Advanced Web Technologies LABORATORY(LPEIT-102)

Practical File

BACHELOR OF TECHNOLOGY

Information Technology

SUBMITTED BY

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INDEX

1 Experiment: To install and setup the HTML5 based Bootstrap framework and to deploy basic HTML elements using Bootstrap CSS.

INTRODUCTION TO BOOTSTRAP

What is Bootstrap?

Bootstrap is a popular open-source front-end framework for web development. It provides a collection of pre-built HTML, CSS, and JavaScript components and tools that make it easier to create responsive and visually appealing websites and web applications. Bootstrap simplifies the process of designing and developing web interfaces by offering a consistent and well-documented set of design patterns and UI components.

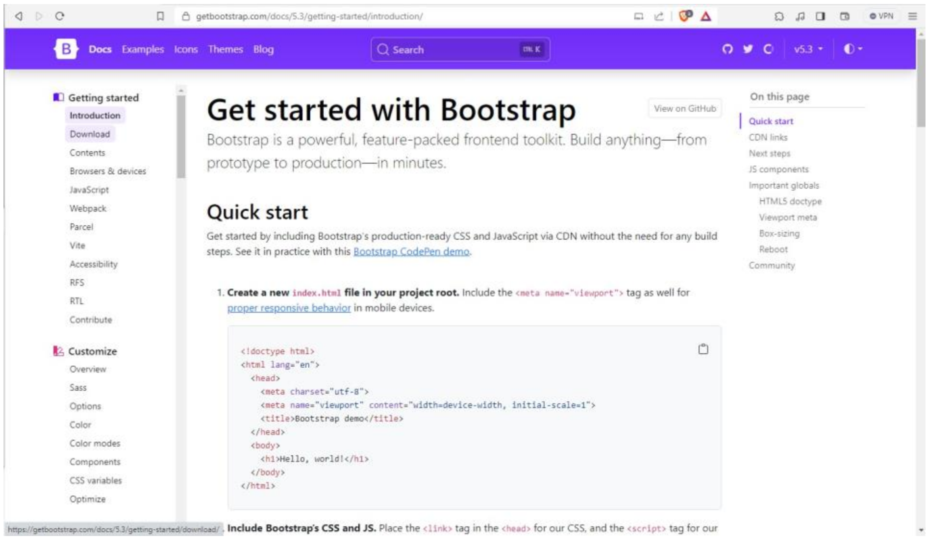
Bootstrap’s key features include:

1. Responsive Design: Bootstrap makes it easy to create websites that adapt and look good on variousscreen sizes and devices, from desktops to smartphones.
2. Grid System: It includes a flexible and responsive grid system for laying out web content in rows and columns, which is the foundation of responsive web design.
3. CSS Components: Bootstrap provides a wide range of CSS classes and components for styling typography,buttons, forms, navigation bars, alerts, and more.
4. JavaScript Plugins: It includes JavaScript plugins that add interactive features such as modals, carousels,tooltips, and popovers to your site without the need for extensive custom code.
5. Customizable: Bootstrap is highly customizable, allowing you to select and style components to matchyour project’s specific requirements.

How To Setup BootStrap?

Downloading and Installing Bootstrap in your Machine:

1. Download Bootstrap from the official Bootstrap website (https://getbootstrap.com)-



Get started with Bootstrap

Bootstrap is a powerful, feature-packed frontend toolkit. Build anything—from prototype to production—in minutes.

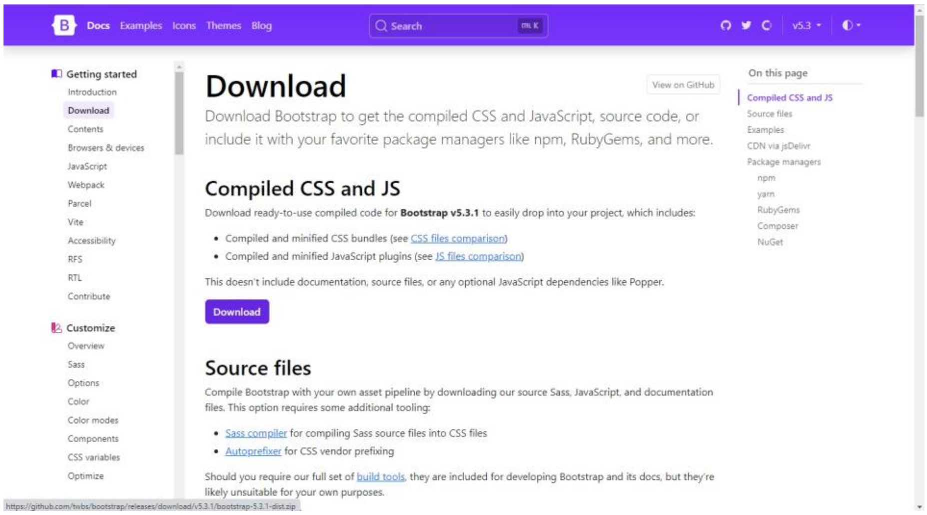
Quick start

Get started by including Bootstrap's production-ready CSS and JavaScript via CDN without the need for any build steps. See it in practice with this Bootstrap CodePen demo.

1. **Create a new `index.html` file in your project root.** Include the `<meta name="viewport">` tag as well for proper responsive behavior in mobile devices.

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <title>Bootstrap demo</title>
  </head>
  <body>
    <h1>Hello, world!</h1>
  </body>
</html>
```

Include Bootstrap's CSS and JS. Place the `<link>` tag in the `<head>` for our CSS, and the `<script>` tag for our



Download

Download Bootstrap to get the compiled CSS and JavaScript, source code, or include it with your favorite package managers like npm, RubyGems, and more.

Compiled CSS and JS

Download ready-to-use compiled code for **Bootstrap v5.3.1** to easily drop into your project, which includes:

- Compiled and minified CSS bundles (see CSS files comparison)
- Compiled and minified JavaScript plugins (see JS files comparison)

This doesn't include documentation, source files, or any optional JavaScript dependencies like Popper.

Source files

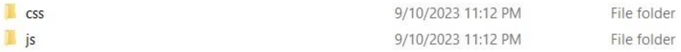
Compile Bootstrap with your own asset pipeline by downloading our source Sass, JavaScript, and documentation files. This option requires some additional tooling:

- Sass compiler for compiling Sass source files into CSS files
- Autoprefixer for CSS vendor prefixing

Should you require our full set of build tools, they are included for developing Bootstrap and its docs, but they're likely unsuitable for your own purposes.

2. After Installation this type of file will be found-

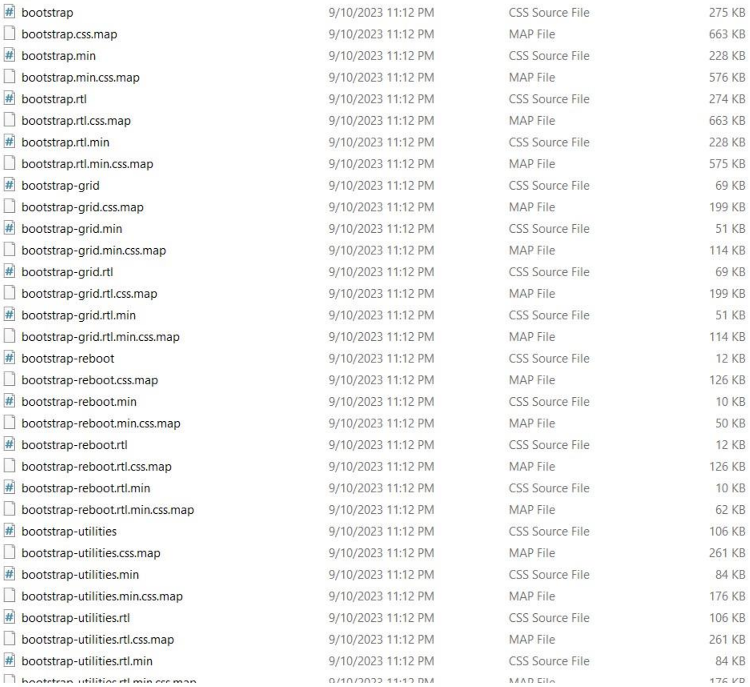
3. After Extracting this file we get these two files-



css	9/10/2023 11:12 PM	File folder
js	9/10/2023 11:12 PM	File folder

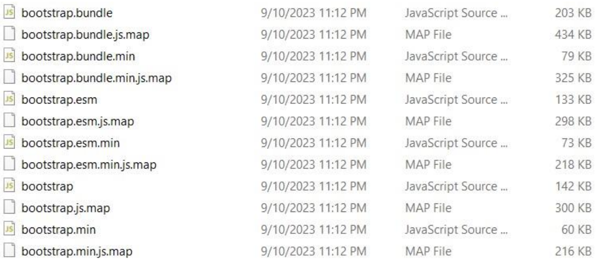
4. These Files Include Packages of CSS and JS from BootStrap as follows-

Compiled and minified CSS bundles



bootstrap	9/10/2023 11:12 PM	CSS Source File	275 KB
bootstrap.css.map	9/10/2023 11:12 PM	MAP File	663 KB
bootstrap.min	9/10/2023 11:12 PM	CSS Source File	228 KB
bootstrap.min.css.map	9/10/2023 11:12 PM	MAP File	576 KB
bootstrap.rtl	9/10/2023 11:12 PM	CSS Source File	274 KB
bootstrap.rtl.css.map	9/10/2023 11:12 PM	MAP File	663 KB
bootstrap.rtl.min	9/10/2023 11:12 PM	CSS Source File	228 KB
bootstrap.rtl.min.css.map	9/10/2023 11:12 PM	MAP File	575 KB
bootstrap-grid	9/10/2023 11:12 PM	CSS Source File	69 KB
bootstrap-grid.css.map	9/10/2023 11:12 PM	MAP File	199 KB
bootstrap-grid.min	9/10/2023 11:12 PM	CSS Source File	51 KB
bootstrap-grid.min.css.map	9/10/2023 11:12 PM	MAP File	114 KB
bootstrap-grid.rtl	9/10/2023 11:12 PM	CSS Source File	69 KB
bootstrap-grid.rtl.css.map	9/10/2023 11:12 PM	MAP File	199 KB
bootstrap-grid.rtl.min	9/10/2023 11:12 PM	CSS Source File	51 KB
bootstrap-grid.rtl.min.css.map	9/10/2023 11:12 PM	MAP File	114 KB
bootstrap-reboot	9/10/2023 11:12 PM	CSS Source File	12 KB
bootstrap-reboot.css.map	9/10/2023 11:12 PM	MAP File	126 KB
bootstrap-reboot.min	9/10/2023 11:12 PM	CSS Source File	10 KB
bootstrap-reboot.min.css.map	9/10/2023 11:12 PM	MAP File	50 KB
bootstrap-reboot.rtl	9/10/2023 11:12 PM	CSS Source File	12 KB
bootstrap-reboot.rtl.css.map	9/10/2023 11:12 PM	MAP File	126 KB
bootstrap-reboot.rtl.min	9/10/2023 11:12 PM	CSS Source File	10 KB
bootstrap-reboot.rtl.min.css.map	9/10/2023 11:12 PM	MAP File	62 KB
bootstrap-utilities	9/10/2023 11:12 PM	CSS Source File	106 KB
bootstrap-utilities.css.map	9/10/2023 11:12 PM	MAP File	261 KB
bootstrap-utilities.min	9/10/2023 11:12 PM	CSS Source File	84 KB
bootstrap-utilities.min.css.map	9/10/2023 11:12 PM	MAP File	176 KB
bootstrap-utilities.rtl	9/10/2023 11:12 PM	CSS Source File	106 KB
bootstrap-utilities.rtl.css.map	9/10/2023 11:12 PM	MAP File	261 KB
bootstrap-utilities.rtl.min	9/10/2023 11:12 PM	CSS Source File	84 KB
bootstrap-utilities.rtl.min.css.map	9/10/2023 11:12 PM	MAP File	176 KB

Compiled and minified JavaScript plugins



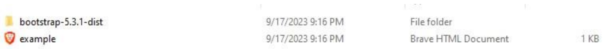
bootstrap.bundle	9/10/2023 11:12 PM	JavaScript Source ...	203 KB
bootstrap.bundle.js.map	9/10/2023 11:12 PM	MAP File	434 KB
bootstrap.bundle.min	9/10/2023 11:12 PM	JavaScript Source ...	79 KB
bootstrap.bundle.min.js.map	9/10/2023 11:12 PM	MAP File	325 KB
bootstrap.esm	9/10/2023 11:12 PM	JavaScript Source ...	133 KB
bootstrap.esm.js.map	9/10/2023 11:12 PM	MAP File	298 KB
bootstrap.esm.min	9/10/2023 11:12 PM	JavaScript Source ...	73 KB
bootstrap.esm.min.js.map	9/10/2023 11:12 PM	MAP File	218 KB
bootstrap	9/10/2023 11:12 PM	JavaScript Source ...	142 KB
bootstrap.js.map	9/10/2023 11:12 PM	MAP File	300 KB
bootstrap.min	9/10/2023 11:12 PM	JavaScript Source ...	60 KB
bootstrap.min.js.map	9/10/2023 11:12 PM	MAP File	216 KB

5. Based on the requirements and resources of the web application, the file to be used can be chosen

6. Now Let’s use the Dowloaded Bootstrap to make Webpages.

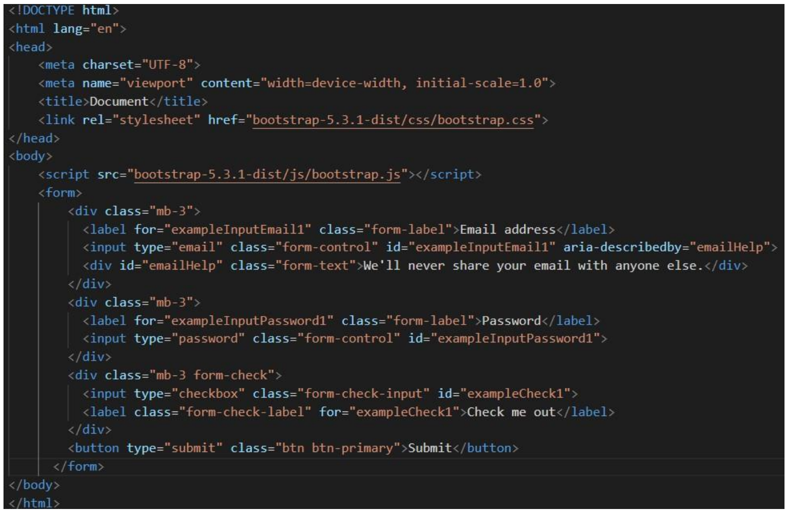
7. Create a html file named example.html in a folder

Note-We must keep the packages of CSS and JS in the same folder as that of .html file. So that we can use the compiled and minified file for CSS and JS in our .html file.



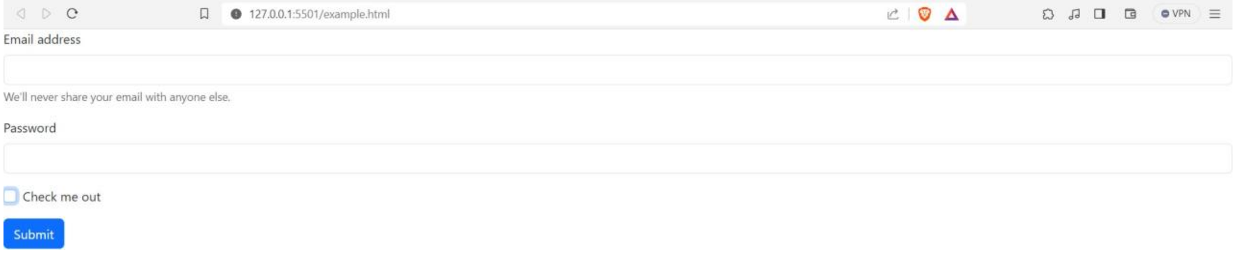
bootstrap-5.3.1-dist	9/17/2023 9:16 PM	File folder	
example	9/17/2023 9:16 PM	Brave HTML Document	1 KB

8. To use Bootstrap CSS and JS in html take a look at the below Figure where Bootstrap is used to displaya form on the webpage.



```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <link rel="stylesheet" href="bootstrap-5.3.1-dist/css/bootstrap.css">
</head>
<body>
    <script src="bootstrap-5.3.1-dist/js/bootstrap.js"></script>
    <form>
        <div class="mb-3">
          <label for="exampleInputEmail1" class="form-label">Email address</label>
          <input type="email" class="form-control" id="exampleInputEmail1" aria-describedby="emailHelp">
          <div id="emailHelp" class="form-text">We'll never share your email with anyone else.</div>
        </div>
        <div class="mb-3">
          <label for="exampleInputPassword1" class="form-label">Password</label>
          <input type="password" class="form-control" id="exampleInputPassword1">
        </div>
        <div class="mb-3 form-check">
          <input type="checkbox" class="form-check-input" id="exampleCheck1">
          <label class="form-check-label" for="exampleCheck1">Check me out</label>
        </div>
        <button type="submit" class="btn btn-primary">Submit</button>
      </form>
</body>
</html>
```

Output:



Email address

We'll never share your email with anyone else.

Password

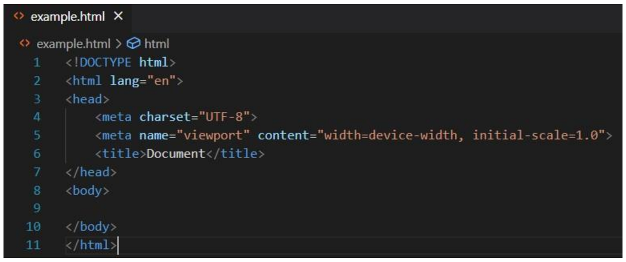
□ Check me out

Submit

Link Bootstrap from a CDN

1. Use Bootstrap CDN to quickly add Bootstrap to your project. It is as easy as just adding a few linksto your web application and you would have successfully set up Bootstrap in your project.

2. To use Bootstrap CDN create a html file named example.html with basic html code as shown below.



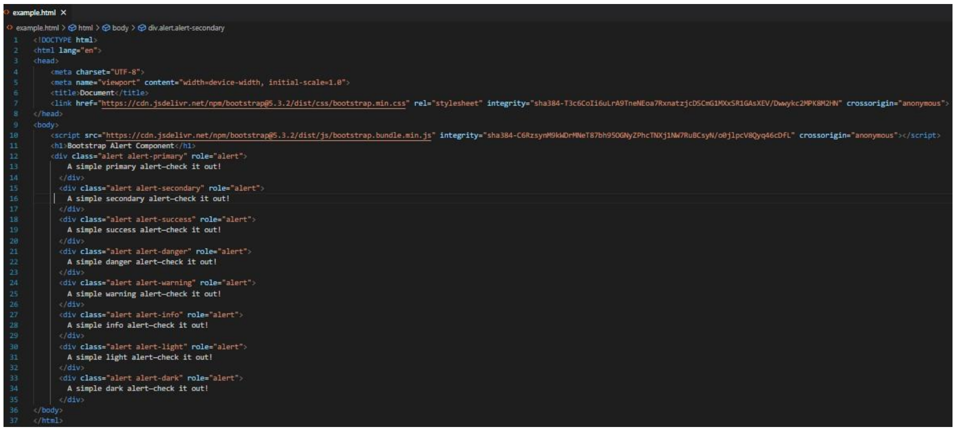
```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>

</body>
</html>
```

3. Copy the CDN links from the official bootstrap website which are as follows-

Bootstrap CSS- <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap .min.css"rel="stylesheet" integrity="sha384-T3c6CoIi6uLrA9TneNEoa7RxnatzjcDSCmG1MXxSR1 GAsXEV/Dwwykc2MPK8M2HN" crossorigin="anonymous">

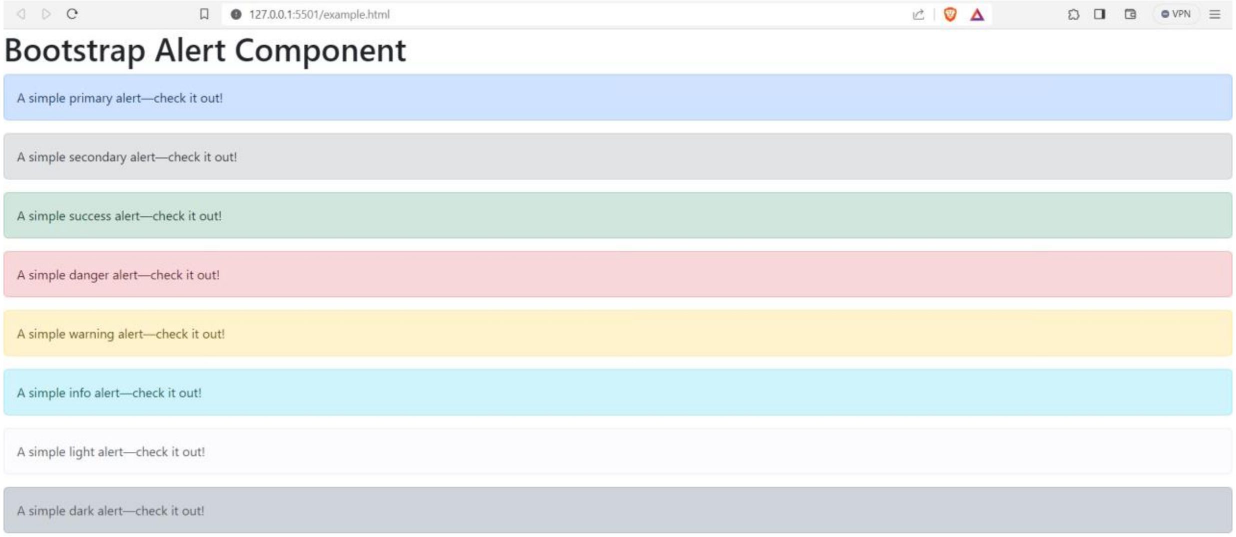
Bootstrap JS- <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap .bundle.min.js" integrity="sha384-C6RzsynM9kWDrMNeT87bh95OGNyZPhcTNXj1NW7RuBCsyN/ o0jlpcV8Qyq46cDfL" crossorigin="anonymous"></script>

Following Figure Shows the use of Bootstrap CDN link using Components of HTML such as Alerts-



```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-T3c6CoIi6uLrA9TneNEoa7RxnatzjcDSCmG1MXxSR1GAsXEV/Dwwykc2MPK8M2HN" crossorigin="anonymous">
</head>
<body>
    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap.bundle.min.js" integrity="sha384-C6RzsynM9kWDrMNeT87bh95OGNyZPhcTNXj1NW7RuBCsyN/o0jlpcV8Qyq46cDfL" crossorigin="anonymous"></script>
    <h1>Bootstrap Alert Component</h1>
    <div class="alert alert-primary" role="alert">
        A simple primary alert—check it out!
      </div>
      <div class="alert alert-secondary" role="alert">
        A simple secondary alert—check it out!
      </div>
      <div class="alert alert-success" role="alert">
        A simple success alert—check it out!
      </div>
      <div class="alert alert-danger" role="alert">
        A simple danger alert—check it out!
      </div>
      <div class="alert alert-warning" role="alert">
        A simple warning alert—check it out!
      </div>
      <div class="alert alert-info" role="alert">
        A simple info alert—check it out!
      </div>
      <div class="alert alert-light" role="alert">
        A simple light alert—check it out!
      </div>
      <div class="alert alert-dark" role="alert">
        A simple dark alert—check it out!
      </div>
</body>
</html>
```

Output:



Bootstrap Alert Component

A simple primary alert—check it out!

A simple secondary alert—check it out!

A simple success alert—check it out!

A simple danger alert—check it out!

A simple warning alert—check it out!

A simple info alert—check it out!

A simple light alert—check it out!

A simple dark alert—check it out!

4. Bootstrap is Set up Successfully now and ready to use.

Difference Between .min file and Non .min file in BootStrap for CSS,JS

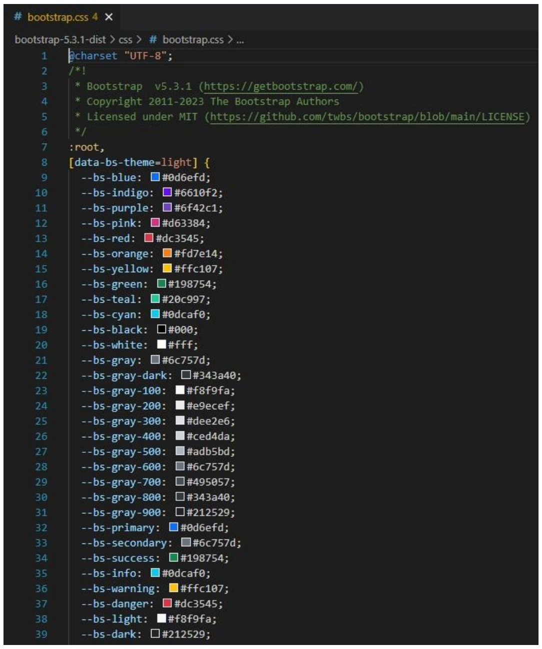
1. .min (Minified) Files: .min files are minified versions of Bootstrap’s CSS or JavaScript files. Minification is a process that removes unnecessary characters such as spaces, line breaks, and comments from the source code to make the file size smaller. .min files are typically used in production environments to optimize website performance. They result in smaller file sizes, reducing the amount of data that needs to be transferred to the client’s browser, which

can lead to faster page load times. The content of .min files is often difficult to read and modify by humans due to the removal of formatting and comments.

They are designed for the sole purpose of being efficient for web browsers to interpret.

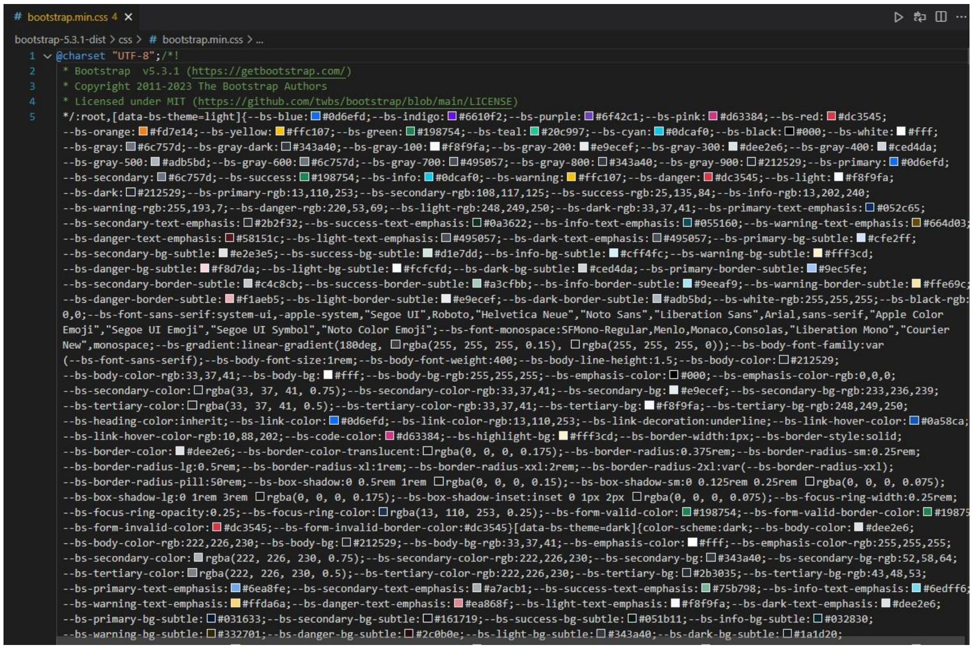
2. Non-.min Files: Non-.min files are the original, human-readable versions of Bootstrap's CSS and JavaScript files. These files include formatting, indentation, and comments, which make them much easier to understand and modify for developers. Non-.min files are commonly used during development and debugging processes. Developers can read and work with these files to customize Bootstrap styles, behavior, or components to suit their specific project needs. They are larger in file size compared to their minified counterparts, but their readability and ease of modification make them more suitable for development purposes.

Non.min file for CSS



```css
@charset "UTF-8";
/*!
 * Bootstrap  v5.3.1 (https://getbootstrap.com/)
 * Copyright 2011-2023 The Bootstrap Authors
 * Licensed under MIT (https://github.com/twbs/bootstrap/blob/main/LICENSE)
 */
:root,
[data-bs-theme=light] {
  --bs-blue: #0d6efd;
  --bs-indigo: #6610f2;
  --bs-purple: #6f42c1;
  --bs-pink: #d63384;
  --bs-red: #dc3545;
  --bs-orange: #fd7e14;
  --bs-yellow: #ffc107;
  --bs-green: #198754;
  --bs-teal: #20c997;
  --bs-cyan: #0dcaf0;
  --bs-black: #000;
  --bs-white: #fff;
  --bs-gray: #6c757d;
  --bs-gray-dark: #343a40;
  --bs-gray-100: #f8f9fa;
  --bs-gray-200: #e9ecef;
  --bs-gray-300: #dee2e6;
  --bs-gray-400: #ced4da;
  --bs-gray-500: #adb5bd;
  --bs-gray-600: #6c757d;
  --bs-gray-700: #495057;
  --bs-gray-800: #343a40;
  --bs-gray-900: #212529;
  --bs-primary: #0d6efd;
  --bs-secondary: #6c757d;
  --bs-success: #198754;
  --bs-info: #0dcaf0;
  --bs-warning: #ffc107;
  --bs-danger: #dc3545;
  --bs-light: #f8f9fa;
  --bs-dark: #212529;
```

.min file for CSS



