

1. Explain :-

a) PHP Variables.

Variables are "containers" for storing information.
A variable can have a short name (like n and y) or a
more descriptive name (age, countme, total-volume).
Unlike other programming languages, PHP has no command
for declaring a variable. It is created the moment you
first assign a value to it. When you assign a text value
to a variable, put quotes around the value. PHP variable
names are case-sensitive.

Example :-

```
<?php  
$txt = "Hello world!";  
$n = 5;  
$y = 10.5;  
?>
```

Rules for PHP Variables :-

- A variable starts with the \$ sign, followed by the name of the variable.
- Variable names must start with a letter or the underscore character.
- A variable name cannot start with a number.
- A variable name can only contain alpha-numeric characters and underscores (A-z, 0-9, and _).
- Variable names are case-sensitive (\$age and \$Age are two different variables).

b) PHP Data Types

Variablen kann man Daten von differenten Typen, aus differenten Daten Typen aus dem folgenden Daten Typen :-

- String
- Integer

- float (floating point numbers - also called double)

- Boolean

- Array

- Object

- null

* **String** :- A string is a sequence of characters, like "Hello world!". A string can be any text inside quotes. You can use single or double quotes.

* **Integer** :- An integer datatype is a non-decimal number between -2,147,483,648 and 2,147,483,647. In the following example \$n is an integer.

* **Float** :- A float (floating point number) is a number with a decimal point or a number in exponential form. In the following example \$n is a float. The PHP var_dump() function returns the data type and value.

* **Boolean** :- A Boolean represents two possible values: TRUE or FALSE. Booleans are often used in conditional statements. You will learn more about conditional during the later chapters of this tutorial.

* **Array** :- An array stores multiple values in one single variable. In the following example \$arr is an array. The PHP var_dump() function returns the data type and value:

- * Object :- An object is a data type which stores data and information on how to process that data. In PHP, an object must be implicitly declared.
- * Null Value :- NULL is a special data type which can have only one value : NULL. A variable of data type NULL is a variable that has no value assigned to it.

Example :-

```
<?php  
$n = "Hello world!";  
$n = null;  
var_dump($n);  
?>
```

Output :- NULL .

2. Explain the concept of PHP arrays.

⇒ An array is a data structure that stores one or more similar type of values in a single value. For example if you want to store 100 numbers instead of defining 100 variables it is easy to define an array of length.

There are three different kind of arrays and each array value is accessed using one of the called array index.

* Numeric Array :- An array with a numeric index. Value are stored and accessed in linear fashion. By default array index starts from zero. This means can store numbers, strings and any object but their index will be represented by numbers.

* Associative Array :- The associative array is an array which has numeric arrays in form of functionally but they are different in form of their association. Associative array will have their index as string so that you can establish a strong association between key and value.

* Multi-dimensional Array :- A multi-dimensional array such element in the main array can also be an array. And each elements in the sub - array can be an array, and so on. Values in the multi-dimensional array are accessed using multiple index.

3. What is null in :-

a) if - else :-

PHP if - else is statement which condition is true or false.
if - else statement is slightly different from if condition in that one block of code if the specified condition is true and another block of code if the condition is false.

Syntax :-

```
if (condition) {  
    // Code to be executed if true  
} else {  
    // Code to be executed if false.  
}
```

b) for loop in PHP :-

PHP for loop can be used to traverse set of code for the specified number of times.
It should be used if the number of iterations is known otherwise we use while loop.
Means for loop is used when you already know how many times you want to execute a block of code.

Syntax :-

```
for (initialization; condition; increment / decrement)  
{  
    // Code to be executed  
}
```

- Write a note on functions in PHP.
 - A function is a named block of code that performs a specific task, possibly acting upon parameters, and possibly returning a value.
 - Functions saves on compile time by using a single file the page.
 - Functions in a PHP program can be written built-in or defined. Regardless of their source, all functions are evaluated in the same way:
- \$ some_value = function_name ([parameters , ...]);
- Defining a function:-
 - To define a function, we use the following syntax.
- ```
function [&] function_name ([parameters [,...]]) {
 // Statement list
}
```

→ 3. Explain Associative Arrays.

