

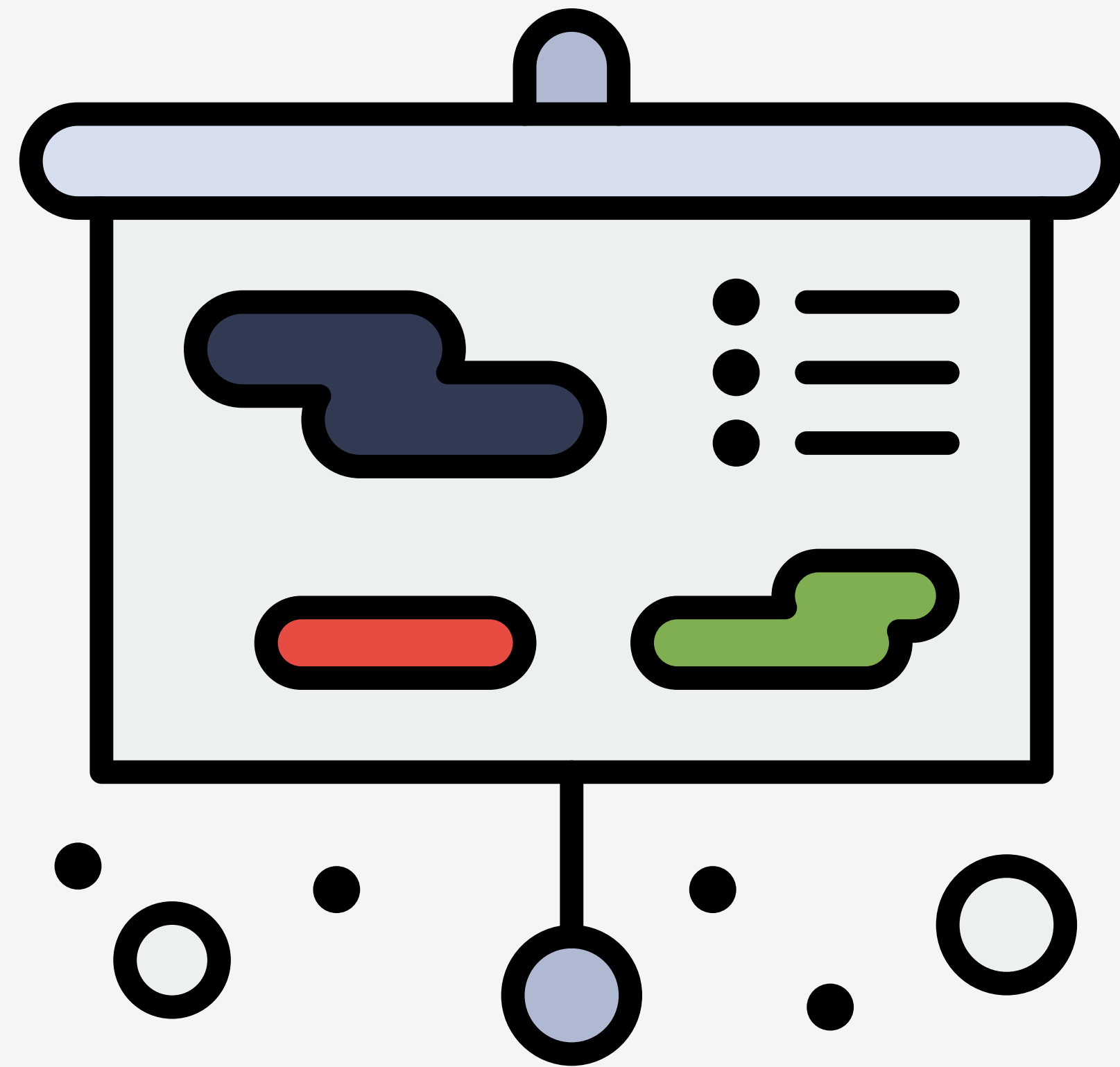
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# RESPONSIVE WEB DESIGN II