```
@charset "UTF-8";/*!
 * Bootstrap  v5.3.1 (https://getbootstrap.com/)
 * Copyright 2011-2023 The Bootstrap Authors
 * Licensed under MIT (https://github.com/twbs/bootstrap/blob/main/LICENSE)
 */:root,[data-bs-theme=light]{--bs-blue:#0d6efd;--bs-indigo:#6610f2;--bs-purple:#6f42c1;--bs-pink:#d63384;--bs-red:#dc3545;
 --bs-orange:#fd7e14;--bs-yellow:#ffc107;--bs-green:#198754;--bs-teal:#20c997;--bs-cyan:#0dcaf0;--bs-black:#000;--bs-white:#fff;
 --bs-gray:#6c757d;--bs-gray-dark:#343a40;--bs-gray-100:#f8f9fa;--bs-gray-200:#e9ecef;--bs-gray-300:#dee2e6;--bs-gray-400:#ced4da;
 --bs-gray-500:#adb5bd;--bs-gray-600:#6c757d;--bs-gray-700:#495057;--bs-gray-800:#343a40;--bs-gray-900:#212529;--bs-primary:#0d6efd;
 --bs-secondary:#6c757d;--bs-success:#198754;--bs-info:#0dcaf0;--bs-warning:#ffc107;--bs-danger:#dc3545;--bs-light:#f8f9fa;
 --bs-dark:#212529;--bs-primary-rgb:13,110,253;--bs-secondary-rgb:108,117,125;--bs-success-rgb:25,135,84;--bs-info-rgb:13,202,240;
 --bs-warning-rgb:255,193,7;--bs-danger-rgb:220,53,69;--bs-light-rgb:248,249,250;--bs-dark-rgb:33,37,41;--bs-primary-text-emphasis:#052c65;
 --bs-secondary-text-emphasis:#2b2f32;--bs-success-text-emphasis:#0a3622;--bs-info-text-emphasis:#055160;--bs-warning-text-emphasis:#664d03;
 --bs-danger-text-emphasis:#58151c;--bs-light-text-emphasis:#495057;--bs-dark-text-emphasis:#495057;--bs-primary-bg-subtle:#cfe2ff;
 --bs-secondary-bg-subtle:#e2e3e5;--bs-success-bg-subtle:#d1e7dd;--bs-info-bg-subtle:#cff4fc;--bs-warning-bg-subtle:#fff3cd;
 --bs-danger-bg-subtle:#f8d7da;--bs-light-bg-subtle:#fcfcfd;--bs-dark-bg-subtle:#ced4da;--bs-primary-border-subtle:#9ec5fe;
 --bs-secondary-border-subtle:#c4c8cb;--bs-success-border-subtle:#a3cfbb;--bs-info-border-subtle:#9eeaf9;--bs-warning-border-subtle:#ffe69c;
 --bs-danger-border-subtle:#f1aeb5;--bs-light-border-subtle:#e9ecef;--bs-dark-border-subtle:#adb5bd;--bs-white-rgb:255,255,255;--bs-black-rgb:
 0,0;--bs-font-sans-serif:system-ui,-apple-system,"Segoe UI",Roboto,"Helvetica Neue","Noto Sans","Liberation Sans",Arial,sans-serif,"Apple Color
 Emoji","Segoe UI Emoji","Segoe UI Symbol","Noto Color Emoji";--bs-font-monospace:SFMono-Regular,Menlo,Monaco,Consolas,"Liberation Mono","Courier
 New",monospace;--bs-gradient:linear-gradient(180deg, rgba(255, 255, 255, 0.15), rgba(255, 255, 255, 0));--bs-body-font-family:var
 (--bs-font-sans-serif);--bs-body-font-size:1rem;--bs-body-font-weight:400;--bs-body-line-height:1.5;--bs-body-color:#212529;
 --bs-body-color-rgb:33,37,41;--bs-body-bg:#fff;--bs-body-bg-rgb:255,255,255;--bs-emphasis-color:#000;--bs-emphasis-color-rgb:0,0,0;
 --bs-secondary-color:rgba(33, 37, 41, 0.75);--bs-secondary-color-rgb:33,37,41;--bs-secondary-bg:#e9ecef;--bs-secondary-bg-rgb:233,236,239;
 --bs-tertiary-color:rgba(33, 37, 41, 0.5);--bs-tertiary-color-rgb:33,37,41;--bs-tertiary-bg:#f8f9fa;--bs-tertiary-bg-rgb:248,249,250;
 --bs-heading-color:inherit;--bs-link-color:#0d6efd;--bs-link-color-rgb:13,110,253;--bs-link-decoration:underline;--bs-link-hover-color:#0a58ca;
 --bs-link-hover-color-rgb:10,88,202;--bs-code-color:#d63384;--bs-highlight-bg:#fff3cd;--bs-border-width:1px;--bs-border-style:solid;
 --bs-border-color:#dee2e6;--bs-border-color-translucent:rgba(0, 0, 0, 0.175);--bs-border-radius:0.375rem;--bs-border-radius-sm:0.25rem;
 --bs-border-radius-lg:0.5rem;--bs-border-radius-xl:1rem;--bs-border-radius-xxl:2rem;--bs-border-radius-2xl:var(--bs-border-radius-xxl);
 --bs-border-radius-pill:50rem;--bs-box-shadow:0 0.5rem 1rem rgba(0, 0, 0, 0.15);--bs-box-shadow-sm:0 0.125rem 0.25rem rgba(0, 0, 0, 0.075);
 --bs-box-shadow-lg:0 1rem 3rem rgba(0, 0, 0, 0.175);--bs-box-shadow-inset:inset 0 1px 2px rgba(0, 0, 0, 0.075);--bs-focus-ring-width:0.25rem;
 --bs-focus-ring-opacity:0.25;--bs-focus-ring-color:rgba(13, 110, 253, 0.25);--bs-form-valid-color:#198754;--bs-form-valid-border-color:#19875
 --bs-form-invalid-color:#dc3545;--bs-form-invalid-border-color:#dc3545}[data-bs-theme=dark]{color-scheme:dark;--bs-body-color:#dee2e6;
 --bs-body-color-rgb:222,226,230;--bs-body-bg:#212529;--bs-body-bg-rgb:33,37,41;--bs-emphasis-color:#fff;--bs-emphasis-color-rgb:255,255,255;
 --bs-secondary-color:rgba(222, 226, 230, 0.75);--bs-secondary-color-rgb:222,226,230;--bs-secondary-bg:#343a40;--bs-secondary-bg-rgb:52,58,64;
 --bs-tertiary-color:rgba(222, 226, 230, 0.5);--bs-tertiary-color-rgb:222,226,230;--bs-tertiary-bg:#2b3035;--bs-tertiary-bg-rgb:43,48,53;
 --bs-primary-text-emphasis:#6ea8fe;--bs-secondary-text-emphasis:#a7acb1;--bs-success-text-emphasis:#75b798;--bs-info-text-emphasis:#6edff6;
 --bs-warning-text-emphasis:#ffda6a;--bs-danger-text-emphasis:#ea868f;--bs-light-text-emphasis:#f8f9fa;--bs-dark-text-emphasis:#dee2e6;
 --bs-primary-bg-subtle:#031633;--bs-secondary-bg-subtle:#161719;--bs-success-bg-subtle:#051b11;--bs-info-bg-subtle:#032830;
 --bs-warning-bg-subtle:#332701;--bs-danger-bg-subtle:#2c0b0e;--bs-light-bg-subtle:#343a40;--bs-dark-bg-subtle:#1a1d20;
```

2 Experiment:To understand and deploy the multicolumn grid layout of Bootstrap

Bootstrap - Containers

Containers are required for default grid system (Grid system uses a series of containers, rows and columns to align content). Containers are used to contain, pad, and center the content within them. Containers can also be nested, though most layouts don’t require a nested container.

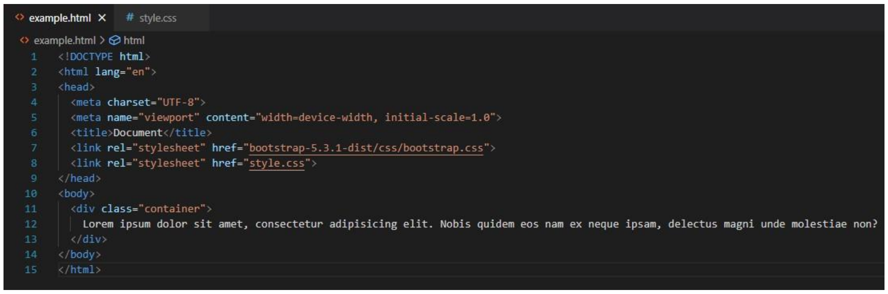
There are three different container classes in Bootstrap:

1. .container (sets responsive max-widths).
2. .container-{breakpoint} (width: 100% until specified breakpoint).
3. .container-fluid (width: 100% at all breakpoints).

Default Containers-

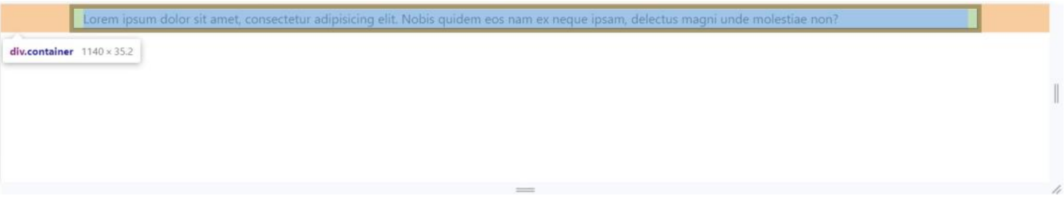
Use .container class which creates a responsive fixed-width container.

Example:



```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <link rel="stylesheet" href="bootstrap-5.3.1-dist/css/bootstrap.css">
  <link rel="stylesheet" href="style.css">
</head>
<body>
  <div class="container">
    Lorem ipsum dolor sit amet, consectetur adipisicing elit. Nobis quidem eos nam ex neque ipsam, delectus magni unde molestiae non?
  </div>
</body>
</html>
```

Output:

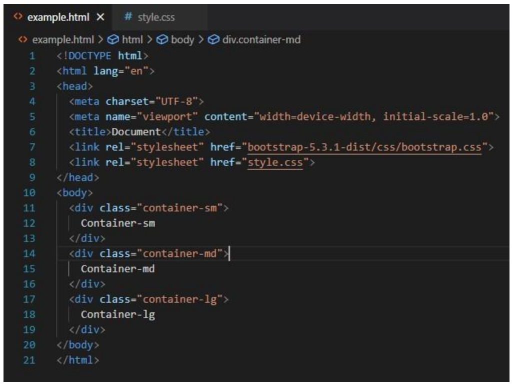

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Nobis quidem eos nam ex neque ipsam, delectus magni unde molestiae non?

Responsive Containers

Use responsive containers to declare a class that is 100% wide until the specific breakpoint is reached, after that use max-widths for all subsequent breakpoints.

Use the .container-sm|md|lg|xl classes to decide whether the container should be responsive or not.

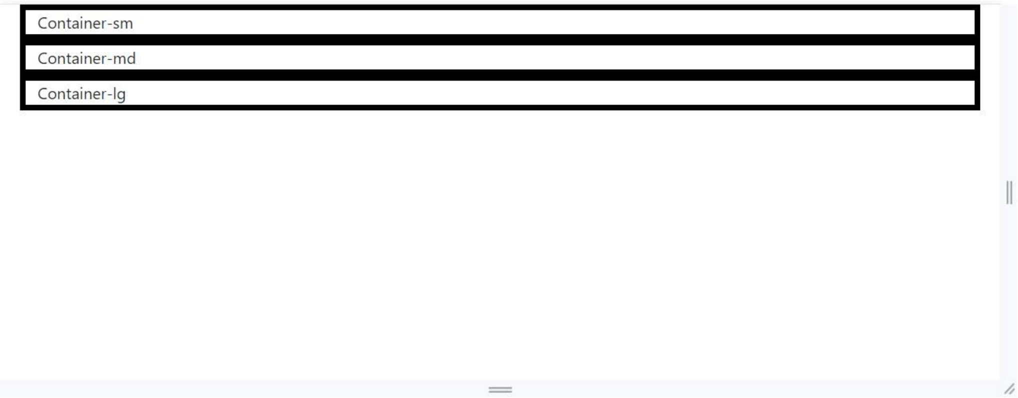
Example:



```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <link rel="stylesheet" href="bootstrap-5.3.1-dist/css/bootstrap.css">
  <link rel="stylesheet" href="style.css">
</head>
<body>
  <div class="container-sm">
    Container-sm
  </div>
  <div class="container-md">
    Container-md
  </div>
  <div class="container-lg">
    Container-lg
  </div>
</body>
</html>
```

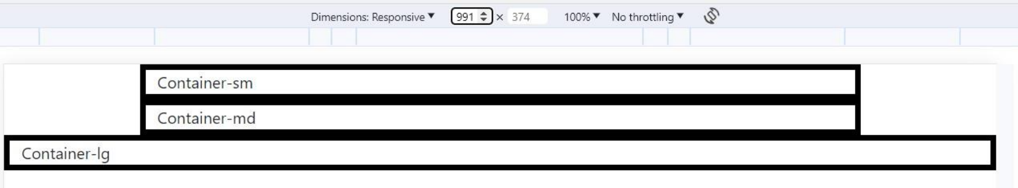
Output:

Initially Output Looks like this



```
Container-sm
Container-md
Container-lg
```

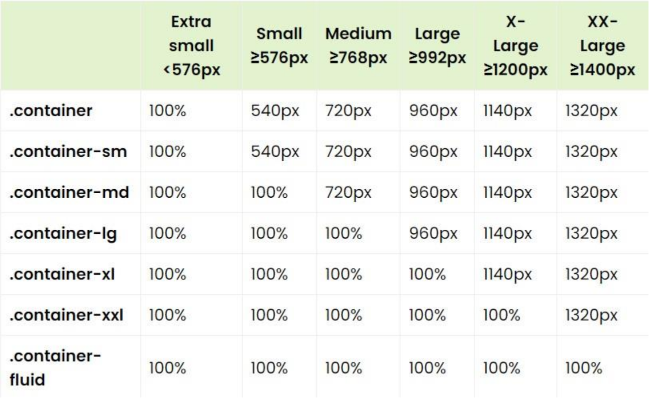
As the specific size for breakpoint is not fulfilled the particular div associated with that breakpoint takes full width 100% as shown below .(Here large >=992 is the working point of the breakpoint below which container takes full width)



Dimensions: Responsive ▾ 991 × 374 100% ▾ No throttling ▾

