## Methodology

- Keep a list of questions you have to review with your coach
- Keep a list of new words that you encountered/needed to learn
  - Supplement this in last week with coach provided list
  - Consider looking up any term you don't know in <a href="http://www.computerhope.com/">http://www.computerhope.com/</a>
    jargon or using define:
- Read Katas at the start of the week and repeat (or at least spend time on) them each day
  - Resist the temptation to look up solutions to the katas on the internet it will short-change your learning
- Self learning is a large part of this training, make sure you **understand** the things you learn don't just memorize them.
- **Note:** With the recommended timings, facilitated learning sessions and non-training related activities there is more than 8 hours per day, so keep in mind that you will need to do some of the reading and/or exercises outside of normal working hours. Please plan your work appropriately to maximise benefit of time with your coach.
- When trying to solve a problem, try the things you can think of easily, however if you are not making much progress after about 10 minutes ask your facilitator to help get you past the problem.
- Keep track of how long you're spending on each activity, it helps us validate our expectations around timing so we can improve for subsequent terms.
- Schedule and do an informal presentation about the things you've learned during the week at the end of each week.

## Week 1 - Basic Development Skills

### **Development Skills**

Facilitated Learning: Why be a developer?

**Learn Ruby The Hard Way** 

- From start up to and including Exercise 22
- Work individually to ensure self-paced learning
- Review: Learnings with coach after finishing each exercise
- Timing: ~8 hours per day

## Week 2 - Basic Development Skills

### **Development Skills**

Learn < Ruby | Python > The Hard Way - Continued

- From 23 44 inclusive
- Review + Timing: Same as Week 1

## Week 3 - Analyzing Problems and Unit Testing

## **Development Skills**

Code Kata: 01 - Supermarket Pricing

Review: Talk through solution each morning with coach

• Timing: ~2 hour per day

Reading: <u>The Git Parable</u> <u>Facilitated Learning</u>: Using git

Reading: Before Coding... Think

- Including the linked content
- Re-read if read it before

#### **Ruby Koans**

- Clone from the (read-only) git repo and do regular commits
- Aim to complete at least half of the koans
- Review: Concepts learnt with coach after finishing each file
- Timing: 5 hours per day

#### **Learning Skills**

Facilitated Learning: Pragmatic Thinking and Learning

Reading - Learn about <u>SQ3R</u>, Use a <u>SQ3R template</u> for all further reading

### **Agile Skills**

Reading - The Art of Agile Development

All of Part 1

• Review: SQ3R output with coach after each chapter i.e. 1, 2, 3

• Timing: ~2 hour per day

## Week 4 - Analyzing Problems and Unit Testing

### **Development Skills**

Code Katas: 03 - How Big How Fast

• **Review + Timing:** Same as Week 3

Reading: Code Smell entry @ martinfowler.com

• Including the <u>list</u> linked at the end

Facilitated Learning: Code Smells + removing them using refactoring

Reading: OO Concepts and OO in Software

Facilitated Learning: Basics of OO

Ruby Koans - Continued

Finish the koans

Review + Timing: Same as previous koans

## **Agile Skills**

Reading - The Art of Agile Development

• Chapters 5 & 6

• Review + Timing: Same as Week 3

## Week 5 - Getting Used to Java and TDD

### **Development Skills**

Code Katas: 02 - Karate Chop

• Review + Timing: Same as Week 3

#### Java Koans

Aim to complete at least half of the koans

Review + Timing: Same as previous koans

### **Agile Skills**

Action: Facilitate a retrospective

Reading - The Art of Agile Development

• Chapter 7

• Review + Timing: Same as Week 3

## Week 6 - Getting Used to Java and TDD

## **Development Skills**

Code Katas: <u>04 - Data Munging</u>

For bonus learning try kata 6 in Java towards the end of the week

• Review + Timing: Same as Week 3

Java Koans

Finish the koans

• Review + Timing: Same as previous koans

## **Agile Skills**

- Facilitate a retrospective (if didn't last week)
- Facilitated Learning: Story Sizing
- Facilitated Learning: Release Planning

Reading - The Art of Agile Development

- Chapter 8
- Review + Timing: Same as Week 3

## Week 7 - TDD Application in Java from Scratch

### **Development Skills**

Code Katas: <u>06 - Anagrams</u>Do them in Java

• Review + Timing: Same as Week 3

#### **TDD Biblioteca**

- Biblioteca Requirements Part 1 (3 days)
- Biblioteca Requirements Part 2 (2 days)
- Review: Support and review from coach as needed but at least every hour
- **Timing:** ~5 hours