## Lecture 14

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# TODAY'S TOPICS



- Frameworks and Libraries
- Bootstrap Basics

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# ANNOUNCEMENTS

- Sign-in Sheet

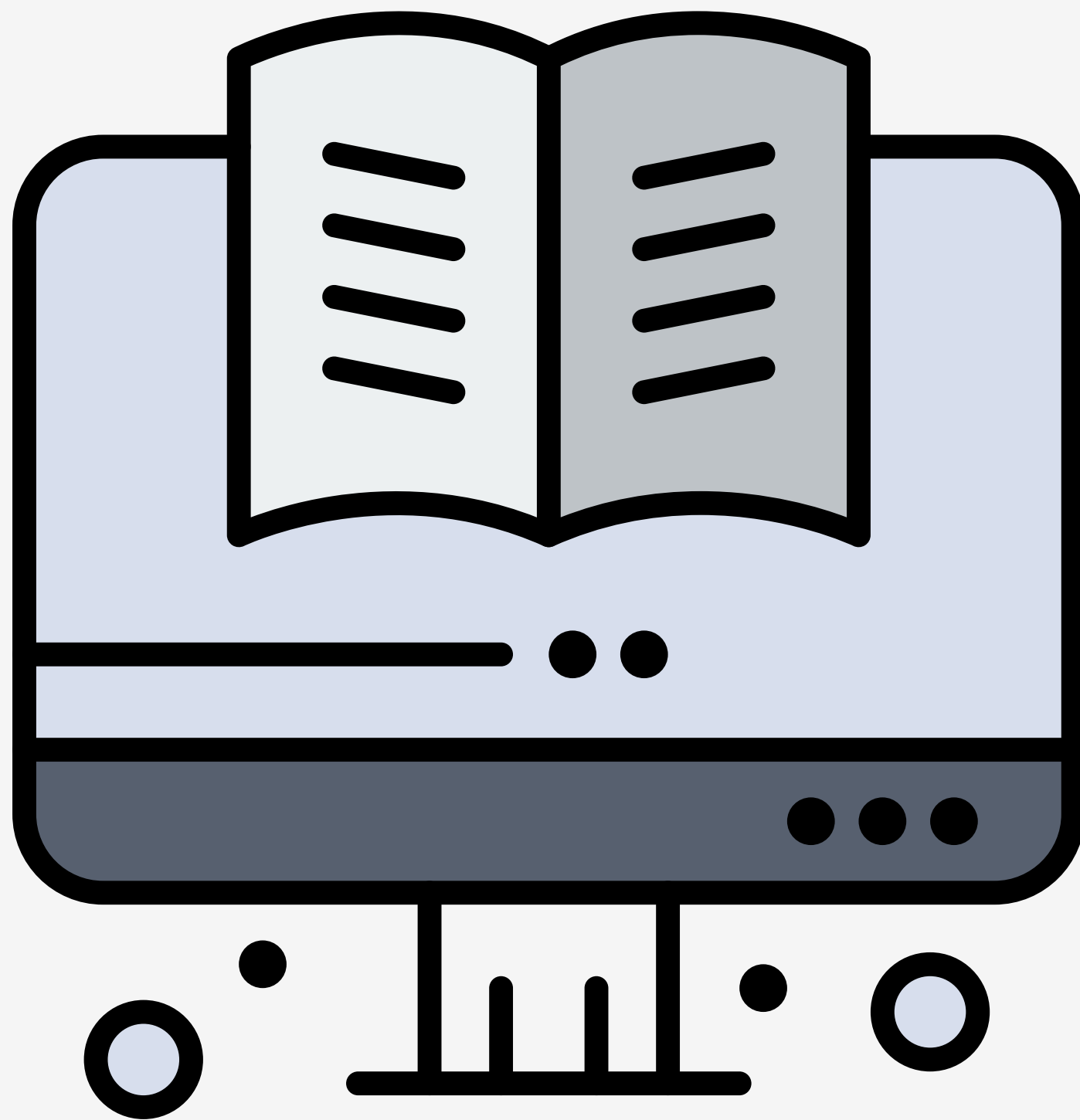


**QUESTIONS**

# FRAMEWORKS & LIBRARIES

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# FRAMEWORKS & LIBRARIES



- Don't Repeat Yourself (**DRY**)
- Don't reinvent the wheel.
- Frameworks and Libraries are collection of functions and methods
- Often adhere to a coding pattern or methodology
- Libraries can be added to an existing project and used as desired
- Framework are used to build new projects