```
Container-sm
Container-md
Container-lg
```

Similarly other breakpoints also stick to some particular value mentioned in the table shown below



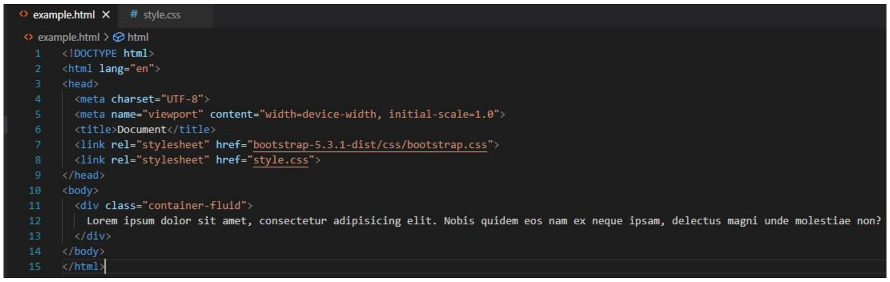
	Extra small <576px	Small ≥576px	Medium ≥768px	Large ≥992px	X-Large ≥1200px	XX-Large ≥1400px
.container	100%	540px	720px	960px	1140px	1320px
.container-sm	100%	540px	720px	960px	1140px	1320px
.container-md	100%	100%	720px	960px	1140px	1320px
.container-lg	100%	100%	100%	960px	1140px	1320px
.container-xl	100%	100%	100%	100%	1140px	1320px
.container-xxl	100%	100%	100%	100%	100%	1320px
.container-fluid	100%	100%	100%	100%	100%	100%

Fluid Containers

Use the .container- uid class to create a full width container.

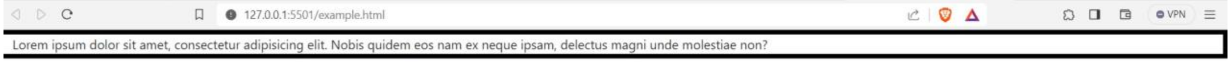
They span the entire width of the screen.

Example



```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <link rel="stylesheet" href="bootstrap-5.3.1-dist/css/bootstrap.css">
  <link rel="stylesheet" href="style.css">
</head>
<body>
  <div class="container-fluid">
    Lorem ipsum dolor sit amet, consectetur adipisicing elit. Nobis quidem eos nam ex neque ipsam, delectus magni unde molestiae non?
  </div>
</body>
</html>
```

Output:



Lorem ipsum dolor sit amet, consectetur adipisicing elit. Nobis quidem eos nam ex neque ipsam, delectus magni unde molestiae non?

Bootstrap - Grid system

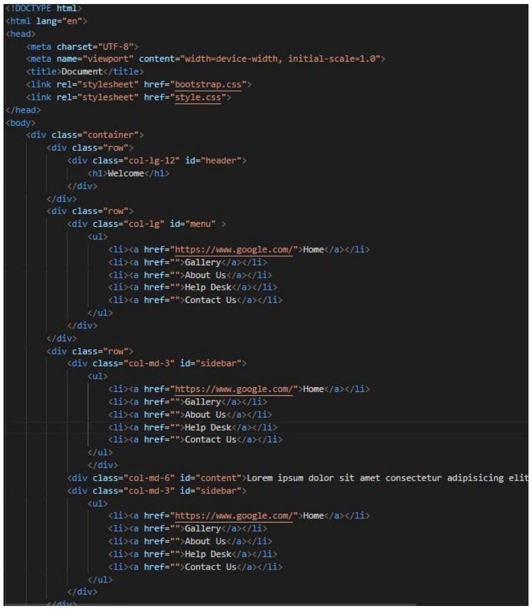
A multicolumn grid layout, often used in web design, is a system for organizing and arranging content into multiple columns. It’s an essential feature in modern web development, o ering several key features and advantages:

1. Responsive Design: Multicolumn grid layouts are designed to be responsive, meaning they adapt tovarious screen sizes and devices. This ensures that your content looks good and is easy to read on both desktop computers and mobile devices.
2. Consistency: Grid layouts promote consistency in design. By de ning a grid structure, you can maintaina uniform look and feel throughout your website, making it more visually appealing and user-friendly.

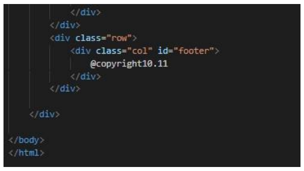
3. Flexibility: Grid layouts allow you to divide your content into multiple columns, making it easier toarrange elements like text, images, and videos in a structured and flexible manner. You can adjust column widths and heights as needed.
4. Alignment Control: Grid systems often provide control over horizontal and vertical alignment, allowing you to precisely position content within columns and rows. This helps in achieving balanced and aesthetically pleasing designs.
5. Accessibility: A well-implemented grid layout can enhance the accessibility of your website. By organizingcontent logically, you can improve the navigation experience for users with disabilities who rely on screen readers or other assistive technologies.
6. Efficiency: Grid layouts streamline the design and development process. You can create templates andreusable components that align to the grid, reducing the need for custom CSS styling and speeding up development.
7. Adaptive to Different Content: Whether you have a single paragraph of text or a complex multimedialayout, a multicolumn grid system can adapt to accommodate different types of content.
8. Grid Frameworks: Many front-end frameworks, such as Bootstrap and Foundation, include grid systemsas part of their core features. These frameworks provide pre-defined classes and styles for creating responsive grid layouts, making it easier for developers to implement.
9. Cross-Browser Compatibility: Grid systems are built to work consistently across various web browsers,ensuring a consistent experience for users regardless of the browser they use.
10. Design Consistency: Grid layouts help maintain a consistent design language throughout a website orapplication, making it easier for users to navigate and understand the content.
11. Modularity: Grid layouts encourage modular design, allowing you to create reusable components that fit within the grid structure. This modularity simplifies maintenance and updates.
12. Grid Gap Control: Most grid systems provide options for specifying the gap or spacing between columnsand rows, allowing you to control the visual separation between content elements.

Basic example

Bootstrap’s grid system is a responsive layout tool that uses containers, rows, and columns to align content.



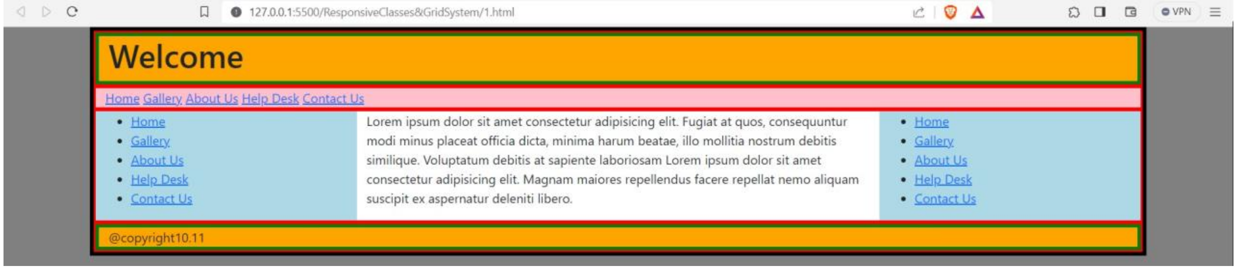
```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <link rel="stylesheet" href="bootstrap.css">
    <link rel="stylesheet" href="style.css">
</head>
<body>
    <div class="container">
        <div class="row">
            <div class="col-lg-12" id="header">
                <h1>Welcome</h1>
            </div>
        </div>
        <div class="row">
            <div class="col-lg" id="menu" >
                <ul>
                    <li><a href="https://www.google.com/">Home</a></li>
                    <li><a href="">Gallery</a></li>
                    <li><a href="">About Us</a></li>
                    <li><a href="">Help Desk</a></li>
                    <li><a href="">Contact Us</a></li>
                </ul>
            </div>
        </div>
        <div class="row">
            <div class="col-md-3" id="sidebar">
                <ul>
                    <li><a href="https://www.google.com/">Home</a></li>
                    <li><a href="">Gallery</a></li>
                    <li><a href="">About Us</a></li>
                    <li><a href="">Help Desk</a></li>
                    <li><a href="">Contact Us</a></li>
                </ul>
                </div>
            <div class="col-md-6" id="content">Lorem ipsum dolor sit amet consectetur adipisicing elit
            <div class="col-md-3" id="sidebar">
                <ul>
                    <li><a href="https://www.google.com/">Home</a></li>
                    <li><a href="">Gallery</a></li>
                    <li><a href="">About Us</a></li>
                    <li><a href="">Help Desk</a></li>
                    <li><a href="">Contact Us</a></li>
                </ul>
            </div>
        </div>
```



```
            </div>
        </div>
        <div class="row">
            <div class="col" id="footer">
                @copyright10.11
            </div>
        </div>

    </div>

</body>
</html>
```

Output:

Initially



Welcome

Home Gallery About Us Help Desk Contact Us

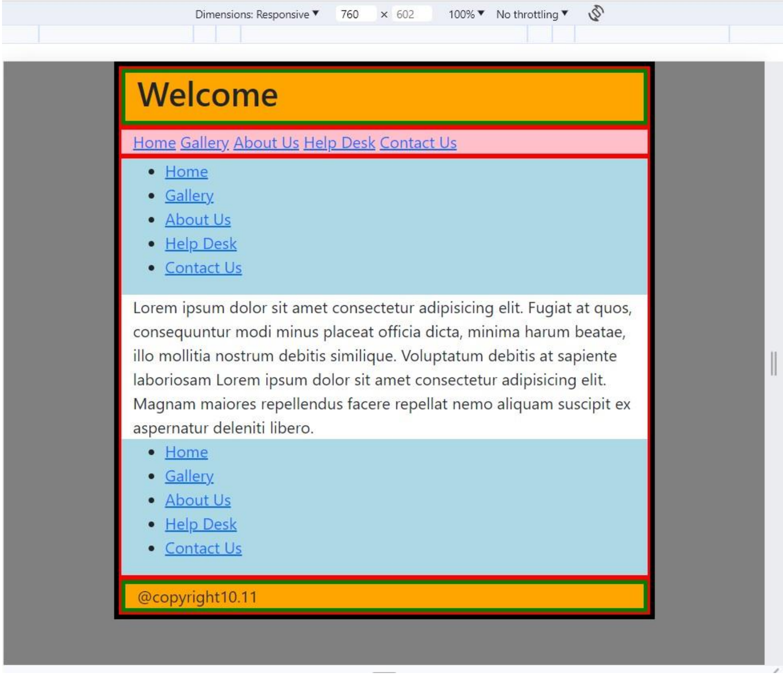
- Home
- Gallery
- About Us
- Help Desk
- Contact Us

Lorem ipsum dolor sit amet consectetur adipisicing elit. Fugiat at quos, consequuntur modi minus placeat officia dicta, minima harum beatae, illo mollitia nostrum debitis similique. Voluptatum debitis at sapiente laboriosam Lorem ipsum dolor sit amet consectetur adipisicing elit. Magnam maiores repellendus facere repellat nemo aliquam suscipit ex aspernatur deleniti libero.

- Home
- Gallery
- About Us
- Help Desk
- Contact Us

@copyright10.11

Responive Web Page



Dimensions: Responsive ▾ 760 × 602 100% ▾ No throttling ▾

Welcome

Home Gallery About Us Help Desk Contact Us

- Home
- Gallery
- About Us
- Help Desk
- Contact Us

Lorem ipsum dolor sit amet consectetur adipisicing elit. Fugiat at quos, consequuntur modi minus placeat officia dicta, minima harum beatae, illo mollitia nostrum debitis similique. Voluptatum debitis at sapiente laboriosam Lorem ipsum dolor sit amet consectetur adipisicing elit. Magnam maiores repellendus facere repellat nemo aliquam suscipit ex aspernatur deleniti libero.

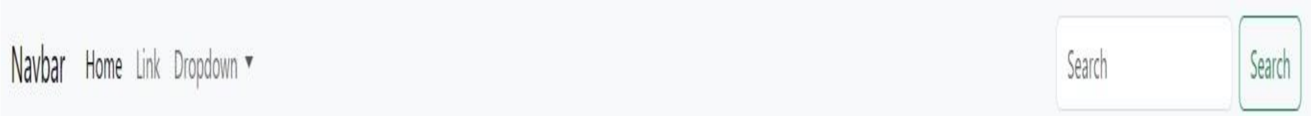
- Home
- Gallery
- About Us
- Help Desk
- Contact Us

@copyright10.11

Experiment Number 3: To deploy different types of buttons, progress bars, modals and navigation bars using Bootstrap.

Navigation Bar: The navigation bar with Bootstrap is as follows:

```
<nav class="navbar navbar-expand-lg bg-body-tertiary">
    <div class="container-fluid">
      <a class="navbar-brand" href="#">Navbar</a>
      <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-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 me-auto mb-2 mb-lg-0">
          <li class="nav-item">
            <a class="nav-link active" aria-current="page" href="#">Home</a>
          </li>
          <li class="nav-item">
            <a class="nav-link" href="#">Link</a>
          </li>
          <li class="nav-item dropdown">
            <a class="nav-link dropdown-toggle" href="#" role="button" data-bstoggle="dropdown" aria-expanded="false">
              Dropdown
            </a>
            <ul class="dropdown-menu">
              <li><a class="dropdown-item" href="#">Action</a></li>
              <li><a class="dropdown-item" href="#">Another action</a></li>
              <li><hr class="dropdown-divider"></li>
              <li><a class="dropdown-item" href="#">Something else here</a></li>
            </ul>
          </li>

        </ul>
        <form class="d-flex" role="search">
          <input class="form-control me-2" type="search" placeholder="Search" aria-label="Search">
          <button class="btn btn-outline-success" type="submit">Search</button>
        </form>
      </div>
    </div>
  </nav>
```

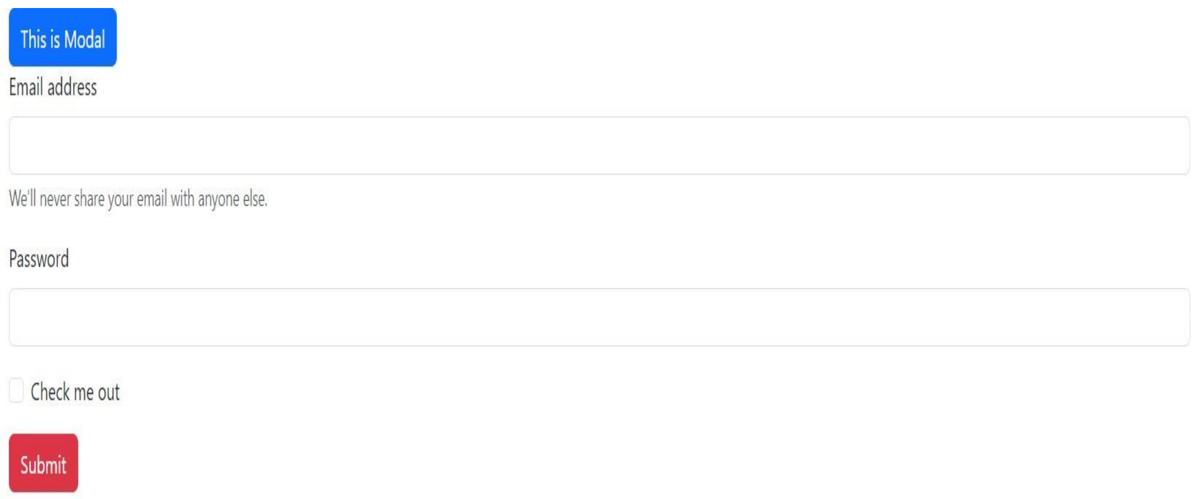


Modals and Buttons:

```
<div class="container">
    <!-- Button trigger modal -->
    <button type="button" class="btn btn-primary" data-bs-toggle="modal" data-bs-target="#exampleModal">
      This is Modal
    </button>

    <!-- Modal -->
    <div class="modal fade" id="exampleModal" tabindex="-1" arialabelledby="exampleModalLabel" aria-hidden="true">
      <div class="modal-dialog">
        <div class="modal-content">
```

