ADVANCED WEB TECHNOLOGIES LABORATORY (LPEIT-102)

DEPARTMENT OF INFORMATION TECHNOLOGY



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3.	To deploy different types of buttons, progress bars, modals and navigation bars using Bootstrap.		
4.	To create and setup the Git repository on Bitbucket or github using SSH.		
5.	To perform push, c lone and patch operation to Git repository.		
6.	To install and setup the CodeIgniter Framework and to understand its MVC architecture.		
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PRACTICAL - 1

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

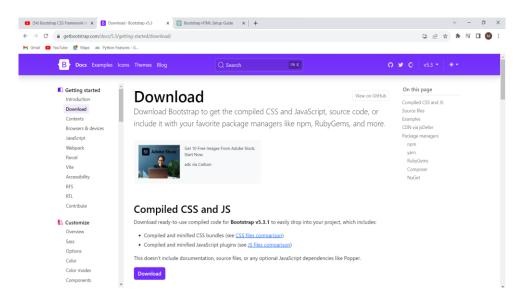
- Bootstrap is a free front-end framework for faster and easier web development
- Bootstrap includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many other, as well as optional JavaScript plugins
- Bootstrap also gives you the ability to easily create responsive designs

INSTALLATION OF BOOTSTRAP : (Complied CSS and JS)

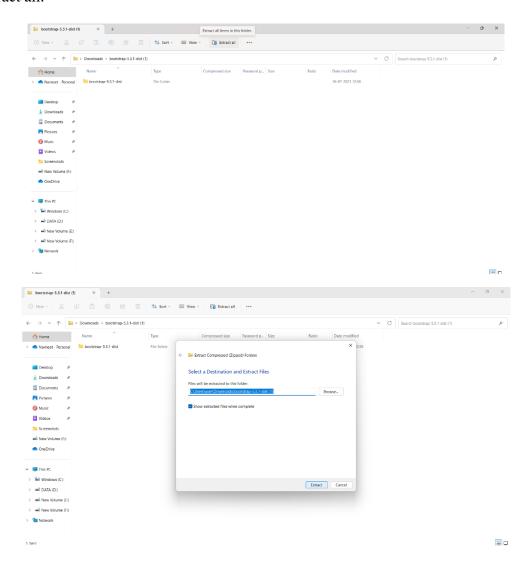
This method of installing bootstrap is also easy but it can work offline (doesn't require an internet connection) but it might not work for some browsers.



Step 1: Goto <u>getbootstrap</u> and click Getting Started. Click on the Download Bootstrap button and download the compiled CSS and JS.

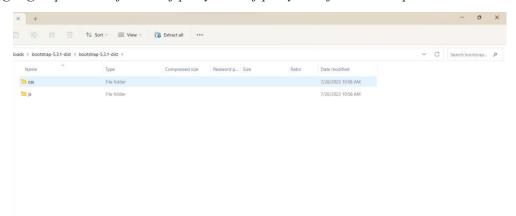


Step 2: Once the bootstrap is downloaded, it is in the zip folder and then click on the zip folder and then click on extract all.



Step 3: You would see 2 folders named CSS and JS. You can make your HTML file there and then you must paste these links in their respective sections.

```
<link rel="stylesheet" type="text/css" href="css/bootstrap.min.css"> <script
src="js/bootstrap.min.js"> </script> <script src=
"https://ajax.googleapis.com/ajax/libs/jquery/2.1.3/jquery.min.js"> </script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script><
```



<u>USE A CONTENT DELIVERY NETWORK (CDN)</u>: Alternatively, you can include Bootstrap directly from a CDN in your HTML file. This is convenient for development and testing but may not be the best choice for production. For this example, let's include Bootstrap via a CDN:

k rel = "stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">

BASIC HTML ELEMETS USING BOOTSTRAP:

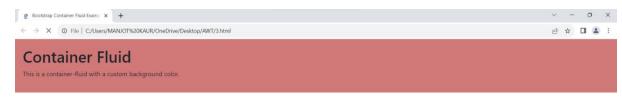
1. BOOTSTRAP CONTAINERS:

a) The .container class provides a responsive fixed width container

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
<style>
.custom-container {
   background-color: #e48a8a;
   padding: 20px;
}
</style>
<title>Bootstrap Container Example</title>
</head>
```

b) The .container-fluid class provides a full width container, spanning the entire width of the viewport.

```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8">
 <meta name="viewport" content="width=device-width, initial-scale=1.0">
 link
                                                                               rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
 <style>
  .custom-container-fluid {
   background-color: #d17979; /* Your desired background color */
   padding: 20px;
 </style>
 <title>Bootstrap Container Fluid Example</title>
</head>
<body>
 <div class="container-fluid custom-container-fluid">
  <h1>Container Fluid</h1>
  This is a container-fluid with a custom background color.
 </div>
</body>
</html>
```



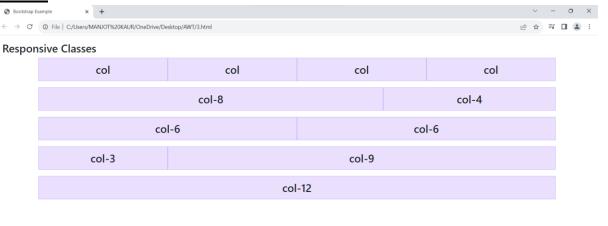
2. BOOTSTRAP GRID CLASS: Bootstrap's grid system is built with flexbox and allows up to 12 columns across the page. The grid system is responsive, and the columns will re-arrange automatically depending on the screen size. Grid Classes:-

The Bootstrap 5 grid system has six classes:

- .col- (extra small devices screen width less than 576px)
- .col-sm- (small devices screen width equal to or greater than 576px)
- .col-md- (medium devices screen width equal to or greater than 768px)
- .col-lg- (large devices screen width equal to or greater than 992px)
- .col-xl- (xlarge devices screen width equal to or greater than 1200px)
- .col-xxl- (xxlarge devices screen width equal to or greater than 1400px)

