

### Experiment No: 02

**Write a PHP program to demonstrate the use of looping structures using**

- a) while statement
- b) Do-while else statement
- c) for statement
- d) for-each statement

### Resources required:

Hardware	Software
Computer System	Any database tools such as XAMPP

### Practical Significance:

Generally instructions are executed sequentially. In some cases it is necessary to change the sequence of executions based on certain conditions. For this purpose decision control structure is required.

### Theoretical Background:

#### a) if statement

The *if* statement is used to execute a block of code only if the specified condition evaluates to true.

##### Syntax:

```
if(condition)
{
    // Code to be executed
}
```

#### b) if-else Statement:

If...else statement first checks the condition. If condition is true, then true statement block is executed. If condition is false, then false statement block is executed.

##### Syntax:

```
if (condition)
{
    // if TRUE then execute this code
}
else
{
    // if FALSE then execute this code
}
```

**c) Nested-if Statement:**

Nested if statements mean an if block inside another if block. Nested if else statement used when we have more than two conditions. It is also called if else if statement.

**Syntax:**

```
if(condition1)

{
    // Code to be executed if condition1 is true
}

elseif(condition2)

{
    // Code to be executed if the
    condition1 is false and condition2 is true
}

else

{
    // Code to be executed if both condition1 and condition2 are false
}
```

**a) Switch Statement**

The switch-case statement is an alternative to the if-elseif-else statement, which does almost the same thing. The switch-case statement tests a variable against a series of values until it finds a match, and then executes the block of code corresponding to that match. The switch statement is used to avoid long blocks of if..elseif..else code.

**Syntax:**

```
switch(n)
{
    case statement1:
        //code to be executed if n==statement1;
        break;

    case statement2:
        //code to be executed if n==statement2;
        break;

    case statement3:
        //code to be executed if n==statement3;
        break;
    case statement4:
        //code to be executed if n==statement4;
```

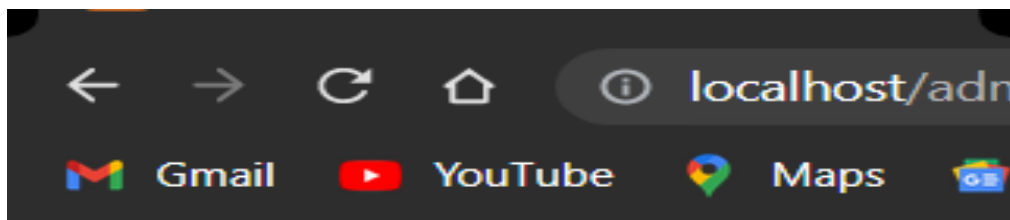
```
break;  
.....  
default:  
//code to be executed if n != any case;  
}
```

**Write a program for whether number is positive or not.**

**Program Code:**

```
<?php  
$number = 8;  
if ($number > 0)  
{  
    echo $number . " is a positive number";  
} else if ($number < 0)  
{  
    echo $number . " is a negative number ";  
} else if ($number == 0)  
{  
    echo "You have entered zero";  
} else {  
    echo " please enter a numeric value<br/>";  
}  
echo "<br/>";  
echo "Srinivas Godihall";  
echo "<br/>";  
echo "20203A1008";  
  
?>
```

**Output:**



8 is a positive number  
Srinivas Godihall  
20203A1008

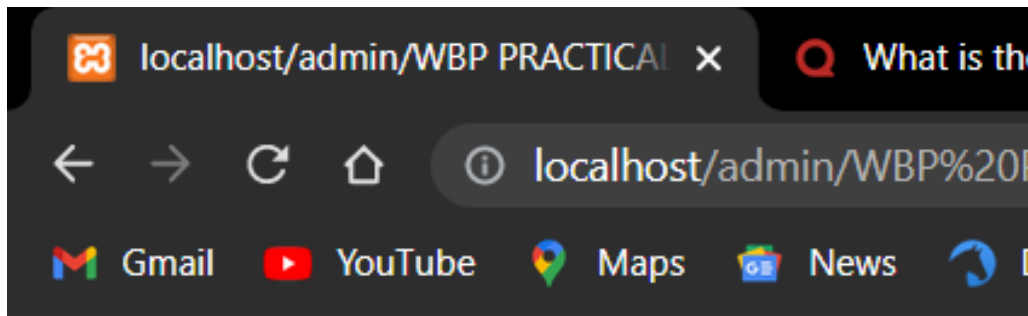
**Write a program to demonstrate the use of Switch statement.**

**Program Code:**

```
<?php
$ch=1;
$a=20;
$b=10;
switch ($ch)
{
case 1:
$c=$a + $b;
echo "Addition=".$c;
break;
case 2:
$c=$a - $b;
echo "Subtraction=".$c;
break;
case 3:
$c=$a * $b;
echo "Multiplication=".$c;
break;
case 4:
$c=$a / $b;
echo "Division=".$c;
break;
default:
echo "Wrong Choice";
}

echo "Srinivas Godihall";
echo "<br/>";
?>
```

**Output:**



Addition=30  
Srinivas Godihall

**Practical related questions:**

1. How we use if..else and elseif statement in PHP?

Ans-:

If-else -:

We write if then we give condition to if statement if the given condition is false then it will execute else.

