

Coding Tips

Yoonsuck Choe

Get started!

- Every day, aim to spend "at least 5 minutes" working on your code.
 - If you become ambitious and say "I will spend at least 1 hour", you will never get started.
 - Once you get started, the momentum will get you through the day.
- Important thing is to **Get Started!**
 - See this TED talk: <https://www.youtube.com/watch?v=TQMbvJNRpLE&t=10s>
 - From the talk: "Aim to read one word in a book everyday" (to ultimately read 50 books in a year).

Learning quick

- Start small

```
<?php
```

```
    echo "hello world!"
```

```
?>
```

- Search for what you need, only when you need it.

```
for ($i=0; $i<10; ++$i) {  
    echo "$i \n";  
}
```

is this the correct syntax??

Test at every step! (for your peace of mind)

- Add one thing at a time and test the result.
- Befriend `print_r()`
- Test with **sandboxes**, before putting it in your code.
- Example: regular expressions

```
<?php
```

```
    $str = "hello,world,bye,now";
```

```
    $words = preg_split(",", $str);    # what's wrong with this?
```

```
    print_r($words);
```

```
?>
```

Errors hard to fix, Stuff hard to install, etc.

- Search on Google(!) with the error message. Make this a habit!
 - People make similar mistakes
- Search on Google with any keywords, and just add "reddit".
 - Reddit tend to have higher signal-to-noise ratio
- Example: feof() vs \$str=\$fgets() .. in a while loop?

```
$fp = fopen("data.dat","r");
```

```
while (!feof($fp)) {
```

```
    ...
```

```
}
```

```
$fp = fopen("data.dat","r");
```

```
while ($str=fgets($fp)) {
```

```
    ...
```

```
}
```

Due to this, I spent several hours trying to figure out why hosting server and docker gave different behavior!

Be lazy (relatively speaking!)

- Why do we write code?
 - To automate
 - To avoid repeated manual work -- "I'm lazy!"
 - To have fun! (see the next slide)
- Example: task that you can do manually in 20 minutes (writing an HTML only web page) but takes 1 hour to code (write program to produce HTML).
 - If it is a one-time gig, do it manually and be done in 20 minutes.
 - If it is a recurring job, you will quickly accumulate over 1 hour of work if you did it manually.
 - Example: My course web page. :-)
- "I got too lazy I wrote code to do my job!"
 - Be lazy in a productive way!

Have fun!

- Coding is fun!
 - Don't think of it as an obligation or a burden
 - Figuring out a difficult bug or getting something to finally work can be really fun and rewarding!
 - Coding for the sake of coding!
 - Finding out new stuff is fun: new languages
 - Also, allows you to be lazy (see previous slide)
- Example: Project 1
 - If you make it look really professional, you'll have no problem landing a great job! :-)
- Example: golang, docker
 - To automate google drive upload, got an open source code written in golang. Had to figure out cross-compile features, etc.
 - In finding out web server alternatives, finally bit the bullet and tried docker!