

**Modul Ajar**  
**Pemrograman Web**  
**Pertemuan IV CSS-Bootstrap**

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## 4.1 Bootstrap

**Bootstrap** adalah framework front-end yang digunakan untuk mempercepat pengembangan antarmuka web. Bootstrap dikembangkan oleh twitter dan sekarang menggunakan lisensi open-source artinya dapat digunakan secara gratis oleh semua orang. Saat ini bootstrap menggunakan versi 5.x dan tidak lagi tergantung pada jQuery.

### 4.1.1 Fitur-Fitur Boostrap

- Mobile-first dan responsive design
- Komponen User interface (UI) siap pakai seperti button, form, navbar dll
- Utility classes untuk styling yang cepat
- Dokumentasi lengkap

Kenapa harus menggunakan bootstrap?

- Mempercepat development
- Desain langsung responsive
- Konsistensi antarmuka
- Mudah dipelajari

## 4.2 Instalasi Boostrap

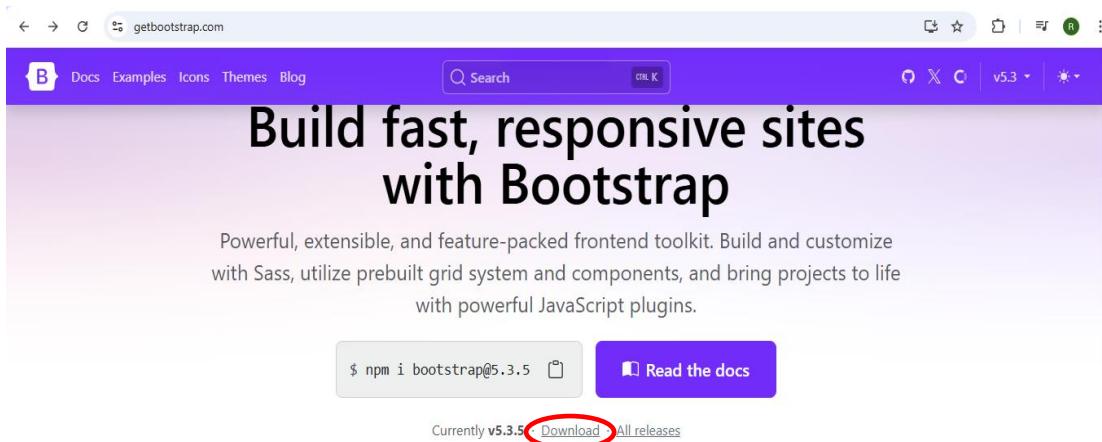
### 4.2.1 Langsung menggunakan CDN

```
1 <head>
2 | <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css" rel="stylesheet">
3 | <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js"></script>
4 </head>
```

