INT222 Quiz 1

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 35 minutes to complete it.

Question 1 (10 Marks):

a) List the 3 main **(primitive) datatypes** used in JavaScript:

number, boolean, string

b) List 2 functions that belong to the global **window objec**t that you can use to gather user input

window.prompt(), window.confirm()

c) Briefly explain the purpose of the "strictly equal" (===) comparison operator in JavaScript

Strictly equal does a comparison without type conversion, ie: "5" === 5 is false, whereas "5" == 5 is true

d) List 2 functions of the **+ operator** in JavaScript

Concatenate strings, ie: "My" + "String" = "MyString", add numbers, ie: 4 + 5 = 9

e) What is the value of **x** in the following line of code?:

```
var x = ("5" > 4) ? 2 : 3;
```

2

Question 2 (3 Marks):

Write a JavaScript function called “validNumberString” using the “function declaration” format that accepts the following parameters / return value:

- Parameter 1: **string**
- Returns: **boolean**

Your function will accept a string and output whether or not the string represents a valid number.

For example, when calling your function:

```
console.log(validNumberString("5")); // true
console.log(validNumberString("5.5")); // true
console.log(validNumberString("5a")); // false
```

```
function validNumberString(num){

        var retVal = true;

        if(isNaN(num)){
                retVal = false;
         }

        return retVal;
}
```

Question 3 (4 Marks):

Write a JavaScript function called “pow” using the “function expression” format that accepts the following parameters / return value:

- Parameter 1: **number**
- Parameter 2: **number**
- Returns: **number**

Your function will accept 2 numbers (a and b) and will return the result of variable **a** to the **power of** variable **b** (ie: a^b). (Recall: $2^3 = 2 \times 2 \times 2$, $5^2 = 5 \times 5$, etc.) You can assume that the function will accept whole numbers (ie, 1,2,3) and not floating point numbers (ie, 1.2, 3.4, 9.45, etc.)

For example, when calling your function:

```
console.log(pow(2,3)); // 8
console.log(pow(5,2)); // 25
```

```
var pow = function(num1, num2){

        retVal = num1;

        for(var i=1; i < num2; i++){
                retVal *= num1
        }

        return retVal;
}
```

Question 4 (3 Marks):

List the output of the following chunk of JavaScript code in the space below:

```
var varC = 5;

function showVars(varA) {
    varC += varA;
    return function (varB) {
        varA++;
        return "varA: " + varA + "\nvarB: " + varB + "\nvarC: " + varC;
    };
}

myVars = showVars(5);
console.log(myVars(8));
```

varA: 6

varB: 8

varC: 10