

Bootstrap

Bootstrap is a popular framework of front-end which is used to design responsive website. It makes website efficiently viewed in mobile device. It has a collection of predefined components made of HTML, CSS and JS and directly design components like button, form, navigation bar, etc. It saves time of developer because removing need to write repetitive CSS and help to maintain the content responsive across pages.

Bootstrap follow the rule of 12-column responsive grid system, which makes easy for developer to understand and design the layout based on size of screen (mobile to desktop). It is open source and updated regularly. Using it developer can design and develop a website using few lines of code.

Roles of Bootstrap:

- Front-end designing is made easy by predefined components.
- Gives readymade class for designing best UIs.
- Decrease the necessity of custom CSS code.
- Make webpage responsive in nature.

Bootstrap classes, Tags, components and meaning:

| Bootstrap Class / Component | Purpose / Description |
|-----------------------------|--------------------------------------|
| container | Create fluid layout container |
| row | Target horizontal group |
| col | Target vertical group |
| btn | Class for button |
| btn-primary | Style b button with primary as color |
| btn-success | Green button |
| form-control | Style text area |
| alert | Display alert message box |
| navbar | Create responsive navigation bar |
| card | Flexible content container |
| img-fluid | Make responsive image |
| nav-item | Select individual item |
| navbar-brand | Add logo on navbar |
| text-center | Center the text horizontally |

Example of Code:

```
Example3.html X
Example3.html > html > head > meta
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <title>MyShop - Home</title>
6   <!-- Bootstrap 5 CDN -->
7   <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css" rel="stylesheet">
8 </head>
9 <body class="bg-light text-dark">
10
11 <!-- Header -->
12 <header class="bg-dark text-white text-center py-4">
13   <div class="container">
14     <h1 class="mb-3">Welcome to MyShop</h1>
15     <nav>
16       <ul class="nav justify-content-center">
17         <li class="nav-item"><a href="index.html" class="nav-link text-white fw-bold">Home</a></li>
18         <li class="nav-item"><a href="products.html" class="nav-link text-white fw-bold">Products</a></li>
19         <li class="nav-item"><a href="about.html" class="nav-link text-white fw-bold">About Us</a></li>
20         <li class="nav-item"><a href="contact.html" class="nav-link text-white fw-bold">Contact</a></li>
21         <li class="nav-item"><a href="cart.html" class="nav-link text-white fw-bold">Cart</a></li>
22       </ul>
23     </nav>
24   </div>
25 </header>
26
27 <!-- Main Content -->
28 <main class="container mt-5">
29   <section>
30     <h2 class="text-center text-secondary mb-4">Featured Products</h2>
31     <div class="row justify-content-center g-4">
32       <!-- Product 1 -->
33       <div class="col-md-3">
34         <div class="card shadow-sm">
35           
36           <div class="card-body text-center">
37             <h3 class="card-title">Swing Machine</h3>
38             <p class="card-text">Description of product 1.</p>
39             <p class="card-text fw-bold">Price: $20</p>
40             <button class="btn btn-success">Add to Cart</button>
41           </div>
42         </div>
43       </div>
44     </div>
45   </section>
46 </main>
```

```
... Example3.html X
Example3.html > html > body.bg-light.text-dark > header.bg-dark.text-white.text-center.py-4 > div.container > nav > ul.nav.justify-content-center
2 <html lang="en">
9 <body class="bg-light text-dark">
28 <main class="container mt-5">
29   <section>
32     <div class="row justify-content-center g-4">
44       </div>
45
46       <!-- Product 2 -->
47       <div class="col-md-3">
48         <div class="card shadow-sm">
49           
50           <div class="card-body text-center">
51             <h3 class="card-title">Branded Swing Machine</h3>
52             <p class="card-text">Description of product 2.</p>
53             <p class="card-text fw-bold">Price: $35</p>
54             <button class="btn btn-success">Add to Cart</button>
55           </div>
56         </div>
57       </div>
58     </div>
59   </section>
60 </main>
61
62 <!-- Footer -->
63 <footer class="bg-dark text-white text-center py-4 mt-5">
64   <div class="container">
65     <p class="mb-0">&copy; 2025 MyShop. All rights reserved.</p>
66   </div>
67 </footer>
68
69 <!-- Bootstrap 5 Bundle (optional for interactivity) -->
70 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap.bundle.min.js"></script>
71 </body>
72 </html>
73
```

Output:

