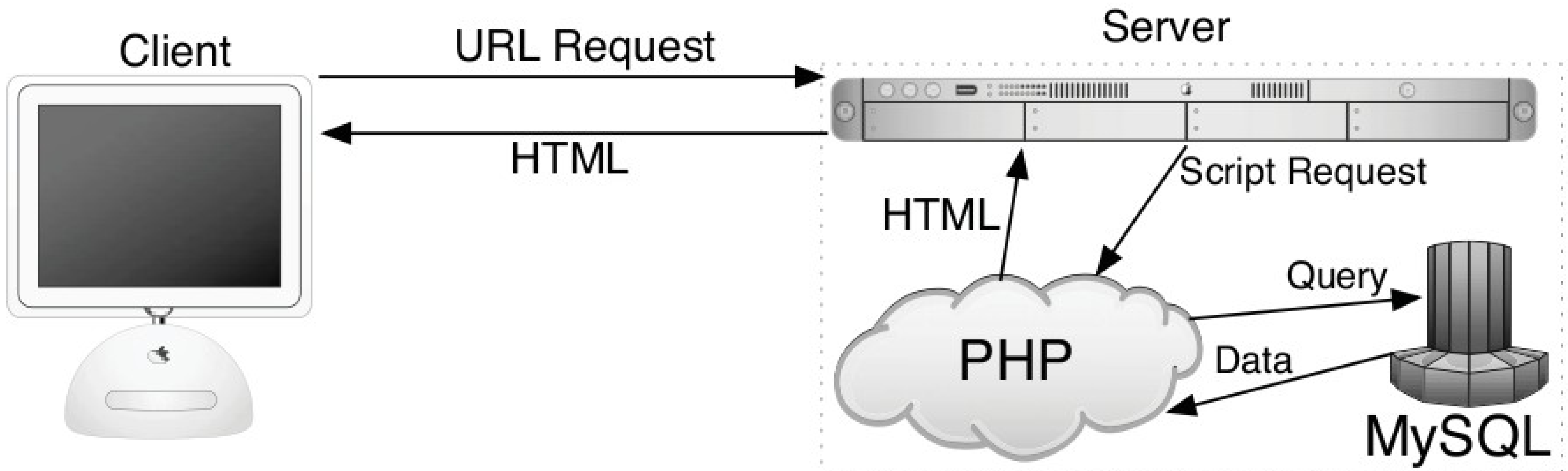
PHP
(Intro and Basic)

Intro

- Its a server side scripting language
- Personal Home Page
- Hypertext Preprocessor
- Make dynamic website, flexible and potent creatures, more accurately described as applications than a sites (Larry Ulman)
- More secure


Client
URL Request
HTML
Server
Script Request
HTML
Query
Data
PHP
MySQL

Need to Prepare

- Server side scripting language, ex: PHP, ASP
- Web Server, ex: Apache, IIS, Abyss, Tomcat
- Database Server, ex: MsQL, MyQL, Oracle, for exercise can be used localhost first

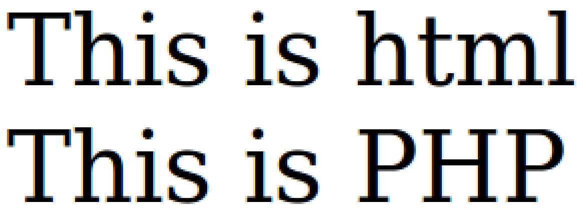
Basic

- PHP is an HTML-embedded scripting language. This means that you can intermingle PHP and HTML code within the same file.
- <?php

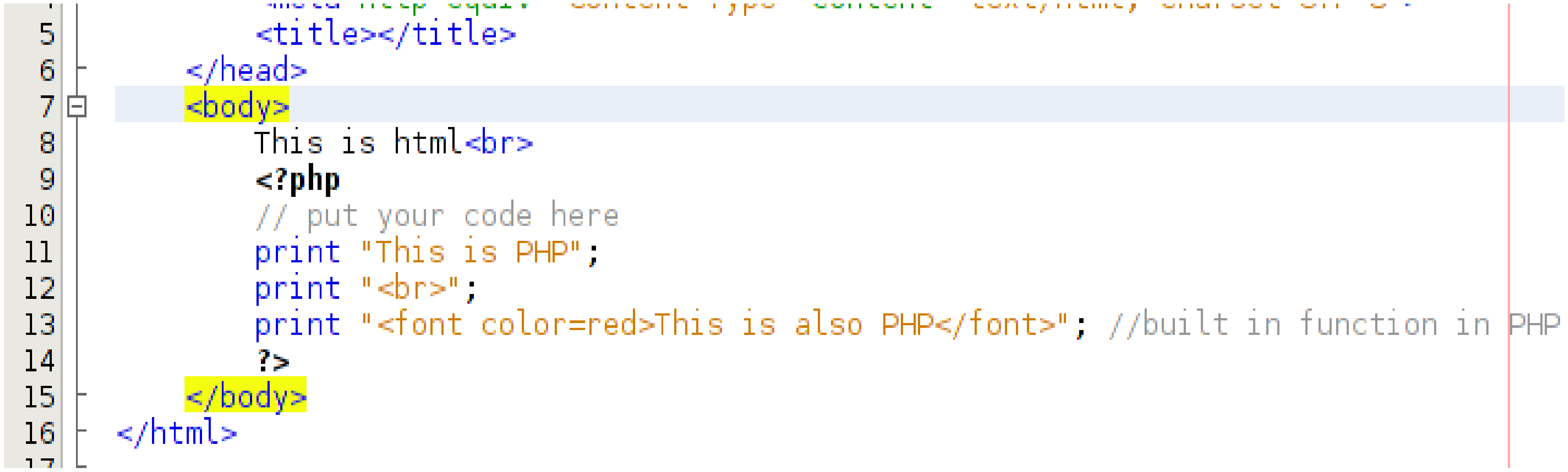
  .....

  ?>
- Anything placed within these tags will be treated by the Web server as PHP
- Put it anywhere

```
<body>
        This is html<br>
        <?php
        print "This is PHP";  // print - built in function in PHP
        ?>
    </body>
```



