

HTML & CSS : Day 2 of 3

Pair Programming, & More CSS

How to Program As a Pair



Lesson Objectives

PAIR PROGRAMMING

1. How Pairing helps you code better, and faster
2. How to be a Driver
3. How to be a Navigator
4. How to work together more efficiently

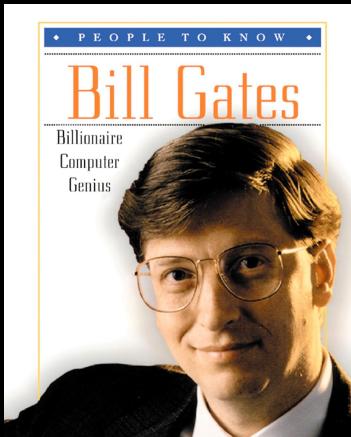
(MORE) CSS

1. The <link> tag!
2. More CSS selectors, and combinations
3. The Box Model
4. CSS attributes and their values
5. Links, and how to style them
6. Web fonts

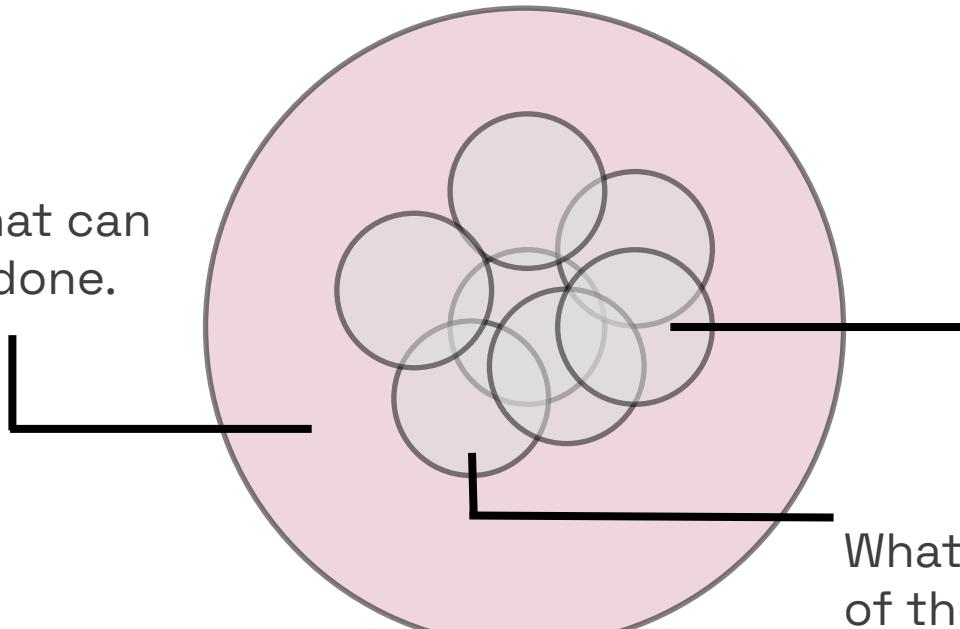
Pair Programming

A dynamic duo who work well together
can be worth any three people working
in isolation.

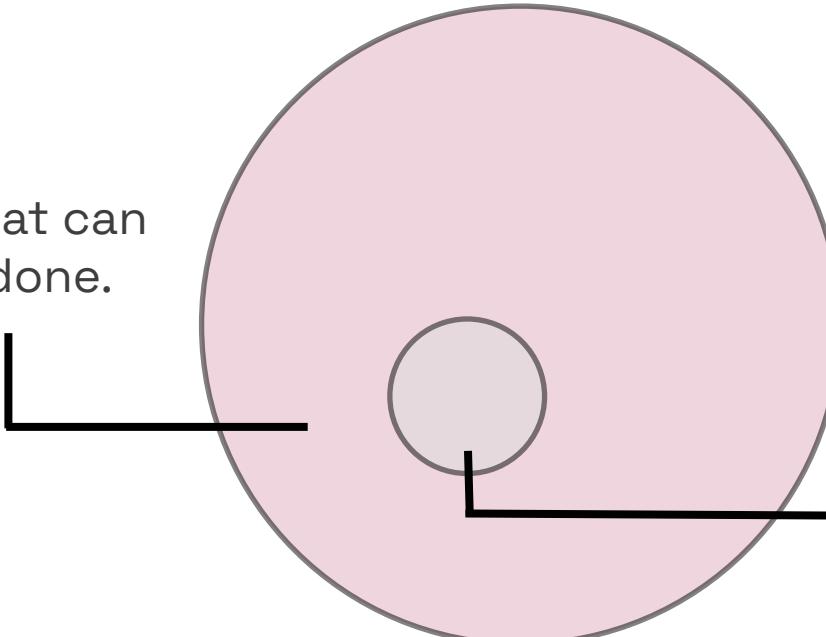
--Larry Constantine [Beyond Chaos]



Everything that can
be known or done.



