

Code Academy completed.

Now what?

3 types of students

“Hacker Academies” like Code Academy and Dev Bootcamp introduce web development to a new group of students who enlist for primarily one of three reasons;

1. To build their own web startup
2. To better communicate / manage developers,
3. To get hired as programmer.

First pass around the block

Attending Code Academy taught a complete, but small view of what it’s like to be a developer by teaching how to deploy Rails “CRUD” apps.

Where is everyone

As a student of the third Code Academy class (Spring 2012), I saw what happened with the two classes that graduated before me. I discovered the gap between graduation and jr. developer consisted of one, or two steps to prepare my classmates for success.

Pre-Apprenticeship

Before becoming an apprentice many of my classmates had to begin with an internship. The internship was typically a 60 to 120 day, unpaid (or \$10 hr) position, to determine if they were suited for the apprenticeship.

Notes from the field

The following summarizes the internship and apprenticeship path of other Code Academy students and talks with my mentor, Dave Hoover (Author of [Apprenticeship Patterns](#) and former Senior Engineering Manager at Groupon.)

Dave Woodall

Code Academy Alum, Spring 2012

The Internship

The internship provides the company with a clear picture of the candidate's potential.

Intern's tasks include

Building	Reading List (During Internship & Apprenticeship)	Technical blog
<u>Unbeatable Tic Tac Toe</u>	Software Craftsmanship - McBreen	In addition to learning, an intern should be demonstrating knowledge by teaching it through technical blogging of the content at hand.
<i>Built in Rails</i>	Pragmatic Programmer - Hunt / Thomas	
<i>Built in Ruby</i>	Agile Software Development, Principles, Patterns, and Practices - Martin	
<i>Built in JavaScript</i>		
<u>Build an app in Sinatra</u>	Clean Code - Martin	
<i>To provide a better understanding of Rails and CRUD</i>	Refactoring - Fowler eXtreme programming explained - Beck	
<u>Katas</u>	The Clean Coder - Martin	
<i>Making Change</i>	Well Grounded Rubyist - Black	
<i>Bowling Game</i>		
<i>Prime Factors</i>		
<i>Testing</i>		

Interns meet regularly with a mentor

A mentors job is to help bridge that gap by showing what steps to take so that they're moving up, but not by simply giving answers. - Doug Bradbury, *Software craftsman at [8th Light](#)*

Daily Meeting with a mentor

A 30 minute meeting provides provides the company with a sense of the intern's trajectory by reviewing questions and code reviews.

Weekly Review with a mentor

Weekly retrospectives that rank progress from 1 to 5 for a feedback loop from both parties.

Interns should sweep the floor

Interns should have no problem recognizing that current contribution is minimal, at best. They should plan to help out whenever possible including refactoring tests, refactoring plugins, taking out the trash, washing dishes, and any other chores that help the team out.

Apprenticeship Agenda (6 - 12 months)

The following is an agenda by a development shop for its apprentices

Topic	Specifics
Crafting code	Can create simple applications without any assistance
TDD	Unit Testing
	Acceptance Testing
Refactoring	Identifying smelly code
	Improving the design
	Staying green
Design Principles	Solid
	Package Principles
Object Oriented Design Patterns	Can Identify Patterns
	Can apply patterns
	Aware of costs and benefits of patterns
Pair Programmer	Articulate a design or algorithm
	Effective as a driver and passenger
Agile Software Process	Works in iterations
	Story Cards
	Demos new features
	Stand-ups
	Retrospectives
Estimating	Commit to a task and a timeframe
	Identify tasks too large for a timeframe
Customer Collaboration	Creating stories based on a customer discussion
	Creating acceptance tests with the customers
	providing transparency to customer
Polygot	Familiarity with a variety of language constructs
	Can read code in unfamiliar languages
	can write code in multiple languages
Communication skills	Engaging live presentations
	clear writing
	teaching
Community involvement	Blogs
	User Groups
	Email Lists
Collective ownership	Follow conventions
	Leave the code cleaner than you found it.