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# FRAMEWORKS & LIBRARIES

- Bootstrap
- Bulma
- Foundation
- Materialize CSS
- Pure
- Semantic UI
- UI kit
- NES.css
- PaperCSS
- Animate.css
- Animista
- CSShake
- Hover.css
- Vivify

# BOOTSTRAP BASICS



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# BOOTSTRAP



- Open-source, responsive framework
- Reboot.css
- Responsive grid system
- Extensive component library
- Built on Sass and jQuery

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# BOOTSTRAP INSTALLATION



- Two most common ways:
  - Download
  - Content Delivery Network (CDN)
- CSS and JavaScript Files
- Starter Template

**HANDS-ON**

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# BOOTSTRAP TYPOGRAPHY



- Uses `rem`
- Avoids `margin-top`
- Uses `native font stack`
- Custom classes for `headers` and `display headers`
  - `.h1` through `.h6`
  - `.display-1` through `.display-4`

# HEADERS

```
<!-- Header 2 using element -->
```

```
<h2>Header 2</h2>
```

```
<!-- Header 2 using class -->
```

```
<p class="h2">Header 2</p>
```

```
<!-- Display Header -->
```

```
<h1 class="display-2">Display 2</h1>
```

---

# BOOTSTRAP TEXT UTILITIES



- **Text Alignment** used to align text
  - `text-left`
  - `text-right`
  - `text-center`
  - `text-justify`
- **Text Transform** used to alter capitalization
  - `text-uppercase`
  - `text-lowercase`
  - `text-capitalize`

---

# BOOTSTRAP TEXT UTILITIES



- **Font Styles** changes weight and italics
  - `font-weight-bold`
  - `font-weight-light`
  - `font-italic`
- **Text Modifiers** alters text appearance
  - `text-decoration-none`
  - `text-reset`

# TEXT UTILITIES

*<!-- Right aligned Text -->*

```
<p class="text-right">Bootstrap</p>
```

*<!-- Convert to Uppercase -->*

```
<p class="text-uppercase">Bootstrap</p>
```

*<!-- Bold text -->*

```
<p class="font-weight-bold">Bootstrap</p>
```

*<!-- Italic Text -->*

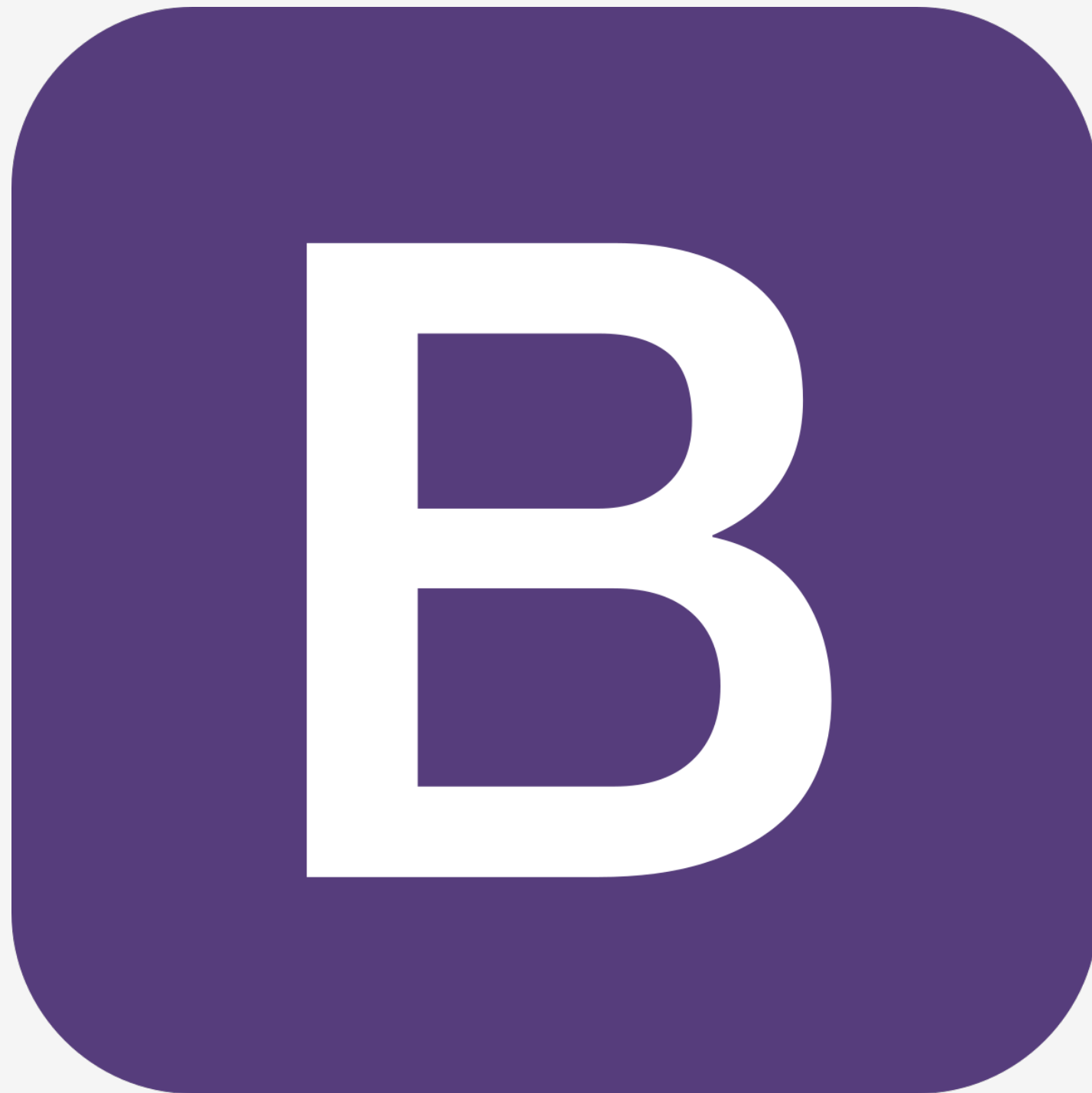
```
<p class="font-italic">Bootstrap</p>
```



