IAB207 – Rapid Web Application Development

2019 S2

Week 3
Bootstrap Essentials

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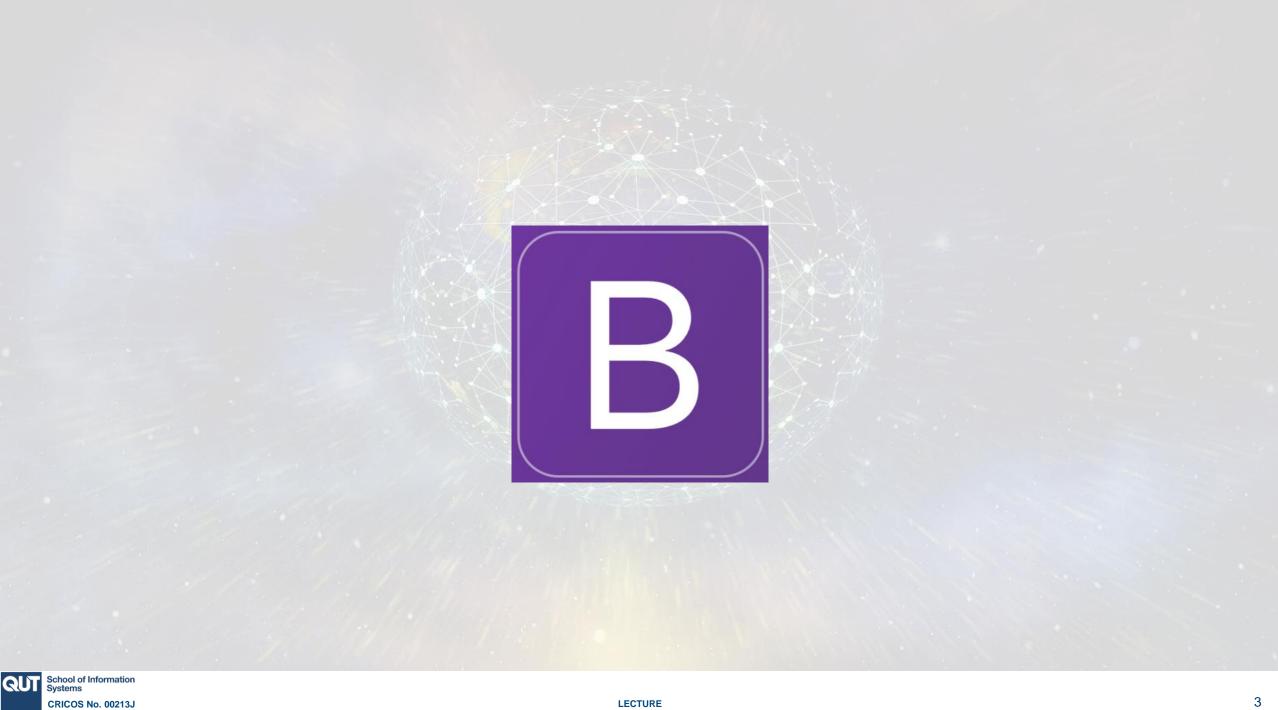QUT Science and Engineering

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Agenda

- Bootstrap
  - Introduction
  - Basic Page Structure
    - HTML Tags
  - Content Models
  - Formatting Content
  - Structuring Content
  - Forms

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Bootstrap – Introduction

- "world's most popular front-end component library"
- Brainchild of Mark Otto (designer) and Jacob Thornton (developer) at Twitter
  - Original release: August 19, 2011
- Current release: v4.3.1
  - V4: Rewrite based on move to Sass and CSS flexbox
  - Supported by all major browsers
- Maintained on GitHub (open source)
- "Opinionated"
- https://getbootstrap.com/
- Competition: Foundation (https://foundation.zurb.com/) (not covered in this unit)

Implementing Bootstrap

- **Must be used for assessment**

- BootstrapCDN (in this unit)
  - Link to CSS (1 file)
  - Link to JavaScript (3 files)
    - You may not need this for your use case.

- Self-hosted
  - Download files on to your webserver.

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BOOTSTRAP DEMO ☺ (DEMO.HTML)

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Web page from last week without custom CSS and Bootstrap added.

BOOTSTRAP DEMO ☺ (INDEX7.HTML AND INDEX8.HTML)

Containers

- Most basic layout element

- Required when using default grid system

- <div class= "container" | "container-fluid"></div>

- Grid system (rows, 12 invisible columns)

- Don't forget CSS flexbox

https://getbootstrap.com/docs/4.3/layout/overview/#containers

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CSS Grid System Overview

- ## .row
  - .col- (extra small is default)
  - .col-sm-
  - .col-md-
  - .col-lg-
- ## Columns should add to 12, even in nested columns.

	Extra small <576px	Small ≥576px	Medium ≥768px	Large ≥992px	Extra large ≥1200px
Max container width	None (auto)	540px	720px	960px	1140px
Class prefix	.col-	.col-sm-	.col-md-	.col-lg-	.col-xl-
# of columns	12				
Gutter width	30px (15px on each side of a column)				
Nestable	Yes				
Column ordering	Yes				

https://getbootstrap.com/docs/4.3/layout/grid/

BOOTSTRAP DEMO ☺ (INDEX9.HTML)

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Question

- Are the DIV tags necessary in the locations section?

