

# **PES Institute of Technology and Management**

**Department of Computer Science & Design**

## **Laboratory Manual**



**Semester: IV**

**Subject: Responsive Web Design with Bootstrap 5.0**

**Subject Code: BCGL456B**

**Compiled By:**

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Responsive Web design with Bootstrap 5.0		Semester	4
Course Code	BCGL456B	CIE Marks	50
Teaching Hours/Week (L: T:P: S)	0:0:2:0	SEE Marks	50
Credits	01	Exam Hours	02
Examination type (SEE)	Practical		
<b>Course objectives:</b> <ul style="list-style-type: none"><li>• To learn basic classes of CSS framework: Bootstrap 5.0</li><li>• To develop simple Webpages with Bootstrap 5.0 classes</li><li>• To make use of Bootstrap 5.0 classes for Web based User Interfaces</li></ul>			
Sl.NO	Experiments		
1	Develop a Web page(s) with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for Headings. [Refer Book: Chapter 13.1-13.5]		
2	Develop a Web page(s) with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for Text and Fonts. [Refer Book: Chapter 13.6-13.11]		
3	Develop a Web page(s) with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for Lists, Colors and Bootstrap Buttons. [Refer Book: Chapter 13.13-13.14 and 13.18-13.19]		
4	Develop a Web page(s) with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for Borders, Margins and Paddings. [Refer Book: Chapter 13.15-13.17]		
5	Develop a Web page(s) with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for Containers. [Refer Book: Chapter 14.1-14.3]		
6	Develop a Web page(s) with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for Grid System. [Refer Book: Chapter 14.4-14.7]		
7	Develop a Web page(s) with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for Images, Cards and Gutters. [Refer Book: Chapter 14.8-14.10]		
8	Develop a Web page(s) with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for Nav and Footers. [Refer Book: Chapter 14.11-14.12]		
9	Develop a Web page(s) with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for Badges, Progress bar, spinners and Pagination. [Refer Bootstrap 5 Tutorial @ <a href="http://www.w3schools.com">www.w3schools.com</a> ]		
10	Develop a Web page(s) with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for Modals, Alerts and Popover. [Refer Bootstrap 5 Tutorial @ <a href="http://www.w3schools.com">www.w3schools.com</a> ]		
11	Develop your personal online CV or a professional CV using suitable Bootstrap classes.		
12	Develop a blog post about your favourite topic or create memoirs/additional stories using suitable Bootstrap classes.		

**Course outcomes (Course Skill Set):**

At the end of the course the student will be able to:

- Apply concepts of Bootstrap framework based layout and navigation classes to develop Web Pages
- Design Web pages to organize data and present text with features using Bootstrap framework
- Develop Web User interfaces for varieties of interactions with Bootstrap framework classes
- Build Web pages involving animations, popups and accordions with Bootstrap framework classes
- Make use of Bootstrap framework image, alert and modal classes in developing Web pages

**Assessment Details (both CIE and SEE)**

The weightage of Continuous Internal Evaluation (CIE) is 50% and for Semester End Exam (SEE) is 50%. The minimum passing mark for the CIE is 40% of the maximum marks (20 marks out of 50) and for the SEE minimum passing mark is 35% of the maximum marks (18 out of 50 marks). A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each subject/course if the student secures a minimum of 40% (40 marks out of 100) in the sum total of the CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) taken together

**Continuous Internal Evaluation (CIE):**

CIE marks for the practical course are **50 Marks**.

The split-up of CIE marks for record/ journal and test are in the ratio **60:40**.

- Each experiment is to be evaluated for conduction with an observation sheet and record write-up. Rubrics for the evaluation of the journal/write-up for hardware/software experiments are designed by the faculty who is handling the laboratory session and are made known to students at the beginning of the practical session.
- Record should contain all the specified experiments in the syllabus and each experiment write-up will be evaluated for 10 marks.
- Total marks scored by the students are scaled down to **30 marks** (60% of maximum marks).
- Weightage to be given for neatness and submission of record/write-up on time.
- Department shall conduct a test of 100 marks after the completion of all the experiments listed in the syllabus.
- In a test, test write-up, conduction of experiment, acceptable result, and procedural knowledge will carry a weightage of 60% and the rest 40% for viva-voce.
- The suitable rubrics can be designed to evaluate each student's performance and learning ability.
- The marks scored shall be scaled down to **20 marks** (40% of the maximum marks).

The Sum of scaled-down marks scored in the report write-up/journal and marks of a test is the total CIE marks scored by the student.

**Semester End Evaluation (SEE):**

- SEE marks for the practical course are 50 Marks.
- SEE shall be conducted jointly by the two examiners of the same institute, examiners are appointed by the Head of the Institute.
- The examination schedule and names of examiners are informed to the university before the conduction of the examination. These practical examinations are to be conducted between the



schedule mentioned in the academic calendar of the University.

- All laboratory experiments are to be included for practical examination.
- (Rubrics) Breakup of marks and the instructions printed on the cover page of the answer script to be strictly adhered to by the examiners. **OR** based on the course requirement evaluation rubrics shall be decided jointly by examiners.
- Students can pick one question (experiment) from the questions lot prepared by the examiners jointly.
- Evaluation of test write-up/ conduction procedure and result/viva will be conducted jointly by examiners.

General rubrics suggested for SEE are mentioned here, writeup-20%, Conduction procedure and result in -60%, Viva-voce 20% of maximum marks. SEE for practical shall be evaluated for 100 marks and scored marks shall be scaled down to 50 marks (however, based on course type, rubrics shall be decided by the examiners)

Change of experiment is allowed only once and 15% of Marks allotted to the procedure part are to be made zero.