```
<!doctype html>
<html lang="en">
 <head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  k href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.1/dist/css/bootstrap.min.css"
rel="stylesheet">
  k href="https://getbootstrap.com/docs/5.3/assets/css/docs.css" rel="stylesheet">
  <title>Bootstrap Example</title>
  <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.1/dist/js/bootstrap.bundle.min.js"></script>
 <body class="p-3 m-0 border-0 bd-example m-0 border-0 bd-example-row">
  <h3> Responsive Classes <h3>
  <div class="container text-center">
   <div class="row">
    <div class="col">col</div>
    <div class="col">col</div>
    <div class="col">col</div>
```

```
<div class="col">col</div>
   </div>
   <div class="row">
    <div class="col-8">col-8</div>
    <div class="col-4">col-4</div>
   </div>
   <div class="row">
   <div class="col-6">col-6</div>
   <div class="col-6">col-6</div>
  </div>
  <div class="row">
  <div class="col-3">col-3</div>
  <div class="col-9">col-9</div>
 </div>
 <div class="row">
 <div class="col-12">col-12</div>
</div>
  </div>
 </body>
</html>
```

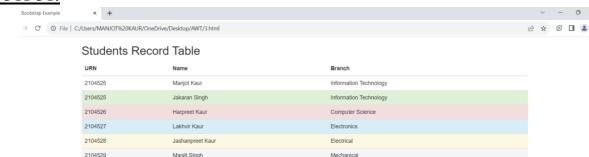


3. BOOTSTRAP TABLES:

In Bootstrap, a basic table is an HTML table that has been styled and enhanced using Bootstrap's CSS classes and, optionally, JavaScript functionality. Bootstrap provides a set of CSS classes to make it easy to create attractive and responsive tables for displaying data on web pages. The .table class adds basic styling to a table:

```
<!DOCTYPE html>
<html lang="en">
<head>
<title>Bootstrap Example</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
k rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.4/jquery.min.js"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script>
</head>
<body>
<div class="container">
<h2>Students Record Table</h2>
<thead>
  URN
   Name
   Branch
  </thead>
 2104525
   Manjot Kaur
   Information Technology
  2104525
   Jakaran Singh
   Information Technology
  2104526
   Harpreet Kaur
   Computer Science
  2104527
```

```
Lakhvir Kaur
  Electronics
 2104528
  Jashanpreet Kaur
  Electrical
 2104529
  Manjit Singh
  Mechanical
 </div>
</body>
</html>
```



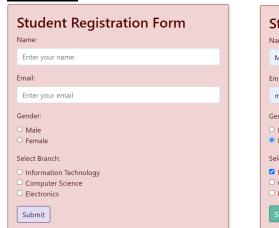
4. BOOTSTRAP FORMS:

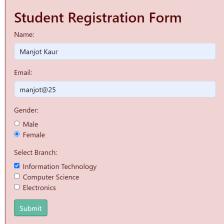
HTML defines the structure and elements of web forms, CSS is used to style and layout those forms, and Bootstrap is a framework that streamlines form design by offering pre-built components and responsive design capabilities. Together, these technologies empower web developers to create attractive, functional, and user-friendly forms that enhance the overall user experience on websites.

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
```

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Student Registration Form</title>
  <link rel="stylesheet"</pre>
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
  <style>
    .form-container {
       max-width: 500px;
       margin: 0 auto;
       padding: 20px;
       border: 1px solid #850c0c;
       border-radius: 5px;
       box-shadow: 0 0 10px rgba(71, 61, 61, 0.2);
       background-color: #f0d4d4; /* Light gray background color */
    /* Text color for labels */
     .form-group label {
       color: #470303; /* Dark gray text color */
    /* Text color for checkboxes and radio buttons */
     .form-check-label {
       color: #6ec280; /* Dark gray text color */
    /* Background color for checkboxes and radio buttons */
     .form-check-input:checked + .form-check-label::before {
       background-color: #ce135e; /* Blue background color for checked items */
       border-color: #e48c8c; /* Blue border color for checked items */
    /* Background color for the submit button */
     .btn-primary {
       background-color: #e2ddef; /* Blue background color for the button */
       border-color: #1d035b; /* Blue border color for the button */
       color:#1d035b; /* White text color for the button */
    /* Hover effect for the submit button */
     .btn-primary:hover {
       background-color: #63b9a2; /* Darker blue background color on hover */
       border-color: #026b48; /* Darker blue border color on hover */
  </style>
```