```
                    <div class="modal-header">
                        <h1 class="modal-title fs-5" id="exampleModalLabel">Modal title</h1>
                        <button type="button" class="btn-close" data-bs-dismiss="modal" aria-label="Close"></button>
                    </div>
                    <div class="modal-body">
                        ...
                    </div>
                    <div class="modal-footer">
                        <button type="button" class="btn btn-secondary" data-bsdismiss="modal">Close</button>
                        <button type="button" class="btn btn-primary">Save changes</button>
                    </div>
                </div>
            </div>
        </div>

        <form>
          <div class="mb-3">
            <label for="exampleInputEmail1" class="form-label">Email address</label>
            <input type="email" class="form-control" id="exampleInputEmail1" ariadescribedby="emailHelp">
            <div id="emailHelp" class="form-text">We'll never share your email with anyone else.</div>
          </div>
          <div class="mb-3">
```

```
      <label for="exampleInputPassword1" class="formlabel">Password</label>

      <input type="password" class="form-control" id="exampleInputPassword1">

     </div>

     <div class="mb-3 form-check">

      <input type="checkbox" class="form-check-input" id="exampleCheck1">

      <label class="form-check-label" for="exampleCheck1">Check me out</label>

     </div>

     <button type="submit" class="btn btn-danger">Submit</button>

</form>
```



Email address

We'll never share your email with anyone else.

Password

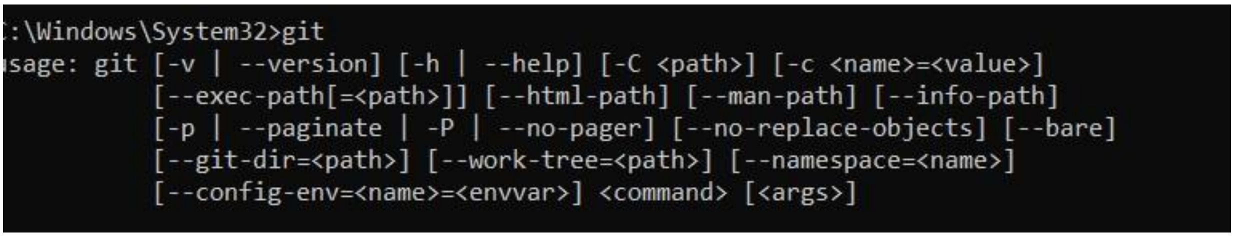
□ Check me out

Experiment Number 4: To create and setup the Git repository on Bitbucket or github using SSH.

Step 1: Install Git

Download and install Git from the official website: https://git-scm.com/download/win

After writing command ***git*** this is shown on cmd.



```
:\Windows\System32>git
sage: git [-v | --version] [-h | --help] [-C <path>] [-c <name>=<value>]
          [--exec-path[=<path>]] [--html-path] [--man-path] [--info-path]
          [-p | --paginate | -P | --no-pager] [--no-replace-objects] [--bare]
          [--git-dir=<path>] [--work-tree=<path>] [--namespace=<name>]
          [--config-env=<name>=<envvar>] <command> [<args>]
```

Step 2: Configure Git

Set your Git username and email by running these commands in your terminal: git

config --global user.name "samrathdeepsingh"

git config --global user.email “samrathdeepsingh19@gmail.com”

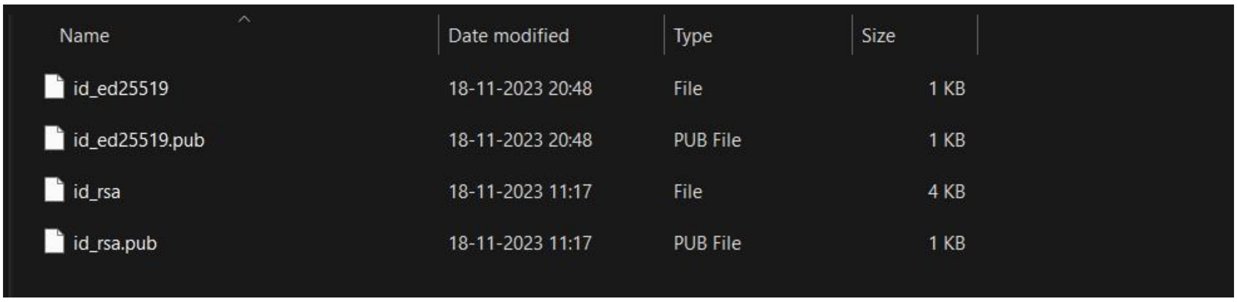
Step 3: Generate SSH Key

Generate an SSH key to securely connect to GitHub:

“samrathdeepsingh19@gmail.com

This is the place where ***SSH Key is generated***

C:\Users\samrath\.ssh



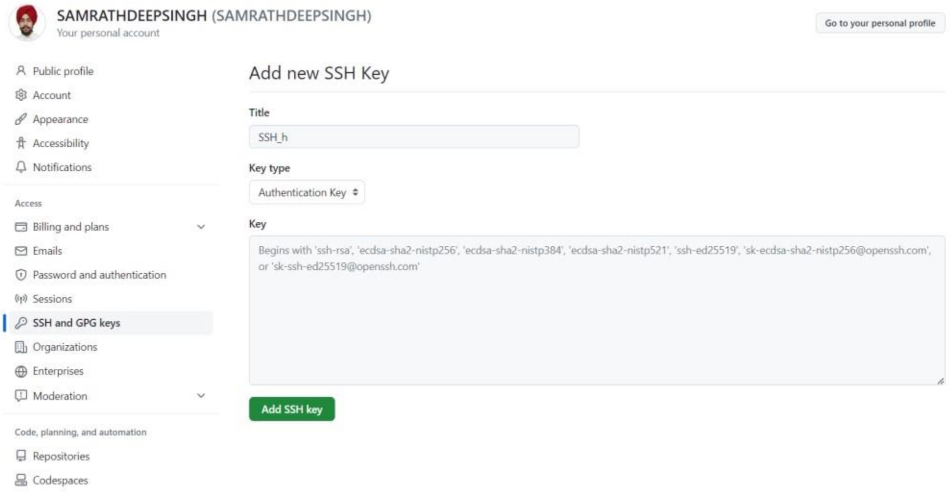
Name	Date modified	Type	Size
id_ed25519	18-11-2023 20:48	File	1 KB
id_ed25519.pub	18-11-2023 20:48	PUB File	1 KB
id_rsa	18-11-2023 11:17	File	4 KB
id_rsa.pub	18-11-2023 11:17	PUB File	1 KB

Step 5: Add SSH Key to GitHub

Copy your public SSH key to your clipboard:

cat ~/.ssh/id_ed25519.pub

Go to GitHub account settings, under "SSH and GPG keys," click "New SSH key," and paste public key there.



SAMRATHDEEPSINGH (SAMRATHDEEPSINGH)
Your personal account

Add new SSH Key

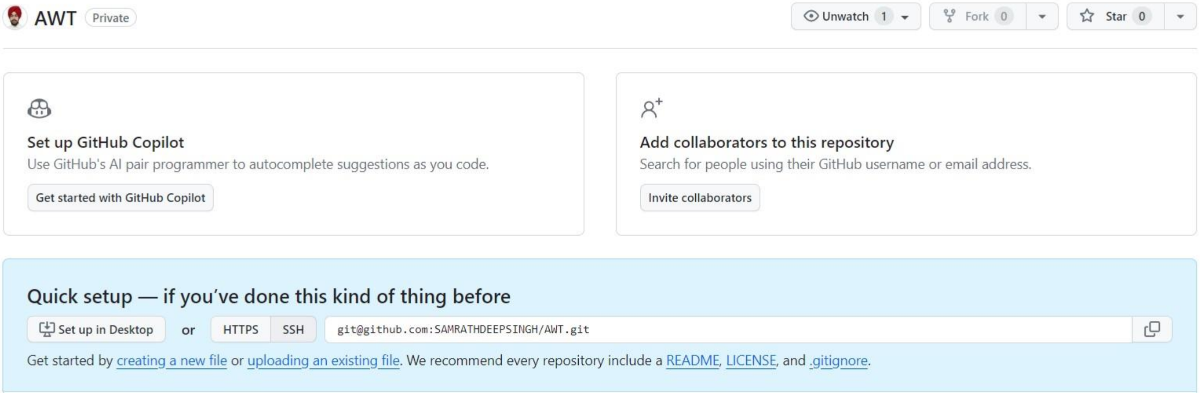
Title: SSH_h

Key type: Authentication Key

Key: Begins with 'ssh-rsa', 'ecdsa-sha2-nistp256', 'ecdsa-sha2-nistp384', 'ecdsa-sha2-nistp521', 'ssh-ed25519', 'sk-ecdsa-sha2-nistp256@openssh.com', or 'sk-ssh-ed25519@openssh.com'

Step 6: Create a New Repository on GitHub

On GitHub, click the "+" icon in the top right corner and select "New repository." Fill in the repository name, description, and other options.



Set up GitHub Copilot

Use GitHub's AI pair programmer to autocomplete suggestions as you code.

Add collaborators to this repository

Search for people using their GitHub username or email address.

Quick setup — if you've done this kind of thing before

```
git@github.com:SAMRATHDEEPSINGH/AWT.git
```

Get started by creating a new file or uploading an existing file. We recommend every repository include a README, LICENSE, and .gitignore.

This is the SSH Key link of repository “Demo”.

Experiment Number 5: To perform push, c lone and patch operation to Git repository.

CLONE:

git clone <repository-url>

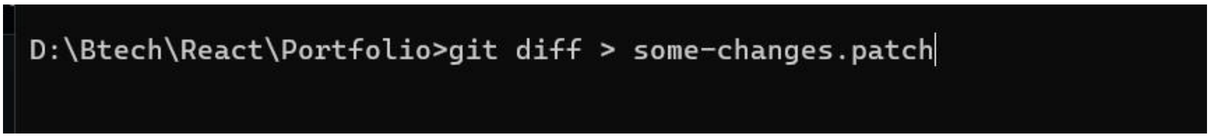
git clone https://github.com/samrathdeepsingh/AWT PUSH:

git push <remote-name> <branch-name> git

push origin main

PATCH:

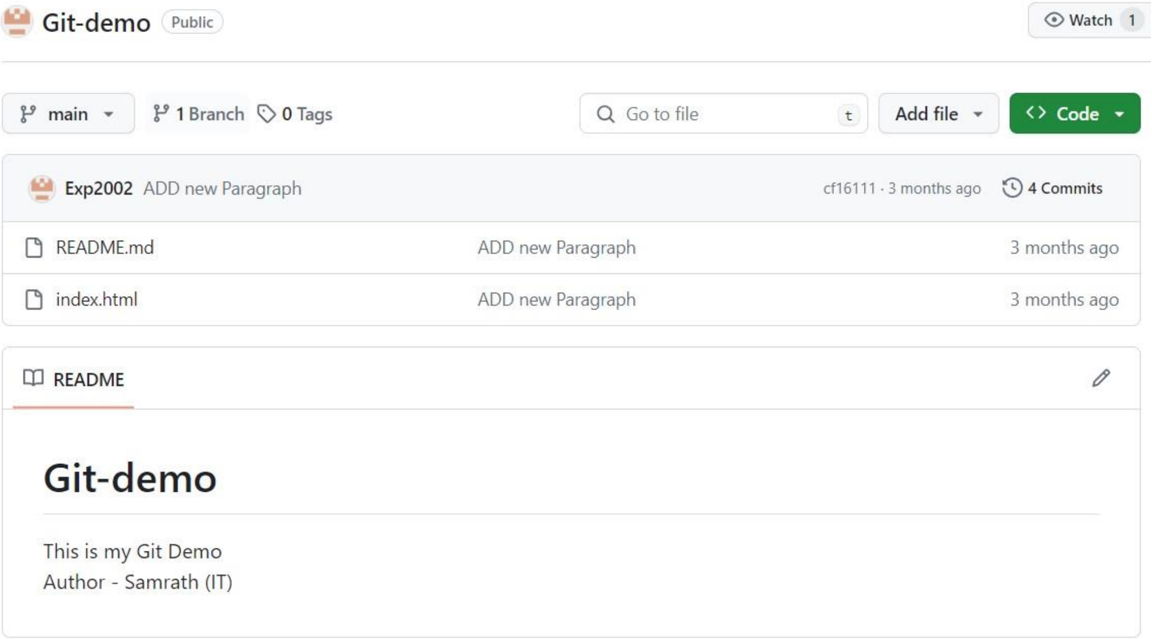
1. Generate the patch: git diff > some-changes.patch