The minimum duration of SEE is 02 hours

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**Suggested Learning Resources:**

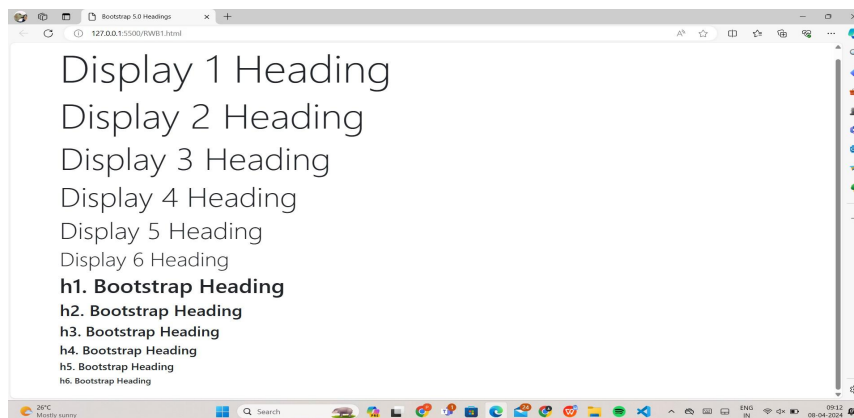
- **BOOK:** Bootstrap 5 Foundations, By Daniel Foreman, Foreman Technology LTD; 2nd edition (24 April 2021)
- Bootstrap 5 Tutorial (<https://www.w3schools.com/bootstrap5/>)
- Bootstrap 5 (<https://www.geeksforgeeks.org/bootstrap-5-introduction/>)

**1. Develop a web page with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for headings.**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Bootstrap 5.0 Headings</title>
  <!-- Bootstrap CSS -->
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-alpha1/dist/css/bootstrap.min.css" rel="stylesheet">
  <style>
    /* Optional custom styles */
    body {
      padding: 20px;
    }
  </style>
</head>
<body>
  <div class="container">
    <h1 class="display-1">Display 1 Heading</h1>
    <h1 class="display-2">Display 2 Heading</h1>
    <h1 class="display-3">Display 3 Heading</h1>
    <h1 class="display-4">Display 4 Heading</h1>
    <h1 class="display-5">Display 5 Heading</h1>
    <h1 class="display-6">Display 6 Heading</h1>

    <h2 class="h1">h1. Bootstrap Heading</h2>
    <h2 class="h2">h2. Bootstrap Heading</h2>
    <h3 class="h3">h3. Bootstrap Heading</h3>
    <h4 class="h4">h4. Bootstrap Heading</h4>
    <h5 class="h5">h5. Bootstrap Heading</h5>
    <h6 class="h6">h6. Bootstrap Heading</h6>
  </div>

  <!-- Bootstrap Bundle with Popper -->
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-alpha1/dist/js/bootstrap.bundle.min.js"></script>
</body>
</html>
```

**Sample Output:****2. Develop a Web page with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for text and fonts.**

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Bootstrap 5.0 Text and Fonts</title>
  <!-- Bootstrap CSS -->
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-alpha1/dist/css/bootstrap.min.css" rel="stylesheet">
  <style>
    /* Optional custom styles */
    body {
      padding: 20px;
    }
  </style>
</head>
<body>
  <div class="container">
    <h1>Bootstrap 5.0 Text and Fonts</h1>

```

```

    <p class="lead">This is a lead paragraph. It stands out from regular paragraphs.</p>

```

```

    <p>This is a paragraph with <mark>highlighted text</mark>.</p>

```

```

    <p>This is a paragraph with <del>deleted text</del>.</p>

```

```

    <p>This is a paragraph with <u>underlined text</u>.</p>

```

```

    <p>This is a paragraph with <strong>strong text</strong>.</p>

```

```
<p>This is a paragraph with <em>emphasized text</em>.</p>

<p>This is a paragraph with <small>smaller text</small>.</p>

<p>This is a paragraph with <abbr title="abbreviation">abbreviated
text</abbr>.</p>

<p>This is a paragraph with <cite>cited text</cite>.</p>

<p>This is a paragraph with <code>code text</code>.</p>

<p>This is a paragraph with <kbd>keyboard input</kbd>.</p>

<p>This is a paragraph with <samp>sample output</samp>.</p>

<p>This is a paragraph with <sub>subscript text</sub>.</p>

<p>This is a paragraph with <sup>superscript text</sup>.</p>

<p class="text-muted">This is a muted paragraph.</p>

<p class="text-primary">This is a primary paragraph.</p>

<p class="text-success">This is a success paragraph.</p>

<p class="text-info">This is an info paragraph.</p>

<p class="text-warning">This is a warning paragraph.</p>

<p class="text-danger">This is a danger paragraph.</p>

<p class="text-secondary">This is a secondary paragraph.</p>

<p class="text-dark">This is a dark paragraph.</p>

<p class="text-body">This is a body text paragraph.</p>

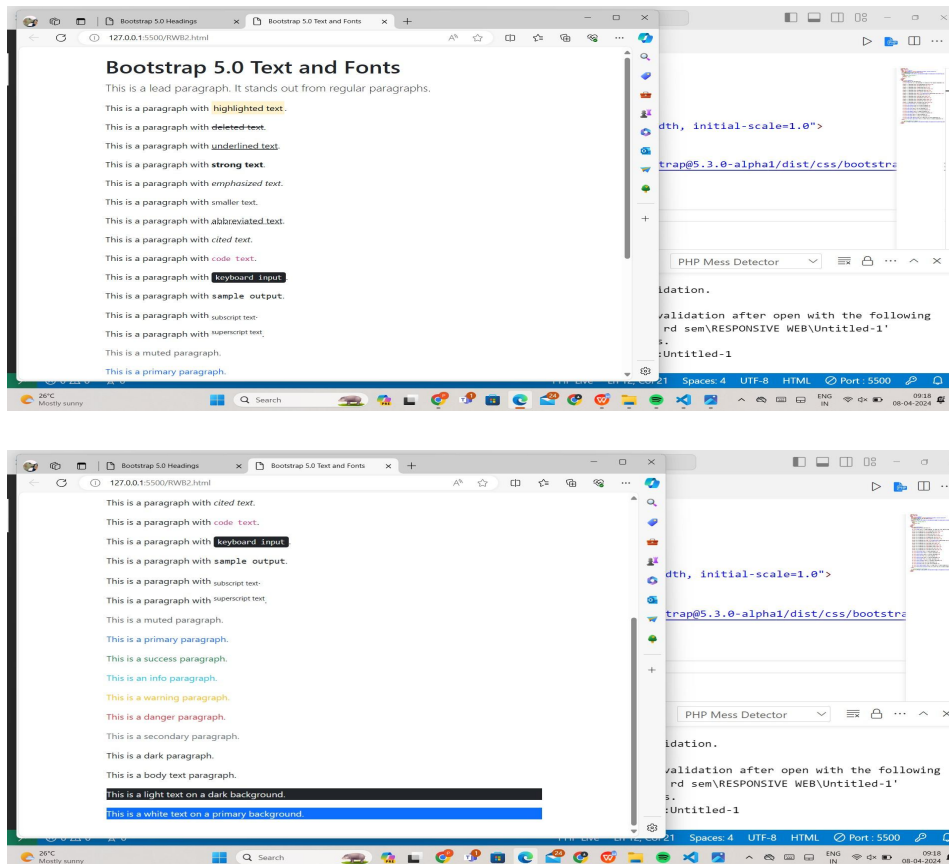
<p class="text-light bg-dark">This is a light text on a dark
background.</p>

<p class="text-white bg-primary">This is a white text on a primary
background.</p>
</div>

<!-- Bootstrap Bundle with Popper -->
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-
alpha1/dist/js/bootstrap.bundle.min.js"></script>
</body>
```

</html>

## Sample Output:



## 3. Develop web pages with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for Lists, colors and bootstrap buttons.