Gambar 4.1 Akses Boostrap CDN

### 4.2.2 Download dan gunakan secara offline

- Buka halaman web <https://getbootstrap.com/>

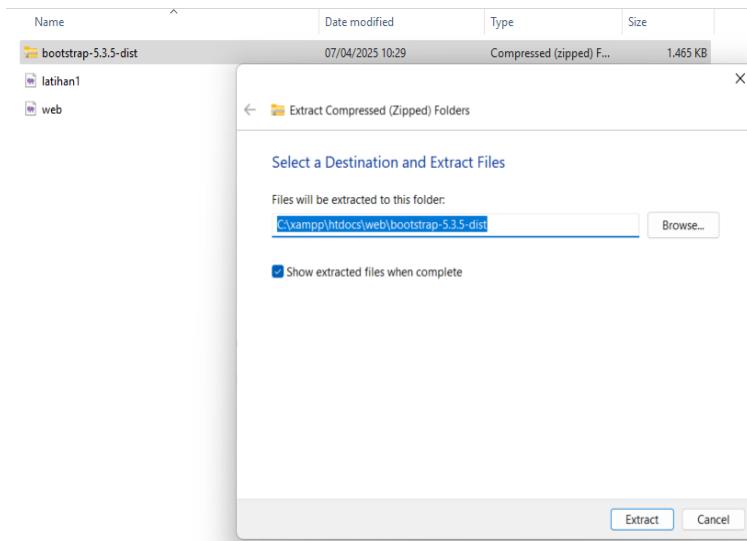


Gambar 4.2 Halaman Bootstrap

A screenshot of the 'Download' page on the Bootstrap website. The left sidebar has sections for 'Getting started' (with 'Download' highlighted), 'Customize', and other tools like 'Webpack', 'Parcel', 'Vite', 'Accessibility', 'RTL', and 'Contribute'. The main content area has a heading 'Download' with a 'View on GitHub' link. It explains how to download Bootstrap to get compiled CSS and JavaScript, source code, or include it with package managers like npm, RubyGems, and more. A section titled 'Compiled CSS and JS' describes ready-to-use compiled code for Bootstrap v5.3.5. It includes a bulleted list: 'Compiled and minified CSS bundles (see [CSS files comparison](#))' and 'Compiled and minified JavaScript plugins (see [JS files comparison](#))'. A note states that this doesn't include documentation, source files, or optional dependencies like Popper. A blue 'Download' button is located below the text.

