SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING-IOT Including CS&BCT

COURSE NAME : 19SB602 FULL STACK DEVELOPMENT FOR NEXT GENERATION IOT

III YEAR / VI SEMESTER

Unit II- **FRONT-END MODULES**

Topic : Bootstrap Themes, Bootstrap CSS

Bootstrap themes refer to **pre-designed collections of styles, layouts, and components** built on top of the Bootstrap framework.

Bootstrap themes enhance the design and functionality of websites by providing **ready-made templates** that developers can **easily customize and integrate** into their projects.

Bootstrap themes are **valuable resources for web developers**, offering a convenient way to **create visually appealing, responsive, and functional websites** with minimal effort.

Bootstrap themes typically include:

1. Design Elements
2. Layouts
3. Components
4. JavaScript Plugins
5. Customization Options
6. Documentation
7. Support

1. Design Elements

They come with **predefined typography, color schemes, and spacing** to **maintain consistency** in design across different pages of a website or web application.

2. Layouts

Bootstrap themes offer **various layout options** such as **grid systems, navigation bars, sidebars, and footers**.

These layouts are designed to be **responsive, ensuring that the website looks good and functions** well on different screen sizes and devices.

3. Components

They include a **wide range of customizable components** such as buttons, forms, dropdowns, modals, tabs, and accordions.

4.JavaScript Plugins

Many Bootstrap themes come with **built-in integration** with popular JavaScript plugins like sliders, carousels, lightboxes, and tooltips.

5.Customization Options

Bootstrap themes often provide options for **customization, allowing developers to easily adjust colors, fonts, and other design** elements to match their branding or aesthetic preferences.

6.Documentation

High-quality Bootstrap themes are accompanied by **comprehensive documentation that guides developers** on how to use the theme, customize it, and integrate it into their projects effectively.

7. Support

Some Bootstrap themes come with **dedicated support channels** such as **forums, ticketing systems, or email support**, where developers can seek assistance or ask questions related to the theme.

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```html
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8">
 <meta name="viewport" content="width=device-width, initial-scale=1.0">
 <title>Bootstrap Themes Example</title>
 <!-- Bootstrap CSS -->
 <link href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css" rel="stylesheet">
</head>
<body>
```

```html
<!-- Navigation Bar -->
 <nav class="navbar navbar-expand-lg navbar-dark bg-dark">
   <a class="navbar-brand" href="#">Bootstrap Themes</a>
   <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-expanded="false" aria-label="Toggle navigation">
     <span class="navbar-toggler-icon"></span>
   </button>

   <div class="collapse navbar-collapse" id="navbarSupportedContent">
     <ul class="navbar-nav mr-auto">
```

```html
    <li class="nav-item active">
        <a class="nav-link" href="#">Home <span class="sr-
only">(current)</span></a>
    </li>
    <li class="nav-item">
        <a class="nav-link" href="#">About</a>
    </li>
    <li class="nav-item">
        <a class="nav-link" href="#">Services</a>
    </li>
    <li class="nav-item">
        <a class="nav-link" href="#">Contact</a>
    </li>
    </ul>
    </div>
</nav>
```

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```html
<!-- Content -->
 <div class="container mt-4">
  <div class="card">
   <div class="card-header">
    Featured
   </div>
   <div class="card-body">
    <h5 class="card-title">Special title treatment</h5>
    <p class="card-text">With supporting text below as a natural lead-
in to additional content.</p>
    <a href="#" class="btn btn-primary">Go somewhere</a>
   </div>
  </div>
 </div>
```

```html
<!-- Bootstrap JS (optional, for certain components) -->
  <script src="https://code.jquery.com/jquery-
3.5.1.slim.min.js"></script>
  <script
src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.5.4/dist/umd
/popper.min.js"></script>
  <script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstr
ap.min.js"></script>
</body>
</html>
```

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Bootstrap CSS

Bootstrap CSS is a **popular front-end framework** for building responsive and mobile-first websites.

It provides a set of **pre-designed CSS classes and JavaScript plugins** to help developers create consistent and visually appealing web layouts with ease.

Features and components of Bootstrap CSS

Grid System

Bootstrap offers a responsive grid system that allows developers to create layouts with up to **12 columns across** different screen sizes, making it easy to achieve responsive designs.

Typography: Bootstrap provides **styles for headings, paragraphs, lists, and other typographic elements** to maintain **consistency and readability** across the website.

Buttons: Bootstrap includes **styles for various button types, sizes, and states**, making it simple to create attractive and interactive buttons for your website.

Forms: Bootstrap offers styles for form elements **like inputs, selects, checkboxes, and radio buttons**, as well as form validation styles and feedback icons.

Navbar: Bootstrap provides a customizable navbar component that can be **easily configured with different layouts, styles, and responsive behaviors.**

Utilities: Bootstrap includes a variety of utility **classes for spacing, alignment, visibility, and more**, allowing developers to quickly adjust layout and appearance without writing custom CSS.

Components: Bootstrap offers **numerous UI components such as modals, tooltips, carousels, and dropdowns**, which can be easily integrated into your website to enhance functionality and user experience.

Any Query????

Thank you……

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