Module 13-Responsive layout using Bootstrap

Most Important topic: Floating label, form validation, model, off canvas, flex box, justify content, align item, display, responsive, responsive-breakpoint, responsive-container, Grid, responsive-grid, navber.

এই মডিউল থেকে কি কি শিখতে পারবে?

১. modal জিনিসটা কি। এইটা কি কাজে লাগে। বুটস্ট্রাপ দিয়ে form, flexbox কিভাবে ইউজ করতে হয়

২. বুটস্ট্রাপ এর ইমাজিনারি ১২ কলাম আর css ক্লাস দিয়ে কিভাবে রেস্পন্সিভ করতে হয়।

৩. ১০-১২ জন খেলোয়াড় থাকলে তাদের ছবিগুলাকে কিভাবে রেস্পন্সিভ করবে

৪. রেস্পন্সিভ গ্রিড এর মধ্যে কার্ড কিভাবে ইউজ করবে

13-1 Module Introduction and Recap

What is the goal of responsive design?

The Goal of responsive web design to create websites that adapts automatically to appear beautiful on all platforms, from little phones to giant computers.

13-2 Create Form with Floating label and form validation

Form:

```html
<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>
```

Floating labels:

```
<div class="form-floating mb-3">
  <input type="email" class="form-control" id="floatingInput" placeholder="name@example.com">
  <label for="floatingInput">Email address</label>
</div>
<div class="form-floating">
  <input type="password" class="form-control" id="floatingPassword" placeholder="Password">
  <label for="floatingPassword">Password</label>
</div>
```

Validation:

```
<form class="row g-3 needs-validation" novalidate>
  <div class="col-md-4">
    <label for="validationCustom01" class="form-label">First name</label>
    <input type="text" class="form-control" id="validationCustom01" value="Mark" required>
    <div class="valid-feedback">
      Looks good!
    </div>
  </div>
  <div class="col-md-4">
    <label for="validationCustom02" class="form-label">Last name</label>
    <input type="text" class="form-control" id="validationCustom02" value="Otto" required>
    <div class="valid-feedback">
      Looks good!
    </div>
  </div>
  <div class="col-md-4">
    <label for="validationCustomUsername" class="form-label">Username</label>
    <div class="input-group has-validation">
      <span class="input-group-text" id="inputGroupPrepend">@</span>
      <input type="text" class="form-control" id="validationCustomUsername" aria-describedby="inputGroupPrepend" required>
      <div class="invalid-feedback">
        Please choose a username.
      </div>
    </div>
  </div>
  <div class="col-md-6">
    <label for="validationCustom03" class="form-label">City</label>
    <input type="text" class="form-control" id="validationCustom03" required>
    <div class="invalid-feedback">
      Please provide a valid city.
    </div>
  </div>
  <div class="col-md-3">
    <label for="validationCustom04" class="form-label">State</label>
    <select class="form-select" id="validationCustom04" required>
      <option selected disabled value="">Choose...</option>
      <option>...</option>
```

```
    </select>
    <div class="invalid-feedback">
      Please select a valid state.
    </div>
  </div>
  <div class="col-md-3">
    <label for="validationCustom05" class="form-label">Zip</label>
    <input type="text" class="form-control" id="validationCustom05" required>
    <div class="invalid-feedback">
      Please provide a valid zip.
    </div>
  </div>
  <div class="col-12">
    <div class="form-check">
      <input class="form-check-input" type="checkbox" value="" id="invalidCheck" required>
      <label class="form-check-label" for="invalidCheck">
        Agree to terms and conditions
      </label>
      <div class="invalid-feedback">
        You must agree before submitting.
      </div>
    </div>
  </div>
  <div class="col-12">
    <button class="btn btn-primary" type="submit">Submit form</button>
  </div>
</form>
```