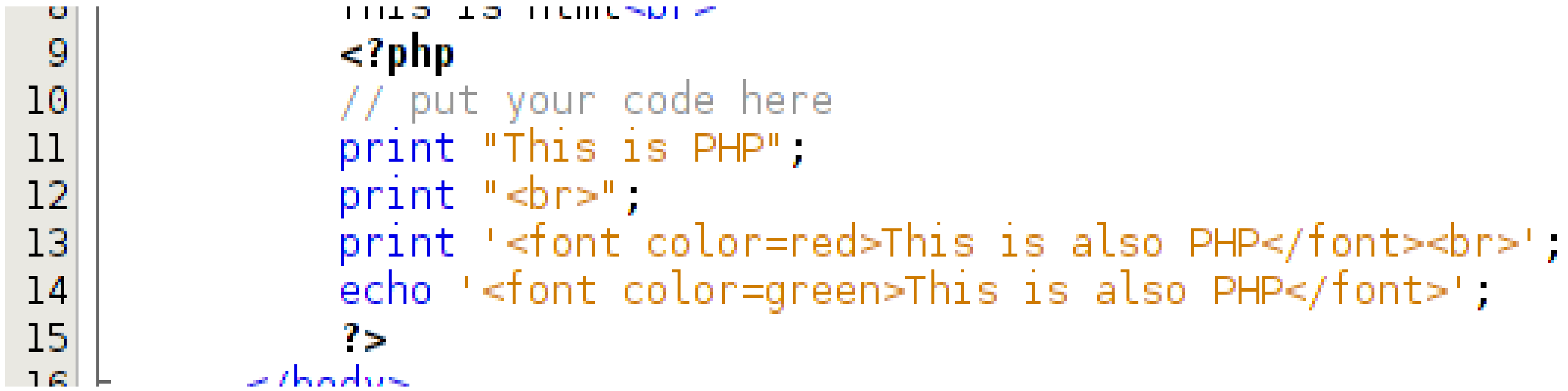
```
This is html
This is PHP
```



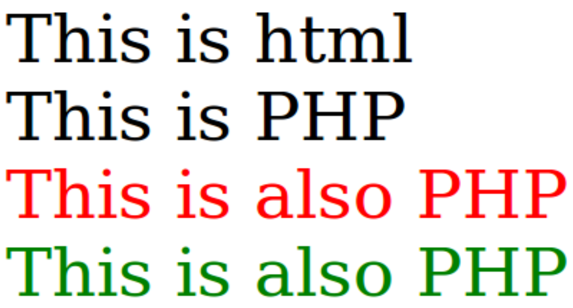
```
        <title></title>
    </head>
    <body>
        This is html<br>
        <?php
        // put your code here
        print "This is PHP";
        print "<br>";
        print "<font color=red>This is also PHP</font>"; //built in function in PHP
        ?>
    </body>
</html>
```

This is html
This is PHP
This is also PHP

- U can use ” ” or ' ' for sending data to browser



```
            This is html<br>
            <?php
            // put your code here
            print "This is PHP";
            print "<br>";
            print '<font color=red>This is also PHP</font><br>';
            echo '<font color=green>This is also PHP</font>';
            ?>
        </body>
```



```
This is html
This is PHP
This is also PHP
This is also PHP
```

Variables

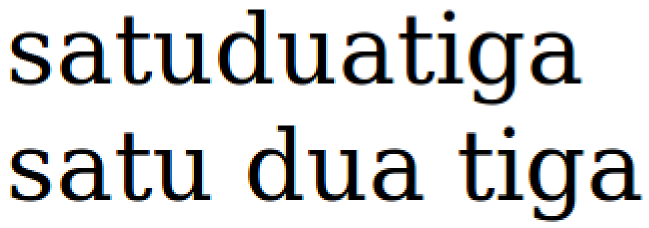
- Variables are containers used to temporarily store values.
- These values can be numbers,text, or much more complex data
- PHP has eight types of variables.
  - scalartypes—Boolean (TRUE or FALSE), integer, floating point (decimals), and strings (characters)
  - two nonscalar (multivalued)—arrays and objects;
  - plus resources (which you'll see when interacting with databases) and NULL (which is a special type that has no value).

- Identifier (variable's name)—must start with a dollar sign ($),
- example: $input, $a
- U can assign the value,
- Ex: $input = ”seven”;, $a=7;
- ”=” be called assignment operator

String

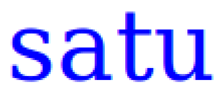
- $one =”satu”; $two =”dua”; $three=”tiga”;
- Concatenation is like addition for strings, concatenation operator (.)
- Then u can use,
-

```
$one="satu";$two="dua";$three="tiga";
echo $one.$two.$three;
echo $one." ".$two." ".$three;
```

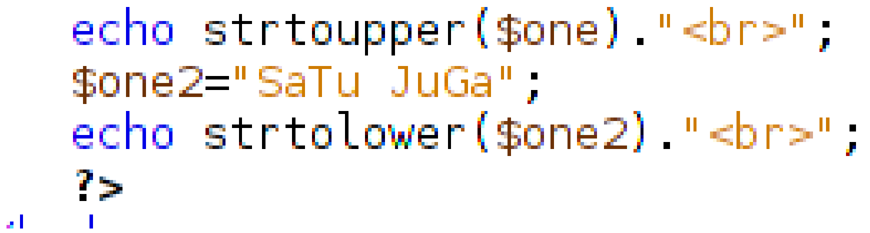


```
satuduatiga
satu dua tiga
```

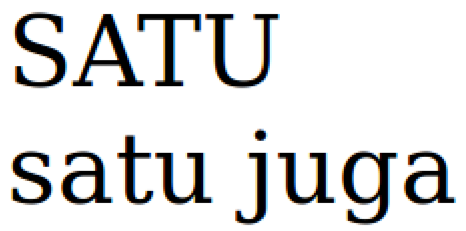
```
echo "<font color=blue>$one</font><br>";
```