### 1. Lists

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Bootstrap 5.0 Lists</title>
  <!-- Bootstrap CSS -->
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-alpha1/dist/css/bootstrap.min.css" rel="stylesheet">
  <style>
    /* Optional custom styles */
    body {
      padding: 20px;
    }
  </style>
```



```

</style>
</head>
<body>
  <div class="container">
    <h1>Bootstrap 5.0 Lists</h1>

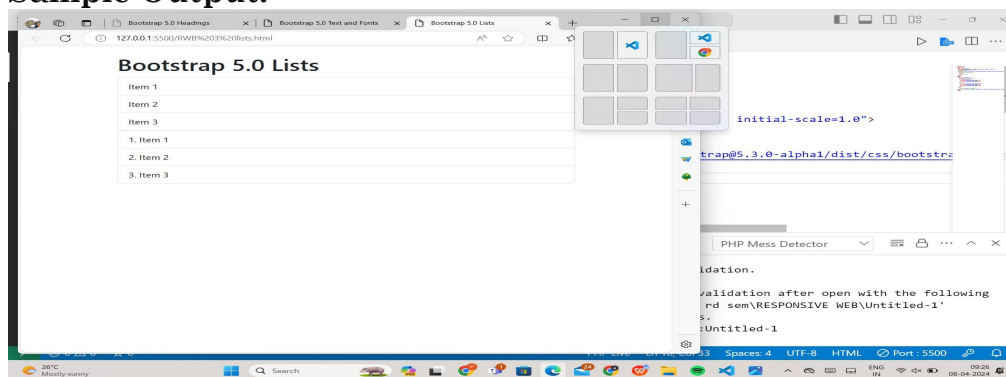
    <ul class="list-group">
      <li class="list-group-item">Item 1</li>
      <li class="list-group-item">Item 2</li>
      <li class="list-group-item">Item 3</li>
    </ul>

    <ol class="list-group list-group-numbered">
      <li class="list-group-item">Item 1</li>
      <li class="list-group-item">Item 2</li>
      <li class="list-group-item">Item 3</li>
    </ol>
  </div>

  <!-- Bootstrap Bundle with Popper -->
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-alpha1/dist/js/bootstrap.bundle.min.js"></script>
</body>
</html>

```

### Sample Output:



## 2. Colors

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Bootstrap 5.0 Colors</title>
  <!-- Bootstrap CSS -->
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-alpha1/dist/css/bootstrap.min.css" rel="stylesheet">

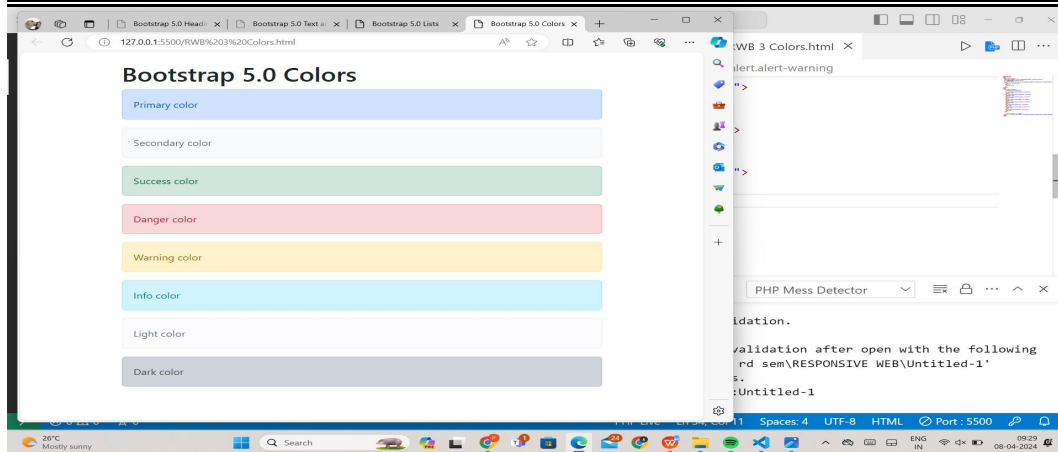
```

```
<style>
  /* Optional custom styles */
  body {
    padding: 20px;
  }
</style>
</head>
<body>
  <div class="container">
    <h1>Bootstrap 5.0 Colors</h1>

    <div class="alert alert-primary" role="alert">
      Primary color
    </div>
    <div class="alert alert-secondary" role="alert">
      Secondary color
    </div>
    <div class="alert alert-success" role="alert">
      Success color
    </div>
    <div class="alert alert-danger" role="alert">
      Danger color
    </div>
    <div class="alert alert-warning" role="alert">
      Warning color
    </div>
    <div class="alert alert-info" role="alert">
      Info color
    </div>
    <div class="alert alert-light" role="alert">
      Light color
    </div>
    <div class="alert alert-dark" role="alert">
      Dark color
    </div>
  </div>

  <!-- Bootstrap Bundle with Popper -->
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-alpha.1/dist/js/bootstrap.bundle.min.js"></script>
</body>
</html>
```

