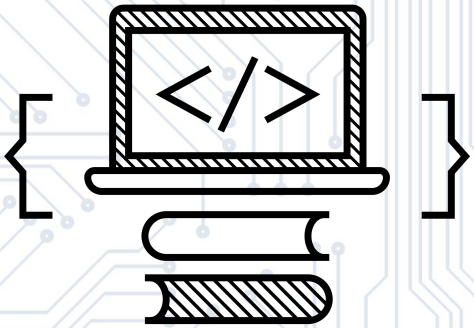


Constructors

Web Development Boot Camp

Lesson 5.3

What is programming?

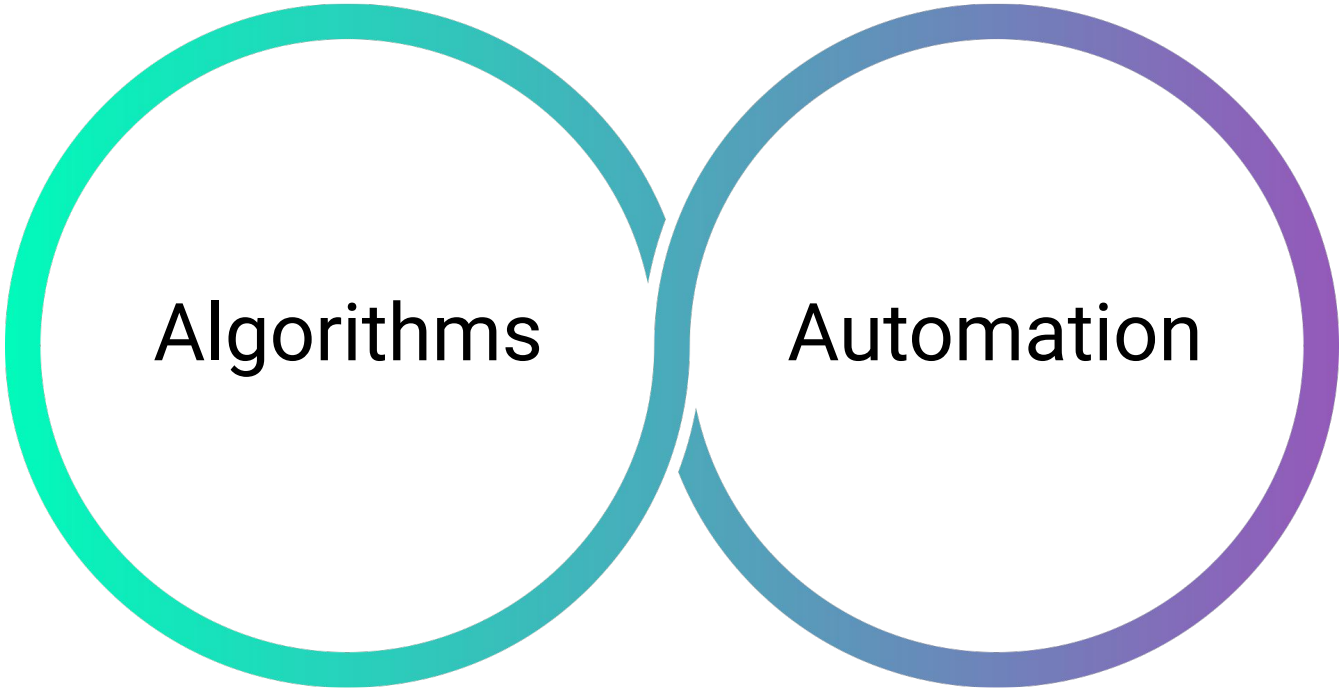
Programming

Designing and building an executable program to accomplish a specific computing task. Essentially, programming is problem solving.

What problems do we solve?

Algorithms and Automation

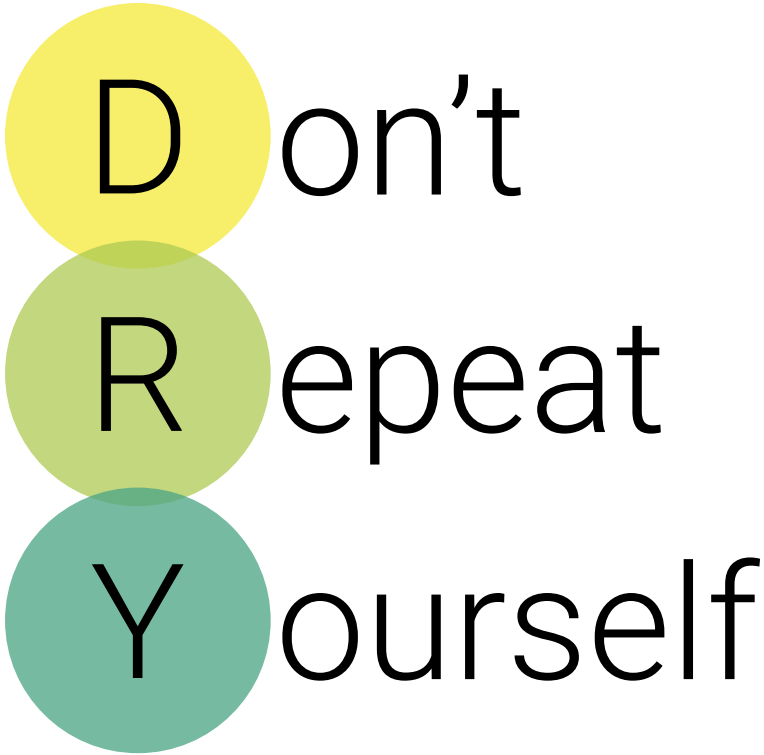
Programming allows us to solve almost any task or problem on a computer.
There are two primary categories:



What is DRY?

Don’t Repeat Yourself (DRY)

Rewriting code wastes time, memory, and can confuse readers and contributors to your code.



What is an object?

Objects

Objects in JavaScript are unordered collections of related data built on a `key:value` structure, where values can be any data type, including functions.

```
const person = {
 name: ['Bob', 'Smith'],
 age: 32,
 gender: 'male',
 interests: ['music', 'skiing'],
 bio: function() {
   alert(this.name[0] + ' ' + this.name[1] + ' is ' + this.age + ' years old. He
likes ' + this.interests[0] + ' and ' + this.interests[1] + '.');
 },
 greeting: function() {
   alert('Hi! I\'m ' + this.name[0] + '.');
 }
};
```

Why are objects important in JavaScript?

Everything is an Object!

Well, almost everything.

Data types are objects:

- Array
- Date
- Math
- ...and more!

Even **functions** are objects!

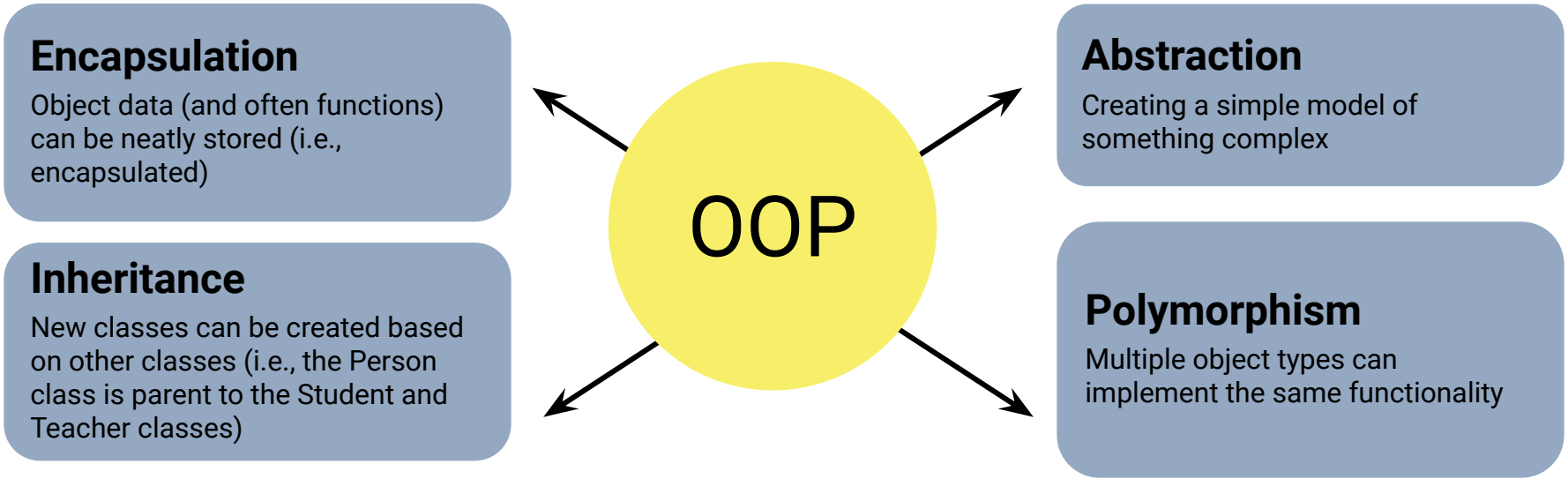
Primitive types are *not* objects:

- Boolean
- Null
- Undefined
- Number
- String
- Symbol

What is Object-Oriented Programming?

Object-Oriented Programming (OOP)

OOP is a programming paradigm, or pattern of programming, centered around objects. Problems are approached as a collection of objects working together to solve a problem. Objects can speak to one another, and this ability makes them suitable for managing and solving large and complex problems.



<Time to Code>