```
D:\Btech\React\Portfolio>git diff > some-changes.patch
```

2. Apply the diff:

git apply /path/to/some-changes.patch



Exp2002 ADD new Paragraph cf16111 · 3 months ago 4 Commits

README.md	ADD new Paragraph	3 months ago
index.html	ADD new Paragraph	3 months ago

README

Git-demo

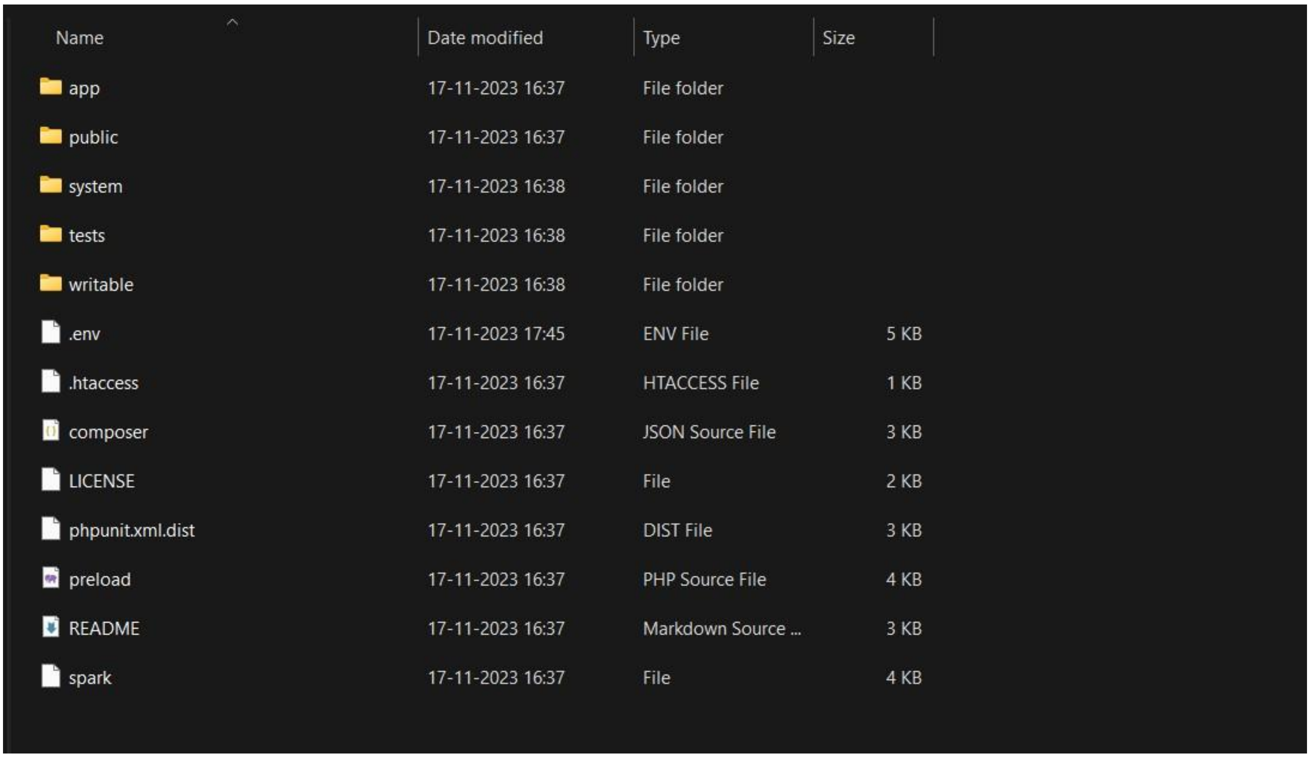
This is my Git Demo
Author - Samrath (IT)

Experiment Number 6: To install and setup the CodeIgniter Framework and to understand its MVC architecture.

Installation with Composer:

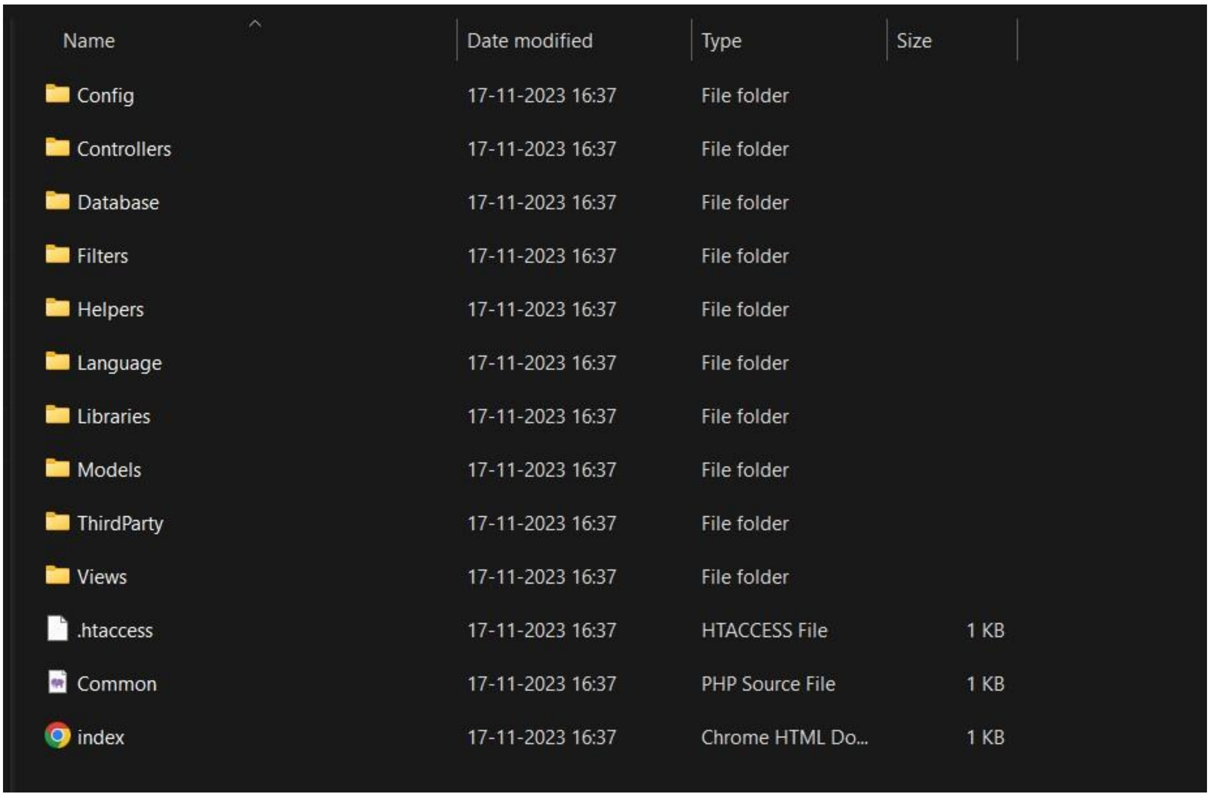
In terminal go to the root folder of project and type the command **composer create-project codeigniter4/appstarter project-name**

These files will be created:



Name	Date modified	Type	Size
app	17-11-2023 16:37	File folder	
public	17-11-2023 16:37	File folder	
system	17-11-2023 16:38	File folder	
tests	17-11-2023 16:38	File folder	
writable	17-11-2023 16:38	File folder	
.env	17-11-2023 17:45	ENV File	5 KB
.htaccess	17-11-2023 16:37	HTACCESS File	1 KB
composer	17-11-2023 16:37	JSON Source File	3 KB
LICENSE	17-11-2023 16:37	File	2 KB
phpunit.xml.dist	17-11-2023 16:37	DIST File	3 KB
preload	17-11-2023 16:37	PHP Source File	4 KB
README	17-11-2023 16:37	Markdown Source ...	3 KB
spark	17-11-2023 16:37	File	4 KB

As CodeIgniter is based on MVC architecture , In App folder there are different folders of Model, View and Controllers.



Name	Date modified	Type	Size
Config	17-11-2023 16:37	File folder	
Controllers	17-11-2023 16:37	File folder	
Database	17-11-2023 16:37	File folder	
Filters	17-11-2023 16:37	File folder	
Helpers	17-11-2023 16:37	File folder	
Language	17-11-2023 16:37	File folder	
Libraries	17-11-2023 16:37	File folder	
Models	17-11-2023 16:37	File folder	
ThirdParty	17-11-2023 16:37	File folder	
Views	17-11-2023 16:37	File folder	
.htaccess	17-11-2023 16:37	HTACCESS File	1 KB
Common	17-11-2023 16:37	PHP Source File	1 KB
index	17-11-2023 16:37	Chrome HTML Do...	1 KB

Experiment Number 7: To construct a simple login page web application to authenticate users using CodeIgniter Framework and also perform CURD operations.

CURD stands for Create, Update, Read and Delete.

- Create a new project using composer.
- Start the Xampp server
- Create a database named as demo

We will create a form for user details in which users can add their details and can update, delete and view those details.

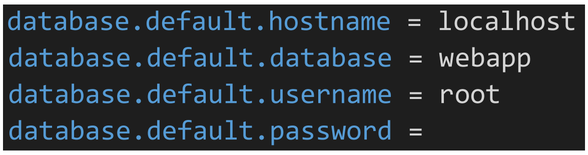
1.Create: This will take input from user in a form.

2.Update: This will enable user to update the details.

3.Read: This will display the details of users in a table.

4.Delete: This will enable user to delete their details. Set

Up database in env file and make model

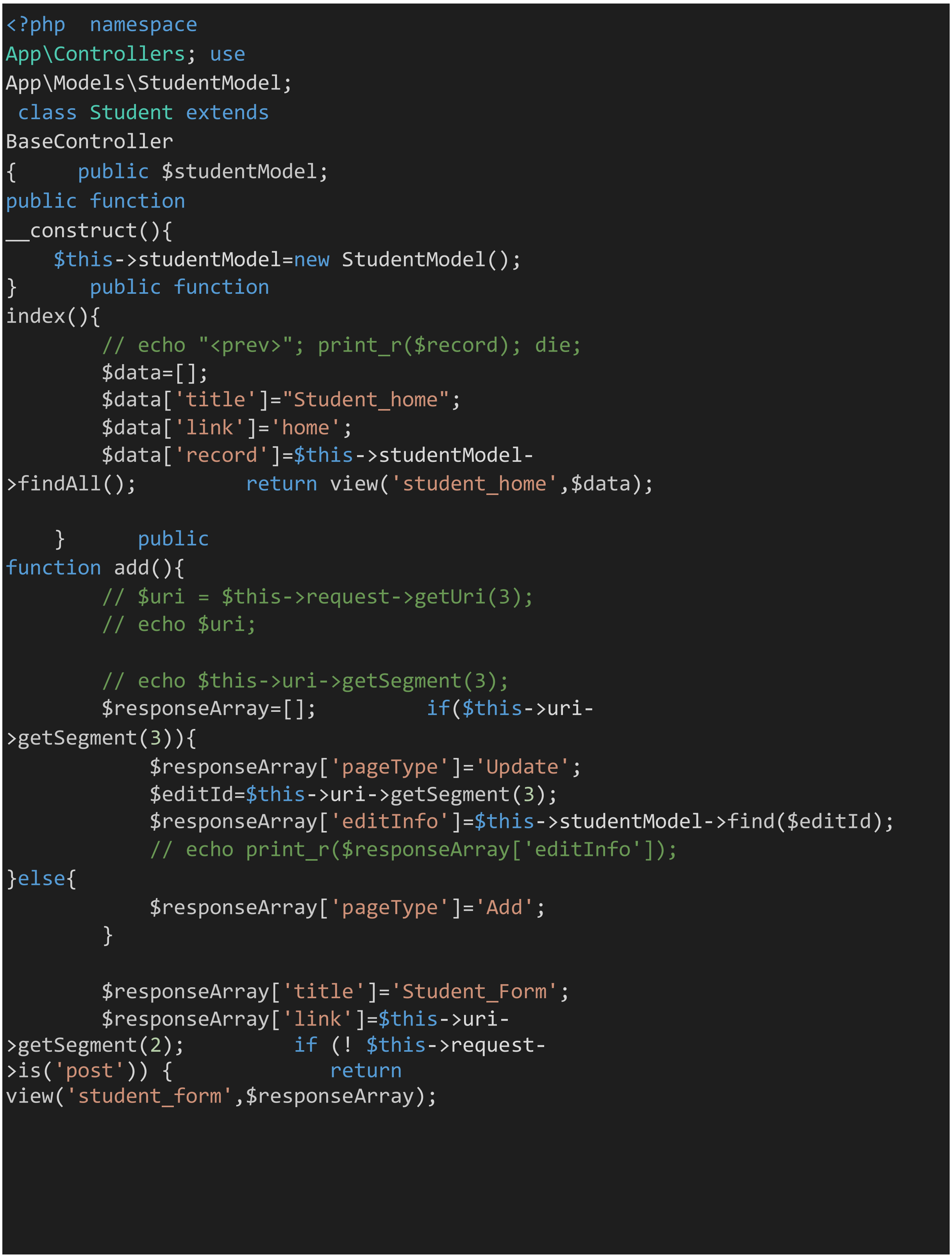


```
database.default.hostname = localhost
database.default.database = webapp
database.default.username = root
database.default.password =
database.default.DBDriver = MySQLi #
database.default.DBPrefix =
database.default.port = 5506
```

StudentModel.php

```
<?php namespace App\Models;

use CodeIgniter\Model;
 class StudentModel extends
Model{      protected
$table='student';
    protected $allowedFields=['name','email','Phone_no'];
    // protected $useTimestamps=false;
    // protected $validationRules=[];
    // protected $validationMEssages=[];
     public function
record(){         return
"yes";
    }
}
```

Create Controller named Student.php



```
<?php  namespace
App\Controllers; use
App\Models\StudentModel;
 class Student extends
BaseController
{      public $studentModel;
public function
__construct(){
    $this->studentModel=new StudentModel();
}       public function
index(){
        // echo "<prev>"; print_r($record); die;
        $data=[];
        $data['title']="Student_home";
        $data['link']='home';
        $data['record']=$this->studentModel-
>findAll();          return view('student_home',$data);

    }       public
function add(){
        // $uri = $this->request->getUri(3);
        // echo $uri;

        // echo $this->uri->getSegment(3);
        $responseArray=[];          if($this->uri-
>getSegment(3)){
            $responseArray['pageType']='Update';
            $editId=$this->uri->getSegment(3);
            $responseArray['editInfo']=$this->studentModel->find($editId);
            // echo print_r($responseArray['editInfo']);
}else{
            $responseArray['pageType']='Add';
        }

        $responseArray['title']='Student_Form';
        $responseArray['link']=$this->uri-
>getSegment(2);          if (! $this->request-
>is('post')) {             return
view('student_form',$responseArray);
```

```
        }

        // $rules = [
        //    'firstname'=>'required|max_length[10]',
        //    'emailID'=>'required|valid_email',
        //    'PhoneNo'=>'max_length[10]'
        // ];
        // if (! $this->validate($rules)) {
        //     return view('student_form',$responseArray);
        // }
else{
            $data=[];
            $data['name']= $this->request->getPost('firstname');
            $data['email']= $this->request->getPost('emailID');
$data['Phone_no']= $this->request->getPost('phoneNo');              if
($responseArray['pageType']=='Add') {
                $response=$this->studentModel->save($data);
                $this->session->setFlashdata('addsMsj','Reacord         Added
Succesfully');
            }else{
                $response=$this->studentModel->update($editId,$data);
                $this->session->setFlashdata('addsMsj','Reacord Updated
Succesfully');              }
if(!$response){
                $this->session->setFlashdata('addsMsj','Something Went
Wrong');
            }                                   return
view('student_home',[
'title'=>"Student_home",
                'link'=>'home',
                'record'=>$this->studentModel->findAll()
            ]);


        }

        // If you want to get the validated data.
        // $validData = $this->validator->getValidated();
        // return view('student_home',[
        //     'title'=>"student_home",
        //     'link'=>'home',
        //     'record'=>$this->studentModel->findAll()
        // ]);
    }
    public function deleteRecord($id){
        $response=$this->studentModel->delete($id);
if($response){
            $this->session->setFlashdata('addsMsj','Reacord Deleted
Succesfully');
}
else{
            $this->session->setFlashdata('addsMsj','Reacord Deletion
UnSuccesfully');          }          return
redirect()->to('/student/home');
    }
}
```

Go to Routes.php file and add the below written code

```
<?php  use
CodeIgniter\Router\RouteCollection;

/**
 * @var RouteCollection $routes
 */
$routes->get('/', 'Home::index');
$routes->get('user', 'User::index');
$routes->get('user/add', 'User::add');
$routes->get('student/add', 'Student::add');
$routes->post('student/add', 'Student::add');
$routes->get('student/home','Student::index');
$routes->get('/student/edit/(:num)', 'Student::add/$1');
$routes->post('/student/edit/(:num)', 'Student::add/$1');
$routes->get('/student/delete/(:num)', 'Student::deleteRecord/$1');
// $routes->post('/student/edit/(:num)', 'Student::add/$1');
// $routes->get('user/add/(:any)',
'User::add/$1');                        //(:any)  for giving any type of
number ,String etc

// $routes->get('user/add/(:num)/(:any)', 'User::add/$1/$2');
// $routes->add('user/add/(:num)/(:any)', 'User::add/$1/$2');
//get or add is same thing..

