

Experiment No. 3

Title:-To Study different operators in PHP.

Theory:-

Operator:-An operator is a symbol that tell the compiler which arithmetic or logical operation to be performed between the respective operands.

PHP Arithmetic Operators:-

The PHP arithmetic operators are used with numeric values to perform common arithmetical operations, such as addition, subtraction, multiplication etc.

Operator	Name	Example	Result
+	Addition	$\$x + \y	Sum of $\$x$ and $\$y$
-	Subtraction	$\$x - \y	Difference of $\$x$ and $\$y$
*	Multiplication	$\$x * \y	Product of $\$x$ and $\$y$
/	Division	$\$x / \y	Quotient of $\$x$ and $\$y$
%	Modulus	$\$x \% \y	Remainder of $\$x$ divided by $\$y$

PHP Assignment Operators:-

The PHP assignment operators are used with numeric values to write a value to a variable. The basic assignment operator in PHP is "=". It means that the left operand gets set to the value of the assignment expression on the right.

PHP Logical Operators:-

The PHP logical operators are used to combine conditional statements.

Operator	Name	Example	Result
and	And	\$x and \$y	True if both \$x and \$y are true
or	Or	\$x or \$y	True if either \$x or \$y is true
xor	Xor	\$x xor \$y	True if either \$x or \$y is true, but not both
&&	And	\$x && \$y	True if both \$x and \$y are true
	Or	\$x \$y	True if either \$x or \$y is true
!	Not	!\$x	True if \$x is not true

Code:-


PHP Arithmetic Operators:-

```
AnjaliGupta1.php
1  <?php
2  $a=20;
3  $b=10;
4  echo "First number: $a <br>";
5  echo "Second number: $b<br>";
6  echo "<br/>";
7  $c=$a + $b;
8  echo "Addition: $c
9  <br/>"; $c=$a - $b;
10 echo "Subtraction: $c
11 <br/>"; $c=$a * $b;
12 echo "Multiplication: $c
13 <br/>"; $c=$a / $b;
14 echo "Division: $c
15 <br/>"; $c=$a % $b;
16 echo "Modulus: $c
17 <br/>";
18 ?>
```

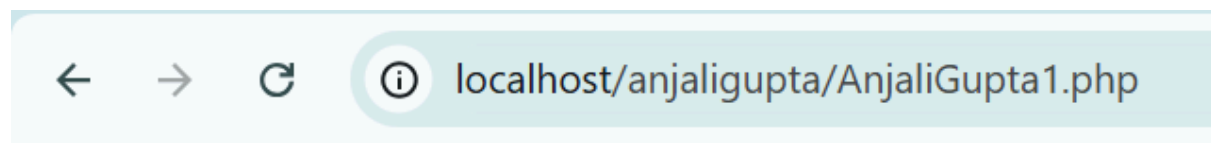
Output:-

First number: 20
Second number: 10

Addition: 30
Subtraction: 10
Multiplication: 200
Division: 2
Modulus: 0

```
 AnjaliGupta1.php
1  <?php
2  $a=30;
3  $b=15;
4  echo "First number: $a <br/>"
5  echo "Second number: $b<br/>"
6  echo "<br/>";
7  $c=$a + $b;
8  echo "Addition: $c
9  <br/>"; $c=$a - $b;
10 echo "Subtraction: $c
11 <br/>"; $c=$a * $b;
12 echo "Multiplication: $c
13 <br/>"; $c=$a / $b;
14 echo "Division: $c
15 <br/>"; $c=$a % $b;
16 echo "Modulus: $c
17 <br/>";
18 ?>
```

