CORK INSTITUTE OF TECHNOLOGY
INSTITIÚID TEICNEOLAÍOCHTA CHORCAÍ

Semester 2 Examinations 2012/13

Module Title:	**eBusiness Infrastructure**

Module Code: COMP7008

School: Science & Informatics

Programme Title: BSc in Information Technology Support – Year 3
BSc (Hons) in Information Technology Management – Year 2

Programme Code: KITSU_7_Y3
KITSE_7_Y3
KITMN_8_Y2
KITSP_7_Y3

External Examiner(s):   Ms Erica Gill
Internal Examiner(s):   Mr Arthur Tobin

Instructions: **Answer two questions. Each question is worth 50%.**

Duration: 2 hours

Sitting: Summer 2013

Requirements for this examination:
Reference files for CSS, HTML, PHP, MySQL and Javascript are at the back of this exam paper.

Note to Candidates: Please check the Programme Title and the Module Title to ensure that you have received the correct examination paper.
If in doubt please contact an Invigilator.

Q1.   (50 marks)

a)   [20 marks]

What is XAMPP?

What are the advantages and disadvantages of using XAMPP?

Your answer must reflect your understanding of a typical user/website interaction.

b)   [30 marks]

The HTML in Listing 1 is rendered as a form to review a book in Figure 1.

(i)   [5 marks]

   Why are square brackets [] used in name attribute of the checkboxes?

(ii) [5 marks]

   Why are the input text and select box elements given both `name` and `id` attributes?

(iii) [20 marks]

   Write an **outline** of the Javascript function `validate()` for Listing 1. It should return `true` if required data has been supplied and `false` if required data is missing.

   - The email should contain text followed by "@mycit.ie". Email label should be formatted with id selector mistake if the user makes a mistake and return to default if the mistake is rectified.

   - The user does not have to choose a module from the list.

   - The user must select their opinion of the project. Write an error message "Please provide your opinion" next to the drop down list if the user does not select an option and remove this error message when they select an option.

Form Validation

Email [@mycit.ie]
What other modules are you taking?
☐ Wireless LANs
☐ Programming Fundamentals 2
☐ Internet and Network Services
☐ Server Side Programming

Do you think the project is: [dropdown ▼]
Submit

Figure 1: Screenshot of form

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
#mistake{

    color:red;
    font-style:italic;
    font-weight: bold;
}
</style>
</head>
<body>
<h1>Form Validation</h1>
<form method="get" action="process.php">
<label id="emailLabel">Email</label>
<input class="textbox" type="text" id="email" name="email" value="@mycit.ie" />
<br/><br/>
<label id="modulesLabel">What other modules are you taking?</label>
  <br /><input type="checkbox" value="COMP7007" name="modules[]"/>Wireless LANs
  <br /><input type="checkbox" value="SOFT6006" name="modules[]"/>Programming
  <br /><input type="checkbox" value="COMP7008" name="modules[]"/>
        Internet and Network Services
  <br /><input type="checkbox" value="COMP6078" name="modules[]"/>
        Server Side Programming
<br/><br/>

<label id="ratingLabel">Do you think the project is:</label>
<select id="ratingProject" name="projectOpinion">
  <option></option>
  <option>Easy</option>
  <option>Fair</option>
  <option>Difficult</option>
  <option>Too difficult</option>
</select>
<span id="error"></span>
<br/><br/>
<input type="submit" onclick="return validate();" value="Submit" />
```

```
</form>
</body>
</html>
```

Listing 1 HTML Source Code

Q2.   (50 marks)

a) [15 marks]

Describe the architecture of a typical ecommerce system.

Describe a web database transaction based upon this architecture.

b) [15 marks]

Describe how an API, XML and PHP are used together.

(Your answer must reflect your understanding of each the terms used.)

Name online businesses that offer APIs – suggest reasons why they provide APIs to other

programmers.

c) [20 marks]

With respect to online credit card shopping, describe the authorisation process.

Electronic transactions make non-repudiation easier – how?

Suggest two reasons why a business might opt for a service like PayPal instead of using a bank's

payment services.

Q3.   (50 marks)

a)   [10 marks]

Describe the Ajax language, illustrating its significance in modern websites.

b)   [12 marks]

Describe the CSS Box Model.

CSS styles may be inline, embedded or external – why would they be mainly external in a product like osCommerce? Why?

c)   [4 marks]

Consider the following PHP code `getBook.php`: provide a typical URL for its use.