$routes->addRedirect('codeimprove','user/add');
```

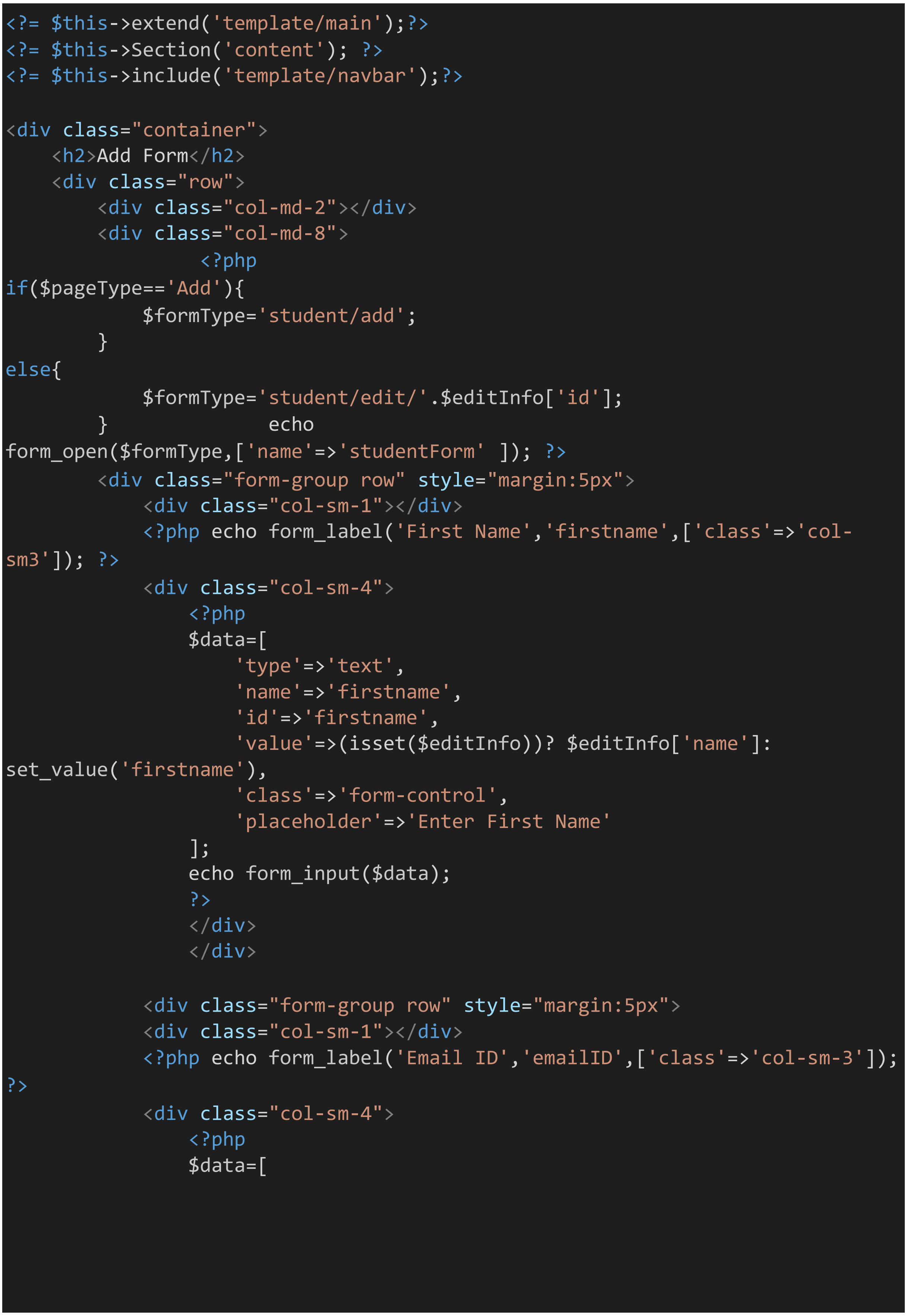
Create Views Template folder which has basic html code and navbar main.php

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title> <?= $title; ?> </title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css"
rel="stylesheet" integrity="sha384-
T3c6CoIi6uLrA9TneNEoa7RxnatzjcDSCmG1MXxSR1GAsXEV/Dwwykc2MPK8M2HN"
crossorigin="anonymous">
    <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap.bundle.min
.js" integrity="sha384-
C6RzsynM9kWDrMNeT87bh95OGNyZPhcTNXj1NW7RuBCsyN/o0jlpcV8Qyq46cDfL"
crossorigin="anonymous"></script>
</head>
<body>

<?= $this->renderSection('content'); ?>

</body>
</html>
```

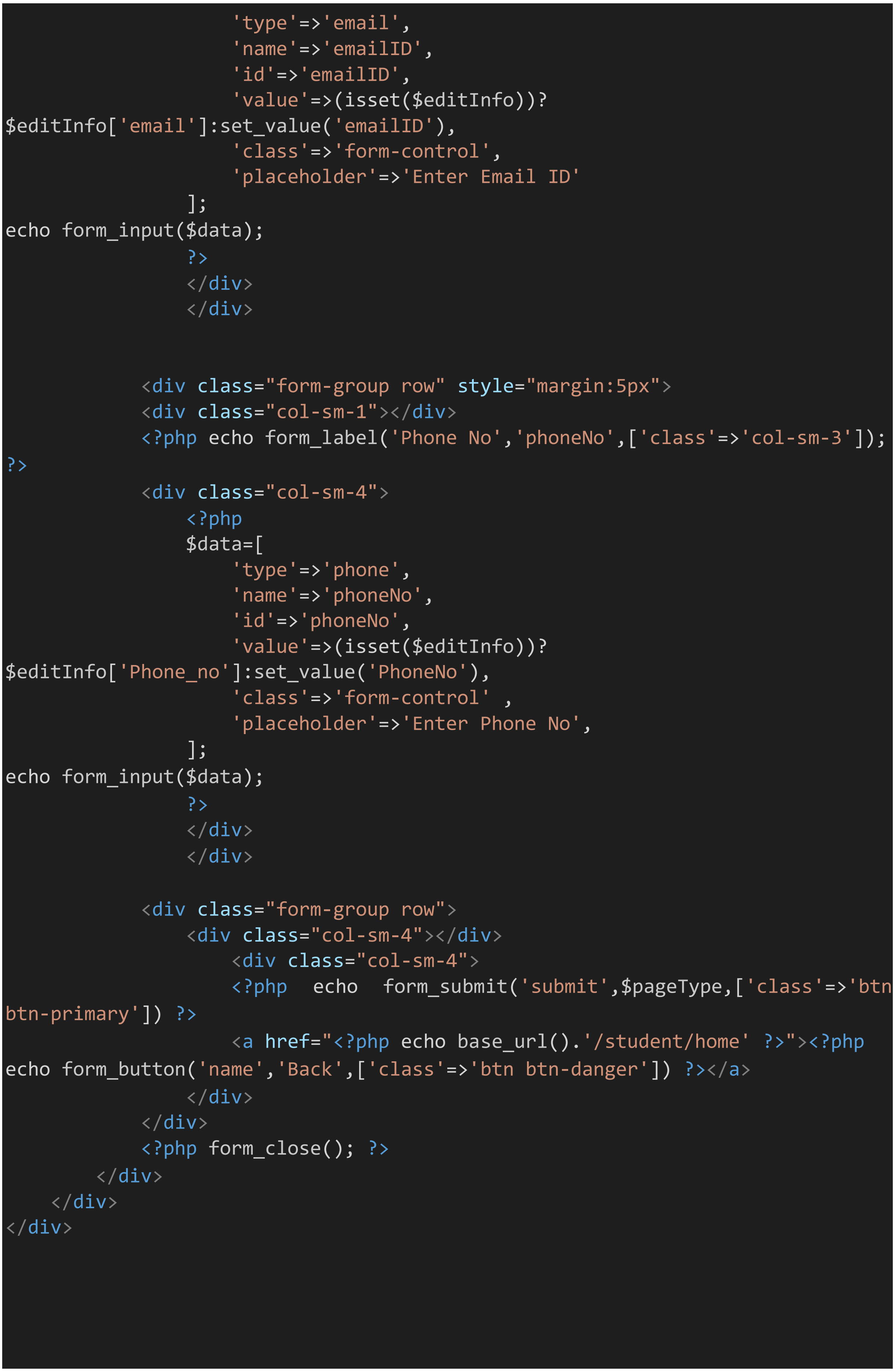
Navbar.php

```
<nav class="navbar navbar-expand-lg bg-body-tertiary">
  <div class="container-fluid">
    <a class="navbar-brand">CI_App0</a>
      <ul class="navbar-nav me-auto mb-2 mb-lg-0">
        <li class="nav-item">
          <a class="nav-link <?php if($link=='home'){echo "active";} ?>"
href="<?php echo base_url('/student/home')?>">Home</a>
        </li>
        <li class="nav-item">
          <a class="nav-link <?php if($link=='add'){echo "active";} ?>"
href="<?php echo base_url('/student/add')?>">Add</a>
        </li>
      </ul>
  </div>
</nav>
```

Student_form.php



```
<?= $this->extend('template/main');?>
<?= $this->Section('content'); ?>
<?= $this->include('template/navbar');?>

<div class="container">
    <h2>Add Form</h2>
    <div class="row">
        <div class="col-md-2"></div>
        <div class="col-md-8">
                 <?php
if($pageType=='Add'){
            $formType='student/add';
        }
else{
            $formType='student/edit/'.$editInfo['id'];
        }              echo
form_open($formType,['name'=>'studentForm' ]); ?>
        <div class="form-group row" style="margin:5px">
            <div class="col-sm-1"></div>
            <?php echo form_label('First Name','firstname',['class'=>'col-
sm3']); ?>
            <div class="col-sm-4">
                <?php
                $data=[
                    'type'=>'text',
                    'name'=>'firstname',
                    'id'=>'firstname',
                    'value'=>(isset($editInfo))? $editInfo['name']:
set_value('firstname'),
                    'class'=>'form-control',
                    'placeholder'=>'Enter First Name'
                ];
                echo form_input($data);
                ?>
                </div>
                </div>

            <div class="form-group row" style="margin:5px">
            <div class="col-sm-1"></div>
            <?php echo form_label('Email ID','emailID',['class'=>'col-sm-3']);
?>
            <div class="col-sm-4">
                <?php
                $data=[
```



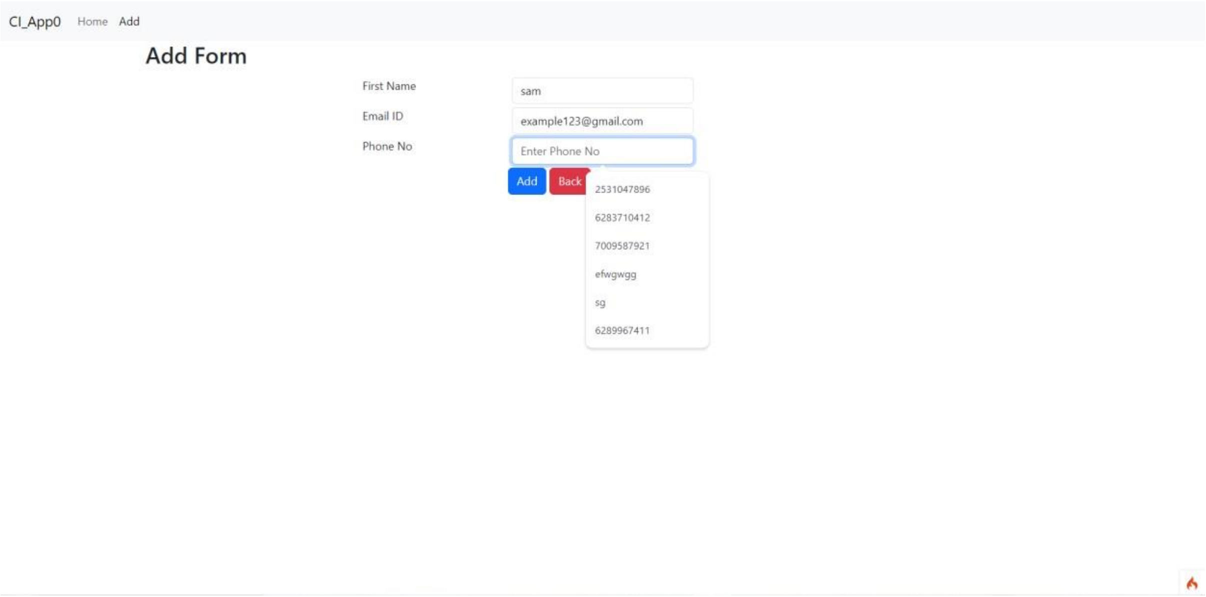
```
                    'type'=>'email',
                    'name'=>'emailID',
                    'id'=>'emailID',
                    'value'=>(isset($editInfo))?
$editInfo['email']:set_value('emailID'),
                    'class'=>'form-control',
                    'placeholder'=>'Enter Email ID'
                ];
echo form_input($data);
                ?>
                </div>
                </div>


            <div class="form-group row" style="margin:5px">
            <div class="col-sm-1"></div>
            <?php echo form_label('Phone No','phoneNo',['class'=>'col-sm-3']);
?>
            <div class="col-sm-4">
                <?php
                $data=[
                    'type'=>'phone',
                    'name'=>'phoneNo',
                    'id'=>'phoneNo',
                    'value'=>(isset($editInfo))?
$editInfo['Phone_no']:set_value('PhoneNo'),
                    'class'=>'form-control' ,
                    'placeholder'=>'Enter Phone No',
                ];
echo form_input($data);
                ?>
                </div>
                </div>

            <div class="form-group row">
                <div class="col-sm-4"></div>
                    <div class="col-sm-4">
                    <?php  echo  form_submit('submit',$pageType,['class'=>'btn
btn-primary']) ?>
                    <a href="<?php echo base_url().'/student/home' ?>"><?php
echo form_button('name','Back',['class'=>'btn btn-danger']) ?></a>
                </div>
            </div>
            <?php form_close(); ?>
        </div>
    </div>
</div>
```

```
<?= $this->endSection('content'); ?>
```

Student_home.php

```
<?= $this->extend('template/main');?>
<?= $this->Section('content'); ?>
<?= $this->include('template/navbar');?>
<div class="container">
<h1>Home</h1>
<?php echo session()->getFlashdata('addsMsj'); ?>
<div class="row">
<table class="table table-bordered">
  <thead>
    <tr class="table-success">
      <th scope="col">Id</th>
      <th scope="col">Name</th>
      <th scope="col">Email</th>
      <th scope="col">Phone No</th>
      <th scope="col">Action</th>
    </tr>
  </thead>
  <tbody>
    <?php foreach($record as $val){ ?>
        <tr class="table-success">
            <td><?php echo $val['id']; ?></td>
            <td><?php echo $val['name']; ?></td>
            <td><?php echo $val['email']; ?></td>
            <td><?php echo $val['Phone_no']; ?></td>
<td>
              <a href="<?php echo base_url().'/student/edit/'.$val['id'];
?>"><button class="btn btn-primary">Update</button></a>
              <a href="<?php echo base_url().'/student/delete/'.$val['id'];
?>"><button class="btn btn-danger">Delete</button></a>
</td>
            <?php } ?>
        </tr>
  </tbody>
</table>
</div>
</div>


<?= $this->endSection('content'); ?>
```

