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**Assignment No. 04**

Date of Performance: .....

**Title:** Validate URL, Email required using functions empty, preg\_match, filter\_var in PHP.

**Objective:** To study some important validations required in all HTML document.

**Theory:** PHP is a server-side scripting language designed for web development but also used as a general-purpose programming language and is a powerful tool for making dynamic and interactive Web pages quickly. PHP code can be simply mixed with HTML code, or it can be used in combination with various templating engines and web frameworks. PHP code is usually processed by a PHP interpreter, which is usually implemented as a web server's native module or a Common Gateway Interface (CGI) executable. After the PHP code is interpreted and executed, the web server sends resulting output to its client, usually in form of a part of the generated web page.

**What is PHP?**

- PHP is an acronym for **Hypertext Preprocessor**
- PHP is a widely-used, open source scripting language
- PHP scripts are executed on the server
- PHP costs nothing, it is free to download and use

**What is a PHP File?**

- PHP files can contain text, HTML, CSS, JavaScript, and PHP code
- PHP code are executed on the server, and the result is returned to the browser as plain HTML
- PHP files have extension **.php**

**What Can PHP Do?**

- PHP can generate dynamic page content
- PHP can create, open, read, write, delete, and close files on the server
- PHP can collect form data & encrypt it.
- PHP can send and receive cookies
- PHP can add, delete, modify data in your database
- PHP can restrict users to access some pages on your website

**Why PHP?**

- PHP runs on various platforms (Windows, Linux, Unix, Mac OS X, etc.)
- PHP is compatible with almost all servers used today (Apache, IIS, etc.)
- PHP supports a wide range of databases
- PHP is free. Download it from the official PHP resource: [www.php.net](http://www.php.net)
- PHP is easy to learn and runs efficiently on the server side

## Basic PHP Syntax

- A PHP script can be placed anywhere in the document.
- A PHP script starts with `<?php` and ends with `?>`
- Syntax -

```
<html>
  <body>
    <?php
      PHP code goes here
    ?>
  </body>
</html>
```

- **Example**

```
<html>
  <body>
    <?php
      echo "Hello World!";
    ?>
  </body>
</html>
```

## Comments in PHP

- A comment in PHP code is a line that is not read/executed as part of the program.
- Its only purpose is to be read by someone who is editing the code.
- Comments are useful for:
  - To let others, understand what you are doing - Comments let other programmers understand what you were doing in each step (if you work in a group)
  - To remind yourself what you did - Most programmers have experienced coming back to their own work a year or two later and having to re-figure out what they did.
  - Comments can remind you of what you were thinking when you wrote the code
- PHP supports three ways of commenting:

```
// This is a single line comment
```

```
# This is also a single line comment
```

```
/*This is a multiple lines
comment block
that spans over more
than one line*/
```

## PHP Variables

- As with algebra, PHP variables can be used to hold values ( $x=5$ ) or expressions ( $z=x+y$ ).
- A variable can have a short name (like  $x$  and  $y$ ) or a more descriptive name (age, carname, total\_volume).

- Rules for PHP variables:
  - A variable starts with the \$ sign, followed by the name of the variable
  - A variable name must start with a letter or the underscore character
  - A variable name cannot start with a number
  - A variable name can only contain alphanumeric characters & underscores (A-z, 0-9, & \_)
  - Variable names are case sensitive (\$y and \$Y are two different variables)

### PHP echo and print Statements

- In PHP, there are two basic ways to get output: echo and print.
- There are some differences between echo and print:
  - echo - can output one or more strings
  - print - can only output one string, and returns always 1
  - echo is marginally faster compared to print as echo does not return any value

### jQuery empty() Method

- The empty() method removes all child nodes and content from the selected elements.
- This method does not remove the element itself, or its attributes.
- To remove the elements without removing data and events, use the detach() method.
- To remove the elements and its data and events, use the remove() method.
- Syntax - `$(selector).empty()`
- Example

```
$( "button" ).click( function ()
{
    $( "div" ).empty();
});
```

### PHP - Function preg\_match()

- This function searches string for pattern, returning true if pattern exists, and false otherwise.
- If the optional input parameter pattern\_array is provided, then pattern\_array will contain various sections of the subpatterns contained in the search pattern, if applicable.
- Normally, the search starts from the beginning of the subject string. The optional parameter offset can be used to specify the alternate place from which to start the search.
- Example

```
<?php
    $line = "Vi is the greatest word processor ever created!";
    // perform a case-Insensitive search for the word "Vi"
    if (preg_match("/\bVi\b/i", $line, $match)) :
        print "Match found!";
    endif;
?>
This will produce the result - Match found!
```

### PHP filter\_var() Function

- The filter\_var() function filters a variable with the specified filter.
- This function will return the filtered data or FALSE if the filter fails.

- Syntax - `filter_var(var, filtername, options)`
- Example -

```
<?php
$email = "john.doe@example.com";
if (!filter_var($email, FILTER_VALIDATE_EMAIL) === false) {
    echo("$email is a valid email address");
} else {
    echo("$email is not a valid email address");
}
?>
```

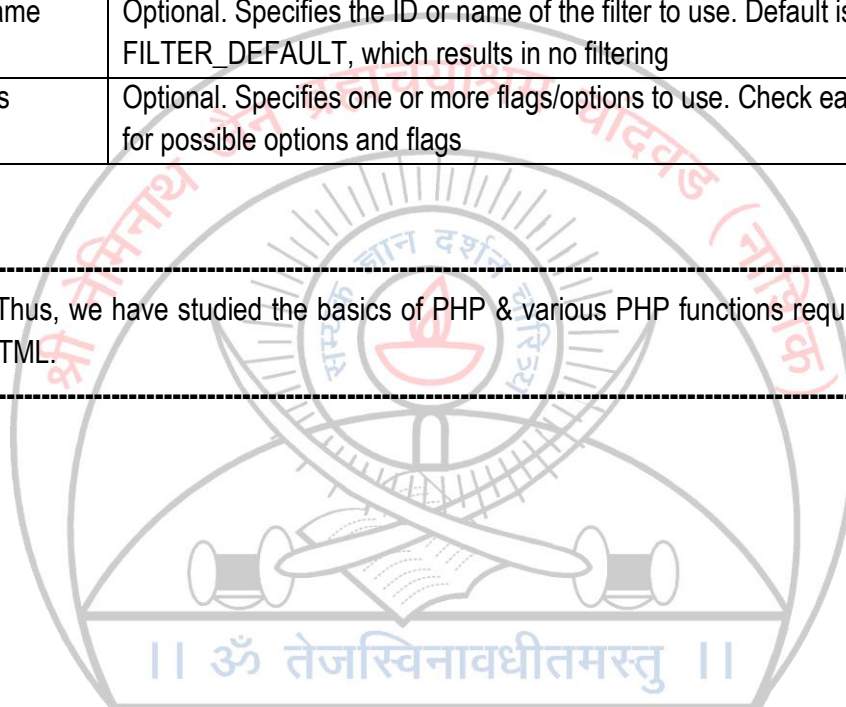
- Attributes –

Parameter	Description
var	Required. The variable to filter
filtername	Optional. Specifies the ID or name of the filter to use. Default is FILTER_DEFAULT, which results in no filtering
options	Optional. Specifies one or more flags/options to use. Check each filter for possible options and flags

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**Conclusion:** Thus, we have studied the basics of PHP & various PHP functions required for the data validation in HTML.

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