```php
<?php require("header.php"); ?>
<?php
   $connect = mysql_connect("localhost", "root", "fred");                    1
   if ( ! $connect)                                                          2
   {
     echo "ERROR - Server unavailable at this time";
     exit;
   }
   $database  = mysql_select_db("books");
   if ( ! $database )                                                        3
   {
     echo "ERROR - Problem accessing database";
     exit;
   }
   $author =  $_GET["author"];                                              4
   $queryString = "select * from books where authors LIKE '%$author%'";     5
   $queryResult = mysql_query($queryString);
   $book = mysql_fetch_array($queryResult);
   if ($book){                                                               6
     echo "<h2 class='title'>".$book['Title']."</h2>";
     $imageName = $book['imageName'];
     echo "<img class='book' src='images/$imageName' />";
     echo "<br/>".$book['Authors'];
     echo "<br/>&euro;".$book['Price']."<br/>";
     if ( $book['Quantity'] == 0 )
```

```
        {
            echo "<span id='oops'>OUT OF STOCK</span>";               7

        }

        else

        {

            echo "Ready to ship";

        }

    }

    else{

        echo "Sorry - no such book in our database.";

    }
?>
<?php require("footer.php"); ?>
```

d)   [6 marks]

In the above php file the programmer requires header.php and footer.php.

What do you think is in these files?

Why would the programmer separate the file in this way?

e)   [18 marks]

Describe each of the numbered lines of code in the above PHP file.

Array Functions

array_diff (arr1, arr2 ...)
array_filter (arr, function)
array_flip (arr)
array_intersect (arr1, arr2 ...)
array_merge (arr1, arr2 ...)
array_pop (arr)
array_push (arr, var1, var2 ...)
array_reverse (arr)
array_search (needle, arr)
array_walk (arr, function)
count (count)
in_array (needle, haystack)

String Functions

crypt (str, salt)
explode (sep, str)
implode (glue, arr)
nl2br (str)
sprintf (frmt, args)
strip_tags (str, allowed_tags)
str_replace (search, replace, str)
strpos (str, needle)
strrev (str)
strstr (str, needle)
strtolower (str)
strtoupper (str)
substr (string, start, len)

Filesystem Functions

clearstatcache ()
copy (source, dest)
fclose (handle)
fgets (handle, len)
file (file)
filemtime (file)
filesize (file)
file_exists (file)
fopen (file, mode)
fread (handle, len)
fwrite (handle, str)
readfile (file)

fopen() Modes

r	Read
r+	Read and write, prepend
w	Write, truncate
w+	Read and write, truncate
a	Write, append
a+	Read and write, append

Regular Expression Functions

ereg (pattern, str)
split (pattern, str)
ereg_replace (pattern, replace, str)
preg_grep (pattern, arr)
preg_match (pattern, str)
preg_match_all (pattern, str, arr)
preg_replace (pattern, replace, str)
preg_split (pattern, str)

Regular Expressions Syntax

^	Start of string
$	End of string
.	Any single character
(a|b)	a or b
(...)	Group section
[abc]	Item in range (a, b or c)
[^abc]	Not in range (not a, b or c)
\s	White space
a?	Zero or one of a
a*	Zero or more of a
a*?	Zero or more of a, ungreedy
a+	One or more of a
a+?	One or more of a, ungreedy
a{3}	Exactly 3 of a
a{3,}	3 or more of a
a{,6}	Up to 6 of a
a{3,6}	3 to 6 of a
a{3,6}?	3 to 6 of a, ungreedy
\	Escape character
[:punct:]	Any punctuation symbol
[:space:]	Any space character
[:blank:]	Space or tab

PCRE Modifiers

i	Case-insensitive
s	Period matches newline
m	^ and $ match lines
U	Ungreedy matching