### Sample Output:



### 3. Buttons

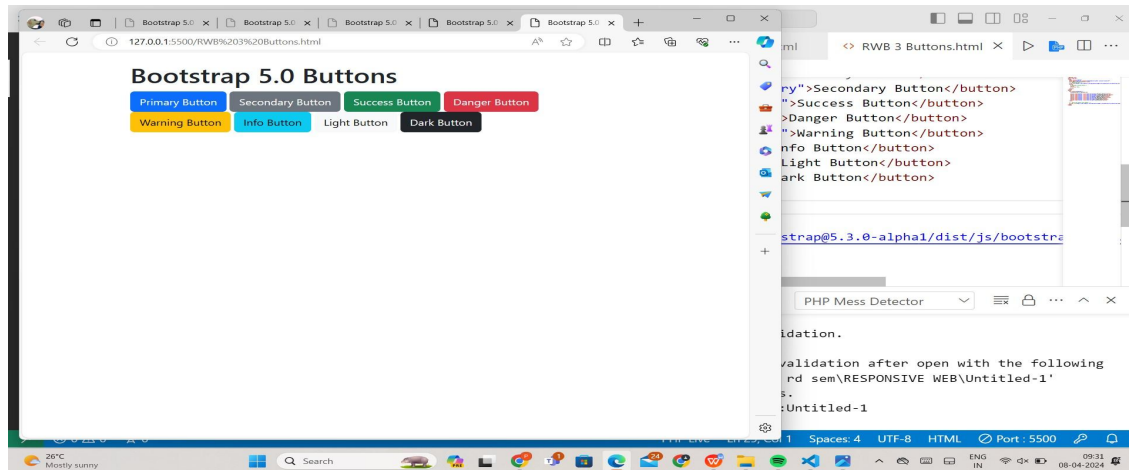
```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Bootstrap 5.0 Buttons</title>
  <!-- Bootstrap CSS -->
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-alpha1/dist/css/bootstrap.min.css" rel="stylesheet">
  <style>
    /* Optional custom styles */
    body {
      padding: 20px;
    }
  </style>
</head>
<body>
  <div class="container">
    <h1>Bootstrap 5.0 Buttons</h1>

    <button type="button" class="btn btn-primary">Primary Button</button>
    <button type="button" class="btn btn-secondary">Secondary
    Button</button>
    <button type="button" class="btn btn-success">Success Button</button>
    <button type="button" class="btn btn-danger">Danger Button</button>
    <button type="button" class="btn btn-warning">Warning
    Button</button>
    <button type="button" class="btn btn-info">Info Button</button>
    <button type="button" class="btn btn-light">Light Button</button>
    <button type="button" class="btn btn-dark">Dark Button</button>
  </div>

  <!-- Bootstrap Bundle with Popper -->
```

```
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-alpha1/dist/js/bootstrap.bundle.min.js"></script>
</body>
</html>
```

### Sample Output:



### 4. Develop a Web page with suitable HTML elements to demonstrate Bootstrap 5.0 Framework classes for Borders, Margins and Paddings.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Bootstrap 5.0 Borders, Margins, and Paddings</title>
  <!-- Bootstrap CSS -->
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-alpha1/dist/css/bootstrap.min.css" rel="stylesheet">
  <style>
    /* Optional custom styles */
    body {
      padding: 20px;
    }
    .border-example {
      background-color: #f0f0f0;
      margin-bottom: 20px;
    }
  </style>
</head>
<body>
  <div class="container">
    <h1>Bootstrap 5.0 Borders, Margins, and Paddings</h1>
```

```

<h2>Borders</h2>
<div class="border border-primary border-5 border-top">Border Top</div>
<div class="border border-secondary border-4 border-end">Border
End</div>
<div class="border border-success border-3 border-bottom">Border
Bottom</div>
<div class="border border-danger border-2 border-start">Border
Start</div>
<div class="border border-warning border-1">Border</div>

```

```

<h2>Margins</h2>
<div class="border-example m-1">Margin 1</div>
<div class="border-example m-2">Margin 2</div>
<div class="border-example m-3">Margin 3</div>
<div class="border-example m-4">Margin 4</div>
<div class="border-example m-5">Margin 5</div>

```

```

<h2>Paddings</h2>
<div class="border-example p-1">Padding 1</div>
<div class="border-example p-2">Padding 2</div>
<div class="border-example p-3">Padding 3</div>
<div class="border-example p-4">Padding 4</div>
<div class="border-example p-5">Padding 5</div>
</div>

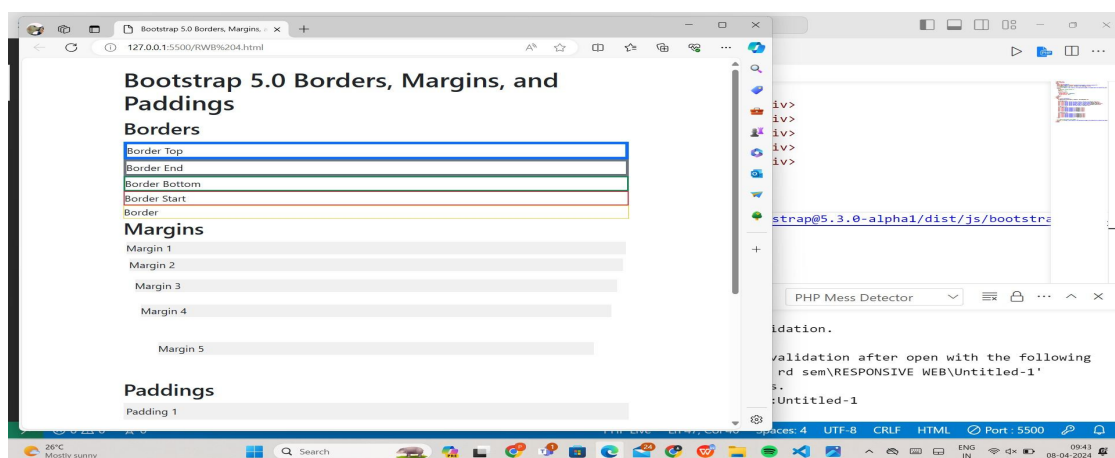
```

```

<!-- Bootstrap Bundle with Popper -->
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-
alpha1/dist/js/bootstrap.bundle.min.js"></script>
</body>
</html>

```

### Sample Output:



**5. Develop a web pages with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for Containers.**



```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Bootstrap 5.0 Containers</title>
  <!-- Bootstrap CSS -->
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-alpha1/dist/css/bootstrap.min.css" rel="stylesheet">
  <style>
    /* Optional custom styles */
    body {
      padding: 20px;
    }
    .container-example {
      padding: 20px;
      margin-bottom: 20px;
      border-radius: 10px;
    }
    .standard-container {
      background-color: #f0f0f0;
    }
    .fluid-container {
      background-color: #cce5ff;
    }
    .small-container {
      background-color: #d4edda;
    }
    .medium-container {
      background-color: #fff3cd;
    }
    .large-container {
      background-color: #f8d7da;
    }
    .extra-large-container {
      background-color: #d6d8d9;
    }
  </style>
</head>
<body>
  <div class="container">
    <h1>Bootstrap 5.0 Containers</h1>

    <h2>Standard Container</h2>
    <!-- Standard Container -->
    <div class="container-example standard-container">
```

This is a standard container. It has a fixed width and is centered horizontally.

```
</div>
```

```
<h2>Fluid Container</h2>
```

```
<!-- Fluid Container -->
```

```
<div class="container-fluid container-example fluid-container">
```

This is a fluid container. It stretches to the edges of the viewport.