Gambar 4.3 Tombol download bootstrap

- Extract file yang telah didownload

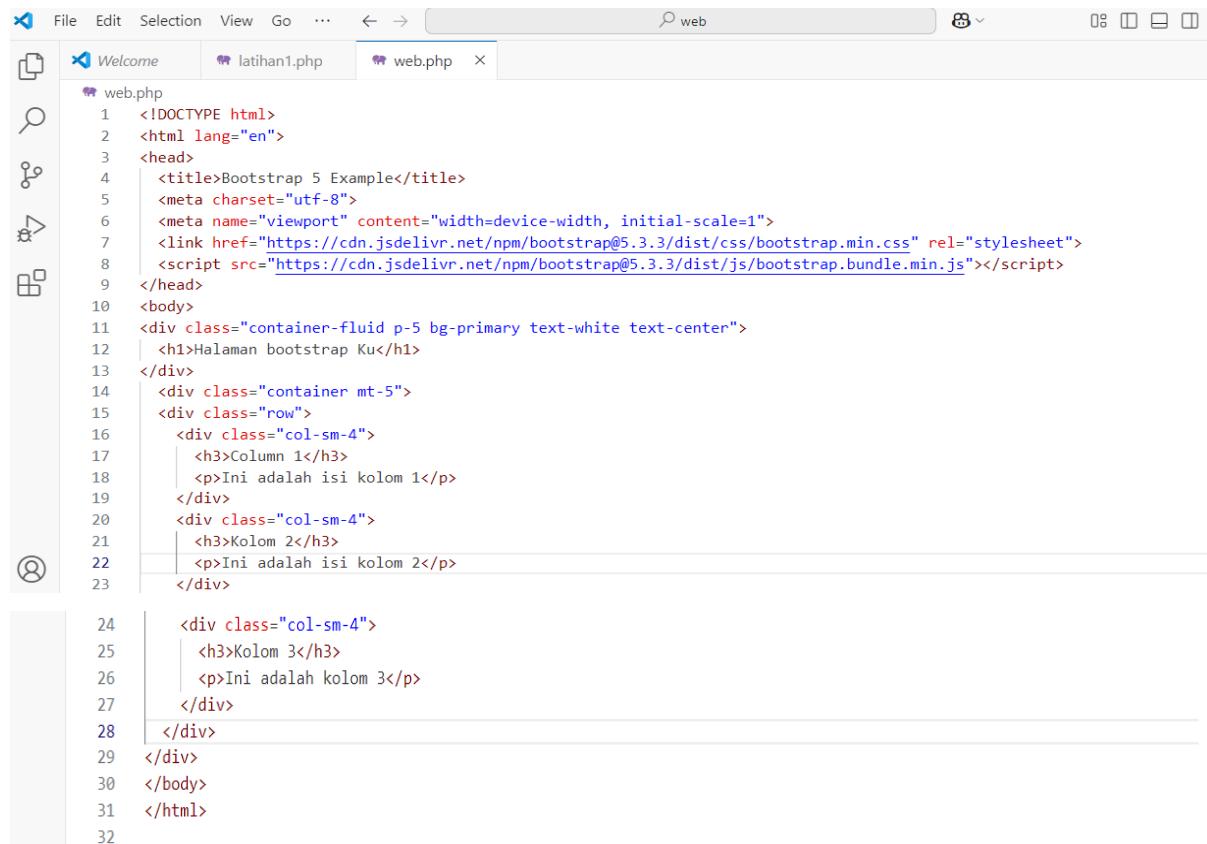


Gambar 4.4 Extract file bootstrap

#### 4.3. Menggunakan bootstrap

Langkah 1. Buat file baru di folder htdocs

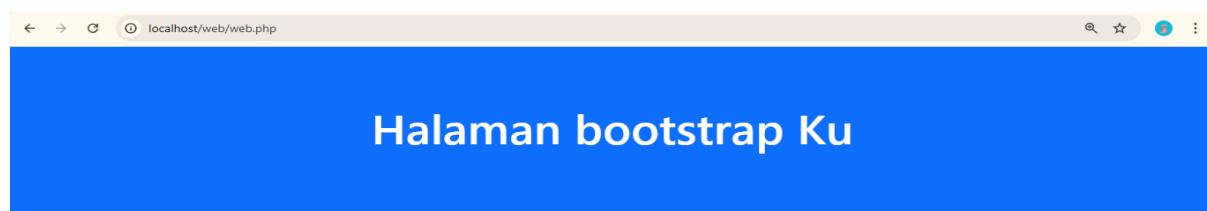
Lalu buka program visual studio kode, dan masukkan kode berikut



```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Bootstrap 5 Example</title>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css" rel="stylesheet">
    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<div class="container-fluid p-5 bg-primary text-white text-center">
    <h1>Halaman bootstrap Ku</h1>
</div>
<div class="container mt-5">
    <div class="row">
        <div class="col-sm-4">
            <h3>Column 1</h3>
            <p>Ini adalah isi kolom 1</p>
        </div>
        <div class="col-sm-4">
            <h3>Kolom 2</h3>
            <p>Ini adalah isi kolom 2</p>
        </div>
        <div class="col-sm-4">
            <h3>Kolom 3</h3>
            <p>Ini adalah kolom 3</p>
        </div>
    </div>
</div>
</body>
</html>
```

Gambar 4.5 latihan bootstrap 1

Hasil



Column 1

Ini adalah isi kolom 1

Kolom 2

Ini adalah isi kolom 2

Kolom 3

Ini adalah kolom 3

Gambar 4.6 Hasil Tampilan Bootstrap

## Penjelasan kode

```
<div class="container-fluid p-5 bg-primary text-white text-center">
| <h1>Halaman bootstrap Ku</h1>
</div>
```

Kode diatas berfungsi untuk menampilkan judul halaman besar di Tengah atas dengan latar belakang biru.

- container-fluid : membuat container penuh satu baris layar.
- p-5 : padding (jarak dalam) sebesar 5 level.
- bg-primary : memberi latar belakang biru.
- text-white: teks berwarna putih.
- text-center: teks disejajarkan ke Tengah

```
14 <div class="container mt-5">
15   <div class="row">
16     <div class="col-sm-4">
17       <h3>Column 1</h3>
18       <p>Ini adalah isi kolom 1</p>
19     </div>
20     <div class="col-sm-4">
21       <h3>Kolom 2</h3>
22       <p>Ini adalah isi kolom 2</p>
23     </div>
24     <div class="col-sm-4">
25       <h3>Kolom 3</h3>
26       <p>Ini adalah kolom 3</p>
27     </div>
28   </div>
29 </div>
```

- Kode ini membuat sebuah layout responsive menggunakan bootstrap
- <div class="container mt-5"> berfungsi sebagai container
- <div class="row"> berfungsi sebagai grid yang berisi tiga kolom
- <div class="col-sm-4"> bergunci sebagai kolom yang memiliki lebar 4px
- Setiap kolom berisi judul <h3> dan ini <p>

