

## TP 12

### Problème I Expression régulière

**Exercise 1** Write a PHP code that asks the user to enter in a text fields a username and a password.

The password should verify the following :

- be at least 8 characters long, and
- start with at least 1 capital letters, and
- has at least 2 lowercase letters, and
- end with at least 1 non-alphanumeric character, and
- is not a part of the username

**Exercise 2** Write a regular expression to match a self closing HTML tag. A tag must start with < and end with />. It must have a name and can have 0, 1 or more properties. You do not need to worry about white space inside the tag.

<u>Valid</u>	<u>Invalid</u>
	< />
<img />	<img src= />
<a href="foo.html" id="stuff" />	

**Exercise 3** Write a regular expression to match a US zipcode. Zipcodes contain 5 numbers. Sometimes there is a dash after the 5 numbers which is followed by 4 more numbers.

<u>Valid</u>	<u>Invalid</u>
99999	abc12345
98115	123456789
67241-1234	12345-6

**Exercise 4** Write a regular expression to match a price. A price always starts with a dollar sign. Any amount of numbers can come before the decimal. Two numbers should always follow the decimal.

<u>Valid</u>	<u>Invalid</u>
\$14.99	\$14
\$1234567.00	\$134213.89money
\$.90	\$1.1a

**Exercise 5** Write a regular expression to match a hexadecimal color code. Remember, colors written in hexadecimal always start with a # and then contain 6 letters or numbers 0-9 and A-F. Letters can be lowercase or uppercase.

<u>Valid</u>	<u>Invalid</u>
#000000	#1234567
#D3D3D3	4#D3D3D3
#abCDeF	#abCDeG

**Exercise 6** Write a regular expression to validate a Mastercard number. Mastercards have a 16 digit long number. The first number is always 5 and the second number is a 1, 2, 3, 4 or 5. The rest of the numbers can be anything. You should not look for or try to match dashes (-).

<u>Valid</u>	<u>Invalid</u>
5112345678901234	51123456789012
5555555555555555	55555a5555555b55

**Exercise 7** Write a regular expression to match a time written like 11 :04 AM. Times consist of an hour (1-12) followed by a colon, followed by minutes (00-59), followed by a space and then either AM or PM.

<u>Valid</u>	<u>Invalid</u>
12:00 AM	12:0 AM
1:11 PM	14:00 PM
4:59 PM	0:20 AM
	02:00 AM
	4:60 PM

**Exercise 8** Everyone knows four letter words are bad. Write a regular expression to match all four letter words. Only match words that contain letters.

<u>Valid</u>	<u>Invalid</u>
Cats	c4ts
test	kitty HAVE

**Exercise 9** Write a regular expression that matches all files that are at least one folder away and end in ".css", ".html", ".php" or ".js". You can tell if a file is at least one folder away if there is a "/" in the name.

<u>Valid</u>	<u>Invalid</u>
foo/bar/baz.html	index.html
css/foo.css	css/foo.txt
js/bar.js	js/bar.jss
js/vendor/baz.js	

**Exercise 10** Write a regular expression that matches an IP address

**Exercise 11** Write a function urlSplit (String URL) that splits a URL using regular expressions and returns an array with entries are as follows : 0 protocol, 1 server name, 2 port no, 3 page name, and 4 location on page. As an example, urlSplit(http://www.hello.net:80/course/index.html#june) should return the following array : [ http, www.hello.net, 80, /course/index.html, june].