

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."	<code>console.log("The quick brown fox \n\tjumps over the \nlazy dog");</code>
(b)		<code>console.log(" _____ \n / . . \\ \n \\ \n \\ ____ /");</code>
(c)	I've tried so hard and got so far and in the end it doesn't even matter.	<code>console.log("I've tried so hard\nand got so far and\nin the end it doesn't \neven matter.");</code>

- 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	

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)	String
(d)	Is a year a leap year	Boolean
(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 independently.

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

- 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");
```

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