13-3 Try Modal, dialog, handle multiple modal, Offcanvas

CDN: Content Delivery Network

Form:

```
<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>
```

Floating labels:

```
<div class="form-floating mb-3">
  <input type="email" class="form-control" id="floatingInput" placeholder="name@example.com">
  <label for="floatingInput">Email address</label>
</div>
<div class="form-floating">
  <input type="password" class="form-control" id="floatingPassword" placeholder="Password">
  <label for="floatingPassword">Password</label>
</div>
```

Validation:

```
<form class="row g-3 needs-validation" novalidate>
  <div class="col-md-4">
    <label for="validationCustom01" class="form-label">First name</label>
    <input type="text" class="form-control" id="validationCustom01" value="Mark" required>
    <div class="valid-feedback">
      Looks good!
    </div>
  </div>
  <div class="col-md-4">
    <label for="validationCustom02" class="form-label">Last name</label>
    <input type="text" class="form-control" id="validationCustom02" value="Otto" required>
    <div class="valid-feedback">
      Looks good!
    </div>
  </div>
  <div class="col-md-4">
    <label for="validationCustomUsername" class="form-label">Username</label>
    <div class="input-group has-validation">
      <span class="input-group-text" id="inputGroupPrepend">@</span>
      <input type="text" class="form-control" id="validationCustomUsername" aria-describedby="inputGroupPrepend" required>
      <div class="invalid-feedback">
        Please choose a username.
      </div>
    </div>
  </div>
  <div class="col-md-6">
    <label for="validationCustom03" class="form-label">City</label>
    <input type="text" class="form-control" id="validationCustom03" required>
    <div class="invalid-feedback">
      Please provide a valid city.
    </div>
  </div>
  <div class="col-md-3">
    <label for="validationCustom04" class="form-label">State</label>
    <select class="form-select" id="validationCustom04" required>
      <option selected disabled value="">Choose...</option>
      <option>...</option>
    </select>
    <div class="invalid-feedback">
```

```html
      Please select a valid state.
    </div>
  </div>
  <div class="col-md-3">
    <label for="validationCustom05" class="form-label">Zip</label>
    <input type="text" class="form-control" id="validationCustom05" required>
    <div class="invalid-feedback">
      Please provide a valid zip.
    </div>
  </div>
  <div class="col-12">
    <div class="form-check">
      <input class="form-check-input" type="checkbox" value="" id="invalidCheck" required>
      <label class="form-check-label" for="invalidCheck">
        Agree to terms and conditions
      </label>
      <div class="invalid-feedback">
        You must agree before submitting.
      </div>
    </div>
  </div>
  <div class="col-12">
    <button class="btn btn-primary" type="submit">Submit form</button>
  </div>
</form>
```

13-4 Flex layout, justify content, align items, horizontal center

```html
<div class="d-flex justify-content-center">
  <div class="w-50 border border-primary border-3 m-3">
    <img class="img-fluid" src="./Image/img.jpg" alt="" />
    <h2>Camera</h2>
  </div>
  <div class="w-50 border border-primary border-3 m-3">
    <img class="img-fluid" src="./Image/img.jpg" alt="" />
    <h2>Camera</h2>
  </div>
  <div class="w-50 border border-primary border-3 m-3">
    <img class="img-fluid" src="./Image/img.jpg" alt="" />
    <h2>Camera</h2>
  </div>
  <!-- <div class="w-50 border border-primary border-3 m-3">
    <img class="img-fluid" src="./Image/img.jpg" alt="" />
    <h2>Camera</h2>
  </div> -->
</div>
```

Image fluid:

In Bootstrap 4 you would use the **. img-fluid class** on all images you would like to be responsive. This class tells the browser not to expand the image larger than its original size using a max-width. And it also tells it to scale down the image if the browser window gets narrower than the image pixel width.

