

Unit 11.1 Highlights

(Source: https://www.w3schools.com/js/js_object_constructors.asp)

JavaScript Object Constructors - Allows the reuse of object structures and properties
this - refers an instance property of an object

Ex. 1 (constructor using functional declaration)

```
//capitalize the name of the constructor function
function School(name,city,nickname) {
    this.name = first;
    this.city = last;
    this.nickname = name;
    this.cheer = function(){
        console.log(`Go ${this.nickname}!!`); // 'Go Jackets!!', using template literals
    };
}
//georgiaTech is an instance of the constructor School
var georgiaTech = new School("Georgia Tech", "Atlanta, GA", "Jackets");
```

Ex. 2 (constructor using functional expression)

```
//capitalize the name of the constructor function
var Car = function(make,model,year,color) {
    this.make = make;
    this.model = model;
    this.year = year;
    this.color = color;
    this.honk = function(){
        console.log("Beep! Beep!"); // 'Beep! Beep!'
    };
}
//maserati is an instance of the constructor Car
var maserati = new Car("Maserati", "Quattroporte", 2019);
```

Ex. 3 (constructor using class declaration)

```
//capitalize the name of the class
class Shape {
    constructor(type,color,id){
        this.type = type;
        this.color = color;
        this.id = id;

        //you can make methods as expressions
        this.printShapeTypeAndId = function(){
            console.log(`I'm a ${this.type} and my id is ${this.id}`);
        };

        //...or you can make methods by declarations
        printShapeType(){
            console.log(`I'm a ${this.type}`)
        }
    }
}
//square is an instance of the constructor Shape
var square = new Shape("Rhombus", "blue", "023091");
square.printShapeTypeAndId(); // "I'm a square and my id is 023091"
square.printShapeType(); // "I'm a square"
```

Ex. 4 (constructor using class expression)

```
//capitalize the name of the constructor function
var Star = class{
    constructor(type,temp,isBinary,age){
        this.type = type;
        this.temp = temp;
        this.isBinary = isBinary;
        this.age = age;
    }
    printStarTypeAndTemp(){
        console.log(`I'm a ${this.type} star, burning @ a temperature of '${this.temp}'!`)
    }
}
//neutron is an instance of the constructor Star
var neutron = new Star("neutron", "pretty damned hot", false, 8000000001);
neutron.printStarTypeAndTemp(); // "I'm a neutron star, burning @ a temperature of 'pretty damned hot'!"
```