SCHOOL OF COMPUTING

ST0523 Fundamentals of Programming

Practical 1: Introduction to JavaScript Programing

What you will learn / do in this lab

- Write the code to print out a specific output using escape characters

- Identify correctly the validity of a variable name

- Identify the most suitable data type of a given category

- Trace a program to determine what is the final output of the code

1) Write JS code to display the following output using a **single** console.log statement:

	Output should be as shown below	Code
(a)	``` "The quick brown fox jumps over the lazy dog." ```	console.log("The quick brown fox \n\tjumps over the \nlazy dog");
(b)	``` _____ /. .\ | \/ | _____/ ```	console.log(" _____ \n /. . \\ \n| \V |\n _____/");
(c)	``` I've tried so hard and got so far and in the end it doesn't even matter. ```	

2) Identify and state reason(s) if the following variable names is valid/invalid.

	Variable Name	Valid / Invalid	Reason(s)
(a)	n@m3	Invalid	@
(b)	while	Invalid	Reserved Word
(c)	1234Hi5	Invalid	Start with letter
(d)	$I__I$	Valid	
(e)	P0ck3t	Valid	
(f)	Mr. Molly	Invalid	Space & full stop
(g)	switch	Invalid	Reserved word
(h)	_MannerMakesMan	Valid	

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3) Determine the most suitable data type for the following categories:

		Category	Data Types
(a)		Mailing Address	String
(b)		Body Mass Index (BMI)	Floating Point
(c)		Credit Card Number (16 digits)	Integer
(d)		Is a year a leap year	Integer
(e)		Amount of Water in Water Bottle	Floating Point
(f)		Does password contains at least 8 characters	Boolean
(g)		Movie Title & Director	String
(h)		Year Published of a Book	Integer

4) Trace the following code to determine the final value printed. You are to treat each part <u>independently.</u>

	Program	Output
| (a) | ```
var x = 4;
x = 5;  ← updated
console.log(x);
``` | 5 |
| (b) | ```
var x, y;
x = 5;
y = x;
console.log(y);
``` | 5 |
| (c) | ```
var x, y;
y = x;
console.log(y); ←0
``` | Undefined<br>0 |
| (d) | ```
var x, y, z;
z = 2;
y = z;
x = y;
console.log('z');
``` | 2 |

5)   Using Visual Studio, write a program using only 1 **console.log** to output the following program below:

```
Module Code\Name: ST0523\"Fundamentals of Programming"
        CA 1                :40%
        CA 2                :20%
        EXAM                :40%
        Total---------->:100%
```

```
console.log("Module Code\Name:ST0563\"Fundamental of
Programming\"\n CA1 \t :40% \n CA 2 \t :20% \n EXAM
\t :40% \n Total \t :100% \n");
```

-- End --