## 4.4 Komponen pada bootstrap

### 4.4.1 Buttons

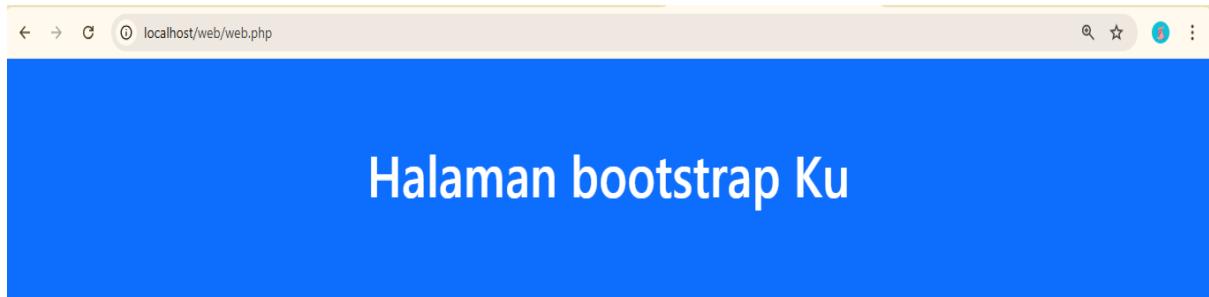
Modifikasi kode diatas sehingga menjadi

```

1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <title>Bootstrap 5 Example</title>
5      <meta charset="utf-8">
6      <meta name="viewport" content="width=device-width, initial-scale=1">
7      <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css" rel="stylesheet">
8      <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js"></script>
9  </head>
10 <body>
11 <div class="container-fluid p-5 bg-primary text-white text-center">
12     <h1>Halaman bootstrap Ku</h1>
13 </div>
14 <div class="container mt-5">
15     <div class="row">
16         <div class="col-sm-4">
17             <h3>Column 1</h3>
18             <p>
19                 <button class="btn btn-primary">Primary</button>
20                 <button class="btn btn-outline-secondary">Outline</button>
21             </p>
22         </div>
23     </div>
24 </div>
25 </body>
26 </html>

```

Gambar 4.7 Buttons



## Column 1

Primary      Outline

Gambar 4.8 Hasil

### 4.4.2 Forms

Modifikasi kode diatas sehingga menjadi

```

web.php
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4    <title>Bootstrap 5 Example</title>
5    <meta charset="utf-8">
6    <meta name="viewport" content="width=device-width, initial-scale=1">
7    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css" rel="stylesheet">
8    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js"></script>
9  </head>
10 <body>
11 <div class="container-fluid p-5 bg-primary text-white text-center">
12   <h1>Halaman bootstrap Ku</h1>
13 </div>
14 <div class="container mt-5">
15   <div class="row">
16     <div class="col-sm-4">
17       <h3>Column 1</h3>
18       <p>
19         <form>
20           <div class="mb-3">
21             <label for="inputEmail" class="form-label">Email</label>
22             <input type="email" class="form-control" id="inputEmail" />
23             <input type="submit" class="btn btn-primary" />
24           </div>
25         </form>
26       </p>
27     </div>
28   </div>
29 </div>
30 </body>
31 </html>