**HANDS-ON**

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# BOOTSTRAP COLORS



- Bootstrap has a series of color classes which help to convey meaning through color
- The color names include
  - primary
  - secondary
  - success
  - warning
  - danger
  - info

---

# BOOTSTRAP COLORS



- Bootstrap colors can be used to change color text (`.text-*`) or background color (`.bg-*`)
- The same names are used for buttons and alerts

# COLORS

*<!-- Primary Text Color -->*

```
<p class="text-primary">
```

Bootstrap

```
</p>
```

*<!-- Secondary BG color-->*

```
<p class="bg-secondary text-white">
```

Bootstrap

```
</p>
```

---

# BOOTSTRAP IMAGES



- The `.img-fluid` class make an image scale with the parent element
- The `.img-thumbnail` class will add a thumbnail like style
- The `.rounded` class will add rounded corners
- The `.float-left` / `.float-right` can be used to align the image
- The `.mx-auto` will center block images

# IMAGES

*<!-- Responsive Image -->*

```

```

*<!-- Thumbnail Image -->*

```

```

*<!-- Rounded Image -->*

```

```

*<!-- Circle Image -->*

```

```

*<!-- Right aligned Image -->*

```

```

---

# BOOTSTRAP CSS VARIABLES



- Bootstrap includes **CSS variables** that can be used for custom CSS
- There are **CSS variables** for colors, fonts, and breakpoints
- Changes to **CSS variables** will not affect any Bootstrap styles
- The breakpoint variables **CANNOT** be used in media queries