Associative arrays have strings or keys and behave more like two-column tables. The key which is used to access the value.

PHP internally stores all arrays in associative indexed arrays in what the keys represent and associative arrays are used to store key value pairs. For example, to store the marks of different subjects of a student in an array, a numerically indexed array would not be the best choice. Instead, we could use the respective subject's names as the keys in the associative arrays, and the value would be their respective marks gained.

Example :-  
How array() function is used to create associative array.

```
<?php
$student_one = array ("Maths"=>95 , "Physics"=>90 ,
"Chemistry"=>96 , "English"=>93 ,
"Computer"=>98);
```

Output :-

Marks for Student one is :-  
Maths : 95  
Physics : 90  
Computer : 98  
Chemistry : 96

6. Klasse a note on string functions.

The term "string"  
represents a number of types to a series of characters.  
When these characters are allowed, including strings.  
It is possible to use a variable and strings are generated.  
String characters with the echo command, using  
language constructs that aid in the capture of texts.

According to string function in php, in  
programming languages, string functions are used  
to modify a string or query knowledge about a  
string (some do both) ... The length (string) function  
is the most basic example of a string function.  
The length of a string literal is measured  
by the function.

4. Explain the following form elements.

i) Text Box

ii) The Combo Box

\* Text Box :-

- Has different types of new inputs, including text, numbers, and percentage and currency values.
- Supports both min-max range validation and form validation.
- Displays validation messages in a compact space.

• A lot of little PHP script inside the value attribute of the following input field : name , email , and website .

\* The Combo Box :-

Combo-box is using to display a drop-down list of some options where we can select one option. There is a tag <select>, which is used to create a drop-down list of options <option> tag is used to define each options of the list, we can use this tag , inside the <select> tag.

```
<html>
<body>
<select>
<option> option 1 </option>
<option> option 2 </option>
</select>
</body>
</html>
```

8. Explain the concept of setting and deleting Cookies.
  - ⇒ A cookie in PHP is a small file with a maximum size of 4 KB that the web browser stores on the client computer. They are typically used to keep track of information such as a username that the site can retrieve to personalize the page when the user visits the website next time.
  - \* Setting Cookies in PHP :- To set a cookie in PHP, the `setcookie()` function is used. The `setcookie()` function needs to be called prior to any output generated by the script otherwise the cookie will not be set.  
Syntax :- `setcookie(name, value, expire, path, domain, security);`
  - \* Deleting Cookies :- The `unsetcookie()` function can be used to delete a cookie. For deleting a cookie, the `unsetcookie()` function is called by passing the cookie name and other arguments as empty strings but however if the `name`, the `expiration date` is required to be set in the past. To delete a cookie named "Action\_item", the following code can be executed.

9. Write the steps you inserted a data into a table in PHP.

- Here are the steps for inserting a data into a table in PHP.
- Steps:-
1. Start XAMPP Server by opening XAMPP and click on XAMPP Start.
  2. Open localhost/ in your web browser and went into base with database name as Staff and click on staff.
  3. The new table name College.
  4. Enter Column and click on save.
  5. Now open NotePad and start writing PHP code and save it as index.php and open other notePad and save it as insert.php save both files in one folder under htdocs.
  6. Type localhost/4058/index.php in your browser, it will display the form. After submitting the form, the form data is submitted into database.

10. Write the steps for updating the data in the database.

⇒ Steps :-

1. First of all, define interface (`$_POST`) and `$_GET['edit']` in the `index.php` file. Then implement all points with the if condition.
2. Get input data and declare them into an associative array then assign to the variable `$inputData`.
3. Acce and validate `$_GET['edit']` then assign to the `$id`.
4. Declare `$condition` in an associative array then assign to the `$condition`.
5. Call `update_data()` and assign it to the `$result`.
6. After that, redirect to the `form.php`.