# U1.W2: Technical Blog

## Learning Competencies

* Compare CSS concepts to determine the differences
* Explain how and when to use CSS concepts

## Summary:

Writing blogs on technical subjects is something that will help you solidify your learning and start getting integrated in the community.

## Release 0: Copy your blog template

Create a new HTML file and use the date to name it week2\_technical.html. Copy the code from your blog\_template.html.

## Release 1: Select a Topic

Research one of the following topics:

* What is the difference between Margin, Border, and Padding?
* What are the best practices associated with using classes vs. ids?
* What are the differences between relative, absolute, and fixed positioning?
* What does it mean to display inline vs inline blocks?

## Release 2: Blog!

Write a blog post that teaches others how and when to use each thing. There is no length requirement, but it should show off the knowledge you gained this week. You should show examples of code and screen shots to help teach others!

**HINT:** Intend your blog for a non-technical audience. Imagine explaining to a non-technical friend, for instance. Try to take a person step-by-step through understanding one of the topics above.

## Release 3: Publish

Link to your post from index.html so people can navigate to your page from your site's index.

Make sure the index of your site is maintained, nice, and professional. This is your face in the online community, so make it nice!

## Release 4: Share!

Share your blog on the google+ community under "Blog Posts!" Read others and see if you agree or disagree. Start a discussion on this topic. Consider sharing your blog post on Reddit as well.

# U1.W3: Technical Blog

## Learning Competencies

* Summarize the popularity of JavaScript in Web Development

## Release 0: Create your file

In your blog-posts directory in your [USERNAME].github.io repo, create a new HTML file and use the date to name itweek3\_technical.html.

## Release 1: Research

Research the following questions:

#### Why is JavaScript popular in web development? What are the great things about JavaScript? What are its limitations?

## Release 2: Blog!

Write about what you learned during your research. There is no length requirement, but you should write your blog for a non-technical audience that shows off your understanding of the material.

# U2.W4: Technical Blog Entry

## Learning Competencies

* Research a public ruby method and identify a scenario it could be used in
* Explain how to use an existing ruby method   
  **OR**
* Compare different programming concepts
* Explain a methodology for deciding which data structure/ loop/ or language to use in a particular scenario

## Release 0: New file

In your [USERNAME].github.io repository, create a new directory called "blog-posts". Move all previous blog posts into that directory. Make sure to update the links to your old blog posts on the index of your site so people can easily navigate to your awesome blog posts!

Copy your blog tempate into a new HTML file in the blog-posts directory named week4\_technical.html.

## Release 1: Research a Topic

### Option 1: Teach about Enumerable Methods

Select one of the ruby methods below, do some research on it, and think of a scenario that could teach how to use this method.

#### Topics

* Enumerable#map
* Enumerable#group\_by
* Enumerable#cycle

### Option 2: Research Questions

Research one of the following questions/topics.

* Arrays vs. Hashes. What are they? What are they good for? How do you know which one to use? (Teach others a strategy for deciding)
* Looping - Discuss the various ways to loop in Ruby. How can you decide which is best to use? (Teach others a strategy for deciding)
* Ruby vs. JavaScript - Discuss the benefits/drawbacks of each as you've experienced them. Explain to others how to decide which is better to use for what. Also include examples of how to do the same thing in each.

## Release 2: Blog

Write a blog post that teaches others what you learned about the way these things work and how to use them. Be sure to include code samples in your blog to show others what you are talking about.

If you want to go more in-depth with any of these research memory use and link it to your strategy for deciding which to use.

Write this blog for an audience of newb programmers.

# U1.W3: Cultural Blog: Your Thinking Style and Learning

## Learning Competencies

* Research your thinking style
* Consider strategies for adapting your learning to your thinking style
* formulate ways to expand the ways you learn and think

## Release 0: Copy your Blog Template

In your blog-posts directory in your [USERNAME].github.io repo, copy your blog tempate into a new HTML file namedweek3\_cultural.html.

## Release 1: Research

Remember your [Gregorc Thinking Style](http://web.cortland.edu/andersmd/learning/gregorc.htm) from your pre-Phase 0 work? If you can't remember what you are, retake the [personal thinking style](http://www.thelearningweb.net/personalthink.html) quiz.

Research your thinking style and consider how you can use your understanding of your thinking style to your advantage at DBC to help you learn.