e	Evaluate replacement
x	Pattern over several lines

Date and Time Functions

checkdate (month, day, year)
date (format, timestamp)
getdate (timestamp)
mktime (hr, min, sec, month, day, yr)
strftime (formatstring, timestamp)
strtotime (str)
time ()

Date Formatting

Y	4 digit year (2008)
y	2 digit year (08)
F	Long month (January)
M	Short month (Jan)
m	Month [4] (01 to 12)
n	Month (1 to 12)
D	Short day name (Mon)
l	Long day name (Monday) (lowercase L)
d	Day [4] (01 to 31)
j	Day (1 to 31)
h	12 Hour [4] (01 to 12)
g	12 Hour (1 to 12)
H	24 Hour [4] (00 to 23)
G	24 Hour (0 to 23)
i	Minutes [4] (00 to 59)
s	Seconds [4] (00 to 59)
w	Day of week [1] (0 to 6)
z	Day of year (0 to 365)
W	Week of year [2] (1 to 53)
t	Days in month (28 to 31)
a	am or pm
A	AM or PM
B	Swatch Internet Time (000 to 999)
S	Ordinal Suffix (st, nd, rd, th)
T	Timezone of machine (GMT)
Z	Timezone offset (seconds)
O	Difference to GMT (hours) (e.g., +0200)
I	Daylight saving (1 or 0)
L	Leap year (1 or 0)
U	Seconds since Epoch [3]
c	ISO 8601 (PHP 5) 2008-07-31T18:30:13+01:00
r	RFC 2822 Thu, 31 Jul 2008 18:30:13 +0100

1. 0 is Sunday, 6 is Saturday.

2. Week that overlaps two years belongs to year that contains most days of that week. Hence week number for 1st January of a given year can be 53 if week belongs to previous year. date("W", mktime(0, 0, 0, 12, 8, $year)) always gives correct number of weeks in $year.

3. The Epoch is the 1st January 1970.

4. With leading zeroes

MySQL

Mathematical
ABS
SIGN
MOD
FLOOR
CEILING
ROUND
DIV
EXP
LN
LOG,LOG2,LOG10
POW
POWER
SQRT
PI
COS
SIN
TAN
ACOS
ASIN
ATAN, ATAN2
COT
RAND
LEAST
GREATEST
DEGREES
RADIANS
TRUNCATE

Date and Time
DAYOFWEEK
WEEKDAY
DAYOFMONTH
DAYOFYEAR
MONTH
DAYNAME
MONTHNAME
QUARTER
WEEK
YEAR
YEARWEEK
HOUR
MINUTE
SECOND
PERIOD_ADD
PERIOD_DIFF
DATE_ADD
DATE_SUB
ADDDATE
SUBDATE
EXTRACT
TO_DAYS
FROM_DAYS
DATE_FORMAT
TIME_FORMAT
CURRENT_DATE
CURRENT_TIME
NOW
SYSDATE
UNIX_TIMESTAMP
FROM_UNIXTIME
SEC_TO_TIME
TIME_TO_SEC

Group
COUNT
AVG
MIN
MAX
SUM
GROUP_CONCAT
VARIANCE
STD
STDDEV
BIT_OR
BIT_AND

Control Flow
IFNULL
NULLIF
IF

String
ASCII
ORD
CONV
BIN,OCT,HEX
CHAR
CONCAT
CONCAT_WS
LENGTH
CHAR_LENGTH
BIT_LENGTH
LOCATE
INSTR
LPAD
RPAD
LEFT
RIGHT
SUBSTRING
MID
SUBSTRING_INDEX
LTRIM
RTRIM
TRIM
SOUNDEX
SPACE
REPLACE
REPEAT
REVERSE
INSERT
ELT
FIELD
LCASE
UCASE
LOAD_FILE
QUOTE

Comparison
STRCMP

Cast
CAST
CONVERT

Other
BIT_COUNT
DATABASE
USER
SYSTEM_USER
SESSION_USER
CURRENT_USER
PASSWORD
OLD_PASSWORD
ENCRYPT
DECODE
MD5
SHA1
AES_ENCRYPT
AES_DECRYPT
DES_ENCRYPT
DES_DECRYPT
LAST_INSERT_ID
FORMAT
VERSION
CONNECTION_ID
GET_LOCK
RELEASE_LOCK
IS_FREE_LOCK
BENCHMARK
INET_NTOA
INET_ATON
FOUND_ROWS

DATA TYPES

Type	Description
CHAR	String, length 0 - 255
VARCHAR	String, length 0 - 255
TINYTEXT	String, length 0 - 255
TEXT	String, length 0 - 65535
BLOB	String, length 0 - 65535
MEDIUMTEXT	String, length 0 - 16777215
MEDIUMBLOB	String, length 0 - 16777215
LONGTEXT	String, length 0 - 4294967295
LONGBLOB	String, length 0 - 4294967295
* TINYINT	Integer, -128 to 127
* SMALLINT	Integer, -32768 to 32767
* MEDIUMINT	Integer, -8388608 to 8388607
* INT	Integer, -2147483648 to 2147483647
* BIGINT	Int, -9223372036854775808 to 9223372036854775807
FLOAT	Decimal (precise to 23 digits)
DOUBLE	Decimal (24 to 53 digits)
DECIMAL	"DOUBLE" stored as string
DATE	YYYY-MM-DD
DATETIME	YYYY-MM-DD HH:MM:SS
TIMESTAMP	YYYYMMDDHHMMSS
TIME	HH:MM:SS
ENUM	One of preset options
SET	Selection of preset options