```
</head>
<body>
  <div class="container">
    <div class="form-container">
       <h2 style="color: #560101;">Student Registration Form</h2>
       <form>
         <div class="form-group">
            <label for="name">Name:</label>
            <input type="text" class="form-control" id="name" placeholder="Enter your name"</pre>
required>
         </div>
         <div class="form-group">
            <label for="email">Email:</label>
            <input type="email" class="form-control" id="email" placeholder="Enter your email"</pre>
required>
         </div>
         <div class="form-group">
            <label for="gender">Gender:</label>
            <div class="form-check">
              <input class="form-check-input" type="radio" name="gender" id="male"</pre>
value="male" required>
              <label class="form-check-label" for="male">Male</label>
            </div>
            <div class="form-check">
              <input class="form-check-input" type="radio" name="gender" id="female"</pre>
value="female" required>
              <label class="form-check-label" for="female">Female</label>
            </div>
         </div>
         <div class="form-group">
            <label for="courses">Select Branch:</label>
            <div class="form-check">
              <input class="form-check-input" type="checkbox" id="it" value="Information"
Technology">
              <label class="form-check-label" for="it">Information Technology</label>
            </div>
            <div class="form-check">
              <input class="form-check-input" type="checkbox" id="computer science"</pre>
value="Computer Science">
              <label class="form-check-label" for="computer science"> Computer Science</label>
            </div>
```





5. BOOTSTRAP BREAKPOINTS:

Bootstrap includes six default breakpoints, sometimes referred to as *grid tiers*, for building responsively. These breakpoints can be customized if you're using our source Sass files.

Breakpoint	Class infix	Dimensions	
X-Small	None	<576px	
Small	sm	≥576px	
Medium	md	≥768px	
Large	lg	≥992px	
Extra large	xl	≥1200px	
Extra extra large	xxl	≥1400px	

CODE:

<!DOCTYPE html>

```
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Bootstrap Breakpoints Example</title>
  <!-- Link to Bootstrap CSS -->
  link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
  <style>
    /* Custom CSS for different breakpoints */
    /* Extra Small (xs) */
     .bg-xs {
       background-color: #cf7878;
     .text-xs {
       font-size: 14px;
     }
     /* Small (sm) */
     @media (min-width: 576px) {
       .bg-sm {
         background-color: #e1f18b;
       .text-sm {
         font-size: 16px;
     }
     /* Medium (md) */
     @media (min-width: 768px) {
       .bg-md {
         background-color: #59b8de;
       }
       .text-md {
         font-size: 18px;
       }
     /* Large (lg) */
     @media (min-width: 992px) {
       .bg-lg {
         background-color: #ed85c5;
       }
       .text-lg {
```

```
font-size: 20px;
       }
    /* Extra Large (xl) */
    @media (min-width: 1200px) {
       .bg-xl {
         background-color: #80e39e;
       }
       .text-x1 {
         font-size: 22px;
  </style>
</head>
<body>
  <div class="container">
    <h1 class="text-center">Bootstrap Breakpoints Example</h1>
    <div class="row">
       <div class="col bg-xs text-xs">
         Extra Small (xs) <576px
       </div>
       <div class="col bg-sm text-sm">
         Small (sm) ≥576px
       </div>
       <div class="col bg-md text-md">
         Medium (md) ≥768px
       </div>
       <div class="col bg-lg text-lg">
         Large (lg) \geq992px
       </div>
       <div class="col bg-xl text-xl">
         Extra Large (xl) ≥1400px
       </div>
    </div>
  </div>
</body>
</html>
```



PRACTICAL - 2

Aim: To understand and deploy the multicolumn grid layout of Bootstrap.

Bootstrap provides a multicolumn grid layout that allows you to create responsive and flexible layouts. The grid system consists of a series of containers, rows, and columns. The containers are used to center and horizontally pad the content, while the rows create vertical gutters between the columns. The columns are the building blocks of the grid system and can be customized to have different sizes and offsets.

To use the multicolumn grid layout, you first need to create a container element. This element will hold the columns of your grid. The container element can be any element, but it is typically a '<div>' element.

Once you have created a container element, you can start adding columns to it. Columns are created using the '.col' class.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Bootstrap Multicolumn Grid Layout</title>
  <!-- Include Bootstrap CSS -->
  link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
  <style>
    /* Custom CSS for colored boxes */
    .colored-box {
       min-height: 100px;
       text-align: center;
       padding: 20px;
       margin-bottom: 20px;
    .red-bg { background-color: #FF5733; }
    .green-bg { background-color: #33FF6D; }
    .blue-bg { background-color: #33AFFF; }
    .purple-bg { background-color: #D933FF; }
  </style>
</head>
<body>
<div class="container">
  <h1>Bootstrap Multicolumn Grid Layout</h1>
  <div class="row">
    <!-- Large screens (lg) - Four columns -->
    <div class="col-lg-3 col-md-6">
       <div class="colored-box red-bg">
         Column 1
       </div>
    </div>
    <div class="col-lg-3 col-md-6">
       <div class="colored-box green-bg">
```

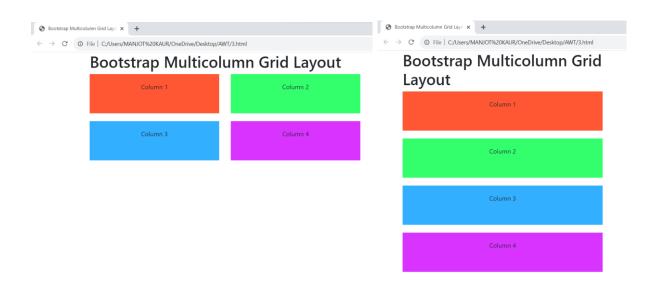
```
Column 2
       </div>
    </div>
    <div class="col-lg-3 col-md-6">
       <div class="colored-box blue-bg">
         Column 3
       </div>
    </div>
    <div class="col-lg-3 col-md-6">
       <div class="colored-box purple-bg">
         Column 4
       </div>
    </div>
  </div>
</div>
</body>
</html>
```

In above code example:

- We've added custom CSS classes (e.g., colored-box, red-bg, green-bg, etc.) to style the colored boxes within the columns.
- The columns are created using Bootstrap's grid system with classes like col-lg-3 (for large screens) and col-md-6 (for medium screens).
- As the screen size changes, you'll notice that the layout adjusts to display the appropriate number of columns, showcasing responsiveness.