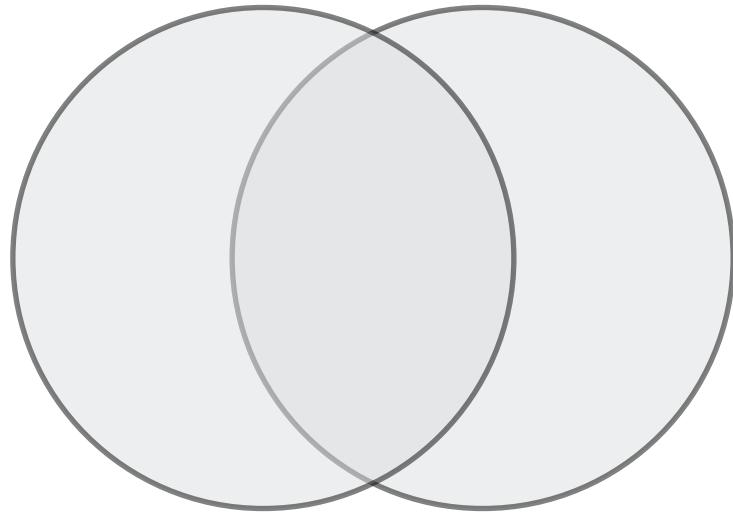
What each member
of the team knows,
or can do.

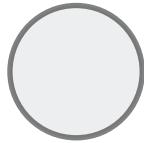


Everything that can
be known or done.

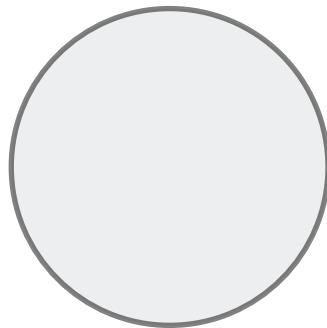
What you know or
can accomplish on
your own

Pair Programming

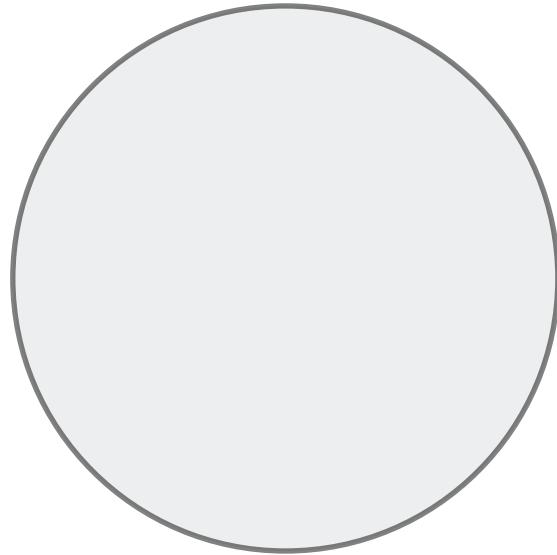




Novice



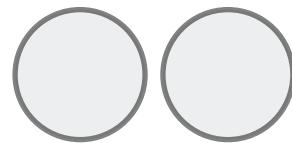
Intermediate



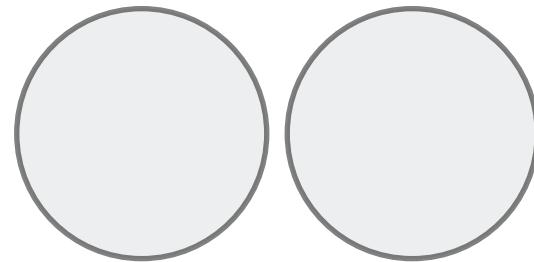
Expert



Novice-novice



Intermediate-intermediate



Expert-expert

Which pair do you think will see the least or most improvement, versus a solo developer with the same experience?

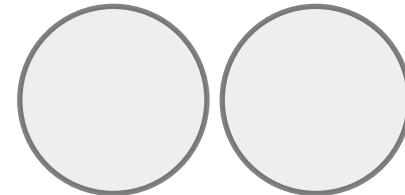
Why do you think that?



