - This class is useful when you want to maintain a consistent and controlled content width, typically with some margin on the sides.
>
> .container-fluid Class:
> - .container-fluid creates a full-width container that spans the entire width of the viewport or the parent element.
> - It's ideal for designs where you want your content to stretch to the edges of the screen, filling the available space horizontally.
> - This class is commonly used for header and footer sections that need to extend across the entire width of the viewport or when you want a more fluid and expansive layout.

FAQ's

Ans 1. A responsive website is a website that adapts and looks good on various devices and screen sizes, including desktops, laptops, tablets, and mobile phones. It achieves this by using flexible design techniques and media queries in CSS to rearrange and resize content, images, and layout elements so that they are user-friendly and visually appealing regardless of the device being used to access the site. In essence, a responsive website provides an optimal viewing and interaction experience for visitors, ensuring that the site's content and functionality remain accessible and usable across a wide range of devices and screen dimensions.

Ans 2. Bootstrap helps build responsive websites by offering a ready-to-use framework with native CSS and native JavaScript components. The framework includes a responsive grid

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structure for organizing layouts, responsive font-on-page (font-on-page) design, and a set of responsive user interface (UI) elements.

Web designers and developers use Bootstrap's built-in components and native classes to build responsive websites that automatically resize and look great on different devices and screen resolutions. This means that developers don't have to write a ton of custom CSS and/or JavaScript code to build responsive websites. This simplifies development and provides a consistent user experience across platforms.

Code:-
html:-

```html
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Aagam Jewellers</title>
<style>
body {
font-family: Arial, sans-serif;
background-image: url('JG-2002-01078.jpg');
background-color: #f4f4f4;
background-size: cover;
margin: 0;
padding: 0;
}

header {
background-color: #333;
color: #fff;
text-align: center;
padding: 10px;
}

nav {
background-color: #444;
color: #fff;
text-align: center;
padding: 10px;
}
```

```css
nav a {
text-decoration: none;
color: #fff;
margin: 10px;
}

.container {
max-width: 1200px;
margin: 0 auto;
padding: 20px;
}

h1 {
text-align: center;
}

.product {
background-color: #ffffff00;
padding: 20px;
margin: 10px;
border: 1px solid #ffffff;
box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1);
}

.product img {
width: 150px; /* Adjust the width as needed */
margin-right: 20px;
}

footer {
background-color: #333;
color: #fff;
text-align: center;
padding: 10px;
}
</style>
</head>
```

```html
<body>
<header>
<h1>Welcome to Aagam Jewellers</h1>
</header>
<nav>
<a href="#">Home</a>
<a href="#">Products</a>
<a href="#">About Us</a>
<a href="#">Contact</a>
</nav>
<div class="container">
<h1  style="color:  rgb(252,  252,  252);"  ,  text-align="center">Featured
Products</h2>
<div class="product">
<h3 style="color: rgb(252, 252, 252);">Beautiful Diamond Necklace</h3>
<p  style="color:  rgb(252,  252,  252);">Exquisite  diamond  necklace  with
stunning design.</p>
<p style="color: rgb(252, 252, 252);">Price: $2,500</p>
</div>
<div class="product">
<h3 style="color: rgb(252, 252, 252);">Elegant Gold Bracelet</h3>
<p style="color: rgb(252, 252, 252);">Elegant gold bracelet with intricate
details.</p>
<p style="color: rgb(252, 252, 252);">Price: $800</p>
</div>
<div class="product">
<h3 style="color: rgb(252, 252, 252);">Sparkling Sapphire Ring</h3>
<p  style="color:  rgb(252,  252,  252);">Sparkling  sapphire  ring  with  a
brilliant blue gemstone.</p>
<p style="color: rgb(252, 252, 252);">Price: $1,200</p>
</div>
<div class="product">
<h3  style="color:  rgb(252,  252,  252);">Special  Collection  of  Rose  Gold
Jewellery</h3>
<p  style="color:  rgb(252,  252,  252);">Sparkling  18K  ring  with  White
Emerald.</p>
<p style="color: rgb(252, 252, 252);">Price: $7,900</p>
</div>
```

```html
</div>
<footer>
&copy; 2023 Aagam Jewellers. All rights reserved.
</footer>
</body>
</html>
```