

Web Application Development

# BASIC JAVASCRIPT INSTRUCTIONS



# STATEMENTS



Each individual step in a script is known as a statement.



Each statement should end  
with a semi-colon.



```
document.write( 'Welcome!' ) ;
```

|  
SEMI-COLON



# COMMENTS



You should use comments to explain what your code does.

They help you remember it and others understand it.



# MULTI-LINE COMMENTS





```
/* Anything between  
these characters is  
a comment and will  
not be processed. */
```



# SINGLE-LINE COMMENTS



```
// Anything after the two  
// forward slashes is also  
// a comment and will not  
// be processed.
```



# VARIABLES



Scripts often need to store bits of information temporarily in order to achieve their tasks.



These bits of information - or data - are stored in variables.



# DECLARING A VARIABLE



```
var quantity;
```





```
var quantity;
```



A horizontal line with vertical end caps is positioned below the word 'var'. A short vertical line descends from the center of this horizontal line to the word 'KEYWORD'.

KEYWORD



```
var quantity;
```

VARIABLE NAME



# ASSIGNING A VALUE TO A VARIABLE



```
quantity = 3;
```



```
quantity = 3;
```



VARIABLE NAME



```
quantity = 3;
```

ASSIGNMENT OPERATOR



```
quantity = 3;  
          |  
          VALUE
```



# DATA TYPES





JavaScript distinguishes  
between numbers, strings,  
and `true` or `false` values  
known as Booleans.



1

NUMBERS

0.75

NO QUOTES

2

STRINGS

'Hi Ivy!'

ENCLOSED IN QUOTES  
WHICH CAN BE SINGLE  
OR DOUBLE QUOTES,  
BUT MUST MATCH

3

BOOLEAN

true

EITHER TRUE OR FALSE



# Data Types

DATA TYPE	DESCRIPTION
STRING	Primitive Data Type. Represents sequence of characters e.g. "hello"
NUMBER	Primitive Data Type. Represents numeric values e.g. 100
BOOLEAN	Primitive Data Type. Represents boolean value either false or true
UNDEFINED	Primitive Data Type. Represents undefined value
NULL	Primitive Data Type. Represents null i.e. no value at all
OBJECT	Non-Primitive Data Type. Represents instance through which we can access members
ARRAY	Non-Primitive Data Type. Represents group of similar values
REGEX	Non-Primitive Data Type. Represents regular expression
	<b>Note:</b> Primitive typically has a value, unless its null, and non-primitive has a reference.



# ARRAYS



An array is a special type of variable. It doesn't just store one value; it stores a list of values.

**Reminder:** Lab last semester which processed check box selections



```
colors = ['pink', 'yellow', 'green'];
```



```
colors = ['pink', 'yellow', 'green'];
```

```
colors[0];
```



```
colors = ['pink', 'yellow', 'green'];
```

```
colors[1];
```





```
colors = ['pink', 'yellow', 'green'];
```

```
colors[2];
```



# ARITHMETIC OPERATORS



JavaScript uses mathematics  
to get some tasks done.



```
var width = 3;  
var height = 2;
```

```
area = width * height;
```



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# Arithmetic Operators

NAME	OPERATOR	PURPOSE	EXAMPLE	RESULT
ADDITION	+	Adds one value to another	10 + 5	15
SUBTRACTION	-	Subtracts one value from another	10 – 5	5
DIVISION	/	Divides two values	10 / 5	2
MULTIPLICATION	*	Multiplies two values	10 * 5	50
INCREMENT	++	Adds one to the current number	i = 10; i++;	11
DECREMENT	--	Subtracts one from the current number	i = 10; i--;	9
MODULUS	%	Divides two values and returns the remainder	10 % 3	1



# CONCATENATING STRINGS



There is just one string operator: the + symbol.

It is used to join strings on either side of it.





```
var greeting = 'Howdy ';
```

```
var name = 'Molly';
```

```
var message = greeting + name;
```



Howdy Molly

