Tools of the Trade!

Introduction - The Basics
Text Editors

Welcome to COGS3!
About COGS3

Learn the basics of front-end development. In one quarter you will learn best practices and responsive design of Web development as you gain competency in HTML, CSS and COGS3 and are introduced to Twitter Bootstrap. A brief introduction to R is included with assignments to develop Photoshop skills. You will also learn fundamentals in programming using Excel, Javascript, and Python.

Lectures and Labs/Sections

Lectures: MW 3:10pm/11am, 8:10am
Lab Sections: CRB 111: Monday 11am, Wednesday 2:30pm
Friday: 10am
 Sections are not mandatory however, attendance is highly encouraged.

Class Resources

- Bootstrap
- W3schools
- Codecademy
- FZ
- Visual Studio Code
- Notepad++

Get ready to unpack some new skills!
Text Editors

HTML files are plain-text files and should be edited using a tool that works with plain-text files. What this essentially means is that you are going to learn HTML, you shouldn’t be editing your files with a word processing application like Microsoft Word or an online application like Google Docs. Those types of programs allow you to edit files in what will be their final format and then save the results in a document format like Microsoft Word’s proprietary format. Confusingly, these types of applications will also enable you to save your documents as HTML documents. Doing so may be sufficient to meet your needs in terms of producing a document but won’t teach you the first thing about HTML, which is your goal.

If you’ve used text editors before, chances are you already have a favorite. People tend to be highly opinionated about what makes a good text editor. If you haven’t used one at all or haven’t used one much, you’ll need a recommendation. To get started, you can use the text editor that’s provided with your computer’s operating system; they all have one.

If you’re a Windows user, you can use the Notepad application. If you are using OS X, you can start with TextEdit. If you are a Linux user, you can start with vi or Emacs. Notepad, TextEdit, and vi offer very limited functionality, and if you do a lot of text editing, you’ll want to track down another more powerful application to do your text editing. Here’s a list of a few editors often used by people who create websites:

- Komodo Edit is a free, open source version of the popular Komodo IDE. It runs on Windows, Macintosh, and Linux and offers a lot of features of an IDE. You can download it at http://komodoide.com/komodo-edit/.
- HTML-Kit is a popular text editor specifically for web pages for Windows. You can download it at http://www.xhtmlkit.com/. You can use an older version for free or you can pay for the latest and greatest.
- Notepad++ is a free, open source text
editor for Windows that is very popular. You can download it at
http://notepad-plus-plus.org/.

TextWrangler is a popular, free text editor for OS X. It was created by Bare Bones Software, and you can download it at their website at
http://www.barebones.com/products/textwrangler/. You may also be interested in BBEdit, a more powerful text editor with a licensing fee.

Coda is a text editor specifically for people creating web pages by Panic. It includes a lot of development features like source control and database connectivity. You can find it at
http://panic.com/coda/. It also has a licensing fee.

You'll want to find your text editor and open the application. If you're using TextEdit on OS X, make sure that it's in plain-text mode. If the document window has controls that let you choose a font or apply other formatting, go to the Format menu and select Make Plain Text. Once you have your editor open, you can type in some stuff and, if you like, save the file you're editing. The main thing to make note of is that simply typing in characters with your keyboard is the only thing you're able to do. You have no formatting options whatsoever—that's what's meant by *plain text*.

**Note**

You can work through every lesson in this book using Notepad or TextEdit, but most web developers find that using a more powerful tool improves their productivity significantly. Many provide highlighting that makes your documents easier to read. All of them also enable you to have multiple documents open at once and enable you to treat a group of files as a project. It would be tough to find a new tool that suits you before you have even started, but I would encourage you to look into different editors as you make your way through the book. And many of the commercial editors have free trials, so you
can try them out before you buy.

**Figure 2.3** is a screenshot of the OS X text editor TextEdit. It is notable mainly due to the fact that it has no text formatting menu or toolbar at all. This is what you’re looking for in a text editor; it should enable you to edit the contents of the file without applying formatting of any kind.