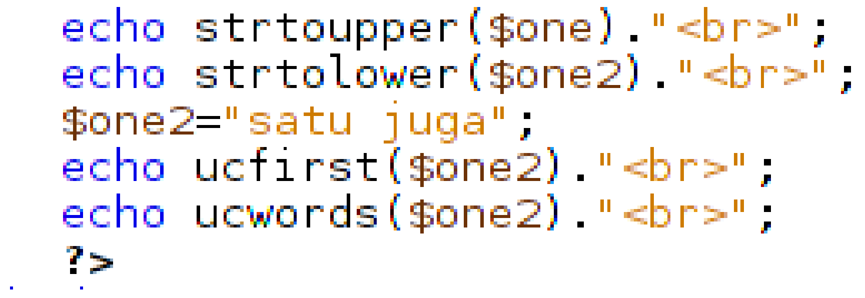
```
satu
```

- Built in String function → a lot, explore it by Urself
- 

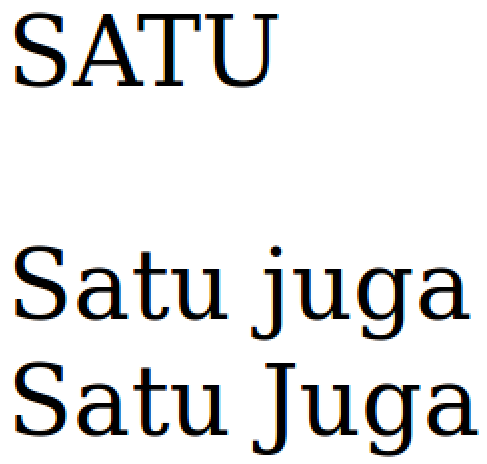
```
echo strtoupper($one)."<br>";
$one2="SaTu JuGa";
echo strtolower($one2)."<br>";
?>
```



```
SATU
satu juga
```



```
echo strtoupper($one)."<br>";
echo strtolower($one2)."<br>";
$one2="satu juga";
echo ucfirst($one2)."<br>";
echo ucwords($one2)."<br>";
?>
```



```
SATU

Satu juga
Satu Juga
```

addcslashes — Quote string with slashes in a C style

addslashes — Quote string with slashes

bin2hex — Convert binary data into hexadecimal representation

chop — Alias of rtrim

chr — Return a specific character

chunk_split — Split a string into smaller chunks

convert_cyr_string — Convert from one Cyrillic character set to another

convert_uudecode — Decode a uuencoded string

convert_uuencode — Uuencode a string

count_chars — Return information about characters used in a string crc32 — Calculates the crc32 polynomial of a string

crypt — One-way string encryption (hashing)

echo — Output one or more strings

explode — Split a string by string

fprintf — Write a formatted string to a stream

get_html_translation_table — Returns the translation table used by htmlspecialchars and htmlentities

hebrev — Convert logical Hebrew text to visual text

hebrevc — Convert logical Hebrew text to visual text with newline conversion

html_entity_decode — Convert all HTML entities to their applicable characters

htmlentities — Convert all applicable characters to HTML entities htmlspecialchars_decode — Convert special HTML entities back to characters

