Bootstrap Basic & Advanced Assignment

Section 1: Basic Bootstrap Concepts

Question 1:

What is the purpose of the Bootstrap grid system? Explain with an example.

Answer: The Bootstrap grid system is used to create a flexible and responsive layout structure. It is based on a 12-column layout and uses rows and columns to align and distribute content.

Example:

```
<div class="container">
  <div class="row">
    <div class="col-md-6">Column 1</div>
    <div class="col-md-6">Column 2</div>
  </div>
</div>
```

This code creates two equal-width columns on medium-sized screens and larger.

Question 2:

List three classes used for styling buttons in Bootstrap and describe their purpose.

Answer:

1. `btn-primary`: Creates a blue button, typically used for primary actions.
2. `btn-secondary`: Creates a gray button for secondary actions.
3. `btn-danger`: Creates a red button, often used for delete or warning actions.

Example:

```
<button class="btn btn-primary">Primary</button>
<button class="btn btn-secondary">Secondary</button>
<button class="btn btn-danger">Danger</button>
```

Question 3:

How do you create a form with Bootstrap that has inline fields? Provide an example.

Answer: Use the `form-inline` class to create an inline form.

Example:

```
<form class="form-inline">
  <label class="sr-only" for="name">Name</label>
  <input type="text" class="form-control mb-2 mr-sm-2" id="name"
placeholder="Name">

  <label class="sr-only" for="email">Email</label>
  <input type="email" class="form-control mb-2 mr-sm-2" id="email"
placeholder="Email">

  <button type="submit" class="btn btn-primary mb-2">Submit</button>
</form>
```

Section 2: Advanced Bootstrap Concepts

Question 4:

What is a Bootstrap modal, and how is it implemented?

Answer: A Bootstrap modal is a dialog box/popup window displayed on top of the current page. It is used for user interaction, such as forms or alerts.

Example:

```
<!-- Button to trigger modal -->
<button type="button" class="btn btn-primary" data-toggle="modal" data-
target="#exampleModal">
  Launch Modal
</button>

<!-- Modal -->
<div class="modal fade" id="exampleModal" tabindex="-1" role="dialog" aria-
labelledby="exampleModalLabel" aria-hidden="true">
  <div class="modal-dialog" role="document">
    <div class="modal-content">
      <div class="modal-header">
        <h5 class="modal-title" id="exampleModalLabel">Modal Title</h5>
        <button type="button" class="close" data-dismiss="modal" aria-
label="Close">
          <span aria-hidden="true">&times;</span>
        </button>
      </div>
      <div class="modal-body">
        This is a Bootstrap modal example.
      </div>
      <div class="modal-footer">
        <button type="button" class="btn btn-secondary" data-
dismiss="modal">Close</button>
        <button type="button" class="btn btn-primary">Save changes</button>
      </div>
    </div>
  </div>
</div>
```

Question 5:

Explain the use of Bootstrap utility classes with examples.

Answer: Bootstrap utility classes are predefined classes that provide quick styling options for common CSS properties such as margins, padding, text alignment, and colors.

Examples:

1. **Spacing:**

```
<div class="mt-3">Margin Top</div>
<div class="p-3">Padding</div>
```

2. **Text Alignment:**

```
<p class="text-center">Centered Text</p>
<p class="text-right">Right-Aligned Text</p>
```

3. **Background Colors:**

```
<div class="bg-primary text-white">Primary Background</div>
<div class="bg-success text-white">Success Background</div>
```

Question 6:

How do you customize Bootstrap using Sass?

Answer: To customize Bootstrap using Sass:

1. Install Bootstrap via npm or download the source files.
2. Import Bootstrap's Sass files into your project.
3. Override default variables before importing Bootstrap.

Example:

```
// Custom Bootstrap
$primary: #ff5733; // Change primary color
@import "node_modules/bootstrap/scss/bootstrap";
```

Compile the Sass file into CSS to apply the changes.

Question 7:

Create a responsive navbar with a dropdown menu using Bootstrap.

Answer: