James Clear @JamesClear · Oct 3, 2018

You do not rise to the level of your goals. You fall to the level of your systems.

22 648 1.7K

The Marcy Lab School

We need a tried and proven system to solve coding problems...

P: Understand the **Problem**

E: **Examples** and Test Cases

D: **Data Structures**

A: **Algorithm**

C: **Code**

The Marcy Lab School

FizzBuzz

Return an array containing the numbers from 1 to some number N

Replace certain values however if any of the following conditions are met:

- If the value is a multiple of 3: use the value 'Fizz' instead
- If the value is a multiple of 5: use the value 'Buzz' instead
- If the value is a multiple of 3 & 5: use the value 'FizzBuzz' instead

The Marcy Lab School

Understand the Problem

- Restate the problem in your own words
- Inputs and Outputs
- Missed requirements and Edge cases
  - Happy path
- Develop a mental model for harder problems

The Marcy Lab School

Examples and Test Cases

```
function fizzbuzz(n){ //n is a number

    return [] //array of numbers

}
```

Argument = data you pass in

Parameter = variable the function takes in

```
fizzbuzz(3) => [1, 2, 'Fizz']

fizzbuzz(6) => [1, 2, 'Fizz', 4, 'Buzz', 'Fizz']

fizzbuzz(15) => [1, 2, 'Fizz', 4, 'Buzz', 'Fizz', 7, 8, 'Fizz',
'Buzz', 11, 'Fizz', 13, 14, 'FizzBuzz']
```

The Marcy Lab School

Data Structures

How we keep track of large data

- Arrays
  - List: [1, true, “Ann”]
- Objects
  - Properties: { name: “Ann” , age: 29, teacher: true }

The Marcy Lab School

Algorithm

- A process or set of rules to be followed in calculations or other problem-solving operations.

Pseudo-code

- A plain language description of the steps in an algorithm or another system.

The Marcy Lab School

CODE!

The Marcy Lab School