### **Agile Skills**

• Facilitated Learning: Velocity Calibration & Iteration Planning

Reading - The Art of Agile Development

- Chapter 9
- Review + Timing: Same as Week 3

## Week 8 - Start a Java Web App

## **Development Skills**

Code Katas: 09 - Back to the Checkout

- Do them in Java
- Review + Timing: Same as Week 3

#### **TDD Biblioteca**

- <u>Biblioteca Extension</u> (2 days)
- Review + Timing: Same as last week

Facilitated Learning: Building a typical java web application

Facilitated Learning: HTML

Developing a web application - Pair Stairs

- Each pair should develop their own
- There is an <u>example</u> Nat Pryce has built, however our version will be more complex in order to drive specific learnings
- Review: Support and review from coach as needed but at least every hour
- **Timing:** ~7 hours
- 1. Learn about the libraries and tools used in a typical Java Web Application (2 day)
- 2. Adding names CRUD (1 day)
  - Form for new user
  - Add (Create)
  - Post Redirect Get -> List of names (Retrieve)

#### **Agile Skills**

(Optional) Reading - The Art of Agile Development

Continue with Part III whenever there is spare time

## Week 9 - Java Web App Continued

#### **Development Skills**

Developing a web application - Pair Stairs

- Review + Timing: Same as Week 8
- 2. Adding names CRUD (2 days)
  - Edit existing (Update)
  - Delete existing (Delete)
  - No duplicates (display warning e.g. "Carol has already been added")
- 3. Rendering the stairs Dynamic Content (3 days)
  - o Page
  - Start by listing the pairing combinations (P1 & P2, P1 & P3, P2 & P3)
  - Turn it into stairs with names

## **Agile Skills**

(Optional) Reading - The Art of Agile Development

• Continue with Part III whenever there is **spare** time

## **TWU Prep**

TWU requires students to complete pre-course reading and assignments.

- As per course outline at http://university.thoughtworks.com
- **Review:** Review daily with your coach, you will also need to do a weekly (at least) review with a TWU assigned trainer/coach.

• Timing: 2 hours per day

## Week 10 - Add JavaScript to Java Web App

## **Development Skills**

Facilitated Learning: Javascript

Developing a web application - Pair Stairs

- Review + Timing: Same as Week 8
- 4. Adding teams Redesign (2 day)
  - o CRUD for teams
  - Team name
  - List of members (select from list of radio boxes)
  - List of teams should contain a link to render stairs for that team
- 5. Adding pairing counts Javascript (2 day)
  - Add link to boxes which increases when clicked on
  - Client side only to begin with (page should lose state if refreshed)
- 6. Persisting the pairing count AJAX (2 day)
  - Change the implementation of the click to send state to the server
  - Make sure pair stairs doesn't lose state if page is refreshed

## **Agile Skills**

(Optional) Reading - The Art of Agile Development

• Continue with Part III whenever there is spare time

## **TWU Prep**

- As per course outline at <a href="http://university.thoughtworks.com">http://university.thoughtworks.com</a>
- Review + Timing: 2 hours per day

## Week 11 - Styling the Java WebApp with CSS

Facilitated Learning: CSS

### **Development Skills**

Facilitated Learning: CSS

Facilitated Learning: Javascript

Developing a web application - Pair Stairs

- 7. Adding some style CSS (2 day)
  - o Make sure all the boxes are the same size
  - Colour the rows so it is easy to tell which row is yours
- 8. Autocomplete names Service Integration + AJAX (3 days)
  - Integrate with LDAP to search for name

#### **Agile Skills**

(Optional) Reading - The Art of Agile Development

• Continue with Part III whenever there is **spare** time

#### **TWU Prep**

- As per course outline at <a href="http://university.thoughtworks.com">http://university.thoughtworks.com</a>
- Review + Timing: 2 hours per day

## Week 12 - Wrapping Up and Going to TWU

## **Agile Skills**

(Optional) Reading - The Art of Agile Development

• Continue with Part III whenever there is **spare** time

## TWU Prep

- As per course outline at http://university.thoughtworks.com
- Review + Timing: 2 hours per day

#### Travel to TWU

On this week, trainees will be traveling to TWU. The introduction events happen usually on Friday and they should arrive in time for this. That's the reason Week 12 is much lighter on workload than other weeks.

# Just before heading to TWU

Reread: Before Coding... Think

- Including the linked content
- Good reminder that we (still) need humans to program
  - o Focus on the things we are good at
  - o Be aware of the things we are susceptible to