Web Development

Basics for modern web developers

CENTRIQ TRAINING
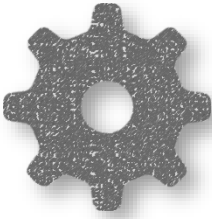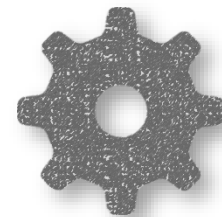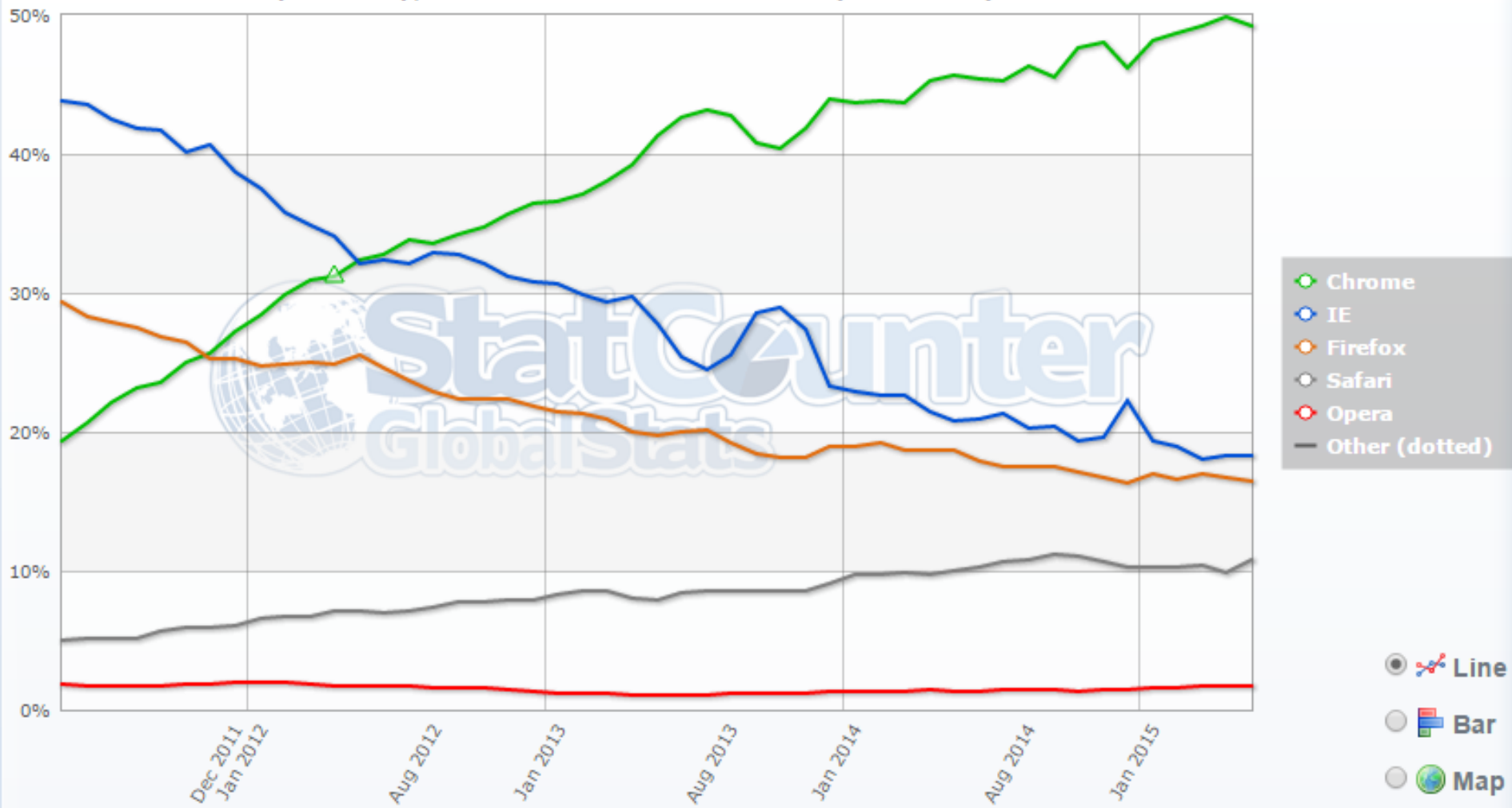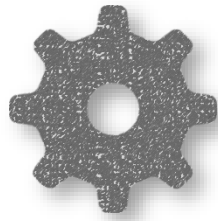
Browsers

