CHAPTER 18

CLASSES

CHAPTER BREAKDOWN

18.1 What are Classes?

18.2 Declaring and Calling a Class

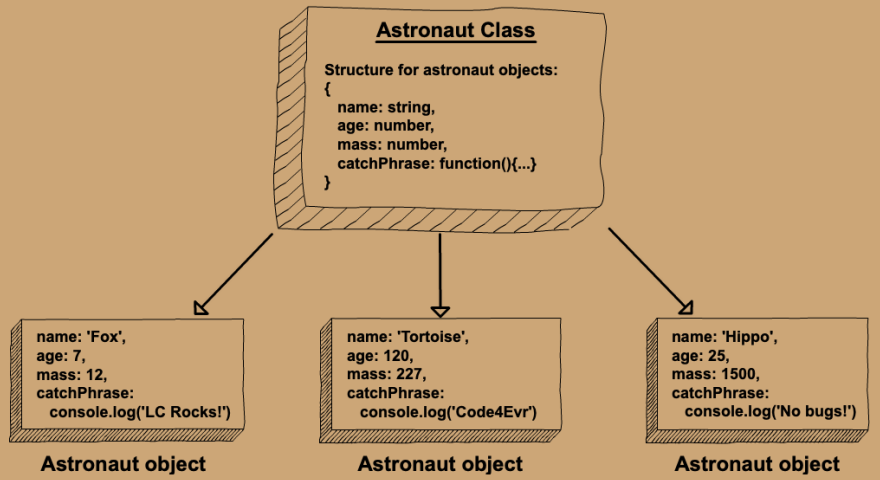
18.3 Assigning Class Methods

18.4 Inheritance

18.1 What are Classes?

CLASSES

Data Structure
Creates a General Structure for an object
Reusable
Same set of Keys. Not the same values



18.2 Declaring and Calling a Class

Declaring and Calling a Class

Creating a Class
Assigning Properties
Creating New Class Object
Setting Default Values

- Class names start with a capital
- Constructor
  - Special method for creating objects of the same type.

```
class Astronaut {
   constructor(name, age, mass) {
      this.name = name;
      this.age = age;
      this.mass = mass;
   }
}
```

- The this keyword defines a key/value pair
  - this.key = value
- Each time the Astronaut class is called constructor builds an object with the SAME set of keys but different values based on arguments.
- To avoid issues with missing arguments you can set a default value for a parameter.

18.3 Assigning Class Methods

CLASS METHODS

Assigning methods outside constructor
Assigning methods inside constructor
Which way is preferred?

- Outside the constructor:
  - Declare our methods the same way as we do with normal objects

```
reportStats() {
   let stats = `${this.name} is ${this.age} years old and has a mass of ${this.mass} kg.`;
   return stats;
}
```

- Inside the constructor:
  - We have to utilize the this keyword as we did with the other properties

```
this.reportStats = function() {
   let stats = `${this.name} is ${this.age} years old and has a mass of ${this.mass} kg.`;
   return stats;
}
```

- Which way is preferred?
  - If the method is the same for ALL objects of a class, define the method outside of the constructor
  - This doesn't consume as much memory as defining it inside the constructor.

18.4 Inheritance

INHERITANCE

Ability of one class to acquire properties and methods from another

Extends

- Extends:
- When utilizing extends we must use the super() constructor
- This will allow us to get the properties and methods from the parent class.
- When you pass an argument into a constructor you need to also pass it into the super.