**Syntax:**

if(condition1)

```
{  
  // Code to be executed if condition1 is true  
}
```

Else(condition1)

```
{  
  // Code to be executed if condition1 is true  
}
```

**Else if-:**

**We use else if when we want to use more than two if statement.**

**\ Syntax:**

```
if(condition1)
```

```
{  
  // Code to be executed if condition1 is true  
}
```

```
Elseif(condition)
```

```
{  
  // Code to be executed if condition1 is true  
}
```

```
Else(condition1)
```

```
{  
  // Code to be executed if condition1 is true  
}
```

2. Difference between if...else and switch statement.

**If-else**

**switch**

Which statement will be executed depend upon the output of the expression inside if statement.

Which statement will be executed is decided by user.

if-else statement uses multiple statement for multiple choices.

switch statement uses single expression for multiple choices.

if-else statement test for equality as well as for logical expression.

switch statement test only for equality.

if statement evaluates integer, character, pointer or floating-point type or boolean type.

switch statement evaluates only character or integer value.

Either if statement will be executed or else statement is executed.

switch statement execute one case after another till a break statement is appeared or the end of switch statement is reached.

If the condition inside if statements is false, then by default the else statement is executed if created.

If the condition inside switch statements does not match with any of cases, for that instance the default statements is executed if created.

It is difficult to edit the if-else statement, if the nested if-else statement is used.

It is easy to edit switch cases as, they are recognized easily.



**Exercise:**

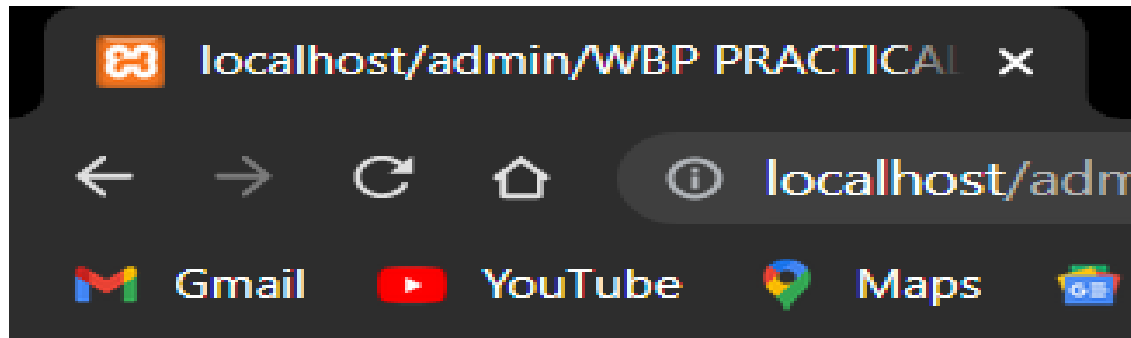
1. Write a PHP code to perform arithmetic operations using switch case.

**PROGRAM –**

```
<?php
$ch=1;
$a=20;
$b=10;
switch ($ch)
{
case 1:
$c=$a + $b;
echo "Addition=".$c;
break;
case 2:
$c=$a - $b;
echo "Subtraction=".$c;
break;
case 3:
$c=$a * $b;
echo "Multiplication=".$c;
break;
case 4:
$c=$a / $b;
echo "Division=".$c;
break;
default:
echo "Wrong Choice";
}

?>
```

OUTPUT –



Addition=30  
Srinivas Godihall

#### **Difference between if...else and ternary operator.**

If-else - If-else and Switch cases are used to evaluate conditions and decide the flow of a program.

Ternary Operator- The ternary operator is a shortcut operator used for shortening the conditional statements

#### **Why break and continue statement used in php?**

Break: The keyword break ends execution of the current for, for each, while, do while or switch structure. When the keyword break executed inside a loop the control automatically passes to the first statement outside the loop. A break is usually associated with the if.

Continue: It is used to stop processing the current block of code in the loop and goes to the next iteration. It is used to skip a part of the body of the loop under certain conditions. It causes the loop to be continued with the next iteration after skipping any statement in between. The continue statement tells the compiler "SKIP THE FOLLOWING STATEMENTS AND CONTINUE WITH THE NEXT ITERATION".

Write a code to find out whether the year is leap year or not.

PROGRAM -

```
<?php
$year = 2022;

if((0 == $year % 4) & (0 != $year % 100) | (0 == $year % 400))
{
echo "$year is a Leap Year.";
}

else
{
echo "$year is not a Leap Year.";
}
echo "<br/>";
echo "Srinivas Godihall";
echo "<br/>";
echo "20203A1008 <br/>";

?>
```

OUTPUT -



2022 is not a Leap Year.  
Srinivas Godihall  
20203A1008

