**Coding Challenge Number 3**

**Java Script Fundamentals 2**

**Objects**

The Problem

Use objects to implement BMI calculations. Remember that BMI = mass/height^2 (mass divided by height squared).

**Solution**

First we need to create objects for Mark Miller and John Smith. We then need to populate the objects with information about them; full name, mass, height.

Mark Miller

//Mark Miller Object

*const* markMiller = {

firstName: 'Mark',

secondName: 'Miller',

mass: 78,

height: 1.69,

};

John Smith

//John Smith Object

*const* johnSmith = {

firstName: 'John',

secondName: 'Smith',

mass: 92,

height: 1.95,

};

Here are the objects for both parties.

Now we need to create a calcBMI method(function) on each object to calculate the BMI. We then need to store the BMI value to a property and also return it from the method.

Here is the calcBMI:

calcBMI: *function*() {

this.bmi = (this.mass)/(this.height\*\*2);

return this.bmi;

},

markSummary: *function*() {

return `${this.firstName} ${this.secondName} has a BMI value of ${this.calcBMI()}.`;

},

The calcBMI function is creating a new value that is stored within the object Mark Miller. The new value is for bmi.

The calcBMI method does not call itself. We need to explicitly call it. We could do it like this;

markMiller.calcBMI();

This does not even require logging to the console, but it will call the method and make sure that it runs.

We can then use another function to call our calcBMI function so that the data is added to the object. When we call the information from the object it will be returned.

**Final Code**

//Mark Miller Object

*const* markMiller = {

firstName: 'Mark',

secondName: 'Miller',

mass: 78,

height: 1.69,

calcBMI: *function*() {

this.bmi = (this.mass)/(this.height\*\*2);

return this.bmi;

},

markSummary: *function*() {

return `${this.firstName} ${this.secondName} has a BMI value of ${this.calcBMI()}.`;

},

};

console.log(markMiller.markSummary());

//John Smith Object

*const* johnSmith = {

firstName: 'John',

secondName: 'Smith',

mass: 92,

height: 1.95,

calcBMI: *function*() {

this.bmi = (this.mass)/(this.height\*\*2);

return this.bmi;

},

johnSummary: *function*() {

return `${this.firstName} ${this.secondName} has a BMI value of ${this.calcBMI()}.`

},

};

console.log(johnSmith.johnSummary());

//if/else Higher BMI

if (markMiller.bmi > johnSmith.bmi) {

console.log(`${markMiller.firstName} ${markMiller.secondName} has a BMI of ${markMiller.bmi}. It is higher than Johns BMI which is only ${johnSmith.bmi}.`);

} else if (markMiller.bmi < johnSmith.bmi) {

console.log(`${johnSmith.firstName} ${johnSmith.secondName} has a BMI of ${johnSmith.bmi}. It is higher than Mark's BMI which is only ${markMiller.bmi}.`);

} else if (markMiller.bmi === johnSmith.bmi) {

console.log('They both have the same BMI.');

} ;