FIGURE 2.3 TextEdit on OS X.
Getting Started

Visual Studio Code is a lightweight but powerful source code editor which runs on your desktop and is available for Windows, macOS and Linux. It comes with built-in support for JavaScript, TypeScript and Node.js and has a rich ecosystem of extensions for other languages (such as C++, C#, Java, Python, PHP, Go) and runtimes (such as .NET and Unity). Begin your journey with VS Code with these introductory videos.

Visual Studio Code in Action

```javascript
var server = express();
server.use(bodyParser.json());
server.get('/config', function (req, res) {
  res.send({
    arguments: ['arg1', 'arg2'],
    configure: {
      option1: true,
      option2: false
    },
    defaultConfig: {
      configure: {
        option3: 'value3'
      }
    },
    version: '1.19.2'
  });
});
```
var server = express();
server.use(bodyParser.json());

Intelligent Code Completion
Code smarter with IntelliSense - completions for variables, methods, and imported modules.
Visual Studio Code in Action

Streamlined Debugging

Print debugging is a thing of the past. Debug in VS Code with your terminal tools.
Fast, Powerful Editing

Linting, multi-cursor editing, parameter hints, and other powerful editing features.
Welcome to the Visual Studio Code Setup Wizard

This will install Microsoft Visual Studio Code on your computer.

It is recommended that you close all other applications before continuing.

Click Next to continue, or Cancel to exit Setup.
License Agreement

Please read the following important information before continuing.

Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.

This limitation applies to (a) anything related to the software, services, content (including code) on third party Internet sites, or third party applications; and (b) claims for breach of contract, breach of warranty, guarantee or condition, strict liability, negligence, or other tort to the extent permitted by applicable law.

It also applies even if Microsoft knew or should have known about the possibility of the damages. The above limitation or exclusion may not apply to you because your state or country may not allow the exclusion or limitation of incidental, consequential or other damages.

- [ ] I accept the agreement
- [ ] I do not accept the agreement

< Back  Next >  Cancel
Setup - Visual Studio Code

Select Destination Location
Where should Visual Studio Code be installed?

Setup will install Visual Studio Code into the following folder.

To continue, click Next. If you would like to select a different folder, click Browse.

C:\Program Files\Microsoft VS Code

At least 212.8 MB of free disk space is required.

< Back  Next >  Cancel
Select Start Menu Folder
Where should Setup place the program’s shortcuts?

Setup will create the program’s shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.

Visual Studio Code

Don’t create a Start Menu folder

< Back   Next >   Cancel
Select Additional Tasks
Which additional tasks should be performed?

Select the additional tasks you would like Setup to perform while installing Visual Studio Code, then click Next.

Additional icons:
- Create a desktop icon

Other:
- Add "Open with Code" action to Windows Explorer file context menu
- Add "Open with Code" action to Windows Explorer directory context menu
- Register Code as an editor for supported file types
- Add to PATH (available after restart)
Setup - Visual Studio Code

Ready to Install
Setup is now ready to begin installing Visual Studio Code on your computer.

Click Install to continue with the installation, or click Back if you want to review or change any settings.

Destination location:
C:\Program Files\Microsoft VS Code

Start Menu folder:
Visual Studio Code

Additional tasks:
Additional icons:
Create a desktop icon
Other:
Add to PATH (available after restart)

< Back  Install  Cancel
Setup - Visual Studio Code

Installing

Please wait while Setup installs Visual Studio Code on your computer.

Extracting files...
C:\...\resources\app\extensions\html\node_modules\vscode-languageclient\lib\utils\is.js

[Progress bar]
Completing the Visual Studio Code Setup Wizard

Setup has finished installing Visual Studio Code on your computer. The application may be launched by selecting the installed icons.

Click Finish to exit Setup.

- Launch Visual Studio Code
November 2017 (version 1.19)

Update 1.19.1: The update addresses these issues.

Note: As a result of fixing issue 40351, we now require you to pass "-" as an argument to explicitly signal that the output of a piped command is coming in through stdin. For example: echo Hello World | code - (Windows) and ps aux | grep code | code - (macOS, Linux). This is a breaking change from 1.19.0, please update any scripts that make use of this functionality.