OUTPUT:





PRACTICAL - 3

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

Bootstrap is a popular front-end framework that provides a set of pre-designed components like buttons, progress bars, modals, and navigation bars. These components can be easily integrated into your web projects to create a consistent and responsive user interface. I'll provide examples of how to deploy each of these components using Bootstrap.

Buttons:

Buttons are the components provided to create various buttons. Bootstrap 5 includes several predefined button styles, each serving its own purpose.

Syntax:

<button class="badge bg-type"> Button Text <button>

Types: Following are the types of buttons available in Bootstrap 5:

- btn-primary
- btn-secondary
- btn-success
- btn-danger
- btn-warning

```
<!DOCTYPE html>
   <html>
   <head>
   <title> Bootstrap Buttons </title>
   link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/5.0.0-
   alpha1/css/bootstrap.min.css" integrity="sha384-
   r4NyP46KrjDleawBgD5tp8Y7UzmLA05oM1iAEQ17CSuDqnUK2+k9luXQOfXJCJ4I"
   crossorigin="anonymous">
<scriptsrc="https://cdn.jsdelivr.net/npm/popper.js@1.16.0/dist/umd/popper.min.jscrossorigin="anonymo"</pre>
us">
   </script>
   </head>
   <body>
   <div style="text-align: center;width: 600px;">
   <h1 style="color: green;">
   Bootstrap Buttons
   </h1>
   </div>
   <div style="width: 600px; height: 200px;</pre>
   margin:20px;text-align: center;">
```

```
<button type="button" class="btn btn-primary">
Primary
</button>
<button type="button" class="btn btn-secondary">
Secondary
</button>
<button type="button" class="btn btn-success">
Success
</button>
<button type="button" class="btn btn-danger">
Danger
</button>
<button type="button" class="btn btn-warning">
Warning
</button>
</div>
</body>
</html>
```

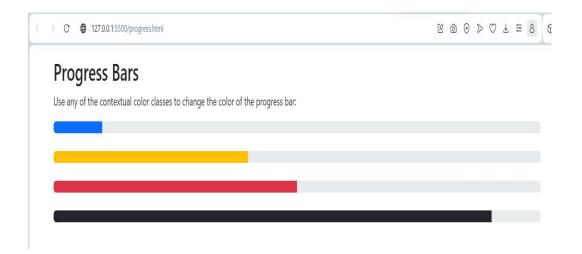


Progress bar:

A progress bar can be used to show how far a user is in a process. To create a default progress bar, add a .progress class to a container element and add the .progress-bar class to its child element. Use the CSS width property to set the width of the progress bar:

```
<!DOCTYPE html>
<html lang="en">
<head>
<title>Bootstrap Example</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
```

```
link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css"
   rel="stylesheet">
   <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap.bundle.min.js"></script>
   </head>
   <body>
   <div class="container mt-3">
   <h2> Progress Bars</h2>
   Use any of the contextual color classes to change the color of the progress bar:
   <!-- Blue -->
   <div class="progress">
   <div class="progress-bar" style="width:10%"></div>
   </div><br>
   <!-- Orange -->
<div class="progress">
   <div class="progress-bar bg-warning" style="width:40%"></div>
   </div><br>
   <!-- Red -->
   <div class="progress">
   <div class="progress-bar bg-danger" style="width:50%"></div>
   </div><br>
   <!-- Dark Grey -->
   <div class="progress">
   <div class="progress-bar bg-dark" style="width:90%"></div>
   </div>
   </div>
   </body>
   </html>
```

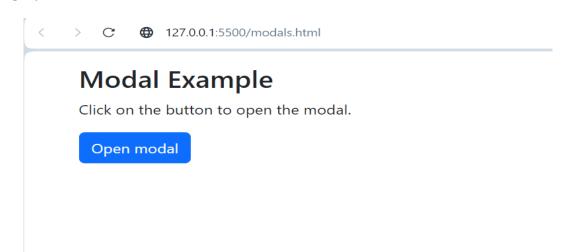


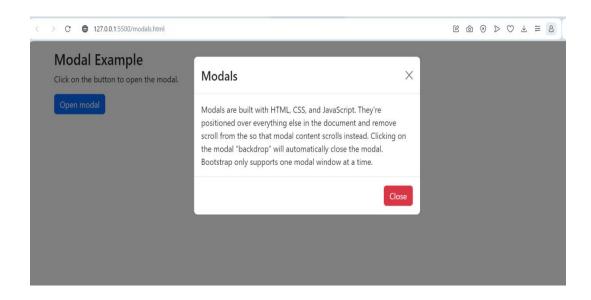
Modals in bootstrap 5:

The Modal component is a dialog box/popup window that is displayed on top of the current page.

```
<!DOCTYPE html>
<html lang="en">
<head>
<title>Bootstrap Example</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css"
rel="stylesheet">
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<div class="container mt-3">
<h3>Modal Example</h3>
Click on the button to open the modal.
<button type="button" class="btn btn-primary" data-bs-toggle="modal" data-bs-
target="#myModal">
Open modal
</button>
</div>
<!-- The Modal -->
<div class="modal" id="myModal">
<div class="modal-dialog">
<div class="modal-content">
```

```
<!-- Modal Header -->
<div class="modal-header">
<h4 class="modal-title">Modals</h4>
<button type="button" class="btn-close" data-bs-dismiss="modal"></button>
</div>
<!-- Modal body -->
<div class="modal-body">
Modals are built with HTML, CSS, and JavaScript. They're positioned over everything else in the
document and remove scroll from the <body> so that modal content scrolls instead. Clicking on the
modal "backdrop" will automatically close the modal. Bootstrap only supports one modal window at
a time.
</div>
<!-- Modal footer -->
<div class="modal-footer">
<button type="button" class="btn btn-danger" data-bs-dismiss="modal">Close</button>
</div>
</div>
</div>
</div>
</body>
</html>
```





Navigation bar:

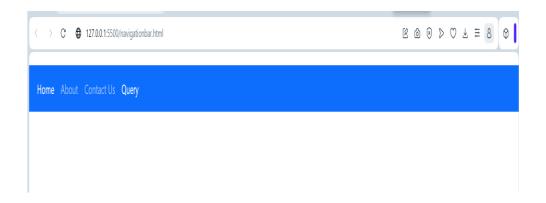
A navigation bar is a navigation header that is placed at the top of the page. With Bootstrap, a navigation bar can extend or collapse, depending on the screen size. A standard navigation bar is created with the .navbar class, followed by a responsive collapsing class: .navbar-expand-xxl|xl|lg|md|sm (stacks the navbar vertically on xxlarge, extra large, large, medium or small screens).

```
<!DOCTYPE html>
<html lang="en">
<head>
 <title>Bootstrap Example</title>
 <meta charset="utf-8">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css" rel="stylesheet">
 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<div class="container mt-3">
 </div>
<nav class="navbar navbar-expand-sm bg-primary navbar-dark">
 <div class="container-fluid">
  ul class="navbar-nav">
   class="nav-item">
    <a class="nav-link active" href="#">Home </a>
    class="nav-item">
    <a class="nav-link" href="#"> About </a>
   class="nav-item">
```

```
<a class="nav-link" href="#">Contact Us </a>

cli class="nav-item">
<a class="nav-link active" href="#"> Query</a>

</div>
</div>
</div>
</div>
</hav>
</body>
</html>
```

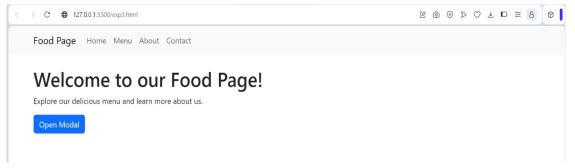


EXAMPLE:

```
<!DOCTYPE html>
<html>
<head>
<title>Food Web Page</title>
link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css">
</head>
<body>
<nav class="navbar navbar-expand-lg navbar-light bg-light">
<div class="container">
<a class="navbar-brand" href="#">Food Page</a>
<button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#navbarNav" aria-controls="navbarNav" aria-expanded="false" aria-label="Toggle navigation">
<span class="navbar-toggler-icon"></span>
```

```
</button>
<div class="collapse navbar-collapse" id="navbarNav">
ul class="navbar-nav">
class="nav-item">
<a class="nav-link" href="#">Home</a>
class="nav-item">
<a class="nav-link" href="#">Menu</a>
</1i>
class="nav-item">
<a class="nav-link" href="#">About</a>
</1i>
class="nav-item">
<a class="nav-link" href="#">Contact</a>
</div>
</div>
</nav>
<div class="container mt-4">
<h1>Welcome to our Food Page!</h1>
Explore our delicious menu and learn more about us.
<button type="button" class="btn btn-primary" data-bs-toggle="modal" data-bs-
target="#exampleModal">
Open Modal
</button>
</div>
<!-- The Modal -->
<div class="modal" id="myModal">
<div class="modal-dialog">
<div class="modal-content">
<!-- Modal Header -->
<div class="modal-header">
<h4 class="modal-title">Modals</h4>
<button type="button" class="btn-close" data-bs-dismiss="modal"></button>
</div>
<!-- Modal body -->
<div class="modal-body">
Get your favourite food with offer pack.
</div>
<!-- Modal footer -->
```

```
<div class="modal-footer">
<button type="button" class="btn btn-danger" data-bs-dismiss="modal">Close</button>
</div>
</div>
</div>
</div>
</div>
</body>
</html>
```



PRACTICAL - 4

Aim: 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.

Step 2: Configure Git

Set your Git username and email by running these commands in your terminal:git config --global user.name "Manjot-Kaur-14" git config --global user.email "kaurmanjot1409@gmail.com"