htmlspecialchars — Convert special characters to HTML entities

implode — Join array elements with a string

join — Alias of implode

lcfirst — Make a string's first character lowercase

levenshtein — Calculate Levenshtein distance between two strings

localeconv — Get numeric formatting information

ltrim — Strip whitespace (or other characters) from the beginning of a string

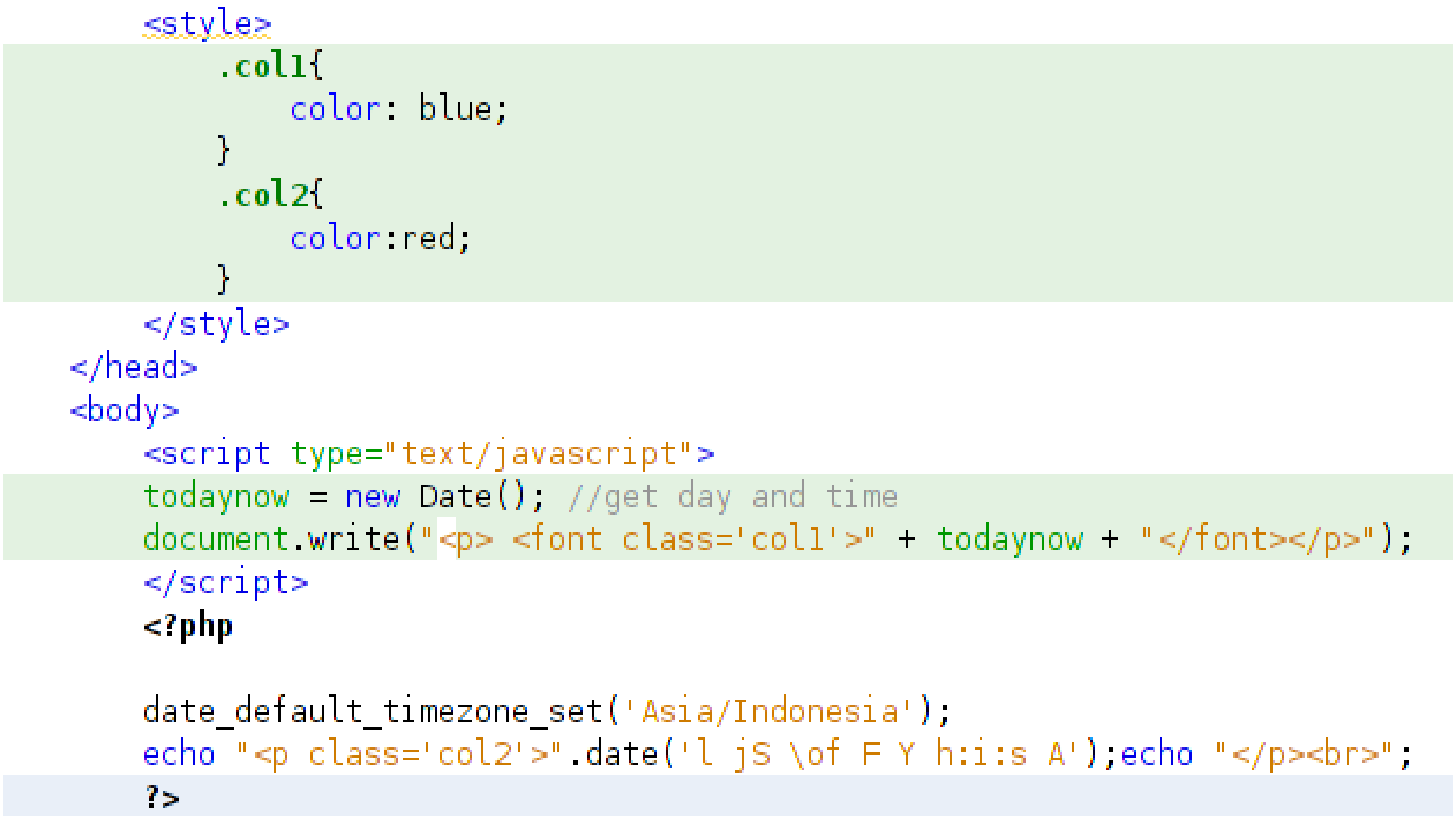
md5_file — Calculates the md5 hash of a given file

md5 — Calculate the md5 hash of a string

- etc

- Note:
  - PHP has a lot built in function → Authentication, Audio, Image, SE, Date/Time, Calender, Database, Crypto, Compression, etc
  - Make sure always get involved to http://php.net and the other tutorial, forum, PHP School, etc
  - Have a good IDE, make easier to learn the function

