

Web Advanced: Javascript



PGTE 5505. Section B. CRN 5264.
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**github.com/umisyam/
WebAdvJS_Fall2016_StudentsHW**

Week 1+2 Recap

- JS definitions and characteristics
- Variable and data types
- Bad arrays vs good arrays; looping array with `forEach`, manipulate array
- Iteration and Conditionals (`for` loops, `if-else`, `switch-case`)
- Anonymous functions vs named functions
- Function as Object, class-based vs prototype-based
- Intro to Scopes and Closures
- Immediately-Invoked Function Expression
- Module pattern
- Namespacing your app
- Programming patterns and paradigms
- Public? Private?

Week 3 Recap

- Single Page Application
- Handlebars templating
- `window.location.hash` routing and rendering
- jQuery 'hashchange'
- Checkbox filtering

Responsive Web Design

The article that started it all... <http://alistapart.com/article/responsive-web-design>

big
phones

small
screens

big
screens

big
tablets

medium
screens

small
tablets

small
phone
s

Why this is important.

3 components that we need to do:

- Flexible Layouts (flexible grid)
- Media Queries
- Flexible Media

Some new CSS3 relative length units

- **vw**
Viewports width
- **vh**
Viewports height
- **vmin**
Minimum of the viewport's height and width
- **vmax**
Maximum of the viewport's height and width

Media Types in Media Queries

Available types:

all, screen, print, tv, braille, and 3d-glasses.

Default: screen

Logical Operators in Media Queries

Available operators:

and, not, only

```
@media all and (min-width: 800px) and (max-width: 1024px) {...}
```

Media Features in Media Queries

- Height & width
`min-width`, `max-width`, `min-device-width`, `max-device-width`
- Orientation
`landscape`, `portrait`
- Aspect Ratio
`aspect-ratio`, `device-aspect-ratio`
- Resolution
`min-resolution`, `max-resolution`

Identifying breakpoints.

320px, 480px, 640px, 768px, 960px, 1024px, 1200px ????

Viewport Meta Tag

- Height & width
`min-width, max-width, min-device-width, max-device-width`
- Orientation
`landscape, portrait`
- Aspect Ratio
`aspect-ratio, device-aspect-ratio`
- Resolution
`min-resolution, max-resolution`

Think Mobile First

“...using styles targeted at smaller viewports as the default styles for a website, then use media queries to add styles as the viewport grows.

[...] a user on a mobile device, commonly using a smaller viewport, shouldn't have to load the styles [and assets] for a desktop computer only to have them over written with mobile styles later. **Doing so is a waste of bandwidth.**

<http://learn.shayhowe.com/advanced-html-css/responsive-web-design/>

CSS Rules depending on

- Screen size & Device size
- Device orientation
- Display density
- Aspect ratio
- Pixel ratio
- Resolution

For displaying completely different contents:

- Redirect to different html files depending on browser
- Use JavaScript for agent detection

Hey,
I am a
Phone

.

Hello,
I am Desktop
Computer.

Development Tips

- **Run local server**

_open Terminal and navigate to your project folder. `cd path/of/your/folder` and press enter

_type `python -m SimpleHTTPServer` and press enter

_go to browser and type in `localhost:8000`

- **To see your index.html on a different device,**

_go to `System Preferences > Network` and find your ip address*

_type your ip address in the browser on your phone and add :8000 at the end

NOTE: Your computer and your phone have to be on the same wifi.

LET'S CODE.