PHP : PHP is stand for hypertext pre processor. It is open source server side scripting language which used for developed dynamic websites. It was developed by Rasmus Lerdrof around 1994.

Extension : .php

Advantage
* open source(source code can change)
* multiplatform(win,linux,mac)
* support many databases (e.g mysql, oracle etc)
* support many web servers (e.g. apache, iis etc)
* easy to use, light weight, fast processing
* support opps features

php
xampp (Cross)
wamp (windows)
lamp (linux)
mamp (mac)

xampp download from apachefriends.org
install

xampp control panel (start apache and mysql)

save file
c://xampp/htdocs/folder/filename.php
e.g.
c://xampp/htdocs/06pm/first.php

code

Run (browser)
http://localhost/06pm/first.php
or
localhost/06pm/first.php

Tags(Delimeters)

1 standard tag
<?php

```
        ?>

2 short tag
        <?

        ?>

3 Asp tag
        <%

        %>
```

for output on screen

```
        echo
                * fast processing
                * it can execute multiple statement
                        e.g.
                                echo "","","";
                                echo  "Hello","Ducat";

        print
                * slow processing
                * it can execute only single statement
                        e.g.
                                print "";
                                print  "Hello";
```

concatination (.)

```
        echo    "Hello"."Ducat";
        print   "Hello"."Ducat";
```

new line

```
        <br> (webpage)
        \n       (file)
```

```
echo "Hello <br> PHP";
print "Hello <br> PHP";
echo "<h1>India</h1>";
```

comments

```
        //              single line comments
        #               single line comments


        /*

                        multiple line comments

        */
```

variable : it is a temporary memory location which used for hold the information. the value of variable can vry(change) at run time.

Rules for declare variable
* start from $ sign
* continue with a-zA-Z_
* can combination a-zA-Z0-9

e.g.

```
        $a;
        $D;
        $5;             wrong
        $_A;
        $a5;
        $5a;    wrong
```

```
$a = 5;
echo $a;
```

```
$b = "India";
echo $b;
```

Data Types : in php data types allocate automatically at run time according to variable value.

        int, string, double, array, object , resource, boolean, null

check data type

        gettype(var name)   show only data type

```
var_dump(var name)              print, show data type and value
```

e.g.

```
$a = 5;
echo gettype($a);
var_dump($a);
```

e.g

```
$x = 5;
echo "value of x is ".$x;
```

e.g.

```
$a = 5;
$b = 3;
echo "value of a is ".$a." and value of b is ".$b;
```

e.g.

```
$z = 8;

echo "value of z = ".$z;                (value of z is 8)
echo "value of z = $z";                 (value of z is 8)
echo 'value of z = $z';                 (value of z is $z)
```

Constant : it is a temporary memory location which used for hold the information. the value of constant can not vry(change) at run time.

```
defined("constant name","value");
const constantname = value;

Rules for define constant name
        * always start from a-zA-Z_
        * can use a-zA-Z0-9

e.g
        define("HOST","Localhost");
        or
        const HOST = "Localhost";

        echo HOST;

e.g.
        define("A","India");
```

```
or
const A = "India";

echo A;
```

Operators : It is a special symbols which meanings are predefine. They work accoring to ther predefine meaning.

Type of Operators

1 Arithmetic Operator

+	Addition
-	Substraction
*	Multiplication
/	Division
%	Modulus

```
e.g.
$a = 10;
$b = 3;

$c = $a+$b;             // output 13
echo $c;

$c = $a/$b;             // output 3

$c = $a%$b;             // output 1
```

2 Assignment Operator

It used for shift the value from right side to left side

```
=
+=
-=
*=
/=
%=

e.g.

$a = 5;
$b = 2;

$a = $a+$b
        or
$a += $b;


$a = $a-$b;
```

```
$a -= $b;
```

3 Comparision Operator

```
==              match only value
===             match value and data type
!=              match only value
!==             match value and data type
```

```
$a = 5;
$b = "5";

$a == $b;
$a === $b;
```

4 Increment Operator

```
        ++      Increment By 1
        --      Decrement By 1
```

```
$a = 5;
$a++;
echo $a;        // Output 6
```

```
$a = 5;
++$a;
echo $a;        // Output 6
```

```
$a = 5;
echo $a++;      // Output 5
echo $a;        // Output 6
```

```
$a = 5;
echo ++$a;      // Output 6
echo $a;        // Output 6
```

```
$a = 5;
$a++;
echo $a;        // Output 6
echo --$a;      // Output 5
echo $a;        // Output 5
```

