

HTML/PHP - Lecture 8

COEN 10

PHP - loops

- ★ Loops execute a block of code
 - ◎ for a specified number of times,
or
 - ◎ while a specified condition is true

PHP - loops

★ In PHP:

- ◎ while
 - ↳ Executes a block of code while a specified condition is true
- ◎ do...while
 - ↳ Executes a block of code once, and then repeats the code while a specified condition is true
- ◎ for
 - ↳ Executes a block of code a specified number of times
- ◎ foreach
 - ↳ Executes a block of code for each element in an array

PHP - loops

★ The while loop

- ◎ Executes a block of code while a condition is true.

★ Syntax

```
while (condition)
{
    <code to be executed>;
}
```

PHP - loops

★ Example

```
<?php
    $i=1;
    while ($i <= 5)
    {
        echo $i . "<br />";
        $i++;
    }
?>
```

this will output 6
if you want to start
with the value of i is
1, you need to restate
\$i=1

PHP - loops

★ The do...while loop

◎ Executes the block of code once and
repeats while the condition is true.

★ Syntax

```
do
{
    <code to be executed>;
}
while (condition);
```

PHP - loops

★ Example

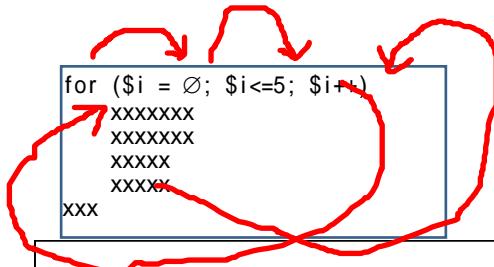
```
<?php
    $i=1;
    do
    {
        $i++;
        echo $i . "<br />";
    }
    while ($i <= 5);
?>
```

has to be true in the
beginning, unless it
is doing something
wrong (because it is
doing again and again)

PHP - loops

★ The for loop

◎ Used typically to execute a block
of code for a number of times.



The for Loop - Syntax

```
for (init; condition; increment)
{
    <code to be executed>;
}

★ init
    ◉ Executes before the loop. Mostly used to set a counter.
★ condition
    ◉ Evaluated before each loop iteration. If it is TRUE, the loop continues. If it is FALSE, the loop ends.
★ increment
    ◉ Executes after each iteration of the loop. Mostly used to increment a counter.
```

```
for ($i = , $j = ; &&$1<=5, $j<=6; $i++)
```

The for Loop - Syntax

```
for (init1, inti2; condition; inc1, inc2)
{
    <code to be executed>;
}
```

- ★ Each of the parameters can be empty
for (; ;) → is a loop that runs forever
- ★ Init and increment may have multiple expressions (separated by commas)
- ★ Conditions may be combined with logical operators: && and ||

The for Loop - Syntax

★ Example

```
<?php
for ($i=1; $i<=5; $i++)
{
    echo $i . "<br />";
}
?>
```

Examples

- ★ Write the code to calculate the sum of the numbers between \$a and \$b that are multiple of \$x
- ★ Write the code to output every other number between \$x and y, starting with \$x

```
$sum=∅,
for ($i=$a; $i<=$b;$i++)
{
if $i % $x == ∅
    $sum += $i;
}
```

```
for ($i=$x;$i<=$y;$i+=2)
{
    echo $i;
}
```

Examples

★ Write the code to count how many numbers between \$x and \$y are multiple of \$z

```
$count=$;
for ($i=$x;$i<=$y;$i++)
{
    if $i%$z==$;
    $count++;
}
```

★ Write the code to calculate the factorial of \$x

```
fact=1
for($i=n;$i>=1;$i--)
{
    $fact*=$i;
```