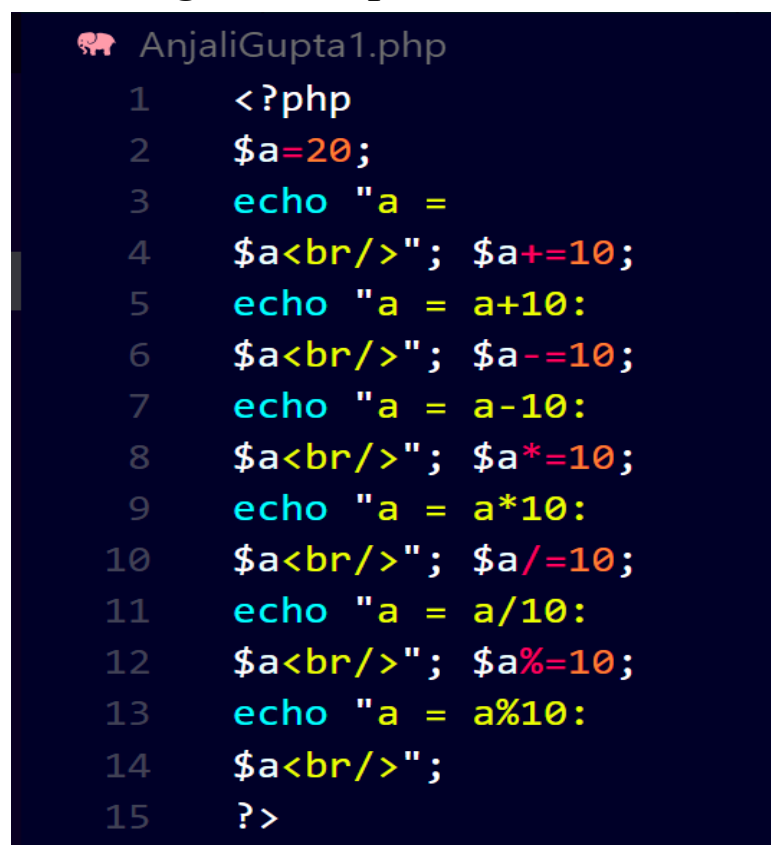
Output:-



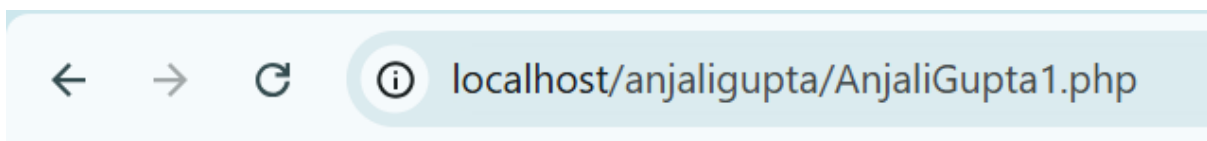
First number: 30
Second number: 15

Addition: 45
Subtraction: 15
Multiplication: 450
Division: 2
Modulus: 0

PHP Assignment Operators:-



Output:-



```
a = 20  
a = a+10: 30  
a = a-10: 20  
a = a*10: 200  
a = a/10: 20  
a = a%10: 0
```

A screenshot of a code editor with a dark background. The file name 'AnjaliGupta1.php' is shown at the top left. The code is a PHP script that performs arithmetic operations on a variable \$a and outputs the results. The code is as follows:

```
1  <?php  
2  $a=30;  
3  echo "a =  
4  $a<br/>"; $a+=10;  
5  echo "a = a+10:  
6  $a<br/>"; $a-=10;  
7  echo "a = a-10:  
8  $a<br/>"; $a*=10;  
9  echo "a = a*10:  
10 $a<br/>"; $a/=10;  
11 echo "a = a/10:  
12 $a<br/>"; $a%=10;  
13 echo "a = a%10:  
14 $a<br/>";  
15 ?>
```

Output:-

```
localhost/anjaligupta/AnjaliGupta1.php

a = 30
a = a+10: 40
a = a-10: 30
a = a*10: 300
a = a/10: 30
a = a%10: 0
```

PHP Comparison Operators:-

```
AnjaliGupta1.php
1  <?php
2  $a = 20;
3  $b = 10;
4  $c = 20;
5  var_dump ($a == $c);
6  var_dump ($a != $b);
7  var_dump ($a <> $b);
8  var_dump ($a === $c);
9  var_dump ($a !== $c);
10 var_dump ($a < $b);
11 var_dump ($a > $b);
12 var_dump ($a <= $b);
13 var_dump ($a >= $c);
14 | ?>
15
```

Output:-

localhost/anjaliGupta/AnjaliGupta1.php
bool(true) bool(true) bool(true) bool(true) bool(false) bool(false) bool(true) bool(false) bool(true)

```
AnjaliGupta1.php
1  <?php
2  $a = 30;
3  $b = 15;
4  $c = 40;
5  var_dump ($a == $c);
6  var_dump ($a != $b);
7  var_dump ($a <> $b);
8  var_dump ($a ===$c);
9  var_dump ($a !==$c);
10 var_dump ($a < $b);
11 var_dump ($a >$b);
12 var_dump ($a <=$b);
13 var_dump ($a >=$c);
14 | ?>
15
```

Output:-

localhost/anjaliGupta/AnjaliGupta1.php
bool(false) bool(true) bool(true) bool(false) bool(true) bool(false) bool(true) bool(false) bool(false)

PHP Logical Operators:-

```
AnjaliGupta1.php
1  <?php
2  $a = 20;
3  $b = 10;
4  if ($a == 20 and $b == 10)
5  echo "True <br/>";
6  if ($a == 20 or $b == 30)
7  echo "True <br/>";
8  if ($a == 20 xor $b == 5)
9  echo "True <br/>";
10 if ($a == 20 && $b == 10)
11 echo "True <br/>";
12 if ($a == 20 || $b == 20)
13 echo "True <br/>";
14 ?>
15
```

Output:-





← → ↻ ⓘ localhost/anjaligupta/AnjaliGupta1.php

True
True
True
True
True

 AnjaliGupta1.php

```
1  <?php
2  $a = 40;
3  $b = 35;
4  if ($a == 40 and $b == 35)
5  echo "True <br/>";
6  if ($a == 40 or $b == 35)
7  echo "True <br/>";
8  if ($a == 40 xor $b == 35)
9  echo "True <br/>";
10 if ($a == 40 && $b == 35)
11 echo "True <br/>";
12 if ($a == 40 || $b == 35)
13 echo "True <br/>";
14 ?>
15
```

Output:-

    localhost/anjaligupta/AnjaliGupta1.php

True
True
True
True

Conclusion:- Thus, we studied different operators in PHP.

