

# INT222 Quiz 2

Name: Solution

## Instructions:

Complete all questions in the spaces provided (the number of lines provided does not indicate the length of the code required). This quiz is worth 5% of your final mark and you will have exactly 30 minutes to complete it.

## Question 1 (3 Marks):

Write a function called "**allCapsArray**" using **function declaration syntax** that takes one parameter (an array of Strings). Your function will return a copy of this array with all of the elements capitalized.

### Example Usage / Output:

```
var allCaps = allCapsArray(["jon","bob","andrew"]); // returns a new array consisting of: ["JON","BOB","ANDREW"]
```

**HINTS:** Make use of the **Array.length** property and the **Array.push(newItem)** and **String.toUpperCase()** methods

```
function allCapsArray(strArray){
    var newArray = [];

    for(var i=0; i < strArray.length; i++){
        var newStr = strArray[i].toUpperCase();
        newArray.push(newStr);
    }

    return newArray;
}
```

## Question 2 (4 Marks):

Write a JavaScript function called "**capitalize**" using **function declaration syntax** that takes one parameter (a string) and returns a copy of the string where the first letter is upper case and all other letters are lower case.

### Example Usage / Output:

```
var capitalize1 = capitalize("PATRICK"); // returns "Patrick"
var capitalize2 = capitalize("james"); // returns "James";
```

**HINTS:** Make use of the **String.length** property and the **String.charAt(index)**, **String.toUpperCase()**, **String.toLowerCase()** and **String.substr(fromIndex,[length])** methods

```
function capitalize(str){
    var firstChar = str.charAt(0);
    firstChar = firstChar.toUpperCase();

    var remainingString = str.substr(1);
    remainingString = remainingString.toLowerCase();

    return firstChar + remainingString;
}
```

### Question 3 (3 Marks):

Create a custom object called "**car**" using **object literal notation**. The car object has 3 properties:

**speed** ( number ) - initialized to 0

**speedUp** ( function ) - takes one parameter (number) and adds this number to the speed property

**slowDown** ( function ) - takes one parameter (number) and subtracts this number from the speed property

#### Example Usage / Output:

```
console.log(car.speed); // outputs 0;
```

```
car.speedUp(5);
```

```
console.log(car.speed); // outputs 5;
```

```
car.slowDown(3);
```

```
console.log(car.speed); // outputs 2;
```

```
var car = {  
  speed: 0,  
  speedUp: function(val){ this.speed += val},  
  slowDown: function(val){ this.speed -= val}  
};
```

## Question 4 (4 Marks):

Create an custom object called "**student**" using **object literal notation**. The student object has two properties:

**name** (string) - initialized to your name (ie: "Pat")

**studentNum** (number) - initialized to your student number (ie: 657483920)r

Next, create a **new object** called "**detailedStudent**" using the "**student**" **object as a prototype** and add the property:

**program** (string) - initialized to your program, (ie: "CPA")

### Example Output:

```
console.log("Student: " + detailedStudent.name + " Number: " + detailedStudent.studentNum + " Program: " +  
detailedStudent.program); // Outputs: Student: Pat Number: 657483920 Program: CPA
```

```
var student = {  
  name: "Pat",  
  studentNum: 657483920  
};  
  
var detailedStudent = Object.create(student);  
  
detailedStudent.program = "CPA";
```