```

Gambar 4.9 Forms

Hasil



### Column 1

Email

**Submit**

Gambar 4.10 Hasil

#### 4.4.3 Card

Modifikasi kode diatas menjadi

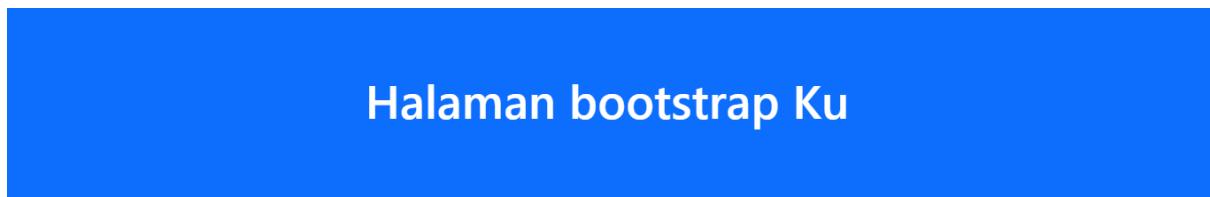
```

web.php
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4    <title>Bootstrap 5 Example</title>
5    <meta charset="utf-8">
6    <meta name="viewport" content="width=device-width, initial-scale=1">
7    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css" rel="stylesheet">
8    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js"></script>
9  </head>
10 <body>
11 <div class="container-fluid p-5 bg-primary text-white text-center">
12   <h1>Halaman bootstrap Ku</h1>
13 </div>
14 <div class="container mt-5">
15   <div class="row">
16     <div class="col-sm-4">
17       <h3>Column 1</h3>
18       <div class="card" style="width: 18rem;">
19         <div class="card-body">
20           <h5 class="card-title">Judul</h5>
21           <p class="card-text">Isi kartu.</p>
22           <a href="#" class="btn btn-primary">Klik</a>
23         </div>
24       </div>
25     </div>
26   </div>
27 </div>
28 </body>
29 </html>

```

Gambar 4.11 Card

## Hasil



Column 1

Gambar 4.12 Hasil Card

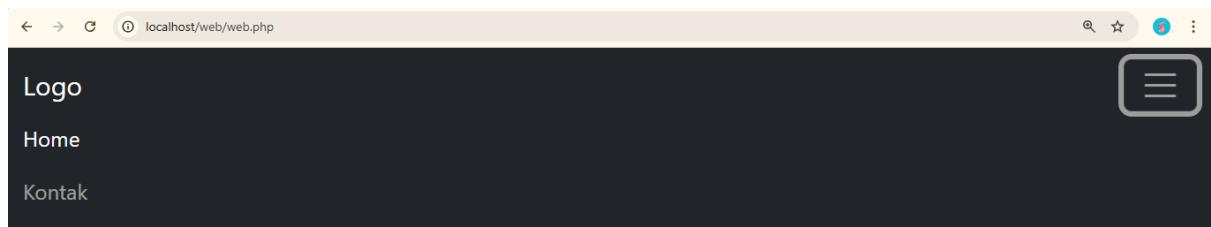
### 4.4.4 Navbar

Modifikasi kode menjadi

```
web.php
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <title>Navbar Bootstrap 5</title>
6      <meta name="viewport" content="width=device-width, initial-scale=1">
7      <!-- Bootstrap CSS -->
8      <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css" rel="stylesheet">
9      <!-- Bootstrap Bundle JS (termasuk Popper.js) -->
10     <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js"></script>
11 </head>
12 <body>
13     <!-- Navbar Start -->
14     <nav class="navbar navbar-expand-lg navbar-dark bg-dark">
15         <div class="container-fluid">
16             <a class="navbar-brand" href="#">Logo</a>
17             <!-- Button untuk toggle menu di mobile -->
18             <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#navbarNav"
19                 aria-controls="navbarNav" aria-expanded="false" aria-label="Toggle navigation">
20                 <span class="navbar-toggler-icon"></span>
21             </button>
22             <!-- Menu navigasi -->
23             <div class="collapse navbar-collapse" id="navbarNav">
24                 <ul class="navbar-nav ms-auto">
25                     <li class="nav-item">
26                         <a class="nav-link active" aria-current="page" href="#">Home</a>
27                     </li>
28                     <li class="nav-item">
29                         <a class="nav-link" href="#">Kontak</a>
30                     </li>
31                 </ul>
32             </div>
33         </div>
34     </nav>
35     <!-- Navbar End -->
36
37 </body>
38 </html>
```

Gambar 4.13 Kode Navbar

## Hasil



Gambar 4.14 Hasil Navbar

Latihan. Buat halaman mahasiswa

Mahasiswa diminta untuk membuat halaman profil pribadi menggunakan Bootstrap dengan elemen berikut:

- Navbar di bagian atas
- Dua kolom:
- Kiri: foto dan nama
- Kanan: biodata dan deskripsi singkat
- Card berisi minat/hobi
- Form kontak
- Gunakan warna dan grid system Bootstrap
- Untuk foto cari foto orang dari internet