* Note: "UNSIGNED" TINYINT, SMALLINT, MEDIUMINT, INT, BIGINT have the same range of values but start at 0, e.g. TINYINT UNSIGNED is between 0 and 255.

MYSQL FUNCTIONS IN PHP

mysql_affected_rows
mysql_close
mysql_connect
mysql_data_seek
mysql_db_name
mysql_errno
mysql_error
mysql_fetch_array
mysql_fetch_assoc
mysql_fetch_field
mysql_fetch_lengths
mysql_fetch_object
mysql_fetch_row
mysql_field_flags
mysql_field_len
mysql_field_name
mysql_field_seek
mysql_field_table
mysql_field_type
mysql_free_result
mysql_insert_id
mysql_list_dbs
mysql_list_processes
mysql_list_tables
mysql_num_fields
mysql_num_rows
mysql_pconnect
mysql_query
mysql_real_escape_string
mysql_select_db

SAMPLE SELECT QUERIES

Query	Comment
SELECT * FROM tablename	# Returns all columns
SELECT column FROM tablename	# Returns specific column
SELECT COUNT(*) FROM tablename	# Returns number of rows
SELECT SUM(column) FROM tablename	# Returns sum of column
SELECT DISTINCT column FROM tablename	# Returns unique values of column
SELECT * FROM tablename WHERE condition	# Returns rows that match condition
SELECT * FROM tablename WHERE BINARY condition	# Condition is case-sensitive
SELECT * FROM table1 INNER JOIN table2 on table1.id = table2.id	# Join two tables, return all columns
SELECT table1.* FROM table1 INNER JOIN table2 on table1.id = table2.id	# Only return columns from table1
SELECT LAST_INSERT_ID() as new_id	# Returns ID of last created row
SELECT max(column) AS alias	# Return maxium value in column as "alias"
SELECT * FROM table ORDER BY column	# Return all rows ordering by column
SELECT * FROM table LIMIT 10, 20	# Return first 20 rows after row 10

CSS

Selectors

*	All elements
div	<div>
div *	All elements within <div>
div span	<span> within <div>
div, span	<div> and <span>
div > span	<span> with parent <div>
div + span	<span> preceded by <div>
.class	Elements of class "class"
div.class	<div> of class "class"
#itemid	Element with id "itemid"
div#itemid	<div> with id "itemid"
a[attr]	<a> with attribute "attr"
a[attr='x']	<a> when "attr" is "x"
a[class~='x']	<a> when class is a list containing 'x'
a[lang|='en']	<a> when lang begins "en"

Pseudo-Selectors and Pseudo-Classes

:first-child	First child element
:first-line	First line of element
:first-letter	First letter of element
:hover	Element with mouse over
:active	Active element
:focus	Element with focus
:link	Unvisited links
:visited	Visited links
:lang(var)	Element with language "var"
:before	Before element
:after	After element

Sizes and Colours

0	0 requires no unit
Relative Sizes	
em	1em equal to font size of parent (same as 100%)
ex	Height of lower case "x"
%	Percentage
Absolute Sizes	
px	Pixels
cm	Centimeters
mm	Millimeters
in	Inches
pt	1pt = 1/72in
pc	1pc = 12pt
Colours	
#789abc	RGB Hex Notation
#acf	Equates to "#aaccff"
rgb(0,25,50)	Value of each of red, green, and blue. 0 to 255, may be swapped for percentages.

Note	Shorthand properties are marked x
	Properties that inherit are marked +

Box Model
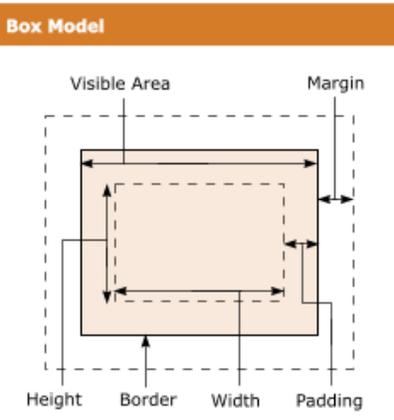
Positioning

display	clear
position	z-index
top	direction +
right	unicode-bidi
bottom	overflow
left	clip
float	visibility

Dimensions

width	min-height
min-width	max-height
max-width	vertical-align
height	

Color / Background

color +	background-repeat
background x	background-image
background-color	background-position
background-attachment	

Text

text-indent +	word-spacing +
text-align +	text-transform +
text-decoration	white-space +
text-shadow	line-height +
letter-spacing +	

Fonts

font + x	font-weight +
font-family +	font-stretch +
font-style +	font-size +
font-variant +	font-size-adjust +

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Boxes

margin x	border-color x
margin-top	border-top-color
margin-right	border-right-color
margin-bottom	border-bottom-color
margin-left	border-left-color
padding x	border-style x
padding-top	border-top-style
padding-right	border-right-style
padding-bottom	border-bottom-style
padding-left	border-left-style
border x	border-width x
border-top x	border-top-width
border-bottom x	border-right-width
border-right x	border-bottom-width
border-left x	border-left-width

Tables

caption-side +	border-spacing +
table-layout	empty-cells +
border-collapse +	speak-header +

Paging

size	page-break-inside +
marks	page +
page-break-before	orphans +
page-break-after	widows +

Interface

cursor +	outline-style
outline x	outline-color
outline-width	

Aural

volume +	elevation
speak +	speech-rate
pause x	voice-family
pause-before	pitch
pause-after	pitch-range
cue x	stress
cue-before	richness
cue-after	speak-punctuation
play-during	speak-numeral
azimuth +	

Miscellaneous

content	list-style-type +
quotes +	list-style-image +
counter-reset	list-style-position +
counter-increment	marker-offset
list-style + x	

‹html›

Document Outline

‹!DOCTYPE›	Version of (X)HTML
‹html›	HTML document
‹head›	Page information
‹body›	Page contents

Comments

‹!-- Comment Text -->

Page Information

‹base /›	Base URL
‹meta /›	Meta data
‹title›	Title
‹link /›	Relevant resource
‹style›	Style resource
‹script›	Script resource

Document Structure

‹h[1-6]›	Heading
‹div›	Page section
‹span›	Inline section
‹p›	Paragraph
‹br /›	Line break
‹hr /›	Horizontal rule

Links

‹a href=""›	Page link
‹a href="mailto:"›	Email link
‹a name="name"›	Anchor
‹a href="#name"›	Link to anchor

Text Markup

‹strong›	Strong emphasis
‹em›	Emphasis
‹blockquote›	Long quotation
‹q›	Short quotation
‹abbr›	Abbreviation
‹acronym›	Acronym
‹address›	Address
‹pre›	Pre-formatted text
‹dfn›	Definition
‹code›	Code
‹cite›	Citation
‹del›	Deleted text
‹ins›	Inserted text
‹sub›	Subscript
‹sup›	Superscript
‹bdo›	Text direction

Lists

‹ol›	Ordered list
‹ul›	Unordered list
‹li›	List item
‹dl›	Definition list
‹dt›	Definition term
‹dd›	Term description

Forms

‹form›	Form
‹fieldset›	Collection of fields
‹legend›	Form legend
‹label›	Input label
‹input /›	Form input
‹select›	Drop-down box
‹optgroup›	Group of options
‹option›	Drop-down options
‹textarea›	Large text input
‹button›	Button

Tables

‹table›	Table
‹caption›	Caption
‹thead›	Table header
‹tbody›	Table body
‹tfoot›	Table footer
‹colgroup›	Column group
‹col /›	Column
‹tr›	Table row
‹th›	Header cell
‹td›	Table cell

Images and Image Maps

‹img /›	Image
‹map›	Image Map
‹area /›	Area of Image Map

Common Character Entities

"	"	Quotation mark
&	&	Ampersand
<	<	Less than
>	>	Greater than
@	@	"At" symbol
€	€	Euro
•	•	Small bullet
™	™	Trademark
£	£	Pound
		Non-breaking space
©	©	Copyright symbol

Objects

‹object›	Object
‹param /›	Parameter

Empty Elements

‹area /›	‹img /›
‹base /›	‹input /›
‹br /›	‹link /›
‹col /›	‹meta /›
‹hr /›	‹param /›

Core Attributes

class	style
id	title

Note: Core Attributes may not be used in base, head, html, meta, param, script, style or title elements.

Language Attributes

dir	lang

Note: Language Attributes may not be used in base, br, frame, frameset, hr, iframe, param or script elements.

Keyboard Attributes

accesskey	tabindex

Window Events

onLoad	onUnload

Form Events

onBlur	onReset
onChange	onSelect
onFocus	onSubmit

Keyboard Events