Consider your experience in Phase 0 to this point. What has been the biggest struggle for you? Is it related to the way you think and learn or is it related to something else? If it's related to your learning style, start thinking of strategies to help you. Put some plans of action in place.

Now, consider the idea of [growth vs. fixed mindset](http://www.brainpickings.org/index.php/2014/01/29/carol-dweck-mindset/). Part of knowing about your thinking styles is to know what you need to learn effectively, but we also want to encourage you to broaden the ways you learn and think. Our learning and thinking styles can morph and change as we exercise our brains. So think of some ways you can work to expand the ways you learn and think. The more well-rounded you are, the easier it will be to learn quickly and effectively.

## Release 2: Write your Blog!

Address the questions above in your blog post.

# U2.W4 Issues in Tech

## Learning Competencies

* Identify a problem facing the tech world
* Explain why it is a problem and some background
* Hypothesize about potential solutions

## Release 0: New file

First, create a new HTML file for your this post in your blog-posts directory in your [USERNAME].github.io repository and name itweek4\_cultural\_blog.html. Copy the Code from your blog\_template.

## Release 1: Research

Research about some of the problems facing the tech world. Select one.

## Release 2: Blog

Explain the problem and background in your blog, and then hypothesize potential solutions in your blog post.

# U2.W5: Technical Blog Entry

## Learning Competencies

* Explain when, why, and how to use classes
* Explain how data structures and classes can model a real-world object

## Release 0: New File

Copy your blog tempate into a new HTML file named week5\_technical.html.

## Release 1: Topic

You've had a LOT of practice with ruby classes this week, so now is the time to teach others about it! Pick something you would like to model and teach others when to use instance variables, instance methods, etc.

## Release 2: Blog

Write a blog post about the topic you selected. Be sure to be thorough. This is part of your portfolio that will help set you apart to employers when you graduate, so have fun and show your enthusiasm!

## Release 3: Publish

Link to your blog on the index of your site and push your changes.

Make sure the index of your site is maintained as well! People should be able to navigate to all of your posts from your site's main page.

# U2.W5: Cultural Blog: Pairing and Giving Feedback

## Learning Competencies

* Identify one emotion that arose during a pairing session
* Describe kind, actionable, and specific feedback
* Discuss the feeling of vulnerablity when pairing and reading feedback

## Release 0: Copy your Blog Template

In your blog-posts directory on your [USERNAME].github.io repository, copy your blog tempate into a new HTML file namedweek5\_cultural.html.

## Release 1: Read your feedback

By now you should have submitted and received feedback from your pairing partners. Read them. If you go into the feedback dashboard in [Socrates](https://socrates.devbootcamp.com/feedback), you can read the feedback you've received.

## Release 2: Write your Blog!

### Discuss (at least) the following in your blog post:

#### Pairing:

* What was it like to pair with others to solve challenges?
* Was something particularly fun or rewarding?
* Was something frustrating and difficult for you?

#### Feedback

* How did you feel when you read your feedback?
* Was the feedback you received helpful to your learning?
* Based on the feedback you've received, what are you going to do to improve next time you pair?
* How was it to write feedback?
* What was most difficult for you when writing feedback for your pair?

Overall, what do you think of using pairing and feedback to guide your learning?

## Release 3: Publish

Link to your blog on the index of your site and push your changes.

Make sure the index of your site is maintained as well! People should be able to navigate to all of your posts from your site's main page.

# U2.W6: Technical Blog Entry

## Learning Competencies

* Compare Functional and Object-Oriented Programming
* Explain the differences to an audience
* Demonstrate the differences using examples

## Release 0: New Template

Copy your blog tempate into a new HTML file named week6\_technical.html.

## Release 1: Research

Select and research one of the topics below:

#### Option 1. OO vs. Functional Programming

So you've had some experience with Object-Oriented Programming (OOP) this week. Some consider Functional programming the opposite of OO - compare them.

#### Option 2: Variable Scope

What kinds of variables does Ruby support? Where are they accessible? When would you use them and what makes them different?

#### Option 3: Class Methods

Research class methods and desribe what they are, how to use them, and when you would use them

#### Option 4: Blocs, Procs, and Lambdas

What are these? How do they work?

#### Option 5: Classes vs Modules

Describe and explain the purposes of classes and modules. How are they similar? How do they compare?

#### Option 6: Inheritance vs Composition

What is ruby inheritance? What is composition? Which have you used this week? Create your own examples to explain how to use each.