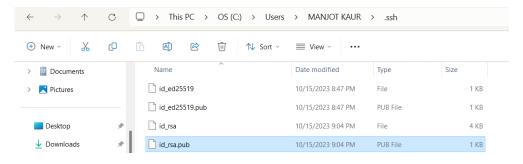
Step 3: Generate SSH Key

Generate an SSH key to securely connect to GitHub: ssh-

keygen -t ed25519 -C kaurmanjot1409@gmail.com

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

C:\Users\manjot\.ssh



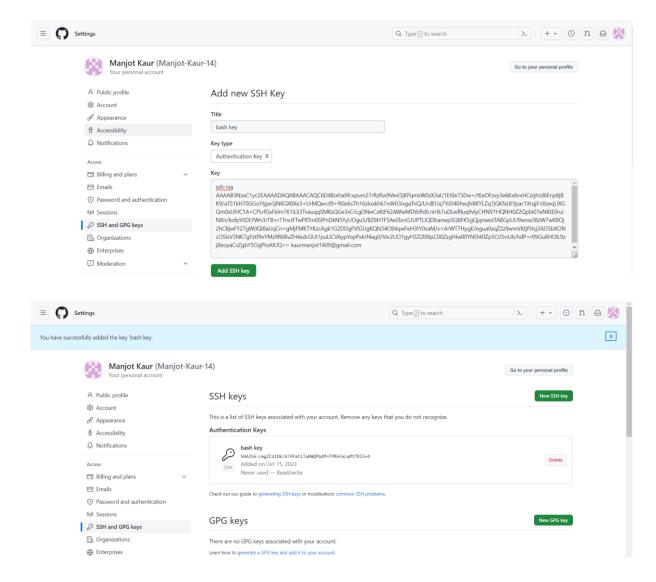
Step 5: Add SSH Key to GitHub

Copy your public SSH key to your clipboard:

cat ~/.ssh/id_rsa.pub

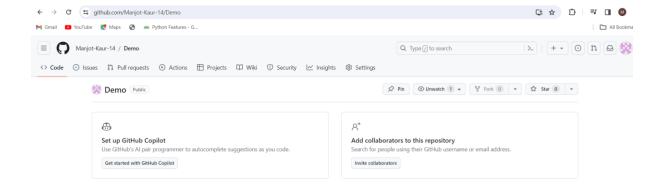


Go to GitHub account settings, under "SSH and GPG keys," click "New SSH key," and paste public key there.



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.



This is the SSH Key link of repository "Demo".

PRACTICAL - 5

Aim: - To perform push, clone and patch operation to Git repository.

CLONE:

git clone <repository-url>

git clone https://github.com/Manjot-Kaur-14/myportfolio

D:\Btech\React\Portfolio>git clone https://githu Manjot-14/ t-28/myportfolio

PUSH:

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

git push origin main

D:\Btech\React\Portfolio>git push origin main

PATCH:

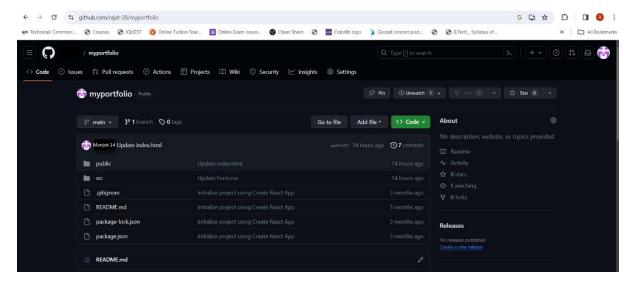
1. Generate the patch:

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



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

Installation with Composer:

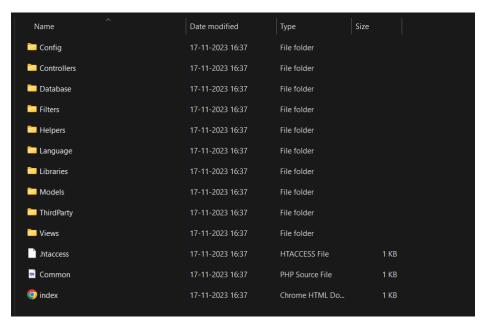
In terminal go to the root folder of project and type the command

composer create-project codeigniter4/appstarter project-name

These files will be created:



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



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.

```
Firstly create views:
1.add user.php:
<!DOCTYPE html>
<html>
<head>
 <title>Codeigniter 4 Add User With Validation Demo</title>
 link rel="stylesheet"
<style>
 .container {
  max-width: 500px;
  .error {
  display: block;
  padding-top: 5px;
  font-size: 14px;
  color: red;
 </style>
</head>
```

```
<body>
 <div class="container mt-5">
  <form method="post" id="add create" name="add create"</pre>
  action="<?= site url('/submit-form') ?>">
   <div class="form-group">
     <label>Name</label>
     <input type="text" name="name" class="form-control">
   </div>
   <div class="form-group">
     <label>Email</label>
     <input type="text" name="email" class="form-control">
   </div>
   <div class="form-group">
     <button type="submit" class="btn btn-primary btn-block">Update Data</button>
   </div>
  </form>
 </div>
 <script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>
 <script src="https://cdnjs.cloudflare.com/ajax/libs/jquery-</pre>
validate/1.19.2/jquery.validate.js"></script>
 <script src="https://cdnjs.cloudflare.com/ajax/libs/jquery-validate/1.19.2/additional-</pre>
methods.min.js"></script>
 <script>
  if ((\#add create'').length > 0) {
   $("#add create").validate({
    rules: {
      name: {
```

```
required: true,
      },
      email: {
       required: true,
       maxlength: 60,
       email: true,
      },
    },
    messages: {
     name: {
       required: "Name is required.",
      },
      email: {
       required: "Email is required.",
       email: "It does not seem to be a valid email.",
       maxlength: "The email should be or equal to 60 chars.",
      },
    },
   })
 </script>
</body>
</html>
2. edit_view.php:
<!DOCTYPE html>
<html>
```

```
<head>
 <title>Codeigniter 4 CRUD - Edit User Demo</title>
 link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.0/css/bootstrap.min.css">
 <style>
  .container {
   max-width: 500px;
  .error {
   display: block;
   padding-top: 5px;
   font-size: 14px;
   color: red;
 </style>
</head>
<body>
 <div class="container mt-5">
  <form method="post" id="update user" name="update user"</pre>
  action="<?= site url('/update') ?>">
   <input type="hidden" name="id" id="id" value="<?php echo $user obj['id']; ?>">
   <div class="form-group">
    <label>Name</label>
    <input type="text" name="name" class="form-control" value="<?php echo</pre>
$user obj['name']; ?>">
   </div>
   <div class="form-group">
```

```
<label>Email</label>
     <input type="email" name="email" class="form-control" value="<?php echo</pre>
$user obj['email']; ?>">
   </div>
   <div class="form-group">
     <button type="submit" class="btn btn-danger btn-block">Save Data/button>
   </div>
  </form>
 </div>
 <script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>
 <script src="https://cdnjs.cloudflare.com/ajax/libs/jquery-</pre>
validate/1.19.2/jquery.validate.js"></script>
 <script src="https://cdnjs.cloudflare.com/ajax/libs/jquery-validate/1.19.2/additional-</pre>
methods.min.js"></script>
 <script>
  if (("#update user").length > 0) {
   $("#update user").validate({
    rules: {
      name: {
       required: true,
      },
      email: {
       required: true,
       maxlength: 60,
       email: true,
      },
     },
```

```
messages: {
      name: {
       required: "Name is required.",
      },
      email: {
       required: "Email is required.",
       email: "It does not seem to be a valid email.",
       maxlength: "The email should be or equal to 60 chars.",
      },
    },
   })
 </script>
</body>
</html>
3.user_view.php:
                                             <!doctype html>
<html lang="en">
 <head>
 <meta charset="utf-8">
 <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
 <title>Codeigniter 4 CRUD App Example - positronx.io</title>
 link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.0/css/bootstrap.min.css">
</head>
```

```
<body>
<div class="container mt-4">
 <div class="d-flex justify-content-end">
   <a href="<?php echo site url('/user-form') ?>" class="btn btn-success mb-2">Add
User</a>
                                  </div>
 <?php
  if(isset($ SESSION['msg'])){
   echo $ SESSION['msg'];
  }
  ?>
<div class="mt-3">
  <thead>
    >
     User Id
     Name
     Email
     Action
    </thead>
   <?php if($users): ?>
    <?php foreach($users as $user): ?>
    >
     <?php echo $user['id']; ?>
```

```
<?php echo $user['name']; ?>
       <?php echo $user['email']; ?>
       <a href="<?php echo base url('edit view/'.$user['id']);?>" class="btn btn-primary
btn-sm">Edit</a>
        <a href="<?php echo base url('delete/'.$user['id']);?>" class="btn btn-danger btn-
sm">Delete</a>
        <a href="<?php echo base url('delete/'.$user['id']);?>" class="btn btn-danger btn-
sm">Delete</a>
        <?php endforeach; ?>
     <?php endif; ?>
    </div>
</div>
<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>
link rel="stylesheet" type="text/css"
href="https://cdn.datatables.net/1.10.21/css/jquery.dataTables.min.css">
<script type="text/javascript"</pre>
src="https://cdn.datatables.net/1.10.21/js/jquery.dataTables.min.js"></script>
<script>
  $(document).ready( function () {
   $('#users-list').DataTable();
 } );
</script>
```

```
</body>
</html>
Models:
UserModel.php:
<?php
namespace App\Models;
use CodeIgniter\Model;
class UserModel extends Model
{
  protected $table = 'users';
  protected $primaryKey = 'id';
  protected $allowedFields = ['name', 'email'];
}
Controller:
UserCrud.php
<?php
namespace App\Controllers;
use App\Models\UserModel;
use CodeIgniter\Controller;
class UserCrud extends Controller
{
  // show users list
  public function index(){
```

```
$userModel = new UserModel();
  $data['users'] = $userModel->orderBy('id', 'DESC')->findAll();
  return view('user view', $data);
// add user form
public function create(){
  return view('add user');
}
// insert data
public function store() {
  $userModel = new UserModel();
  data = [
     'name' => $this->request->getVar('name'),
     'email' => $this->request->getVar('email'),
  ];
  $userModel->insert($data);
  return $this->response->redirect(site url('/users-list'));
// show single user
public function singleUser($id = null){
  $userModel = new UserModel();
  $data['user obj'] = $userModel->where('id', $id)->first();
  return view('edit view', $data);
// update user data
```

```
public function update(){
     $userModel = new UserModel();
     $id = $this->request->getVar('id');
     \text{data} = [
       'name' => $this->request->getVar('name'),
       'email' => $this->request->getVar('email'),
    ];
     $userModel->update($id, $data);
    return $this->response->redirect(site url('/users-list'));
  // delete user
  public function delete($id = null){
     $userModel = new UserModel();
     $data['user'] = $userModel->where('id', $id)->delete($id);
    return $this->response->redirect(site_url('/users-list'));
Create the routes:
<?php
use CodeIgniter\Router\RouteCollection;
/**
* @var RouteCollection $routes
*/
```

```
// CRUD RESTful Routes
$routes->get('/', 'UserCrud::index');
$routes->get('users-list', 'UserCrud::index');
$routes->get('user-form', 'UserCrud::create');
$routes->post('submit-form', 'UserCrud::store');
$routes->get('edit view/(:num)', 'UserCrud::singleUser/$1');
$routes->post('update', 'UserCrud::update');
$routes->get('delete/(:num)', 'UserCrud::delete/$1');
In database.php add the database:
public array $default = [
    'DSN'
                =>",
    'hostname' => 'localhost',
    'username' => 'root',
    'password' => ",
    'database' => 'demo',
    'DBDriver' => 'MySQLi',
    'DBPrefix' => ",
    'pConnect' => false,
```