Novice-novice



Intermediate-intermediate



Expert-expert

Increase in program “correctness”

Simple work

Complex work

OO
Novice-novice

+32%

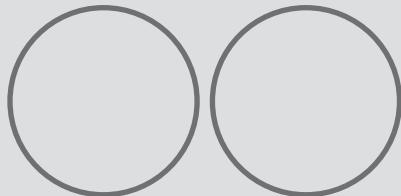
+149%



Intermediate-intermediate

-29%

+92%

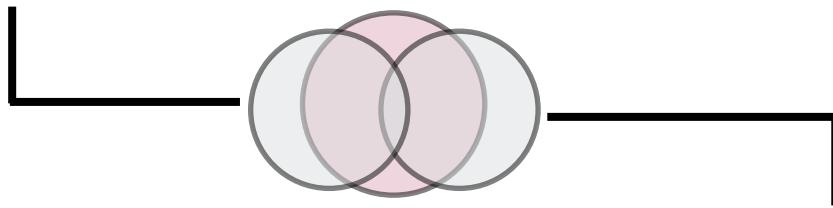


Expert-expert

-13%

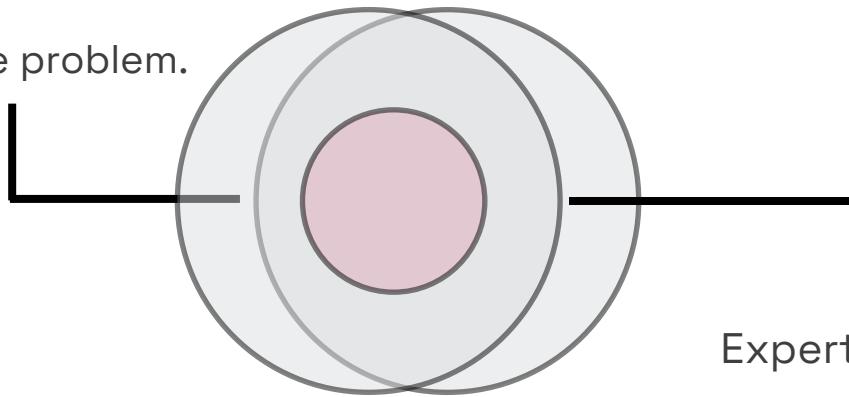
-2%

The difficulty of the problem.



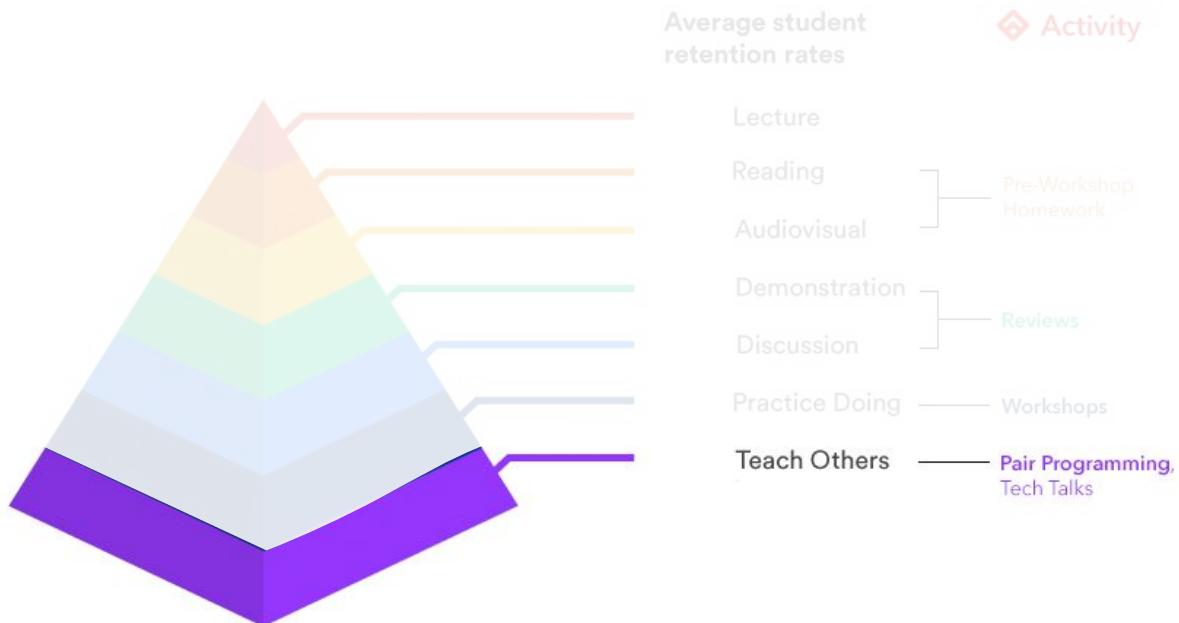
Novice-novice pair

The difficulty of the problem.



Expert-expert pair

Learning Pyramid @ Fullstack Academy



Source: National Training Laboratories, Bethel, Maine

DRIVER



NAVIGATOR



- Spots syntax issues
- Reads the docs
- Sees the big picture
- Speaks at a high level

NAVIGATOR



DRIVER



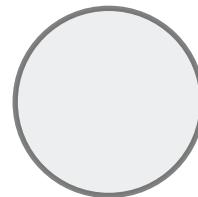
- Writes code
- Asks clarifying questions
- Works the details

How might it affect the pairing session if the participants have different experience levels?