Browser market share

StatCounter Global Stats
Top 5 Desktop, Tablet & Console Browsers from May 2011 to May 2015

Browser compatibility

- http://caniuse.com/
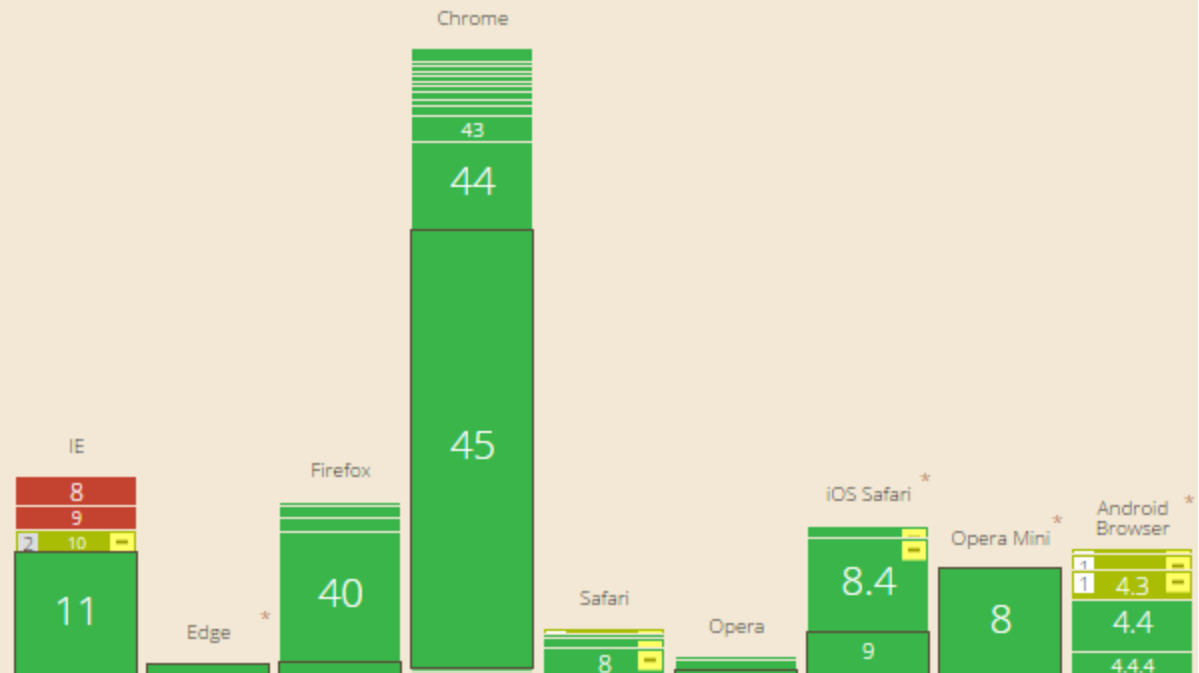 - CSS, HTML5, SVG, JS APIs, Other

Flexible Box Layout Module 📄 - WD

Method of positioning elements in horizontal or vertical stacks. Support includes the support for the all properties prefixed with `flex` as well as `display: flex`, `display: inline-flex`, `align-content`, `align-items`, `align-self`, `justify-content` and `order`.
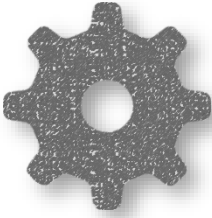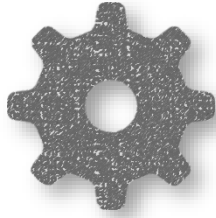
Chrome

- https://www.google.com/intl/en_us/chrome/browser/
- Apps, extensions, themes
- Largest market share and best dev tools
- Blink layout engine
- V8 JavaScript engine used by node.js
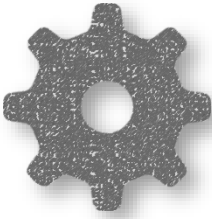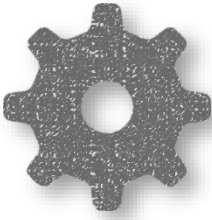- Webkit rendering engine

Chrome Dev Tools

- Google
  - https://developers.google.com/web/tools/chrome-devtools/
- Other
  - https://medium.com/jotform-form-builder/how-to-use-chrome-devtools-like-a-pro-b9bd414870e3 \

