

" अतः "
Unit → 2

STRING:-

String is a sequence of character is the same as 1 byte. this means a php support only 1-256 Character Set.

Ex:->

- 'Ram'
- "Ram"

Type of String

- 1) Single quote String
- 2) double quote String
- 3) here doc's String

Single quoted :-> When string is specified with single quote all variable in the string will not consider as variable.

Ex:- 'R', Syntax = 'String'

Double quoted :-> double quoted string replace variable with their value as well as escape sequence.

Ex:- \$NUM = 10;
echo "The value of num is \$num";

(3) here does String :-

It is use to embed a large piece of text in our script which may include lot of single or double quotes, without having to constantly to escape them

Syntax:-

```
<<< does_stringname
```

```
does_stringname;
```

Ex: echo <<< START

```
START;
```

* Escape Sequence:

1. \ ' → To escape ' within single quoted string
 2. \" → To escape " within double quoted string
 3. \\ → To escape the backslash.
 4. \\$ → To escape \$.
- \n → To add line breaks b/w strings.
- \t → To add tab space
- \r → for carriage return

* Creating String :-

for creating string this syntax must followed

```

syntax:-
<? php
=
=
?>

```

Ex:- <? php

```

✓ $car = "Ferrari";
✓ echo "my favourite car is $car"; <br>;
echo "my favourite car is $car?"; <br>;
echo "my favourite car is $car?"; <br>;
✓ ?>

```

* Accessing String :-

we might be wondering how we can access the each character of a string php makes this easy for us to access a character at a particular position

Syntax:- \$char = \$str [position];

```

Ex:- <? php
$mystr = "welcome to php string";
echo $mystr[0]; <br>;
echo $mystr[6]; <br>;
$mystr[2]; '?'
echo $mystr; <br/>;
?>

```

★ Searching String :-

The `strpos()` function is used in PHP to find the position of the first occurrence of a string inside another string. This function is case sensitive and is a binary-safe function.

Related function :-

Syntax: `strpos (String, find, start)`

`strpos()` :- finds the position of the last occurrence of a string inside another string. It is case sensitive.

`stripos()` :- find the position of the first occurrence of a string inside another string.

`stripos()` :- find the position of the last occurrence of a string inside another string. It is case insensitive.

Ex: `<?php`

```
echo strpos("I Love PHP. I Love php too!", "PHP")  
?>
```

★ Replacing String :-

Ex: `<?php`

```
echo str_replace("world", "Peter", "Hello world")  
?>
```

The str_replace function replace some character with the same other character in a string

Rule of this function:-

- if the string to be searched in an array it returns an array.
- if the string to be searched in an array find and replace ^{operation} is ~~also~~ performed with every array element.
- if both find and replace are array and replace has fewer elements than find an empty string will be used or replace.
- if find is an array and replace is string the replace string will be used for every find value.

| Parameter | Description |
|-----------|---|
| Find | required, specifies the value to find |
| replace | specifies the value to replace the value in find |
| String | specifies the string to be searched |
| Count | specifies a variable that Count's ← the number of replacement element |

Ex: <? PHP

```

$arr = array ("blue", "red", "green", "yellow");
print_r (str_replace ("red", "pink", $arr.$i));
echo "replacement : $i";
? >
  
```

★ Formatting String:

```
<?php
$number = 9;
$str = "Billion";
$txt = sprintf("there are %d million bicycles in
              %s", $number, $str);
echo $txt;
?>
```

The sprintf() function writes a formatted string to a variable.

for ex:-

The arg1 and arg2 or ~~arg~~ parameter will be inserted at percent (%) sign in the main string. The function works "step by step" at the first % sign, arg1 inserted at the second % sign, ~~arg~~ arg2 is inserted etc.

Syntax:-

sprintf (format, arg1, arg2, argn)

Ex:-

```
<?php
```

```
$number = 123;
```

```
$txt = sprintf("with 2 decimals:
              %0.2f <br/> with no
              decimals: %d", $number);
```

```
echo $txt;
```

```
?>
```

* Regular expression :-

Regular expression are powerful pattern matching algorithm that can be performed in a single expression.