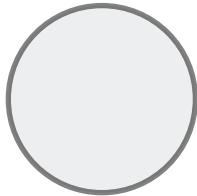
How is it different if the Driver or the Navigator is the stronger participant?

What can be done to mitigate these issues?

Driver



Navigator





DETRIMENTAL NAVIGATOR



- Grabs the keyboard
- Dictates code
- Checks out





DETRIMENTAL DRIVER



- Speeds ahead
- Ignores navigator
- Won't revisit code
- Passively types whatever the navigator wants



**EXCELLENT
NAVIGATOR**



- Diagrams the approach
- Confirms understanding
- Stays engaged
- Thinks about architecture and design





GREAT DRIVER



- Narrates their typing
- Confirms understanding
- Keeps steady pace
- Thinks about architecture and design

Driver or Navigator?

- Checks the docs
- Writes the code
- Asks questions!
- Thinks about high level architecture

DRIVER



NAVIGATOR



BREAK TIME

The <link> tag

Use the <link> tag to link to external resources for your web page, like CSS files, or web fonts

RESOURCE: <https://developer.mozilla.org/en-US/docs/Web/HTML/Element/link>

CSS Selectors

CSS Selectors allow you to apply styling rules to your desired set of HTML elements

(and also do some other cool stuff, sometimes, kind of)

RESOURCE: https://developer.mozilla.org/en-US/docs/Web/CSS/CSS_Selectors

CSS Selectors

- **Universal**
 - *
- **Tag (or Type)**
 - body
- **Class:**
 - .my-class
- **ID:**
 - #MyId
- **Attribute:**
 - [src]
- **Groups and Combinations:**
 - Lots of these!
- **(Pseudo-class, Pseudo-element)**
 - Also lots of these!

RESOURCE: https://developer.mozilla.org/en-US/docs/Web/CSS/CSS_Selectors

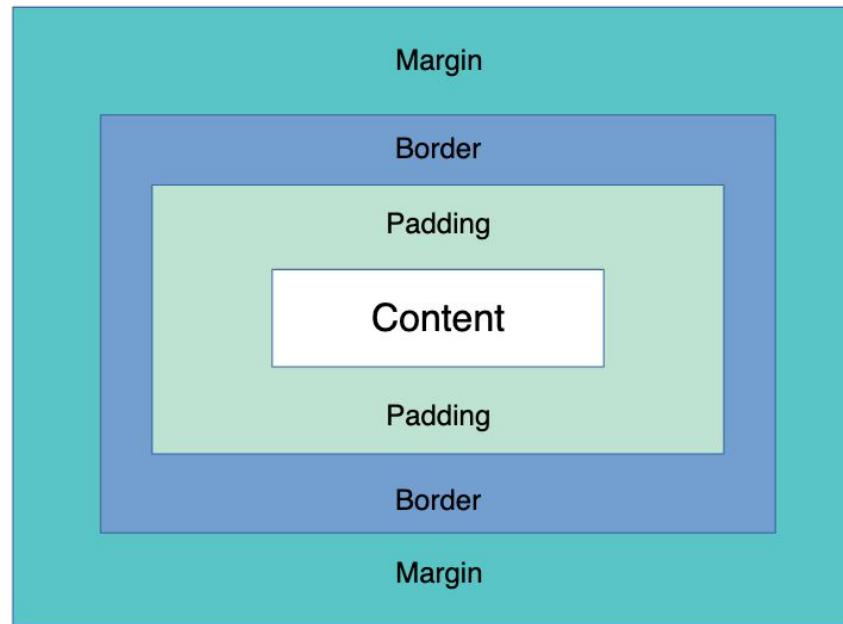
CSS Box Model

Every HTML element is rendered by a browser as a rectangular box, made up of four parts:

1. Content edge
2. Padding edge
3. Border edge
4. Margin edge

RESOURCE: https://developer.mozilla.org/en-US/docs/Web/CSS/CSS_Box_Model

CSS Box Model



RESOURCE: https://developer.mozilla.org/en-US/docs/Web/CSS/CSS_Box_Model

CSS Values & Units

CSS Properties are assigned **Values** of at least one, but maybe multiple **Data Types**

Data Types might include several different **Units**

RESOURCE: https://developer.mozilla.org/en-US/docs/Learn/CSS/Building_blocks/Values_and_units

CSS Values & Units

These values are in different units. Can you guess the value type?

- - 1, 2, 3, 99, -1000
- - 0.5, 1.0, 3.14159, -999.99
- - red, #FF0000, rgb(255, 0, 0), rgba(255, 0, 0, 1), hsl(0, 100%, 50%)
- - px, cm, em, vh, vw

RESOURCE: https://developer.mozilla.org/en-US/docs/Web/CSS/CSS_Selectors

DEMO TIME