Firefox

- Making progress as a development tool
- Gecko rendering engine
- SpiderMonkey JavaScript engine
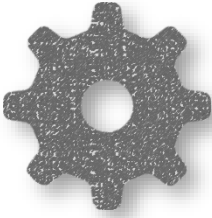- Firebug extension started the dev tools usage

Internet Explorer / Edge

- Edge
  - In Windows 10 PCs and smartphones
- Trident layout engine through IE 11 (Windows 8.1)
  - Reading mode – no banner ads
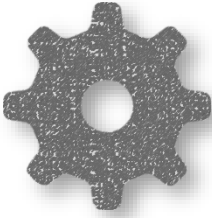 - Support for at least 5 years

Safari

- Apple browser
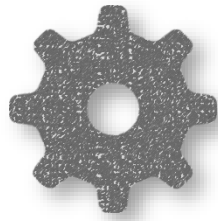- Webkit layout engine
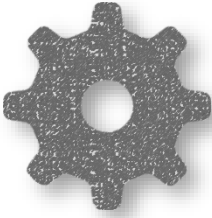 - Also Chrome, Amazon Silk, Blackberry

Others

- UCWeb
  - http://www.ucweb.com/

Browser testing

- Free
  - http://browsershots.org/
  - http://www.browsera.com/
  - http://www.lunascape.tv/
- Trial
  - http://www.browserstack.com/
  - https://browserling.com/
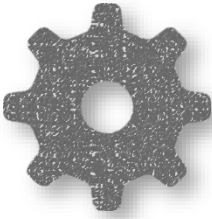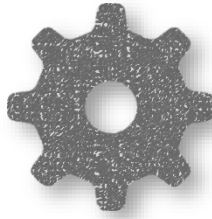 - https://saucelabs.com/home (and free)

Editors and extensions

Editors - text

- *Notepad++
- Sublime Text 3

Editors – IDEs

- **Microsoft Visual Studio Code
  - Best for Typescript
  - Built-in Emmet
  - https://code.visualstudio.com/
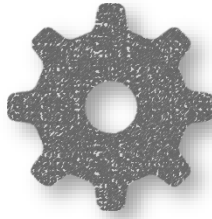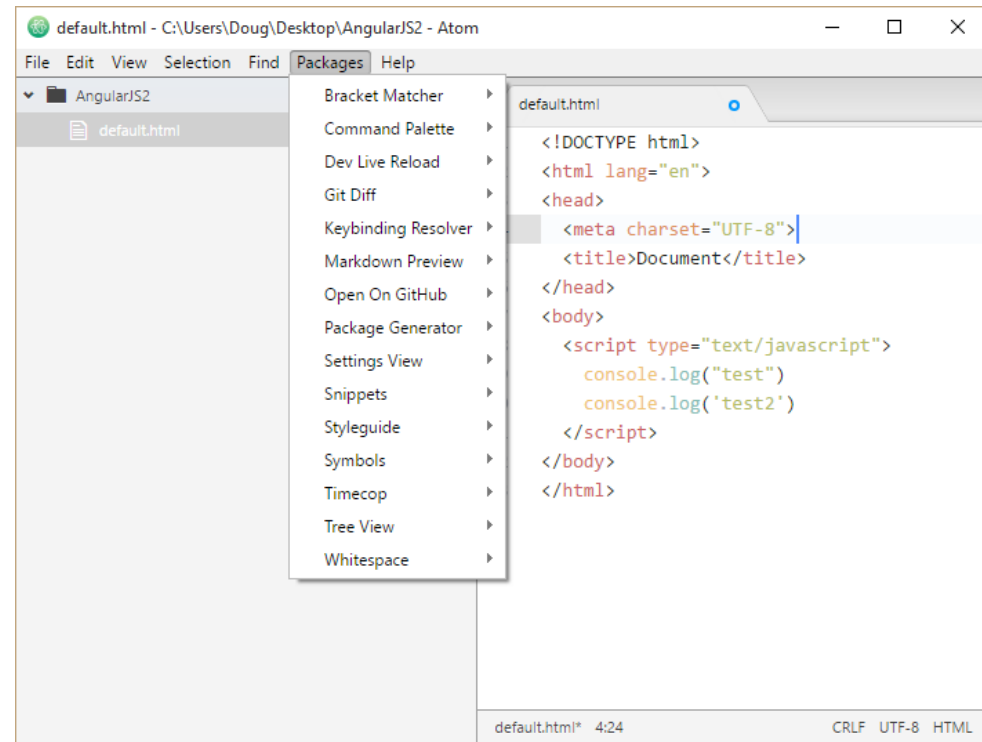
Editors – IDEs

