

Bootstrap Exploration

Benefits: Prebuilt components allow fast development. Bootstrap grid system makes page design responsive to different screen sizes. For our project, bootstrap components will be useful for quickly constructing pages.

Set-up: Add CDN for Bootstrap CSS and JS to page document.

Components:

- Fast way to add common elements. Add components via classes.
 - Example: `<button type="button" class="btn btn-primary"> </button>`
- List of components: <https://getbootstrap.com/docs/5.0/customize/components/>
- List of classes: https://www.w3schools.com/bootstrap/bootstrap_ref_all_classes.asp

Alerts	List group	Spinners
Badges	Modal	Toasts
Breadcrumbs	Navbars	Tooltips
Buttons	Panels	Clearfix
Cards	Paginations	Icons
Carousel	Popovers	Tables
Collapse	Progress bars	Responsive
Dropdowns	Scrollspy	Gutters

Snippets

- Snippets are premade bootstrap components that can be easily imported into our project.
- <https://getbootstrap.com/docs/5.3/examples/>

Grid System

- Bootstrap's grid system crates 12 columns on the page.
- Create row, then add Divs within to utilize grid.
- Useful for responsive design, elements change size depending on screen size.
- Predefined breakpoints for screen sizes.
- Elements can be set to use # of columns based on breakpoint.
 - **Syntax:** `<div class="col-breakpoint-numOfColumns">`
 - **Example:** `<div class = "col-sm-12 col-md-6 col-lg-2" > Example </div>`
 - Screen = small element uses 12 columns, screen = medium element uses 6, screen = large element uses 2.
- Element order can be changed depending on breakpoints.
 - **Syntax:** `<div class="order-breakpoint-orderNum">`
 - **Example:** `<div class = "order-sm-2 order-sm-1" > Example </div>`
 - When screen is small, the first element gets placed second, second element gets placed first.
- **Offset** adds blank space to column left of element, useful for alignment.
 - **Example:** `<div class="col-sm-2 offset-2">`
 - The element takes 2 columns, starting at column 3.
- Divs can justify / align content within them with class="justify-content-center" & class="align-items-center"
 - justify-content-around/between/evenly