```
</div>
```

```
<h2>Responsive Breakpoint Containers</h2>
```

```
<!-- Small Container -->
```

```
<h3>Small Container</h3>
```

```
<div class="container-sm container-example small-container">
```

This is a small container. It is ideal for mobile screens.

```
</div>
```

```
<!-- Medium Container -->
```

```
<h3>Medium Container</h3>
```

```
<div class="container-md container-example medium-container">
```

This is a medium container. It provides a balance between content space and screen size.

```
</div>
```

```
<!-- Large Container -->
```

```
<h3>Large Container</h3>
```

```
<div class="container-lg container-example large-container">
```

This is a large container. It is suitable for desktop screens.

```
</div>
```

```
<!-- Extra Large Container -->
```

```
<h3>Extra Large Container</h3>
```

```
<div class="container-xl container-example extra-large-container">
```

This is an extra large container. It is ideal for widescreen displays or large desktop screens.

```
</div>
```

```
</div>
```

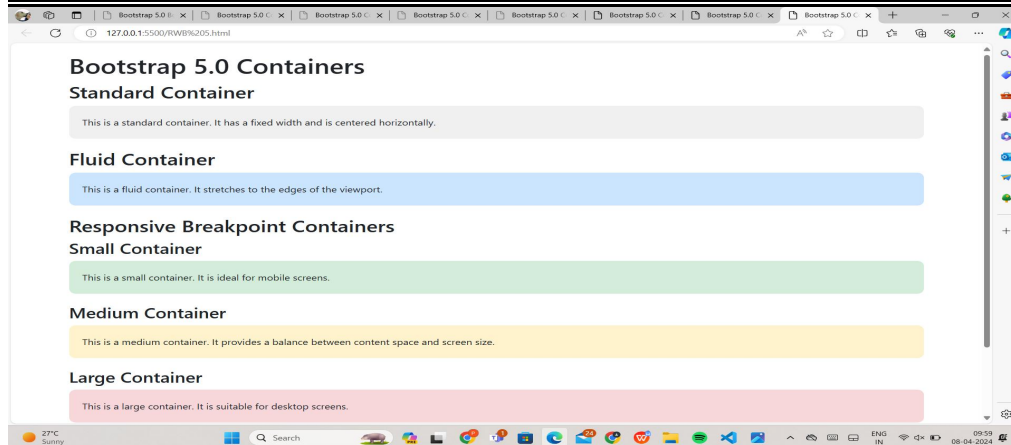
```
<!-- Bootstrap Bundle with Popper -->
```

```
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-alpha1/dist/js/bootstrap.bundle.min.js"></script>
```

```
</body>
```

```
</html>
```

### Sample Output:



## 6. Develop web pages with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for Grid System.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Bootstrap 5 Demo: Grid System</title>
  <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css"
" rel="stylesheet">
</head>
<body>

<div class="container">
  <h2>Grid System Example</h2>
  <div class="row">
    <div class="col-md-4">
      <div class="p-3 mb-2 bg-primary text-white">Column 1</div>
    </div>
    <div class="col-md-4">
      <div class="p-3 mb-2 bg-secondary text-white">Column 2</div>
    </div>
    <div class="col-md-4">
      <div class="p-3 mb-2 bg-success text-white">Column 3</div>
    </div>
  </div>

  <h3 class="mt-5">Responsive Layouts</h3>
  <div class="row">
    <div class="col-sm-6 col-md-4">
      <div class="p-3 mb-2 bg-info text-white">Column 1</div>
    </div>
    <div class="col-sm-6 col-md-4">
```

```

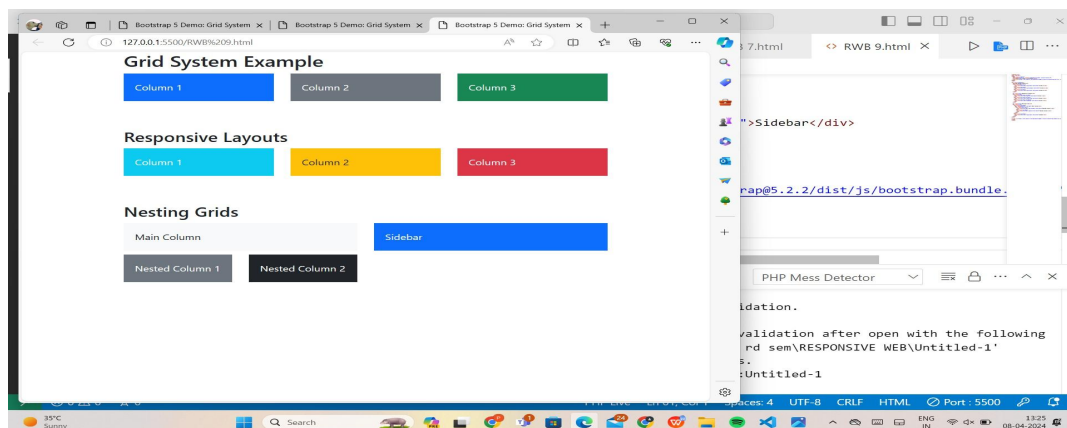
    <div class="p-3 mb-2 bg-warning text-dark">Column 2</div>
  </div>
  <div class="col-sm-12 col-md-4">
    <div class="p-3 mb-2 bg-danger text-white">Column 3</div>
  </div>
</div>

<h3 class="mt-5">Nesting Grids</h3>
<div class="row">
  <div class="col-md-6">
    <div class="p-3 mb-2 bg-light">Main Column</div>
    <div class="row">
      <div class="col-md-6">
        <div class="p-3 mb-2 bg-secondary text-white">Nested Column
1</div>
      </div>
      <div class="col-md-6">
        <div class="p-3 mb-2 bg-dark text-white">Nested Column 2</div>
      </div>
    </div>
  </div>
  <div class="col-md-6">
    <div class="p-3 mb-2 bg-primary text-white">Sidebar</div>
  </div>
</div>
</div>

<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.bundle.mi
n.js"></script>
</body>
</html>

```

### Sample Output:



## 7. Develop a Web pages with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for Images, Cards and Gutters.

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Bootstrap 5 Demo: Images, Cards, and Gutters</title>
  <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css
" rel="stylesheet">
</head>
<body>

<div class="container mt-5">
  <h2>Images</h2>
  <div class="row">
    <div class="col-md-6">
      
    </div>
    <div class="col-md-6">
      
    </div>
  </div>

  <h2 class="mt-5">Cards</h2>
  <div class="row row-cols-1 row-cols-md-3 g-4">
    <div class="col">
      <div class="card h-100">
        