- Brackets
  - open sourced by Adobe
  - http://brackets.io

Editors - IDE

- GitHub Atom
  - https://atom.io/
  - https://atom.io/packages
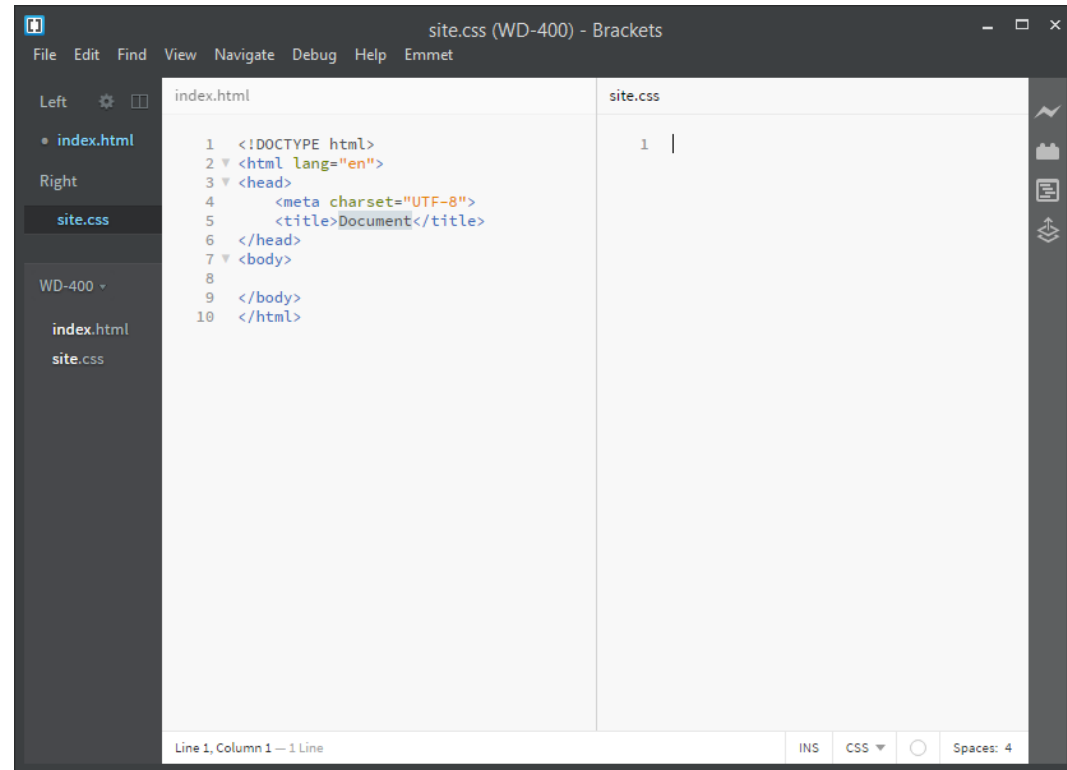
Editors - IDEs
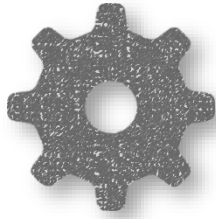
WebStorm
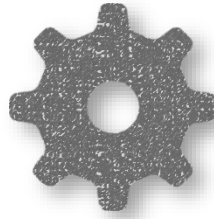
- JetBrains WebStorm
  - http://www.jetbrains.com/webstorm
  - 30 day trial $49/99
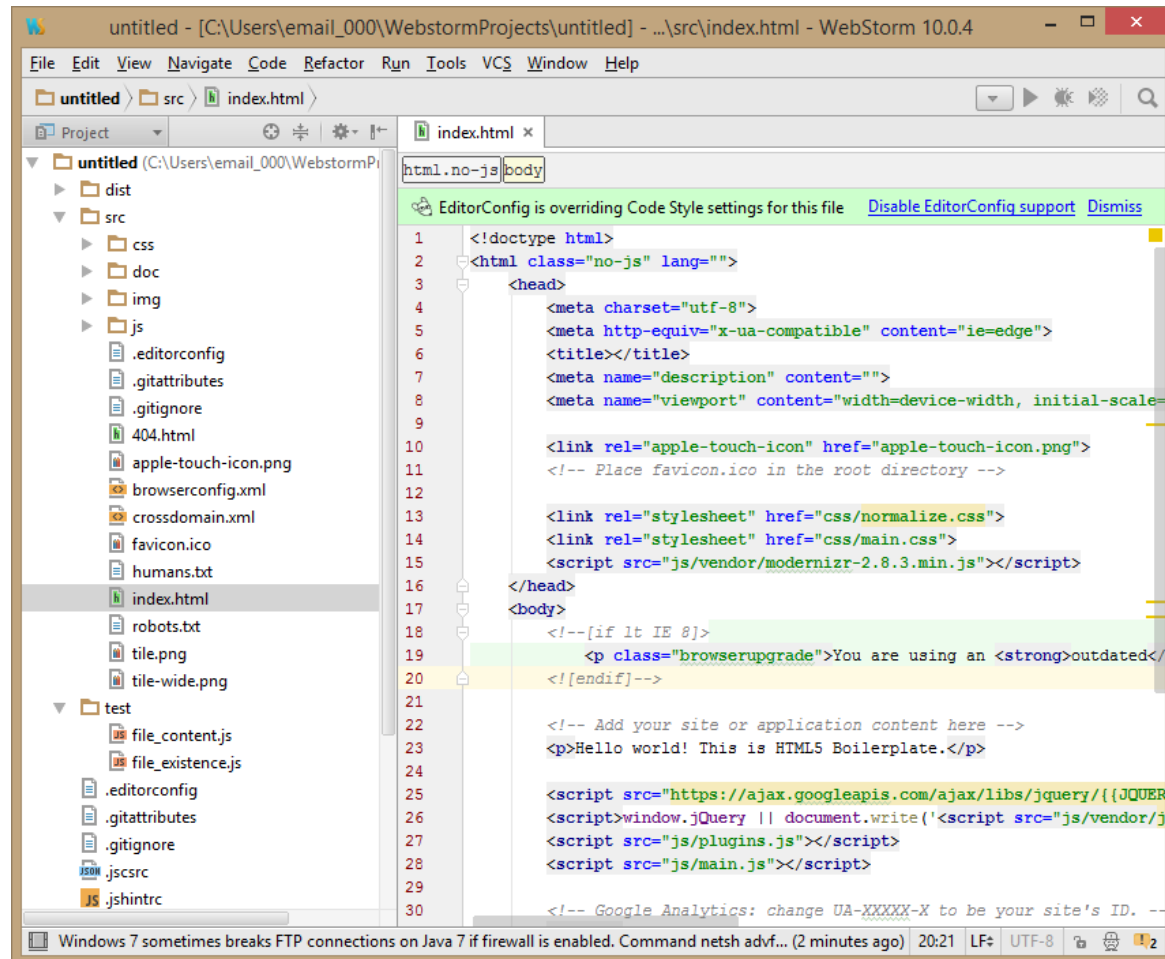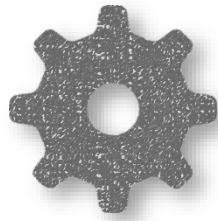
Editors - Online IDEs