- Not really. Classes can be added to <article> tag!

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Header | Navbar (Navigation)

- Responsive navigation header

- Fluid by default

- Accessibility: <nav> OR <div role ="navigation">

- Requires .navbar with .navbar-expand{-sm|-md|-lg|-xl}

- Play with styles to get the results you want

https://getbootstrap.com/docs/4.3/components/navbar/

Header | Jumbotron (Hero Image)

- Spans the viewport

- Ideal for header or displaying main message

- Create unique results by mixing components and styles

https://getbootstrap.com/docs/4.3/components/jumbotron/

BOOTSTRAP DEMO ☺ (INDEX10.HTML)

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Content | Cards

- Grids for container and structuring content

- Cards: flexible and extensible content container

- Forms

https://getbootstrap.com/docs/4.3/components/card/

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BOOTSTRAP DEMO ☺ (INDEX11.HTML)

Miscellaneous

- Alerts
  - https://getbootstrap.com/docs/4.3/components/alerts/
- Badge
  - https://getbootstrap.com/docs/4.3/components/badge/
- Carousal
  - https://getbootstrap.com/docs/4.3/components/carousel/
- Modal
  - https://getbootstrap.com/docs/4.3/components/modal/

BOOTSTRAP DEMO ☺ (INDEX12.HTML)

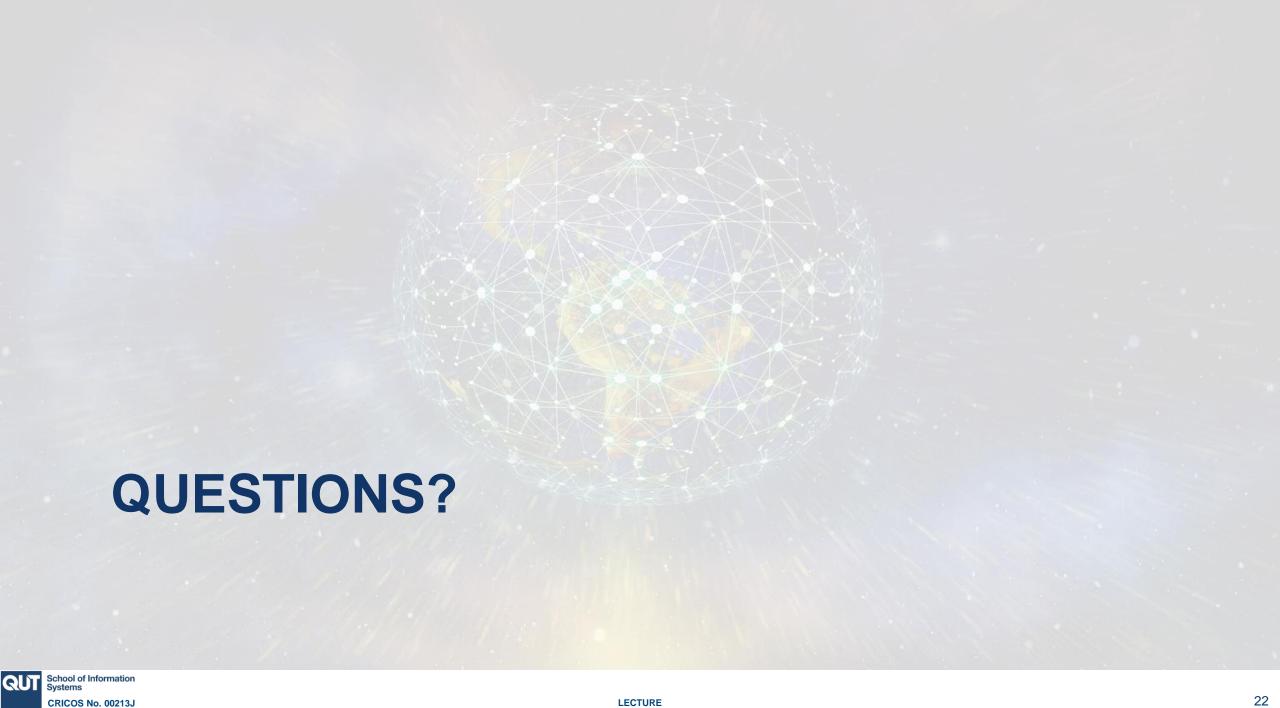School of Information Systems

Useful Information

- Spacing
  - https://getbootstrap.com/docs/4.0/utilities/spacing/
- Buttons
  - https://getbootstrap.com/docs/4.0/components/buttons/
- Typography
  - https://getbootstrap.com/docs/4.0/content/typography/
- Tables
  - https://getbootstrap.com/docs/4.0/content/tables/
- Forms
  - https://getbootstrap.com/docs/4.0/components/forms/

Useful Information

- Lynda
  - Bootstrap 4 Essential Training (Ray Villalobos)
- Bootlint (check mistakes)
  - https://github.com/twbs/bootlint
- Cheat Sheet (unofficial)
  - https://hackerthemes.com/bootstrap-cheatsheet/

SUMMARY

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QUESTIONS?

THANK YOU FOR BEING HERE ☺