## Release 2: Blog it!

Write a blog post that teaches your audience about the topic. Think of examples to use to teach and SHOW your audience what you are describing.

## Release 3: Publish

Link to your blog on the index of your site and push your changes.

Make sure the index of your site is maintained as well! People should be able to navigate to all of your posts from your site's main page.

# U2.W6: Stereotype Threat

## Learning Competencies

* Explain the symptoms and consequences of stereotype threat
* Create strategies for combating stereotype threat

## Release 0: Create the Template

Create a new HTML file in your blog-posts [USERNAME].github.io website. Name it week6\_cultural\_blog.html. Copy the Code from your blog\_template.

## Release 1: Research

Claude M. Steele has spent his life researching minority underachievement and developed a theory called "Stereotype Threat." Conduct your own research about stereotype threat. Identify times when you felt it. How did it affect your achievement? What questions did you ask yourself? Did you feel it physically? If you don't think you've ever felt it, can you imagine some groups that might? What could you do to help others in that situation?

#### Example Resources:

* [Whistling Vivaldi (book)](http://www.amazon.com/Whistling-Vivaldi-Stereotypes-Affect-Issues/dp/0393339726) - If you have quite a bit of time
* [Identity and Stereotype Threat (video)](https://www.youtube.com/watch?v=q1fzIuuXlkk) - Start at 7:30
* [What is Stereotype Threat?](http://www.reducingstereotypethreat.org/definition.html)
* [The Stereotype Threat to Workplace Diversity](http://www.diversityinc.com/diversity-events/the-stereotype-threat-dr-claude-steele-mesmerizes-audience-video/)
* [Thin Ice: Stereotype Threat and Black College Students](http://www.theatlantic.com/magazine/archive/1999/08/thin-ice-stereotype-threat-and-black-college-students/304663/)

## Release 2: Blog it!

In your post, describe your experiences with stereotype threat and how it affected you. Then identify what you plan to do when you feel stereotype threat or suspect someone else is feeling it. How will you create meaningful feedback or ask for feedback? How will you work to change the environment you're in to make it more welcoming? How will you address it in public?

Go into as much depth feels comfortable for you.

## Release 3: Publish

Link to your blog on the index of your site and push your changes.

Make sure the index of your site is maintained as well! People should be able to navigate to all of your posts from your site's main page.

**U3.W7: Technical Blog**

**Learning Competencies**

* Explain SQL injection and identify ways to prevent it
* Compare benefits of SQL vs NoSQL databases
* Discuss database query optimization

**Release 0: Copy Your Blog Template**

In the blog-posts directory in your [USERNAME]github.io repository, copy your blog tempate into a new HTML file namedweek7\_technical.html.

If you don't have a blog-posts directory, create one, move all of your blog posts there, and modify the links on the index of your site. Make sure if someone navigates to your site, that they can see all of your blog posts!

**Release 1: Research**

Select a topic below to research.

* Look up issues with SQL (specifically SQL Injection) Enjoy this [XKCD comic](http://xkcd.com/327/) for an amusing intro. What is it? Why is it a problem? What can newb programmers do to combat this issue?
* Compare SQL databases with NoSQL databases. What are the pros and cons of either? Which are you most excited to work with and why?
* Imagine having a huge database with millions of entries. It would probably take a lot of time to run advanced queries on such a large dataset. What are some of the things you can do to optimize SQL queries?

# U3.W8: Technical Blog

## Learning Competencies

* Research a topic of interest
* Teach others about the topic

## Release 0: Copy Your Blog Template

In the blog-posts directory in your [USERNAME]github.io repository, copy your blog tempate into a new HTML file namedweek8\_technical.html.

## Release 1: Research

There are a lot of interesting topics we haven't covered in Phase 0, but will be important for your success at DBC and Beyond. Find a topic that interests you (or create one) and research it. We don't expect you to be experts in any of these, but try to teach others a high level understanding of what it is.

* Active Record
* Big O Complexity and Notation
* Computer Memory
* Dynamic vs. Static Typed Languages
* How computers work
* How the Internet Works
* Recursion
* Regular Expressions
* Sorting (merge sort, quick sort, bubble sort)
* Test-Driven Development
* What is Rails?
* Web Security

## Release 2: Blog!

Write a blog post about what you learned. Teach your audience and future employer!