onKeydown	onKeyup
onKeypress	

Mouse Events

onClick	onMouseout
onDblclick	onMouseover
onMousedown	onMouseup
onMousemove	

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JavaScript

Methods

Object
toString
toLocaleString
valueOf
hasOwnProperty
isPrototypeOf
propertyIsEnumerable

String
charAt
charCodeAt
fromCharCode
concat
indexOf
lastIndexOf
localeCompare
match
replace
search
slice
split
substring
substr
toLowerCase
toUpperCase
toLocaleLowerCase
toLocaleUpperCase

RegEx
test
match
exec

Array
concat
join
push
pop
reverse
shift
slice
sort
splice
unshift

Number
toFixed
toExponential
toPrecision

Date
parse
toDateString
toTimeString
getDate
getDay
getFullYear
getHours
getMilliseconds
getMinutes
getMonth
getSeconds
getTime
getTimezoneOffset
getYear
setDate
setHours
setMilliseconds
setMinutes
setMonth
setSeconds
setYear
toLocaleTimeString

XMLHttpRequest

Safari, Mozilla, Opera:
var req = new XMLHttpRequest();
Internet Explorer:
var req = new
ActiveXObject("Microsoft.XMLHTTP");

XMLHttpRequest Object Methods

abort()
getAllResponseHeaders()
getResponseHeader(header)
open(method, URL)
send(body)
setRequestHeader(header, value)

XMLHttpRequest Object Properties

onreadystatechange
readyState
responseText
responseXML
status
statusText

XMLHttpRequest readyState Values

0	Uninitiated
1	Loading
2	Loaded
3	Interactive
4	Complete

JAVASCRIPT IN HTML

External JavaScript File
<script type="text/javascript"
src="javascript.js"></script>
Inline JavaScript
<script type="text/javascript">
<!--
    // JavaScript Here
//-->
</script>

Functions

Window	Built In
alert	eval
blur	parseInt
clearTimeout	parseFloat
close	isNaN
focus	isFinite
open	decodeURI
print	decodeURIComponent
setTimeout	encodeURI
	encodeURIComponent
	escape
	unescape

REGULAR EXPRESSIONS - FORMAT

Regular expressions in JavaScript take the form:
var RegEx = **/pattern/modifiers**;

REGULAR EXPRESSIONS - MODIFIERS

/g	Global matching
/i	Case insensitive
/s	Single line mode
/m	Multi line mode

REGULAR EXPRESSIONS - PATTERNS

^	Start of string
$	End of string
.	Any single character
(a|b)	a or b
(...)	Group section
[abc]	Item in range (a or b or c)
[^abc]	Not in range (not a or b or c)
a?	Zero or one of a
a*	Zero or more of a
a+	One or more of a
a{3}	Exactly 3 of a
a{3,}	3 or more of a
a{3,6}	Between 3 and 6 of a
!(pattern)	"Not" prefix. Apply rule when URL does not match pattern.

EVENT HANDLERS

onAbort	onMouseDown
onBlur	onMouseMove
onChange	onMouseOut
onClick	onMouseOver
onDblClick	onMouseUp
onDragDrop	onMove
onError	onReset
onFocus	onResize
onKeyDown	onSelect
onKeyPress	onSubmit
onKeyUp	onUnload
onLoad	

FUNCTIONS AND METHODS

A method is a type of function, associated with an object. A normal function is not associated with an object.

DOM Methods

Document
clear
createDocument
createDocumentFragment
createElement
createEvent
createEventObject
createRange
createTextNode
getElementsByTagName
getElementById
write

Node
addEventListener
appendChild
attachEvent
cloneNode
createTextRange
detachEvent
dispatchEvent
fireEvent
getAttributeNS
getAttributeNode
hasChildNodes
hasAttribute
hasAttributes
insertBefore
removeChild
removeEventListener
replaceChild
scrollIntoView

Form
submit

DOM Collections
item

Range
collapse
createContextualFragment
moveEnd
moveStart
parentElement
select
setStartBefore

Style
getPropertyValue
setProperty

Event
initEvent
preventDefault
stopPropagation

XMLSerializer
serializeToString

XMLHTTP
open
send

XMLDOM
loadXML

DOMParser
parseFromString

Extra
getElementsByName