Welcome to the November 2017 release of Visual Studio Code. As announced in the November iteration plan, the focus this month was on GitHub issue clean-up, product performance, and data collection tools for better issue reporting.

During this iteration, we closed 4400 issues (either triaged or fixed) across all our VS Code repositories. As we busily closed issues, you did not stop filing new ones and you created around 2700 new issues. This resulted in a net reduction of around 1700 issues of which 1400 were in the main vscode repository.

Bug fixes as well as community PRs still resulted in a great list of updates. Here are some of the release highlights:

Looking for git in: C:\Program Files\Git\cmd\git.exe
Looking for git in: C:\Program Files (x86)\Git\cmd\git.exe
Looking for git in: C:\Program Files\Git\cmd\git.exe
Looking for git in: C:\Users\etpea\AppData\Local\Programs\Git\cmd\git.exe
Git installation not found.
Python extension for Visual Studio Code

A Visual Studio Code extension with rich support for the Python language (including Python 3.6), with features including the following and more:

- Linting (Prospector, Pylint, pycodestyle, Flake8, pylama, pydocstyle, mypy with config files and plugins)
- Intellisense (auto-completion with support for PEP 8, 84, and PEP 526)

Looking for git in: C:\Program Files\Git\cmd\git.exe
Looking for git in: C:\Program Files (x86)\Git\cmd\git.exe
Looking for git in: C:\Program Files\Git\cmd\git.exe
Looking for git in: C:\Users\etpea\AppData\Local\Programs\Git\cmd\git.exe
Git installation not found.
Basic Layout

VS Code comes with a simple and intuitive layout that maximizes the space provided for the editor while leaving ample room to browse and access the full context of your folder or project. The UI is divided into five areas:

- **Editor** - The main area to edit your files. You can open up to three editors side by side.
- **Side Bar** - Contains different views like the Explorer to assist you while working on your project.
- **Status Bar** - Information about the opened project and the files you edit.
- **Activity Bar** - Located on the far left-hand side, this lets you switch between views and gives you additional context-specific indicators, like the number of outgoing changes when Git is enabled.
- **Panels** - You can display different panels below the editor region for output or debug information, errors and warnings, or an integrated terminal. Panel can also be moved to the right for more vertical space.

Each time you start VS Code, it opens up in the same state it was in when you last closed it. The folder, layout, and opened files are preserved.

Open files in each editor are displayed with tabbed headers (Tabs) at the top of the editor region. To learn more about tabbed headers, see the **Tabs** section below.

Tip: You can move the Side Bar to the right hand side (View > Move Side Bar Right) or toggle its visibility (Ctrl+B).
IntelliSense

We'll always offer word completion, but for the rich languages, such as JavaScript, JSON, HTML, CSS, Less, Sass, C# and TypeScript, we offer a true IntelliSense experience. If a language service knows possible completions, the IntelliSense suggestions will pop up as you type. You can always manually trigger it with Ctrl+Space. By default, Tab or Enter are the accept keyboard triggers but you can also customize these key bindings.

Tip: The suggestions filtering supports CamelCase so you can type the letters which are upper cased in a method name to limit the suggestions. For example, "cra" will quickly bring up "createApplication".

Tip: IntelliSense suggestions can be configured via the editor.quickSuggestions and editor.suggestOnTriggerCharacters settings.

JavaScript and TypeScript developers can take advantage of the npmjs type declaration (typings) file repository to get IntelliSense for common JavaScript libraries (Node.js, React, Angular). You can find a good explanation on using type declaration files in the JavaScript language topic and the Node.js tutorial.

Learn more in the IntelliSense document.
Preview HTML file in browser

Preview html file in your browser, **firefox** & **google chrome** & **IE**

**Usage**

Open an html file, Windows and Linux keyboard shortcut is `Ctrl+Alt+O`, for MacOS is `Cmd+Alt+O`. If you want to preview html in your default browser directly, please type `Ctrl+K D`.

**Release Notes**

**Related**


**License**

MIT
Usage

Open an html file, Windows and Linux keyboard shortcut is Ctrl+Alt+O.

MacOS is Cmd+Alt+O.

If you want to preview html in your default browser directly, please type Ctrl+K D.