        <div class="card-body">
          <h5 class="card-title">Card Title 1</h5>
          <p class="card-text">This is a sample card with some text content. It
could contain additional information about the product or service being
showcased.</p>
          <a href="#" class="btn btn-primary">Learn More</a>
        </div>
      </div>
    </div>
    <div class="col">
      <div class="card h-100">
        

```



```

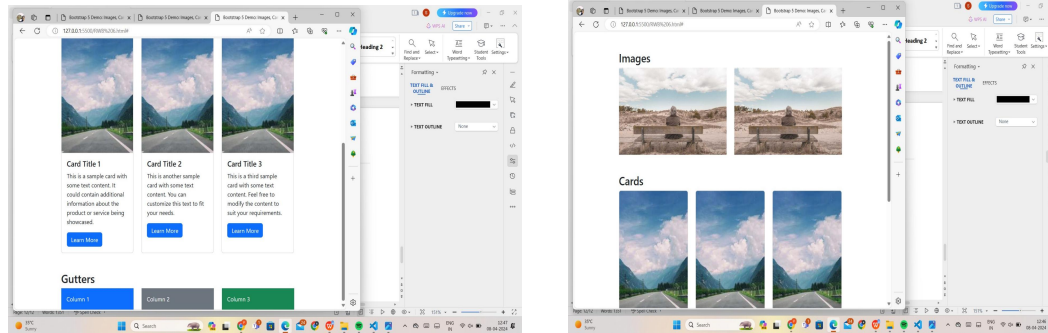
    <div class="card-body">
      <h5 class="card-title">Card Title 2</h5>
      <p class="card-text">This is another sample card with some text
content. You can customize this text to fit your needs.</p>
      <a href="#" class="btn btn-primary">Learn More</a>
    </div>
  </div>
</div>
<div class="col">
  <div class="card h-100">
    
    <div class="card-body">
      <h5 class="card-title">Card Title 3</h5>
      <p class="card-text">This is a third sample card with some text
content. Feel free to modify the content to suit your requirements.</p>
      <a href="#" class="btn btn-primary">Learn More</a>
    </div>
  </div>
</div>
</div>

<h2 class="mt-5">Gutters</h2>
<div class="row g-4">
  <div class="col-md">
    <div class="p-3 bg-primary text-white">Column 1</div>
  </div>
  <div class="col-md">
    <div class="p-3 bg-secondary text-white">Column 2</div>
  </div>
  <div class="col-md">
    <div class="p-3 bg-success text-white">Column 3</div>
  </div>
</div>
</div>

<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.bundle.mi
n.js"></script>
</body>
</html>

```

### Sample Output:



## 8. Develop a Web Page with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for Nav and Footers.

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Bootstrap 5 Demo: Nav and Footer</title>
  <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css
" rel="stylesheet">
</head>
<body>

<nav class="navbar navbar-expand-lg navbar-light bg-light">
  <div class="container">
    <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">
          <a class="nav-link" href="#">Disabled</a>
        </li>
      </ul>
      <form class="d-flex">

```

```

        <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>

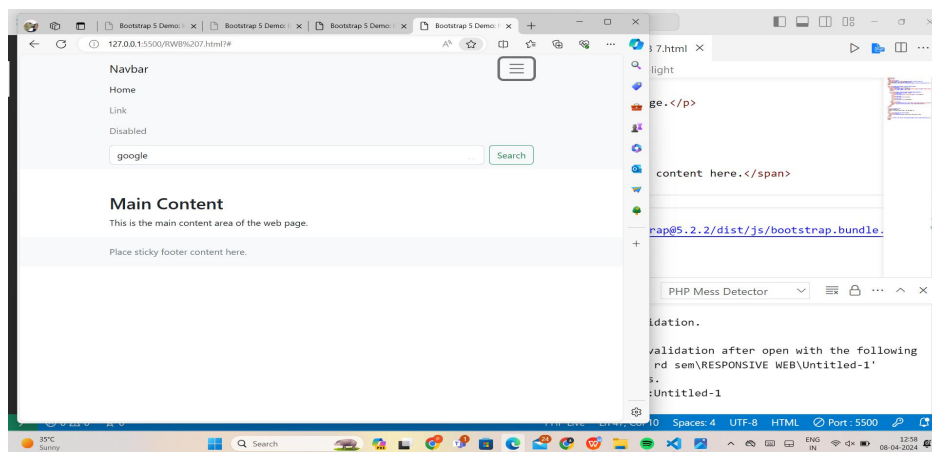
<div class="container mt-5">
    <h2>Main Content</h2>
    <p>This is the main content area of the web page.</p>
</div>

<footer class="footer mt-auto py-3 bg-light">
    <div class="container">
        <span class="text-muted">Place sticky footer content here.</span>
    </div>
</footer>

<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.bundle.mi
n.js"></script>
</body>
</html>

```

### Sample Output:



## 9. Develop a Web Pages with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for Badges, Progress Bar, spinners and Pagination.

```

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

```

```

<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Bootstrap 5 Demo: Badges, Progress Bar, Spinners, and
Pagination</title>
<link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css
" rel="stylesheet">
</head>
<body>

<div class="container mt-5">
  <h2>Badges</h2>
  <span class="badge bg-primary">Primary</span>
  <span class="badge bg-secondary">Secondary</span>
  <span class="badge bg-success">Success</span>
  <span class="badge bg-danger">Danger</span>
  <span class="badge bg-warning text-dark">Warning</span>
  <span class="badge bg-info text-dark">Info</span>
  <span class="badge bg-light text-dark">Light</span>
  <span class="badge bg-dark">Dark</span>

  <h2 class="mt-5">Progress Bar</h2>
  <div class="progress">
    <div class="progress-bar" role="progressbar" style="width: 25%;" aria-
valuenow="25" aria-valuemin="0" aria-valuemax="100">25%</div>
  </div>

  <h2 class="mt-5">Spinners</h2>
  <div class="spinner-border text-primary" role="status">
    <span class="visually-hidden">Loading...</span>
  </div>
  <div class="spinner-border text-secondary" role="status">
    <span class="visually-hidden">Loading...</span>
  </div>
  <div class="spinner-border text-success" role="status">
    <span class="visually-hidden">Loading...</span>
  </div>
  <div class="spinner-border text-danger" role="status">
    <span class="visually-hidden">Loading...</span>
  </div>
  <div class="spinner-border text-warning" role="status">
    <span class="visually-hidden">Loading...</span>
  </div>

  <h2 class="mt-5">Pagination</h2>
  <nav aria-label="Page navigation example">
    <ul class="pagination">
      <li class="page-item"><a class="page-link" href="#">Previous</a></li>
      <li class="page-item"><a class="page-link" href="#">1</a></li>