- JavaScript focused
  - *JSFiddle - http://jsfiddle.net/ original, TypeScript
  - Plunker - http://plnkr.co/ - examples, used by Google, multi-page
  - JS Bin - http://jsbin.com/ large resizable areas, head area
- HTML focused
  - Codepen - http://codepen.io/ shared examples, animation
  - Dabblet - http://dabblet.com/

Editor extensions - Emmet

- Emmet
  - http://emmet.io/
  - Save file with extension first.
  - Type snippet
    - html:5
    - p>lorem
    - ul>li>span
    - p*5>lorem
    - p>lorem*5
    - p.bold#bigpara
  - Expand with context sensitive help, Ctrl-space if you need to see it
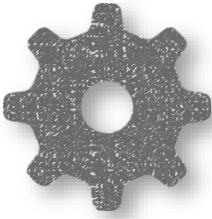
HTML alternative - Markdown

- Simplified HTML syntax
- File suffixed with .md
- Supported by transpilers in tools
- https://daringfireball.net/projects/markdown/
- Used for docs on Github and others

CSS alternatives – LESS, SCSS, SASS

- http://lesscss.org/

- http://sass-lang.com/
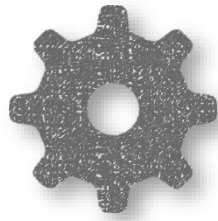
  - SASS organizes code

    - with indentation

  - SCSS organizes code { with braces }

- Simplified syntax for complex CSS like

  - Animation

  - Browser prefixed rules

- Supported by extensions in IDEs
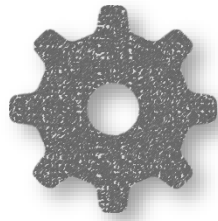
JavaScript - extensions, linting

- Checks for common mistakes:
  - Missing semicolons at the end of a line.
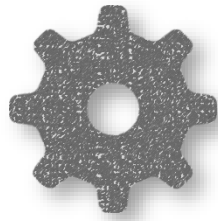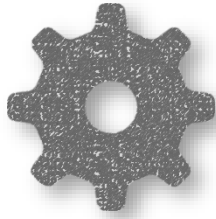 - Curly braces without an *if*, *for*, *while*, etc.
  - Code that is never run because of a *return*, *throw*, *continue*, *or break*.
  - Case statements in a switch that do not have a *break* statement.
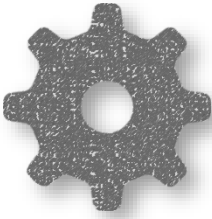 - Leading and trailing decimal points on a number.

JavaScript - extensions, linting

- Analyzes code statically (does not run)
- Run lint checks as part of the build, alongside unit tests, and reject code that doesn't pass all checks.
- 2011 - Douglas Crockford popularizes linting
  - JSLint Error Explanations - http://jslinterrors.com/
  - Anton Kovalyov forked the JSLint project to create a more lenient version named JSHint
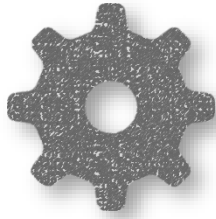
JavaScript - extensions, linting

- *ESLint
  - http://eslint.org/
- AirBnB's guide
  - https://github.com/airbnb/javascript/tree/master/packages/eslint-config-airbnb

Resources

Web
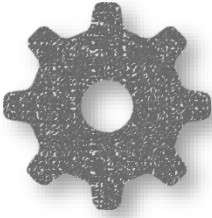
- Webmaster Tools to review your site
  - https://www.google.com/webmasters/tools/home
- Google's Web Fundamentals
  - https://developers.google.com/web/fundamentals/
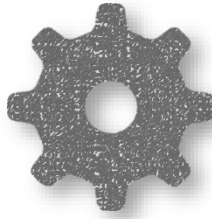- All Google developers' resources
  - https://developers.google.com/

SEO

- Google Webmaster Central Blog - SEO Starter Guide updated
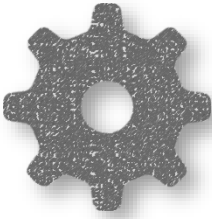 - http://googlewebmastercentral.blogspot.com/2010/09/seo-starter-guide-updated.html
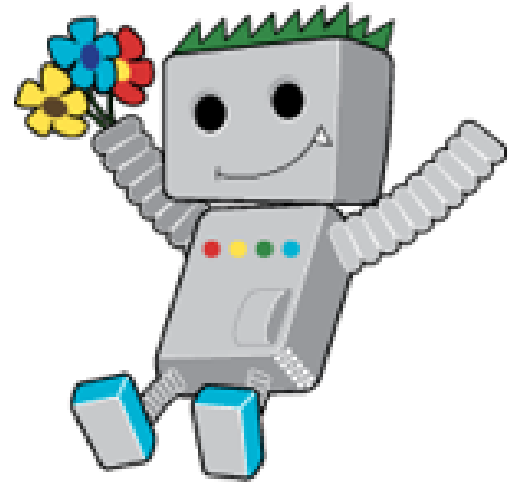
Mobile

- Google Mobile Friendly
  - https://developers.google.com/webmasters/mobile-sites/

- Issues
  - Flash usage
  - viewport not configured
  - fixed-width viewport
  - content not sized to viewport
  - small font size
  - touch elements too close

DNS

- https://www.whatsmydns.net
  - Checks A, CNAME, etc. records from 21 locations in the world

- https://geopeeker.com
  - Gets images of sites with IP from 6 locations in the world.

Web frameworks
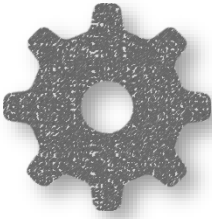
- https://hotframeworks.com/
  - ASP.NET
  - AngularJS
  - Ruby on Rails
  - ASP.NET MVC
  - Django - Python
  - React - JS
  - Laravel - PHP
  - Meteor - JS
  - Spring - Java