Regular expression use arithmetic operator such as (+, -, ^) to create complex expression.

Regular expression help ^{us} ~~we~~ accomplish ^{प्रकार} tasks such as validating email address, IP address etc.

- Regular expression simply identifying pattern in string data by calling a single function this saves us coding time.

- When validating user input such as email addresses, domain names, telephone numbers, IP address.

- Highlighting keyword in such result.

⇒ When creating a custom HTML template Regular expression can be used to identify the template tags and replace them with actual data.

= Now look at the commonly used regular expression function in PHP :->

① Preg-match :- This function is used to

perform a pattern match on a string. it returns true if a match is found and false if a match is not found. This function do perform a simple pattern match for the word in a given word.

```
<?php
$my-url = "www.guru99.com";
if (preg_match("/guru/" $my-url))
{
    echo "the url $my-url contains guru"
}
else
{
    echo "the url $my-url does not contain"
}
??
```

② Preg-Split :- This function is used to perform a pattern match on a string and then split the result into a numeric array.

We will take a string and explode it into an array. The pattern to be matched is a single space.

```
<?php
$my-text = "I Love regular expression";
$my-array = preg-split (" / " $my-text);
print-r ($my-array);
??
```


(3) preg_replace :- this function is used to perform a pattern match on a string and then replace the match with the specified text.

<?php

```
$text = "we at gure ii Strive to make quality education affordable to the masses.gure99.com";
```

```
$text = preg_replace (" /gure /", "<span style =  
"background: yellow"> gure</span>";  
$text);
```

```
echo $text;  
?>
```

⚡ ⊕ PHP String Library function's

① strlen () :-

php has a predefined function to get the length of a string. strlen() displays the length of any string. it is more commonly used in validating (fixed) input fields where the user is limited to enter a fixed length of character

System: strlen (string);

```
EX:- <? PHP
      echo strlen ("welcome to Cloudways");
      ?>
```

Output: 20

PHP provide a function for separate string

10

```
Strwrap(): - Syntax:- Strwrap (String, wrap)
EX:- <? PHP
      echo Strwrap ("=", 13);
      ?>
```

~~(2) Strcount ()~~ ?>

(2) Strword-count () :-

A function which enables display of number of words in any specific string is Str-word-count().

```
Syntax: Strword-count (String)
```

```
EX: <? PHP
      Strword-count ("welcome");
      ?>
```

(3) Strrev():-

A function strrev() is used for reversing a string. we can use this function to get reverse version of any string

```
Syntax:- Strrev (String)
```

```
EX:- <? PHP
      echo Strrev ("welcome to");
      ?>
```

(4) Strpos () :- A function enables searching particular text within a string. It work simply by matching the specified text in string

```
Syntax Strpos (String, text);
```

```
EX:- <? PHP
      echo Strpos ("welcome");
      ?>
```

(5) str_replace() :-

A function is builtin function basically used for replacing specific text within a string

Syntax:- str_replace (String to be replace, text, String)

```
Ex:- <?php  
echo str_replace ("good", "the good progress",  
"welcome to good");  
?>
```

(6) strtolower() :- A function that use to convert string into lower case

Syntax strtolower (string)

```
Ex:- <?php  
echo strtolower ("Hello");  
?>
```

(7) strtoupper() :- A function that use to convert string into upper case

Syntax:- strtoupper (string)

```
Ex:- <?php  
echo strtoupper ("Hello");  
?>
```

(8) str_split() :- for split string

Syntax:- str_split (String, chunksize)

```
Ex. $s = "this is my college";  
$result = str_split ($s, 5);
```

(9) strcmp() :- for compare string with another

Syntax: strcmp (String1, String2)

⇒ Function :-

Functions are similar to other programming language. A function is a piece of code which takes one more input in the form of parameter and does some processing and returns a value. A function name can start with letter or underscore (not a number)

Type of function

① Built-in function :-

A function is a self-contained block of code that performs a specific task.