Flex:

Enable flex behaviors:

Responsive variations also exist for .d-flex and .d-inline-flex:

- .d-flex
- .d-inline-flex
- .d-sm-flex
- .d-sm-inline-flex
- .d-md-flex
- .d-md-inline-flex
- .d-lg-flex
- .d-lg-inline-flex
- .d-xl-flex
- .d-xl-inline-flex
- .d-xxl-flex
- .d-xxl-inline-flex

```
<div class="d-flex p-2 bd-highlight">I'm a flexbox container!</div>
<div class="d-inline-flex p-2 bd-highlight">I'm an inline flexbox container!</div>
```

Direction:

```
<div class="d-flex flex-row bd-highlight mb-3">
  <div class="p-2 bd-highlight">Flex item 1</div>
  <div class="p-2 bd-highlight">Flex item 2</div>
  <div class="p-2 bd-highlight">Flex item 3</div>
</div>
<div class="d-flex flex-row-reverse bd-highlight">
  <div class="p-2 bd-highlight">Flex item 1</div>
  <div class="p-2 bd-highlight">Flex item 2</div>
  <div class="p-2 bd-highlight">Flex item 3</div>
</div>
```

Responsive variations also exist for flex-direction.:

- .flex-row
- .flex-row-reverse
- .flex-column
- .flex-column-reverse
- .flex-sm-row
- .flex-sm-row-reverse

- .flex-sm-column
- .flex-sm-column-reverse
- .flex-md-row
- .flex-md-row-reverse
- .flex-md-column
- .flex-md-column-reverse
- .flex-lg-row
- .flex-lg-row-reverse
- .flex-lg-column
- .flex-lg-column-reverse
- .flex-xl-row
- .flex-xl-row-reverse
- .flex-xl-column
- .flex-xl-column-reverse
- .flex-xxl-row
- .flex-xxl-row-reverse
- .flex-xxl-column
- .flex-xxl-column-reverse

Justify content:

```
<div class="d-flex justify-content-start">...</div>
<div class="d-flex justify-content-end">...</div>
<div class="d-flex justify-content-center">...</div>
<div class="d-flex justify-content-between">...</div>
<div class="d-flex justify-content-around">...</div>
<div class="d-flex justify-content-evenly">...</div>
```

Responsive variations also exist for justify-content:

- .justify-content-start
- .justify-content-end
- .justify-content-center
- .justify-content-between
- .justify-content-around
- .justify-content-evenly
- .justify-content-sm-start
- .justify-content-sm-end
- .justify-content-sm-center
- .justify-content-sm-between
- .justify-content-sm-around
- .justify-content-sm-evenly
- .justify-content-md-start
- .justify-content-md-end
- .justify-content-md-center
- .justify-content-md-between
- .justify-content-md-around
- .justify-content-md-evenly
- .justify-content-lg-start

- .justify-content-lg-end
- .justify-content-lg-center
- .justify-content-lg-between
- .justify-content-lg-around
- .justify-content-lg-evenly
- .justify-content-xl-start
- .justify-content-xl-end
- .justify-content-xl-center
- .justify-content-xl-between
- .justify-content-xl-around
- .justify-content-xl-evenly
- .justify-content-xxl-start
- .justify-content-xxl-end
- .justify-content-xxl-center
- .justify-content-xxl-between
- .justify-content-xxl-around
- .justify-content-xxl-evenly

Align items:

```
<div class="d-flex align-items-start">...</div>
<div class="d-flex align-items-end">...</div>
<div class="d-flex align-items-center">...</div>
<div class="d-flex align-items-baseline">...</div>
<div class="d-flex align-items-stretch">...</div>
```

Responsive variations also exist for align-items:

- .align-items-start
- .align-items-end
- .align-items-center
- .align-items-baseline
- .align-items-stretch
- .align-items-sm-start
- .align-items-sm-end
- .align-items-sm-center
- .align-items-sm-baseline
- .align-items-sm-stretch
- .align-items-md-start
- .align-items-md-end
- .align-items-md-center
- .align-items-md-baseline
- .align-items-md-stretch
- .align-items-lg-start
- .align-items-lg-end
- .align-items-lg-center
- .align-items-lg-baseline
- .align-items-lg-stretch
- .align-items-xl-start

- .align-items-xl-end
- .align-items-xl-center
- .align-items-xl-baseline
- .align-items-xl-stretch
- .align-items-xxl-start
- .align-items-xxl-end
- .align-items-xxl-center
- .align-items-xxl-baseline
- .align-items-xxl-stretch