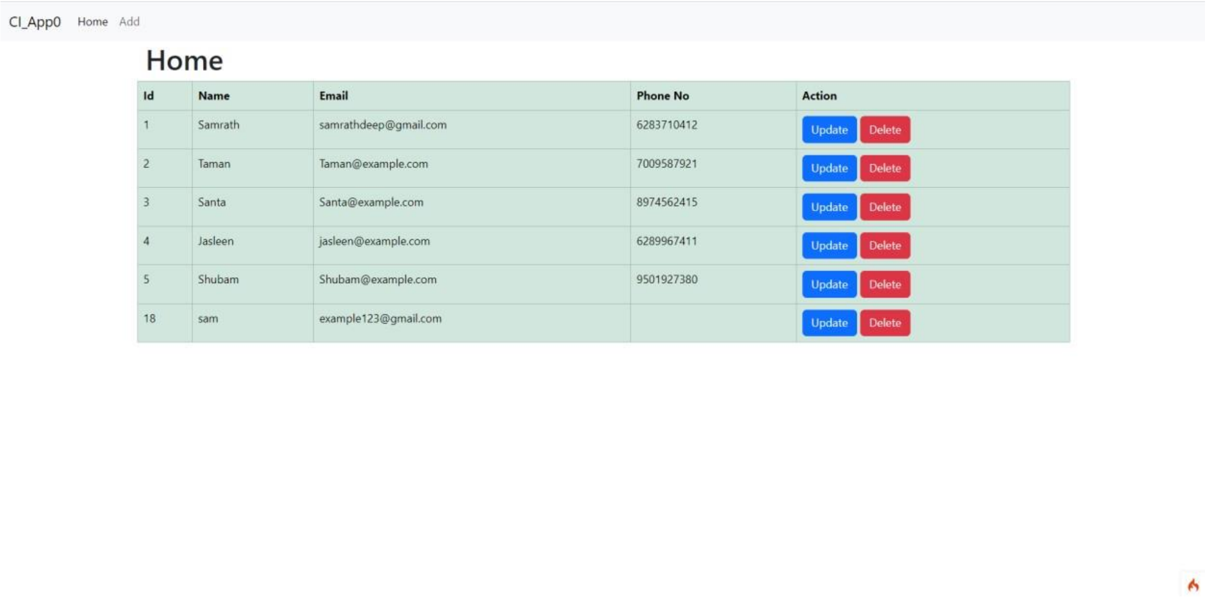
Experiment Number 8: To install and setup, configure the Laravel Framework.



Add Form

First Name	sam
Email ID	example123@gmail.com
Phone No	Enter Phone No

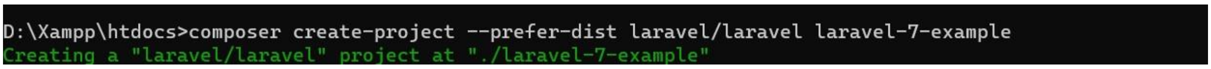
2531047896
6283710412
7009587921
efwgwgg
sg
6289967411



Home

Id	Name	Email	Phone No	Action
1	Samrath	samrathdeep@gmail.com	6283710412	Update Delete
2	Taman	Taman@example.com	7009587921	Update Delete
3	Santa	Santa@example.com	8974562415	Update Delete
4	Jasleen	jasleen@example.com	6289967411	Update Delete
5	Shubam	Shubam@example.com	9501927380	Update Delete
18	sam	example123@gmail.com		Update Delete

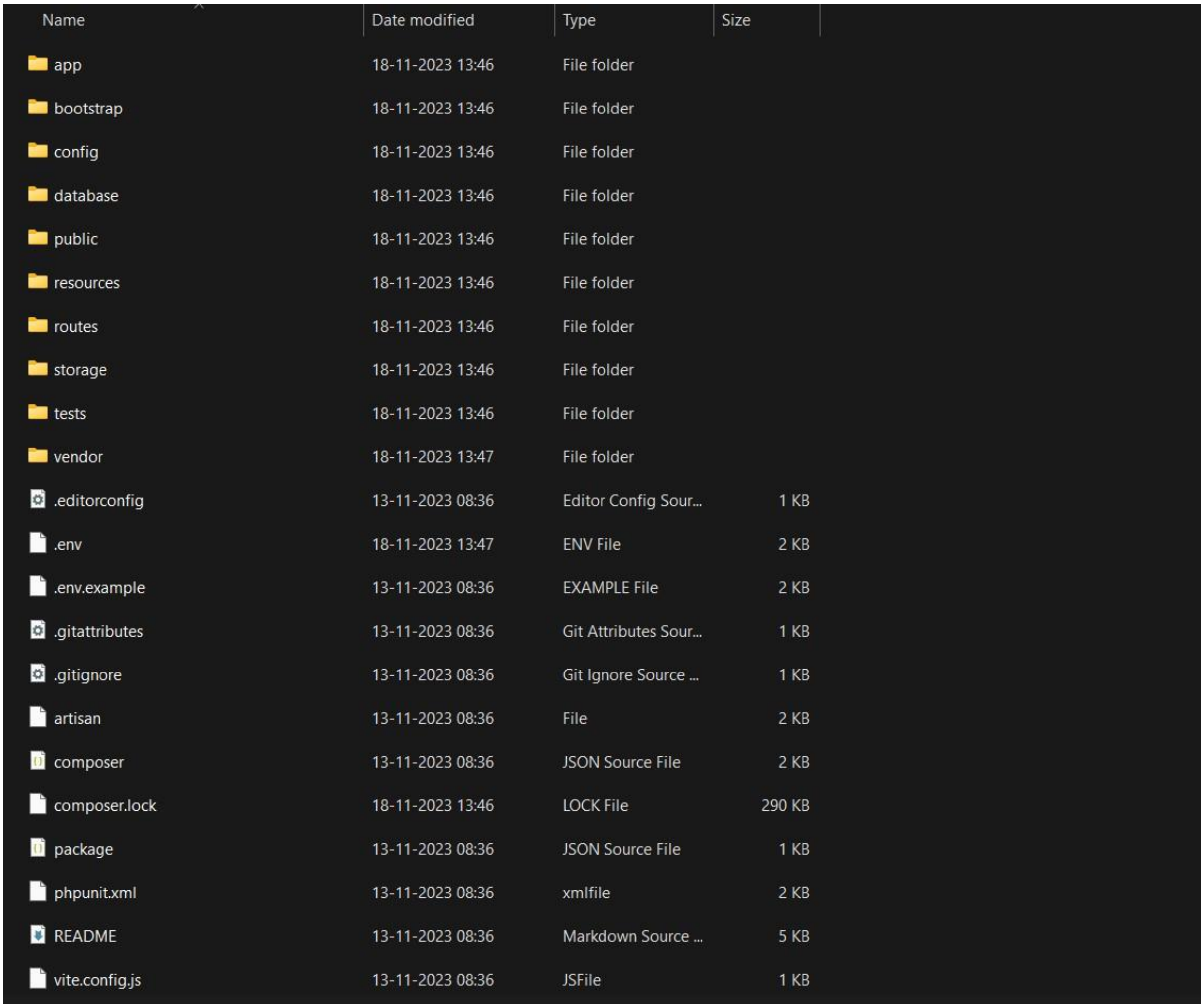
Installing Laravel via composer:



```
D:\Xampp\htdocs>composer create-project --prefer-dist laravel/laravel laravel-7-example
Creating a "laravel/laravel" project at "./laravel-7-example"
```

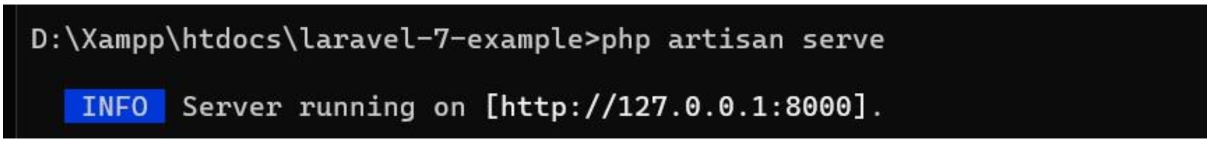
Then go to the specified project:

```
D:\Xampp\htdocs>cd laravel-7-example
```

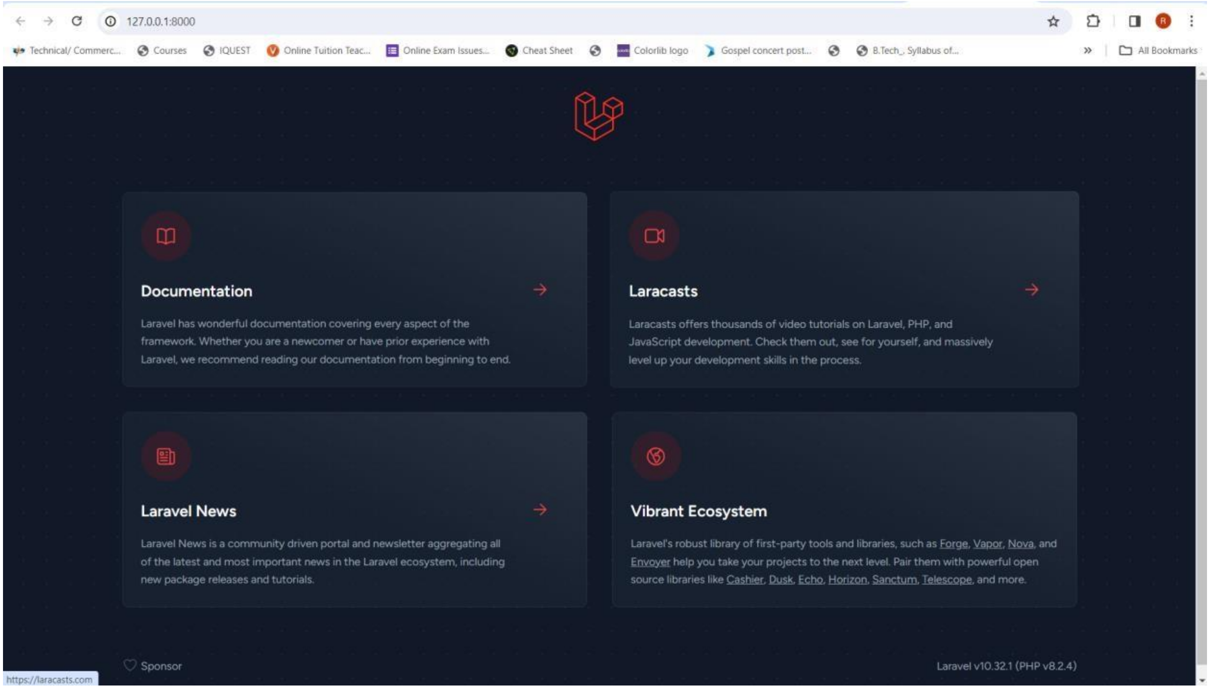


Name	Date modified	Type	Size
app	18-11-2023 13:46	File folder	
bootstrap	18-11-2023 13:46	File folder	
config	18-11-2023 13:46	File folder	
database	18-11-2023 13:46	File folder	
public	18-11-2023 13:46	File folder	
resources	18-11-2023 13:46	File folder	
routes	18-11-2023 13:46	File folder	
storage	18-11-2023 13:46	File folder	
tests	18-11-2023 13:46	File folder	
vendor	18-11-2023 13:47	File folder	
.editorconfig	13-11-2023 08:36	Editor Config Sour...	1 KB
.env	18-11-2023 13:47	ENV File	2 KB
.env.example	13-11-2023 08:36	EXAMPLE File	2 KB
.gitattributes	13-11-2023 08:36	Git Attributes Sour...	1 KB
.gitignore	13-11-2023 08:36	Git Ignore Source ...	1 KB
artisan	13-11-2023 08:36	File	2 KB
composer	13-11-2023 08:36	JSON Source File	2 KB
composer.lock	18-11-2023 13:46	LOCK File	290 KB
package	13-11-2023 08:36	JSON Source File	1 KB
phpunit.xml	13-11-2023 08:36	xmlfile	2 KB
README	13-11-2023 08:36	Markdown Source ...	5 KB
vite.config.js	13-11-2023 08:36	JSFile	1 KB

Start the development server:



```
D:\Xampp\htdocs\laravel-7-example>php artisan serve

  INFO  Server running on [http://127.0.0.1:8000].
```



Documentation

Laravel has wonderful documentation covering every aspect of the framework. Whether you are a newcomer or have prior experience with Laravel, we recommend reading our documentation from beginning to end.

Laracasts

Laracasts offers thousands of video tutorials on Laravel, PHP, and JavaScript development. Check them out, see for yourself, and massively level up your development skills in the process.

Laravel News

Laravel News is a community driven portal and newsletter aggregating all of the latest and most important news in the Laravel ecosystem, including new package releases and tutorials.

Vibrant Ecosystem

Laravel's robust library of first-party tools and libraries, such as Forge, Vapor, Nova, and Envoyer help you take your projects to the next level. Pair them with powerful open source libraries like Cashier, Dusk, Echo, Horizon, Sanctum, Telescope, and more.

Sponsor

Laravel v10.32.1 (PHP v8.2.4)

This is by default welcome page of Laravel

We can configure the files according to our requirements.

Experiment Number 9: To construct the any simple web application using Laravel Framework.

Firstly we will create the controller in http/Controllers/Controller.php

```
<?php

namespace App\Http\Controllers;
```

```
use Illuminate\Foundation\Auth\Access\AuthorizesRequests;
use Illuminate\Foundation\Validation\ValidatesRequests;
use Illuminate\Routing\Controller as BaseController; use
App\User;
use App\Http\Controllers\Controller;

class Controller extends BaseController
{
   public function display(){
      return view('welcome',['name'=>'Rajat']);
   }
}
```

Now we will create the routes in routes/web.php

```
<?php

use Illuminate\Support\Facades\Route; use
App\Http\Controllers\Controller;

Route::get('/', [Controller::class,'display']);
```

Now create the model Models/User.php

```
<?php

namespace App\Models;

// use Illuminate\Contracts\Auth\MustVerifyEmail; use
Illuminate\Database\Eloquent\Factories\HasFactory; use
Illuminate\Foundation\Auth\User as Authenticatable; use
```

```
Illuminate\Notifications\Notifiable; use
Laravel\Sanctum\HasApiTokens;

class User extends Authenticatable
{
    use HasApiTokens, HasFactory, Notifiable;

    /**
* The attributes that are mass assignable.
     *
* @var array<int, string>
     */     protected
$fillable = [
        'name',
        'email',
        'password',
    ];

    /**
* The attributes that should be hidden for serialization.
     *
* @var array<int, string>
     */
    protected $hidden = [
'password',
        'remember_token',
    ];

    /**
* The attributes that should be cast.
     *
* @var array<string, string>
     */
    protected $casts = [
        'email_verified_at' => 'datetime',
        'password' => 'hashed',
    ];
}
```

Now we will create views in Resources/view/welcome.blade.php

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <h1>Name is: <?php echo $name?></h1>
</body>
</html>
```