

中南屋2019暑期计算机远程实践项目

Session 4: BootStrap

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Outline

- Introduction
- Responsive Design
- Grid System
- JavaScript Components



Front-end UI frameworks

- Collection of ready-to-use HTML, CSS and JavaScript templates for UI components.
- Advantage
 - Responsive web design
 - Cross-browser compatibility
 - Increased productivity
 - Community support



BootStrap

Bootstrap is an open source toolkit for developing with HTML,CSS, and JS. It is the worlds most popular front-end component library to build responsive, mobile-first projects on the web.



Responsive Design – why?

What is the screen size of your device when you are accessing websites?

laptop?

phone?

tablet?

Your website should adapt to the user's "viewport".



Responsive Design – what?

Mobile First

Design a website for a mobile device first. As screen size expands, more information is revealed.



Responsive Design – how?

- Grid System
- Fluid image
- Media queries - CSS
 - `@media(min-width: 992px) {`
 `/* customized CSS styles*/`
 `}`



Responsive Design – Viewport

- `<meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">`



Responsive Design – Grid System

- Responsive (viewport size)
- Mobile first
- Fluid (container adapt to the size of screen)



Responsive Design – Grid System example

- ```
<div class="container">
 <div class="row">
 <div class="col-6"> </div>
 <div class="col-4"> </div>
 <div class="col-2"> </div>
 </div>
</div>
```



# Responsive Design – Grid System

- Format: col-SIZE-SPAN

	Extra Small	Small	Medium	Large	Extra Large
Class prefix	.col-	.col-sm-	.col-md-	.col-lg-	.col-xl-
Size	<576	>=576	>=768	>=992	>=1200
# Columns	12				



# Some Format

- SIZE
  - {sm|md|lg|xl}
- COLOR
  - {primary|secondary|light|dark|-...}



# CSS Components - Navbar

- Class
  - .navbar
- Collapsing
  - .navbar-expand-SIZE
- Display
  - .d-print



# CSS Components - Icon

- FontAwesome



# CSS Components – Button

- Class
  - .btn
- Size
  - .btn-SIZE
- Color
  - .btn-COLOR
- Remove the background
  - .btn-outline-COLOR



# CSS Components – Form\*

- Class
  - .form{-control|-group|-check|
- Size
  - ...-SIZE
- Inline
  - ...-inline





# CSS Components – Table\*

- Class
  - .table
- Head
  - .head
- Striped
  - .table-striped
- Border
  - .table{-border|-borderless}
- Hover
  - .table-hover



# CSS Components - Images

- Class
  - .img-fluid
- Head
  - .head
- Shape
  - .rounded{-top|-bottom|-left|-right}
  - .rounded{-circle}



# CSS Components – Alert\*

- Class
  - .alert
- Link
  - .alert-link
- Header
  - .alert-heading



# CSS Components – Progress\*

- Class
  - .progress-bar
- Wrapping
  - .progress
- Striped
  - .progress-bar-striped
- Animation
  - .progress-bar-animated



# JavaScript Components – Nav

- Tab
  - .nav-tabs
- Pill
  - .nav-pills