```

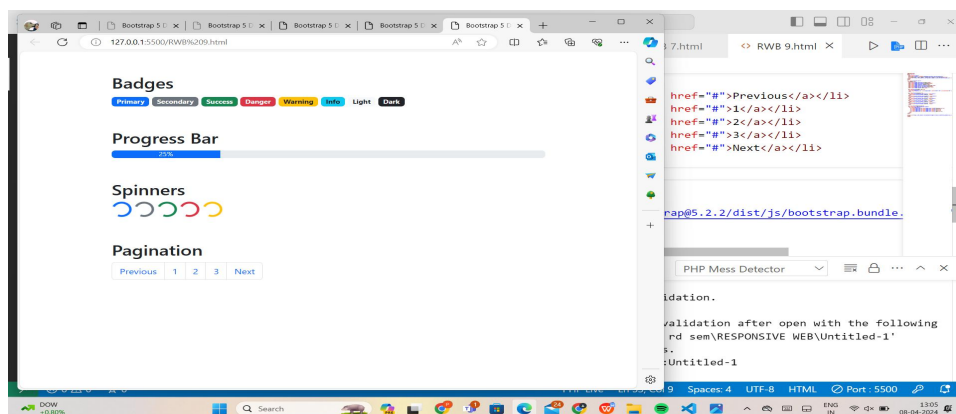
```

<li class="page-item"><a class="page-link" href="#">2</a></li>
<li class="page-item"><a class="page-link" href="#">3</a></li>
<li class="page-item"><a class="page-link" href="#">Next</a></li>
</ul>
</nav>
</div>

<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.bundle.mi
n.js"></script>
</body>
</html>

```

### Sample Output:



### 10. Develop a Web pages with suitable HTML elements to demonstrate Bootstrap 5.0 framework classes for Modals, Alerts and Popover.

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Bootstrap 5 Demo: Modals, Alerts, and Popovers</title>
  <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css
" rel="stylesheet">
</head>
<body>

<div class="container mt-5">
  <h2>Modals</h2>
  <!-- Button trigger modal -->
  <button type="button" class="btn btn-primary" data-bs-toggle="modal"
data-bs-target="#exampleModal">

```



```

Launch Modal
</button>

<!-- Modal -->
<div class="modal fade" id="exampleModal" tabindex="-1" aria-
labelledby="exampleModalLabel" aria-hidden="true">
  <div class="modal-dialog">
    <div class="modal-content">
      <div class="modal-header">
        <h5 class="modal-title" id="exampleModalLabel">Modal title</h5>
        <button type="button" class="btn-close" data-bs-dismiss="modal" aria-
label="Close"></button>
      </div>
      <div class="modal-body">
        This is a Bootstrap modal. Click the button below to close.
      </div>
      <div class="modal-footer">
        <button type="button" class="btn btn-secondary" data-bs-
dismiss="modal">Close</button>
      </div>
    </div>
  </div>
</div>

<h2 class="mt-5">Alerts</h2>
<div class="alert alert-primary" role="alert">
  This is a primary alert—check it out!
</div>
<div class="alert alert-secondary" role="alert">
  This is a secondary alert—check it out!
</div>
<div class="alert alert-success" role="alert">
  This is a success alert—check it out!
</div>
<div class="alert alert-danger" role="alert">
  This is a danger alert—check it out!
</div>

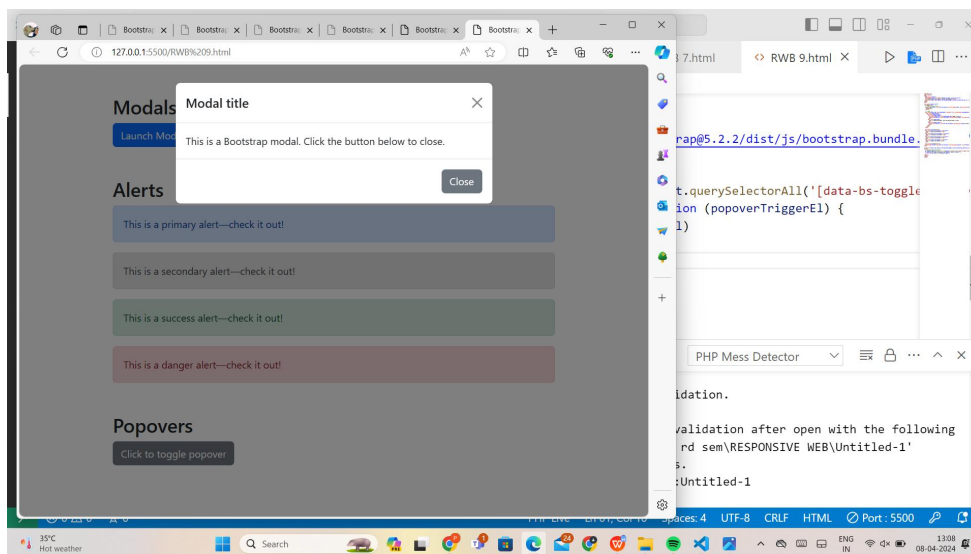
<h2 class="mt-5">Popovers</h2>
<button type="button" class="btn btn-secondary" data-bs-toggle="popover"
title="Popover title" data-bs-content="And here's some amazing content. It's
very engaging. Right?">Click to toggle popover</button>
</div>

<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.bundle.mi
n.js"></script>
</script>

```