# CSS VARIABLES

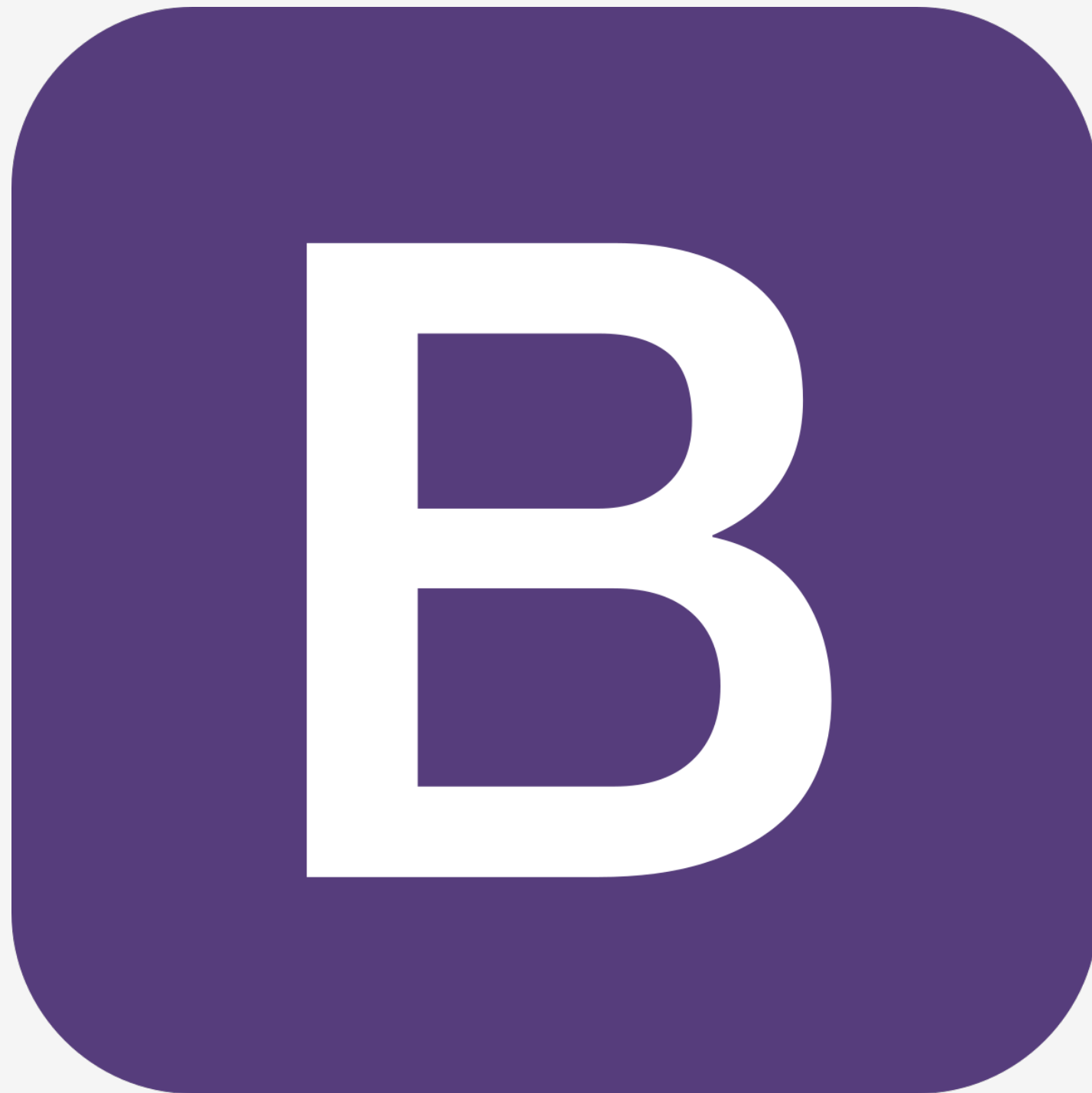
```
body {  
    font: 1rem/1.5 var(--font-family-sans-serif);  
}  
  
a {  
    color: var(--blue);  
}
```



**HANDS-ON**

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# BOOTSTRAP COMPONENTS



- Bootstrap has an extensive library of pre-built components
- Components can be simple UI elements (e.g. buttons) or complex plugins (e.g. carousel)
- Components typically only require added the appropriate HTML to use

---

# BOOTSTRAP **BUTTONS**



- Bootstrap's custom buttons can be used anywhere a button, link or input can be used
- Bootstrap has many custom classes for changing the button's color, appearance or size
- Many of the button classes also work on anchor and input tags

# BUTTONS

*<!-- Primary Button -->*

```
<button class="btn btn-primary">
```

Primary

```
</button>
```

*<!-- Outline Button -->*

```
<button class="btn btn-outline-success">
```

Success

```
</button>
```

*<!-- Small Button -->*

```
<button class="btn btn-danger btn-sm">
```

Small button

```
</button>
```

---

# BOOTSTRAP ALERTS



- Alerts help provide contextual feedback messages
- Alerts come a variety of colors