PHP has a huge collection of internal or built-in functions that we can call directly within PHP scripts to perform.

A specific task like `gettype()`, `print_r()`, `var_dump()` etc.

```
<?php  
$name = "matthew"  
echo strlen($name);  
?>
```

② User-defined function :-

PHP also allows to user-defined function. It is a way to create reusable code package that perform specific task and can be kept and maintained separately from main program.

```

Syntax :- function functionname ()
           {
           // code to be executed
           }
    
```

```

Ex :- <?php
      function what()
      {
      echo "today is " . date('l', mktime());
      }
      what();
      ??
    
```

★ Parameter passing :-

In php provide option to pass parameters inside a function we can pass an array as parameter we like that parameter work like variables inside our function.

```

<html>
<body>
  <?php
    function addfunction ($num1, $num2)
    {
      $sum = $num1 + $num2;
      echo "Sum of two number is: $sum";
    }
    addfunction (10, 20);
  ??
</body> </html>
    
```

Teacher's Signature

* Passing argument by reference :-

It is possible to pass argument to function by reference, this means that reference to the variable is manipulated by the function rather than a copy of the variable's value. Any changes made to an argument in this case will change the value of the original variable. We can pass an argument by reference by adding an ampersand to the variable name in either the function call or the function definition.

```
<html>
```

```
<body>
```

```
<?php
```

```
function addfive ($num)
```

```
{  
    $num += 5;  
}
```

```
function addsix (&$num)
```

```
{  
    $num += 6;  
}
```

```
$orignum = 10;
```

```
addfive ($orignum);
```

```
echo "original value is $orignum <br />";
```

```
addsix (&$orignum);
```

```
echo "original value is $orignum <br />";
```

```
?>  
</body> </html>
```

* function returning value :-

A function can return a value using the return statement in conjunction with a value or object return statement. The execution of the function ends and the value back to the calling code.

* We can return more than one value from a function using return array (1, 2, 3, 4)

```
<?php  
function addfunction ($num, $num2)  
{  
    $sum = $num + $num2;  
    return $sum;  
}  
$return-value = addfunction (10, 20);  
echo "Returned value from the function :  
$return-value";  
?>
```

* Dynamic function call :- It is possible to assign function name as string to variables and then treat those variables exactly as we would the function name itself. In PHP we can use a arrow operator (→) for calling function

```
< ?php  
function sayhello ()  
{  
    echo "Hello<br/>";  
}  
$function_holder = "sayhello";  
$function_holder ();  
?>
```

★ Default value for function parameters:-

We can set a parameter to have a default value if function caller doesn't pass it.

```
< ?php  
function printme ($param = NULL)  
{  
    print $param ;  
}  
printme ("this is test");  
printme ();  
?>
```


* Call by reference:-

<? PHP

```
function swap ($a, $b)
```

```
{  
    echo $a " " , $b; //6,7
```

```
    $a = 8;
```

```
    $b = 10;
```

```
}
```

```
$p = 6
```

```
$q = 7
```

```
echo $p. " " , $q; //6,7
```

```
swap (&$p, &$q)
```

```
echo $p. " " , $q;
```

```
?>
```

Unit IIIrd

Form data handling :-

Form :- When we login into a website or into our mail box, we are interacting with a form.

Forms are used to get input from the user and submit it to the web server for processing.

★ A form is an HTML tag that contains graphical user interface items such as input box, check boxes, radio button etc.

★ The form is defined the `<form> ... </form>` tags and GUI items are defining form elements such as input.

b.php

```
<HTML>
<body>
<form action = "a.php" method = "post">
Enter your name <input type = "text" name = "sname" />
<input type = "submit" />
</form>
</body> </HTML>
```

a.php

```
<?PHP
```

```
echo "Good morning". $POST ["sname"];
```

```
?>
```

There are two ways the browser client can send

Teacher's Signature

Information to the web server.