Align self:

```
<div class="align-self-start">Aligned flex item</div>
<div class="align-self-end">Aligned flex item</div>
<div class="align-self-center">Aligned flex item</div>
<div class="align-self-baseline">Aligned flex item</div>
<div class="align-self-stretch">Aligned flex item</div>
```

Responsive variations also exist for align-self:

- .align-self-start
- .align-self-end
- .align-self-center
- .align-self-baseline
- .align-self-stretch
- .align-self-sm-start
- .align-self-sm-end
- .align-self-sm-center
- .align-self-sm-baseline
- .align-self-sm-stretch
- .align-self-md-start
- .align-self-md-end
- .align-self-md-center
- .align-self-md-baseline
- .align-self-md-stretch
- .align-self-lg-start
- .align-self-lg-end
- .align-self-lg-center
- .align-self-lg-baseline
- .align-self-lg-stretch
- .align-self-xl-start
- .align-self-xl-end
- .align-self-xl-center
- .align-self-xl-baseline
- .align-self-xl-stretch
- .align-self-xxl-start
- .align-self-xxl-end
- .align-self-xxl-center
- .align-self-xxl-baseline
- .align-self-xxl-stretch

```
<div class="d-inline p-2 bg-primary text-white">d-inline</div>
<div class="d-inline p-2 bg-dark text-white">d-inline</div>

<span class="d-block p-2 bg-primary text-white">d-block</span>
<span class="d-block p-2 bg-dark text-white">d-block</span>
```

Where *value* is one of:

- none
- inline
- inline-block
- block
- grid
- table
- table-cell
- table-row
- flex
- inline-flex

Hiding elements:

Screen size	Class
Hidden on all	.d-none
Hidden only on xs	.d-none .d-sm-block
Hidden only on sm	.d-sm-none .d-md-block
Hidden only on md	.d-md-none .d-lg-block
Hidden only on lg	.d-lg-none .d-xl-block
Hidden only on xl	.d-xl-none .d-xxl-block
Hidden only on xxl	.d-xxl-none
Visible on all	.d-block
Visible only on xs	.d-block .d-sm-none
Visible only on sm	.d-none .d-sm-block .d-md-none
Visible only on md	.d-none .d-md-block .d-lg-none
Visible only on lg	.d-none .d-lg-block .d-xl-none
Visible only on xl	.d-none .d-xl-block .d-xxl-none
Visible only on xxl	.d-none .d-xxl-block

```
<div class="d-lg-none">hide on lg and wider screens</div>
<div class="d-none d-lg-block">hide on screens smaller than lg</div>
```

Display in print:

- .d-print-none
- .d-print-inline
- .d-print-inline-block
- .d-print-block
- .d-print-grid
- .d-print-table
- .d-print-table-row
- .d-print-table-cell
- .d-print-flex
- .d-print-inline-flex

```
<div class="d-print-none">Screen Only (Hide on print only)</div>
<div class="d-none d-print-block">Print Only (Hide on screen only)</div>
<div class="d-none d-lg-block d-print-block">Hide up to large on screen, but always show on print</div>
```

13-5 Bootstrap responsive Container and breakpoints

Breakpoints:

Breakpoints are customizable widths that determine how your responsive layout behaves across device or viewport sizes in Bootstrap.

Available breakpoints:

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

Containers:

	Extra small <576px	Small ≥576px	Medium ≥768px	Large ≥992px	X-Large ≥1200px	XX-La ≥140(
.container	100%	540px	720px	960px	1140px	1320px

	Extra small <576px	Small ≥576px	Medium ≥768px	Large ≥992px	X-Large ≥1200px	XX-La ≥1400
.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%

Default container:

```
<div class="container">
  <!-- Content here -->
</div>
```

Responsive containers:

```
<div class="container-sm">100% wide until small breakpoint</div>
<div class="container-md">100% wide until medium breakpoint</div>
<div class="container-lg">100% wide until large breakpoint</div>
<div class="container-xl">100% wide until extra large breakpoint</div>
<div class="container-xxl">100% wide until extra extra large breakpoint</div>
```