5 Relational Operator

>	Greater than
>=	Greater than equal too
<	Less than
<=	Less than equal too

e.g.

```
$a = 5;
$b = 5;

$a >= $b;
```

6 Logical Operator

&&	AND
||	OR
!	NOT

```
($a>$b && $a>$c)  Both Condition True

($a>$b || $a>$c)  At Least One Condition True
```

7 Conditional Operator
Ternary Operator
Question Colon Operator

syntax

```
(condition ? "True Statement" : "False Statement")
```

e.g.

```
$a = 5;
$b = 3;

echo ($a>$b ? "A is Greater" : "B is Greater");
```

Conditional Statement
1 if
2 if else
3 if else if
4 switch case

Q wap to store a 3 digit number in a variable, check that number is palindrome or not ?

```
$no = 134;
```

Q wap to store 3 digit number in a variable, check that is it armstrong or not ?

```
$no = 153
```

Loop : Loop is used for execute same statement multiple times.

Types

1 for

syntax

```
for(initialize; condtion; inc/dec)
{
        code
}
```

e.g

```
for($i=1; $i<=5; $i++)
{
        echo "Hello";
}
```

e.g

```
for($i=5; $i>=1; $i--)
{
        echo "Hello";
}
```

2 while

syntax

```
initialization;
```

```
while(condition)
{
        code
        inc/dec
}
```

e.g.

```
$i=1;

while($i<=5)
{
        echo "Hello";
        $i++;
}
```

3 do while

syntax

```
intitialization

do
{
        code

        inc/dec
}while(condition)
```

e.g.

Q Wap to print factorial of a given number.

```
$no = 5;
```

Q. wap to print fibonacci series upto 10 numbers.

0 1 1 2 3 5 8 ....

Q. wap to check that given number is palindrome or not.

```
$no = 121;
```

Q. wap to check that given number is armstrong or not ?

```
$no = 153;
```

Jump Statement
1 break
2 continue
3 exit

```
*****
****
***
**
*
```

```
*****
 ****
  ***
   **
    *
```

```
1
12
123
1234
12345
```

```
    1
   22
  333
 4444
55555
```

```
abcd
abcd
abcd
```

```
01 03 05 07
09 11 13 15
17 19 21 23
25 27 29 31
```

```
02 04 06 08
10 12 14 16
```

```
18 20 22 24
26 28 30 32
```

Q write a program to print prime number upto 100;

Q write a program to print table till given number.

```
        $no = 4;
        1........
        2........
        3........
        4........
```

```
    *
   * *
  * * *
 * * * *
* * * * *
```

```
    *
   ***
  *****
 *******
*********
```

```
*********
 *******
  *****
   ***
    *
```

```
*
*
*
*
* * * * *
```

```
*****
  *
  *
  *
  *
```

```
*  *
*  *
****
*  *
```

```
*  *
```

```
*   *
 * *
  *
 * *
*   *
```

```
****
        *
***
        *
****
```

```
(i,j)
(1,1)   (1,2)   (1,3)   (1,4)   (1,5)
*               *               *               *               *

(2,1)   (2,2)   (2,3)   (2,4)   (2,5)
*               *               *               *               *

(3,1)   (3,2)   (3,3)   (3,4)   (3,5)
*               *               *               *               *

(4,1)   (4,2)   (4,3)   (4,4)   (4,5)
*               *               *               *               *

(5,1)   (5,2)   (5,3)   (5,4)   (5,5)
*               *               *               *               *
```

```
01 03 05 07
03 05 07 09
05 07 09 11
07 09 11 13
```

```
    1
   2 2
  3 4 3
 4 5 6 4
5 7 8 9 5
```

```
    1
   2 2
  3 4 3
 4 5 6 4
5 6 7 8 5
```

n=3

```
{*}
   {{*}}
        {{{*}}}
```

n=4

```
{*}
   {{*}}
        {{{*}}}
                        {{{{*}}}}
```

n=3

```
1
22
22
333
333
333
```

n=4

```
1
22
22
333
333
333
4444
4444
4444
4444
```