'DBDebug' => true,

'compress' => false,

'strictOn' => false,

=> 'utf8',

=>",

=> false,

=> 'utf8 general ci',

'charset'

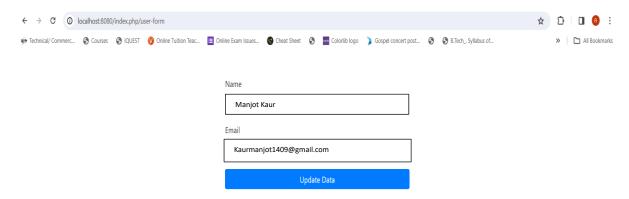
'DBCollat'

'swapPre'

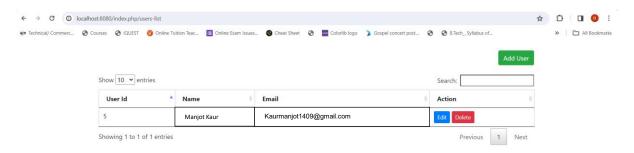
'encrypt'

```
'failover' => [],
'port' => 3306,
'numberNative' => false,
];
```

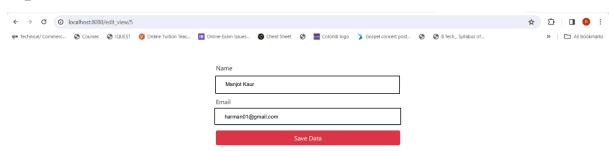
Add User:



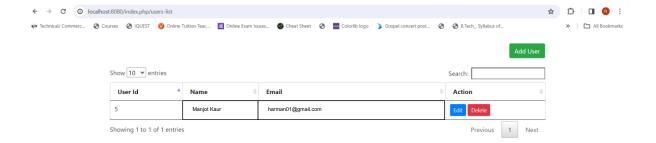
User View:



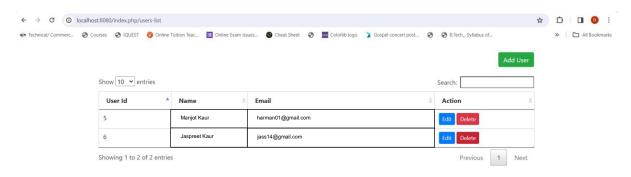
Update data:



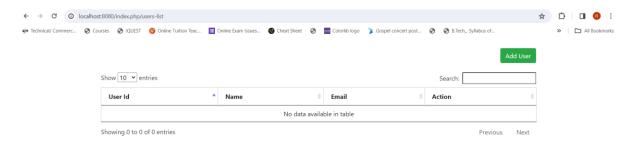
Add new user:



New user added:



Deleted the users:



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

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:

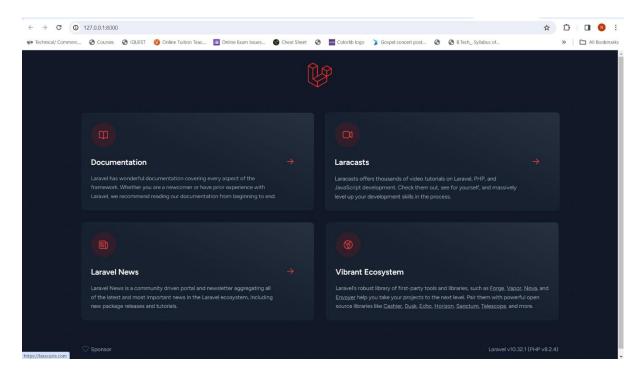
D:\Xampp\htdocs>cd laravel-7-example

Name	Date modified	Туре	Size
арр	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 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	
ditorconfig	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].
```



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.

```
First we are creating our project with these commands
composer create-project laravel/laravel first-project
cd first-project
php artisan serve
First of all we will make a migration in it
php artisan make:migration customers
After that write code in it in this way in our migration file.
public function up()
Schema::create('customers', function (Blueprint $table) {
$table->id();
$table->string('name',60);
$table->string('email',100);
$table->enum('gender',["M","F","O"]);
$table->text('address');
$table->date('dob');
$table->timestamps();
});
After that we will run our server
php artisan migrate
```

```
Migrating: 2014_10_12_100000_create_password_resets_table
Migrated: 2014_10_12_100000_create_password_resets_table (227.68ms)
Migrating: 2019_08_19_000000_create_failed_jobs_table
Migrated: 2019_08_19_000000_create_failed_jobs_table (156.69ms)
Migrating: 2019_12_14_000001_create_personal_access_tokens_table
Migrated: 2019_12_14_000001_create_personal_access_tokens_table (235.90ms)
Migrating: 2023_11_01_140513_create_customers_table
Migrated: 2023_11_01_140513_create_customers_table (25.10ms)
PS C:\Users\princ\Documents\laravel\first-project>
```

After that we will write this code in our web.php file

```
Route::get('/', function () {
      return view('welcome');
    });
Route::get('/users', [UserController::class, 'show']);
After that this will be the code that will be written in our view
<!-- resources/views/users.blade.php -->
<style>
table {
        border-collapse:
        collapse;
                     width:
        100%;
      }
      th, td {
        border: 1px solid black;
       padding: 8px;
        text-align: left;
      th {
background-color: #f2f2f2;
     tr:nth-child(even)
     background-color:
        #f9f9f9;
</style>
<h1>User List</h1>
<thead>
ID
      Name
      Email
      Gender
      Address
      <th>DOB</th>
```

Then After we have move to the





This is our Basic application in Laravel.