Fluid containers:

```
<div class="container-fluid">
  ...
</div>
```

13-6 Grid System with 12 column layout, responsive grid

Grid most powerful.

```
<div class="container">
  <div class="row">
    <div class="col">
```

```
    Column
  </div>
  <div class="col">
    Column
  </div>
  <div class="col">
    Column
  </div>
 </div>
</div>
```

Grid options:

- Extra small (xs)
- Small (sm)
- Medium (md)
- Large (lg)
- Extra large (xl)
- Extra extra large (xxl)

xs <576px	sm ≥576px	md ≥768px	lg ≥992px	xl ≥1200px	xxl ≥1400px
Container max-width	None (auto)	540px	720px	960px	1140px	1320px
Class prefix	.col-	.col-sm-	.col-md-	.col-lg-	.col-xl-	.col-xxl-
# of columns	12					
Gutter width	1.5rem (.75rem on left and right)					
Custom gutters	Yes					
Nestable	Yes					
Column ordering	Yes					

Setting one column width:
```
<div class="container">
 <div class="row">
  <div class="col">
    1 of 3
  </div>
  <div class="col-6">
    2 of 3 (wider)
  </div>
```

```html
  <div class="col">
    3 of 3
  </div>
</div>
<div class="row">
  <div class="col">
    1 of 3
  </div>
  <div class="col-5">
    2 of 3 (wider)
  </div>
  <div class="col">
    3 of 3
  </div>
</div>
</div>
```

Responsive classes:

```html
<div class="container">
  <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>
```

13-7 Responsive players using bootstrap grid columns

```html
<section class="container">
    <h1>Md.Hamid Hosen</h1>

    <div class="row">
      <div class="col-lg-3 col-md-4 col-sm-6 col-12 bg-primary">
        <img class="img-fluid" src="./Image/player-1.png" alt="" srcset="" />
        <h3>Payer-1</h3>
        <p>
          Lorem ipsum dolor sit amet consectetur adipisicing elit. Dolores
          quasi vel laboriosam ipsam! At expedita reprehenderit nesciunt
          fugiat, laudantium ipsam sapiente amet, cumque ut earum esse
          laboriosam qui voluptates distinctio?
```

```
        </p>
      </div>
      <div class="col-lg-3 col-md-4 col-sm-6 col-12 bg-secondary">
        <img class="img-fluid" src="./Image/player-10.png" alt="" srcset="" />
        <h3>Payer-1</h3>
        <p>
          Lorem ipsum dolor sit amet consectetur adipisicing elit. Dolores
          quasi vel laboriosam ipsam! At expedita reprehenderit nesciunt
          fugiat, laudantium ipsam sapiente amet, cumque ut earum esse
          laboriosam qui voluptates distinctio?
        </p>
      </div>
    </section>
```

13-8 Another Responsive example for bags and jackets cards

```
    <div class="row row-cols-1 row-cols-md-4 row-cols-lg-3 row-cols-sm-2 g-4">
      <div class="col">
        <div class="card">
          <img src="./Image/bags/bag-1.png" class="card-img-top img-fluid"
alt="..." />
          <div class="card-body">
            <h5 class="card-title">Card title</h5>
            <p class="card-text">
              This is a longer card with supporting text below as a natural
              lead-in to additional content. This content is a little bit
              longer.
            </p>
          </div>
        </div>
      </div>
    </div>
```

13-9 Navbar again, Bootstrap Overview, Module Summary

```
<nav class="fixed-top navbar navbar-expand-lg navbar-light bg-light">
  <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">
```

```html
    <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="#" id="navbarDropdown" role="button" data-bs-toggle="dropdown" aria-expanded="false">
          Dropdown
        </a>
        <ul class="dropdown-menu" aria-labelledby="navbarDropdown">
          <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>
      <li class="nav-item">
        <a class="nav-link disabled">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>
```