```
// Initialize Bootstrap popover
var popoverTriggerList = [].slice.call(document.querySelectorAll('[data-bs-
toggle="popover"]'));
var popoverList = popoverTriggerList.map(function (popoverTriggerEl) {
  return new bootstrap.Popover(popoverTriggerEl)
});
</script>
</body>
</html>
```

### Sample Output:



## 11. Develop your personal online CV or Professional CV using suitable Bootstrap classes.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>My CV</title>
  <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css"
" rel="stylesheet">
  <style>
    body {
      font-family: Arial, sans-serif;
    }
    .header {
      background-color: #007bff;
      color: #fff;
      padding: 40px;
```

```
        text-align: center;
    }
    .section {
        padding: 30px 0;
    }
    .section-heading {
        font-size: 24px;
        margin-bottom: 20px;
    }
    .experience-item {
        margin-bottom: 20px;
    }
    .experience-item h3 {
        margin-bottom: 10px;
    }
    .education-item {
        margin-bottom: 20px;
    }
    .education-item h3 {
        margin-bottom: 10px;
    }
</style>
</head>
<body>

<div class="header">
    <h1>John Doe</h1>
    <p>Web Developer</p>
</div>

<div class="container">
    <div class="section">
        <h2 class="section-heading">About Me</h2>
        <p>I am a passionate web developer with experience in building
responsive and user-friendly websites using HTML, CSS, and JavaScript. I
have a keen eye for design and enjoy solving complex problems to deliver
innovative solutions.</p>
    </div>

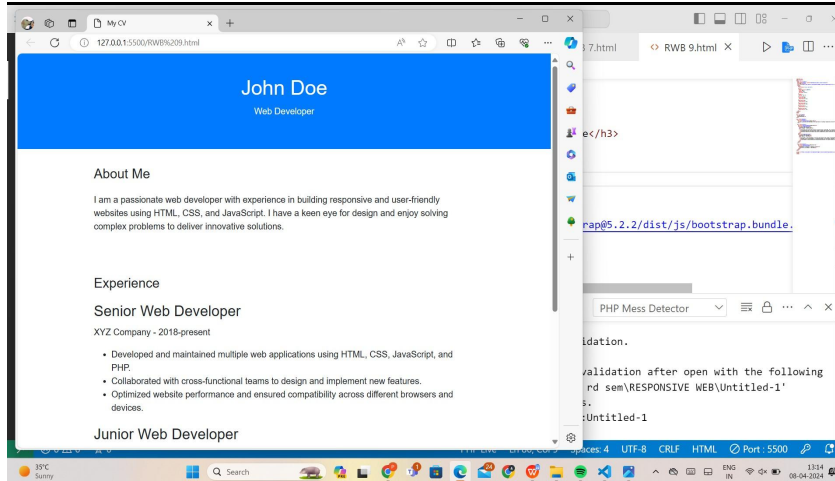
    <div class="section">
        <h2 class="section-heading">Experience</h2>
        <div class="experience-item">
            <h3>Senior Web Developer</h3>
            <p>XYZ Company - 2018-present</p>
            <ul>
                <li>Developed and maintained multiple web applications using HTML,
CSS, JavaScript, and PHP.</li>
```

```
<li>Collaborated with cross-functional teams to design and implement
new features.</li>
<li>Optimized website performance and ensured compatibility across
different browsers and devices.</li>
</ul>
</div>
<div class="experience-item">
  <h3>Junior Web Developer</h3>
  <p>ABC Agency - 2016-2018</p>
  <ul>
    <li>Assisted in the development of various web projects from concept to
deployment.</li>
    <li>Worked closely with designers to translate mockups into functional
websites.</li>
    <li>Contributed to team meetings and brainstorming sessions to
improve project outcomes.</li>
  </ul>
</div>
</div>

<div class="section">
  <h2 class="section-heading">Education</h2>
  <div class="education-item">
    <h3>Bachelor of Science in Computer Science</h3>
    <p>University of Example - 2012-2016</p>
  </div>
</div>
</div>

<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.bundle.mi
n.js"></script>
</body>
</html>
```

### Sample Output:



## 12. Develop a blog post your favourite topic or create memoirs/additional stories using suitable Bootstrap classes.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>My Travel Adventures</title>
  <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css
" rel="stylesheet">
  <style>
    body {
      font-family: Arial, sans-serif;
    }
    .header {
      background-color: #007bff;
      color: #fff;
      padding: 40px;
      text-align: center;
    }
    .blog-post {
      margin-bottom: 40px;
    }
    .blog-post .title {
      font-size: 24px;
      font-weight: bold;
      margin-bottom: 10px;
    }
    .blog-post .meta {
      color: #6c757d;
      margin-bottom: 20px;
    }
  </style>
</head>
<body>
  <div class="header">
    <h1>My Travel Adventures</h1>
  </div>
  <div class="blog-post">
    <h2>My First Travel Adventure</h2>
    <p>I went to the mountains for a week and it was amazing. The views were
    </p>
  </div>
</body>
</html>
```



```
.blog-post .content {  
  line-height: 1.6;  
}  
</style>  
</head>  
<body>  
  
<div class="header">  
  <h1>My Travel Adventures</h1>  
</div>  
  
<div class="container">  
  <div class="blog-post">  
    <h2 class="title">Exploring the Streets of Paris</h2>  
    <div class="meta">Posted on January 15, 2023</div>  
    <div class="content">  
      <p>Paris, the city of love and lights, is one of my favorite destinations in the world. Walking along the cobblestone streets, admiring the majestic architecture, and indulging in delicious pastries are just a few of the highlights of my visit.</p>  
      <p>One of the most memorable experiences was visiting the iconic Eiffel Tower. Standing beneath this towering structure, I was in awe of its beauty and grandeur. Climbing to the top provided breathtaking views of the cityscape below.</p>  
      <p>Exploring the charming neighborhoods of Montmartre and Le Marais was another highlight of my trip. From quaint cafes to bustling markets, each street corner revealed a new treasure waiting to be discovered.</p>  
      <p>No trip to Paris would be complete without sampling the local cuisine. From croissants and macarons to escargot and coq au vin, I savored every bite of French delicacies.</p>  
      <p>As I bid adieu to this enchanting city, I knew that I would carry memories of my Parisian adventure with me forever.</p>  
    </div>  
  </div>  
  
  <div class="blog-post">  
    <h2 class="title">Sunset Serenity in Santorini</h2>  
    <div class="meta">Posted on March 22, 2023</div>  
    <div class="content">  
      <p>Santorini, with its stunning sunsets and picturesque landscapes, is a dream destination for travelers seeking tranquility and beauty. My visit to this Greek island was nothing short of magical.</p>  
      <p>Watching the sun dip below the horizon from the cliffside village of Oia was a surreal experience. The sky painted in hues of pink and orange created a mesmerizing backdrop for photographs.</p>  
      <p>During the day, I explored the narrow streets of Fira and Kamari, marveling at the whitewashed buildings and blue-domed churches. I also
```

took a boat tour to the volcanic island of Nea Kameni, where I hiked to the crater for panoramic views of the Aegean Sea.</p>

<p>The local cuisine, with its emphasis on fresh seafood and Mediterranean flavors, was a delight to my taste buds. Dining al fresco overlooking the caldera added to the overall ambiance.</p>

<p>As I watched the stars twinkle in the night sky, I felt a sense of peace and contentment wash over me. Santorini had captured my heart, and I knew that I would return someday to experience its beauty once again.</p>

</div>

</div>

</div>

<script

src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.bundle.min.js"></script>

</body>

</html>

## Sample Output:

