SWC Getting Started Guide

Congratulations on making the cut into the Software Craftsmanship Guild! Given that most applicants do not make it this far, you should be proud of where your life choices have gotten you so far, but there is a lot of work to be done if we are to transform you into professional developers!

This guide is intended to help you get your personal environment set up to support the projects we will be working on during the cohort as well as give you some resources to jump-start learning before the cohort. **We want to stress that the more you learn and practice before starting, the better you will be!** In fact, it is quite obvious in week one who has completed the pre-work and who has not… this is why we have created this required coursework, to ensure your bootcamp experience is a successful one. If you finish all the pre-work and still have time before the camp begins just keep writing code, read some books, anything that helps keep your brain in shape!

IMPORTANT!
In our web portion of the cohort we are focused on how applications interact with the web. We DO NOT teach the basics of HTML and CSS. You are expected to have learned these basics before starting the camp. So if we say, "let's put this content in a paragraph tag", we expect you to know what that means. **These 7 assignments are required and are considered the Pre-work portion of the bootcamp. You will need to provide evidence of completion for each of these.**

NOTE: These assignments are a prerequisite to admission into the Cohort. Failure to complete the pre-work assignments will result in removal from the program. You MAY be eligible to enroll in a future Cohort upon completion of the pre-work and further review by the staff.

These courses will be available in our Learning Management System (Moodle) for you to complete and report on. Each section of this pre-work will have a specific timeframe that you will be expected to complete them in. It is imperative that you stay on track and finish these in a timely manner. All course materials, links, and instructions will be available to you in Moodle. There will also be a calendar posted in Moodle to outline when each section of the pre-work will be available for you to start and when it is to be completed.

1. GitHub Basics.

We will use GitHub throughout the Cohort as a repository for our source code. We will use this time during the Pre-Work portion to introduce you to GitHub and familiarize you with the basic functionality it provides.

2. Familiarize Yourself with HTML/CSS Basics

This is a great way to start the course work. We will provide you with access to a free online course to help you gain a basic understanding of these concepts.

3. Stanford Online - Computer Science 101

This is a self-paced course which introduces you to general computer science concepts. There are many in-browser coding experiments and videos that allow you to learn about how computers work. Basic

computer concepts are something on which people transitioning into programming from other career fields are generally weak. A lack of understanding of these concepts can slow your learning.

4. Udemy Course – Programming For Complete Beginners in C#

Learning and understanding the fundamental control structures, variables, and organization of code into classes is going to be a key focus in the first part of the class. Anything you can do to get a head start on this is going to make you a faster and more effective learner. With this in mind, we put together a course for complete beginners on Udemy. As an enrolled apprentice you get a free coupon for this course. You will use the link provided to you in Moodle to access the course.

The 100 or so exercises in this course will be a big part of your first week's in-class work. We do require them to be completed before you start class. You will submit these exercises through your GitHub repository.

When you finish this course and want more, pick up the free C# Yellow Book and get as far into it as you are able: http://www.robmiles.com/c-yellow-book/

5. Familiarize Yourself with JavaScript Basics

Java and JavaScript have a lot of syntactic similarities to C#, so for a head start we require you to complete an online course on JavaScript that will be made available to you in Moodle.

Focus heavily on the first 5 lessons. Pay close attention to conditional logic and organizing code into functions.

6. Familiarize Yourself with jQuery Basics

For creating interactive user interfaces on the web, we will use jQuery. Completing an introductory online course will help you be more productive during this portion of the Cohort. The course will be made available to you in Moodle.

7. Strengthen Your Typing Skills

Being able to type quickly and confidently will greatly help you during the cohort. We spend a lot of time doing coding exercises and following along with instructor examples. You will have a better experience if you are confident in your typing abilities, including common special symbols that are used in programming languages. Please use this resource to train up your typing skills before you attend:

http://typing.io

Do the typing lessons often and repeatedly throughout the pre-work segment of this course. Repetitive practice is the key to improving your typing abilities.

(Optional) Other Resources

Here are some other sites (some not free) and books that we enjoy. If you finish the rest and want to go the extra mile, these can be helpful:

http://teamtreehouse.com/
http://www.safaribooksonline.com/
CSS3: The Missing Manual
HTML and CSS: Design and Build Websites by Jon Duckett
JavaScript: The Good Parts
Head First C#

(Optional) Additional Resource: Introduction to Computer Science: Harvard Online

If you are applying well in advance of the cohort, or want to have additional exercises after your completion of our bootcamp, we also recommend you complete CS50x on edX and or MIT's introduction to Computer Science and Programming. It is free and if you can make it through you will find the knowledge to be invaluable.

https://www.edx.org/course/introduction-computer-science-harvardx-cs50x#.VM-8HovF-s1