# ALERTS

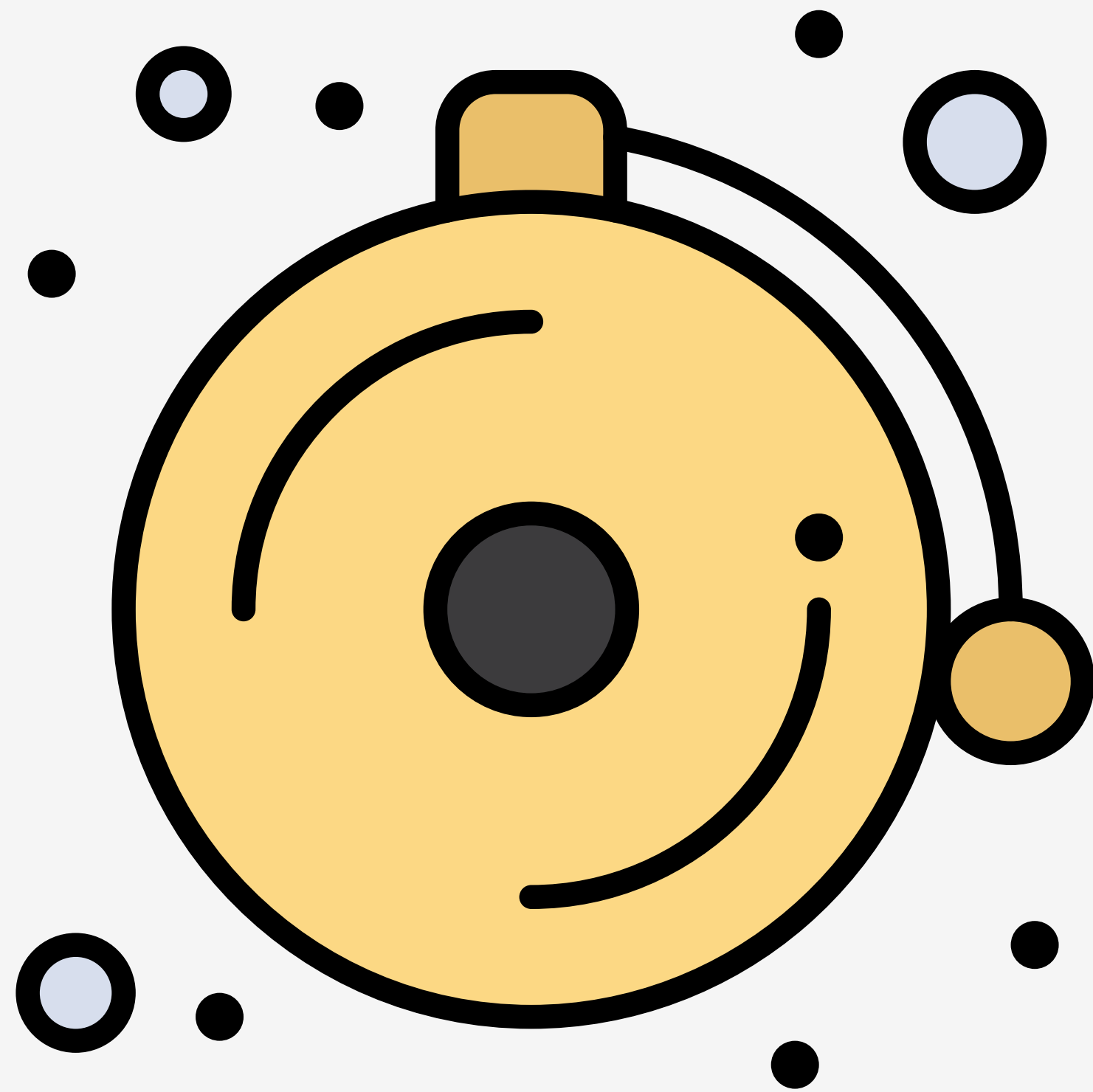
```
<div class="alert alert-primary" role="alert">  
  A simple primary alert—check it out!  
</div>
```

```
<div class="alert alert-danger" role="alert">  
  A simple danger alert—check it out!  
</div>
```

**HANDS-ON**

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# NEXT TIME...



- Work Period
- Midterm Project: Prototype