- (1) The post method
- (2) The get method

Before the browser send the information it encode it by using a skin called url encoding. In this skin name/value pairs are join = (equal) sign and different pairs are separated by &.

name1 = value1 & name2 = value2 & name3 = value3

Space are removed or replaced by + and any other non alpha-numeric character are replace with a hexadecimal value after the information is encoded it is send to the web server.

(1) The POST method :- PHP \$post is widely use to collect form data after submitting an html form with method = "post".

The post method transfer information via http headers the information is encoded as describe the case of get method and put into a header called QUERY STRINGS

The post method doesn't have any restriction on data size to be sent.

The post method can be used to send ASCII and binary files.

The data send by post method goes throo http header's so security depends on http protocol

The php provide \$post associative array to access all the send information using post method.

Information send from a form with the post method is to others and has no limit on the amount of invisible information to send.

- The post method does not have any restriction on data size to be sent.
- The post method can be used to send ASCII as well as binary data
- The data sent by post method goes through HTTP header so security depends on HTTP protocol, By using Secure HTTP we can make sure that our information is secure
- The php provides \$post associative array to access all the sent information using post-method

<? PHP

```
if ($post["name"] // $post["age"]  
{  
    if (preg_match ("/[A-Z a-z-]/", $post["name"]  
    {  
        die("invalid name and name should be alpha");  
    }  
    echo "welcome", $post["name"], "<br/>";  
    echo "you are", $post["age"], "years old";  
    exit();  
}
```

```

<html>
<body>
<form action = "<?php $php-self ?>" method = "POST">
Name: <input type = "text" name = "name" />
Age: <input type = "text" name = "age" />
<input type = "submit" />
</form>
</body>
</html>

```

② get method:

- get method can also be used to collect form data after submitting an html form.
- \$GET can also collect data sent in the url. The page and the encoded information are separated by?
- The get method provide produce the long string that applies in our location server low in the browser location base.
- The get method is suspected to send upto 2000 character's only. Never use get method if we have password or other sensitive information to be send to server.
- get method can not be used to send binary data like image or word document.
- php provide \$GET associative array to access all the send information using GET method.
- The variable are displayed in the url this possible

- to bookmark in page.
- The Get method sends the encoded user information appended to the page request. The page and the encoded information are separated by the ? character.
- The GET method produces a long string that appears in server logs in the browser location bar.
- The GET method is restricted to send up to 1024 character only.
- Never use GET method if we have passwords or other sensitive information to be sent to the server.
- GET can't be used to send binary data like image or word documents to the server.
- The data sent by GET method can be accessed using QUERY-STRING environment variable.
- The php provides \$_GET associative array to access all the sent information using GET method.

```
<?php  
if ($_GET ['name'] // $_GET ['age']  
{  
    echo "welcome", $_GET ['name'], "<br/>";  
    echo "you are", $_GET ['age'], "years old";  
    exit();  
}  
?>
```

```
<html>  
<body>  
<form action = "<? php $ php-self ?>" method = "GET" >  
name: <input type = "text" name = "name" />  
Age: <input type = "text" Age = "Age" />  
<input type = "submit" />  
</form>  
</body>  
</html>
```

★ \$REQUEST variable :-

Php \$-REQUEST variable
Contain the content's of both \$GET and \$POST
and \$COOKIE we will discuss \$COO

The php \$-REQUEST variable can be used
to get the result from form data
sent with both the GET and post methods

```
<? php  
if ( $REQUEST["name"] / / $REQUEST ["age"] )  
{  
echo "welcome". $REQUEST ["name"]. "<br/>";  
echo "you are". $REQUEST ["Age"]. "years";  
exit();  
}  
?>
```

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

```
<form action = "<? php $ php-self ? "> metho = "post">  
Name : < input type = "text" name = "name" />  
Age : < input type = "text" name = "Age" />  
< input type = "submit" />  
</form>  
</body>  
</html>
```