

## 12 TH COMPUTER APPLICATION CHAPTER 7: Looping Structure

### Part - II

#### Short Answers

##### 1. Define Looping Structure in PHP.

Looping Structures are useful for writing iteration logics. It is the most important feature of many programming languages, including PHP. They are implemented using the following categories.

- for Loop
- foreach Loop
- While Loop
- Do While Loop

##### 2. Define for loop in PHP.

- PHP for loops execute a block of code a specified number of times.
- For loop is an important functional looping system which is used for iteration logics when the programmer knows in advance how many times the loop should run.

##### 3. What is For each loop in PHP?

- foreach loop is exclusively available in PHP. It works only with arrays. The loop iteration deepens on each KEY Value pair in the Array.
- For each, loop iteration the value of the current array element is assigned to \$value variable and the array pointer is shifted by one, until it reaches the end of the array element.

##### 4. List out Looping Structure in PHP.

- for Loop
- foreach Loop
- While Loop
- Do While Loop

##### 5. Write Syntax of For loop in PHP.

**Syntax:**       for (init counter; test counter; increment counter) {  
                    code to be executed;  
                    }

##### 6. Write Syntax of For each loop in PHP.

**Syntax:**       for each (\$array as \$value)  
                    {  
                    code to be executed;  
                    }

##### 7. Write Syntax of while loop in PHP.

**Syntax:**       while (condition is true) {  
                    code to be executed;  
                    }

##### 8. Write Syntax of Do while loop in PHP.

**Syntax:**       do {  
                    code to be executed;  
                    } while

##### 9. Compare For loop and for each loop.

For loop	for each loop
loop iterates a statement or a block of statements repeatedly until a specified expression evaluates to false.	For-each loop is used to iterate through the items in object collections, List generic collections or array list collections.
Performance: For Loops are faster than For-each Loop.	Lower in performance.

##### 10. Usage of for each loop in PHP

- The foreach loop is exclusively available in PHP. It works only with arrays.
- The loop iteration deepens on each KEY Value pair in the Array.
- The foreach construct provides an easy way to iterate over arrays.
- The foreach works only on arrays and objects

### Part - III

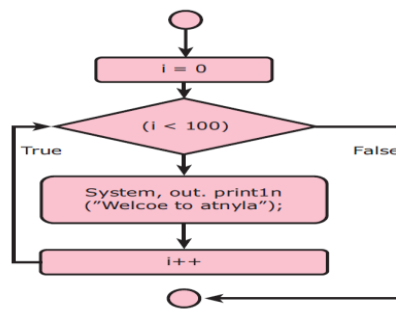
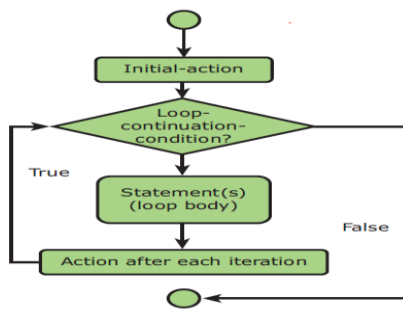
#### Explain in Brief Answer

##### 1. Write the features Looping Structure.

Looping Structures are useful for writing iteration logics.

It is the most important feature of many programming languages, including PHP.

They are implemented using the following categories. Below picture for Loop structure and flow chart



## 2. Write the purpose of Looping Structure in PHP.

PHP Loop Often when you write code, you want the same block of code to run over and over again in a row.

Instead of adding several almost equal code-lines in a script we can use loops to perform a task.

## 3. Differentiate For each and While loop.

For each	While loop
foreach loop is exclusively available in PHP. It works only with arrays.	While loop is an important feature which is used for simple iteration logics.
The loop iteration deepens on each KEY Value pair in the Array	PHP while loops execute a block of code while the specified condition is true.
foreach works only on arrays and objects, and will issue an error when you try to use it on a variable with a different data type	It is checking the condition whether true or false. It executes the loop if specified condition is true

## 4. Write short notes on Do while Loop.

Do while loop always run the statement inside of the loop block at the first time execution. Then it is checking the condition whether true or false.

It executes the loop, if the specified condition is true.

### Syntax:

```
do {
code to be executed;
} while (condition is true);
```

## 5. Differentiate While and Do while loops.

While	Do while
Entry control loop	Exit control loop
PHP while loops execute a block of code while the specified condition is true.	loops through a block of code once, and then repeats the loop as long as the specified condition is true
Execution and checking condition is differ	Execution and checking condition are same

## Part - IV

### Explain in detail

#### 1. Explain Looping Structure in PHP.

Looping Structures are useful for writing iteration logics. It is the most important feature of many programming languages, including PHP. They are implemented using the following categories.

- for Loop
- foreach Loop
- While Loop
- Do While Loop

#### For Loop:

For loops execute a block of code a specified number of times.

#### Foreach Loop:

The foreach construct provides an easy way to iterate over arrays

#### While Loop:

PHP while loops execute a block of code while the specified condition is true.

#### Do While Loop:

do...while - loops through a block of code once, and then repeats the loop as long as the specified condition is true

## 2. Discuss in detail about For each loop.

### REFER DETAIL QUESTION NO: 5

## 3. Explain the process Do while loop.

Do while loop always run the statement inside of the loop block at the first time execution. Then it is checking the condition whether true or false. It executes the loop, if the specified condition is true.

**Syntax:**

```
do {
  code to be executed;
} while (condition is true);
```

**Example:**

```
<?php
$Student_count = 10; $student_number=1;
do{
  echo "The student number is:
  $student_number<br>";
  $student_number++;
}
while($student_number<= $Student_count)
?>
```

**4. Explain concepts of for loop with example.**

- PHP for loops execute a block of code a specified number of times.
- For loop is an important functional looping system which is used for iteration logics when the programmer know in advance how many times the loop should run.

**Syntax:**

```
for (init counter; test counter; increment
  counter) {
  code to be executed;
}
```

**Example:**

```
<?php
for ($i = 0; $i<= 10; $i++) {
  echo "The number is: $i<br>";
}
?>
```

**Parameters:**

- init counter: Initialize the loop initial counter value
- Test counter: Evaluated for every iteration of the loop. If it evaluates to TRUE, the loop continues. If it evaluates to FALSE, the loop ends.
- Increment counter: Increases the loop counter value.

**5. Explain array concepts in Looping Structure.****Foreach Loop:**

- foreach loop is exclusively available in PHP. It works only with arrays. The loop iteration deepens on each KEY Value pair in the Array.
- For each, loop iteration the value of the current array element is assigned to \$value variable and the array pointer is shifted by one, until it reaches the end of the array element.
- The foreach construct provides an easy way to iterate over arrays.
- foreach works only on arrays and objects, and will issue an error when you try to use it on a variable with a different data type or an uninitialized variable.

**Syntax:**

```
for each ($array as $value)
{
  code to be executed;
}
```

**Example:**

```
<?php
$Student_name = array("Magilan", "Iniyan",
  "Nilani", "Sibi", "Shini");
foreach ($Student_name as $value) {
  echo "$value <br>";
}
?>
```

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**GANESH G, M.Sc.,B.Ed.,**

Computer Instructor,  
 SRGDS MATRIC.HR.SEC.SCHOOL,  
 VADAANDAPATTU,  
 THIRUVANNAMALAI.606601  
 EMAIL:tvmganesh1991@gmail.com  
 PH: +918508689938