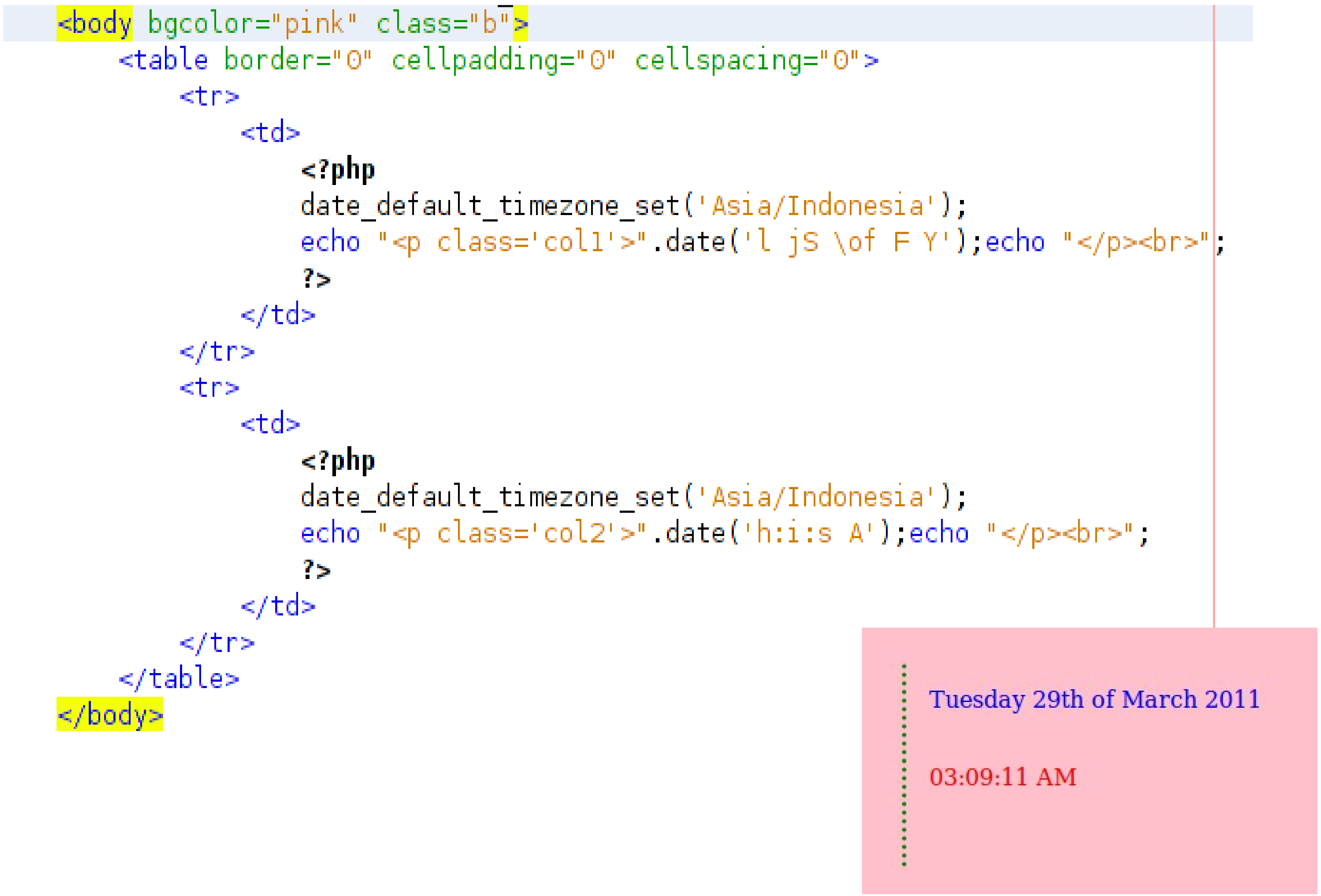
- It makes sense to make dynamic website
- PHP and CGI-scripting server can change/ manage client view from server
- Jadi server script such PHP lebih banyak kelebihan dr client scripting
- Lebih secure dan some parts dapat menggantikan client scripting



```
        <style>
            .col1{
                color: blue;
            }
            .col2{
                color:red;
            }
        </style>
    </head>
    <body>
        <script type="text/javascript">
        todaynow = new Date(); //get day and time
        document.write("<p> <font class='col1'>" + todaynow + "</font></p>");
        </script>
        <?php

        date_default_timezone_set('Asia/Indonesia');
        echo "<p class='col2'>".date('l jS \of F Y h:i:s A');echo "</p><br>";
        ?>
```

Tue Mar 29 2011 02:48:55 GMT+0700 (WIT)

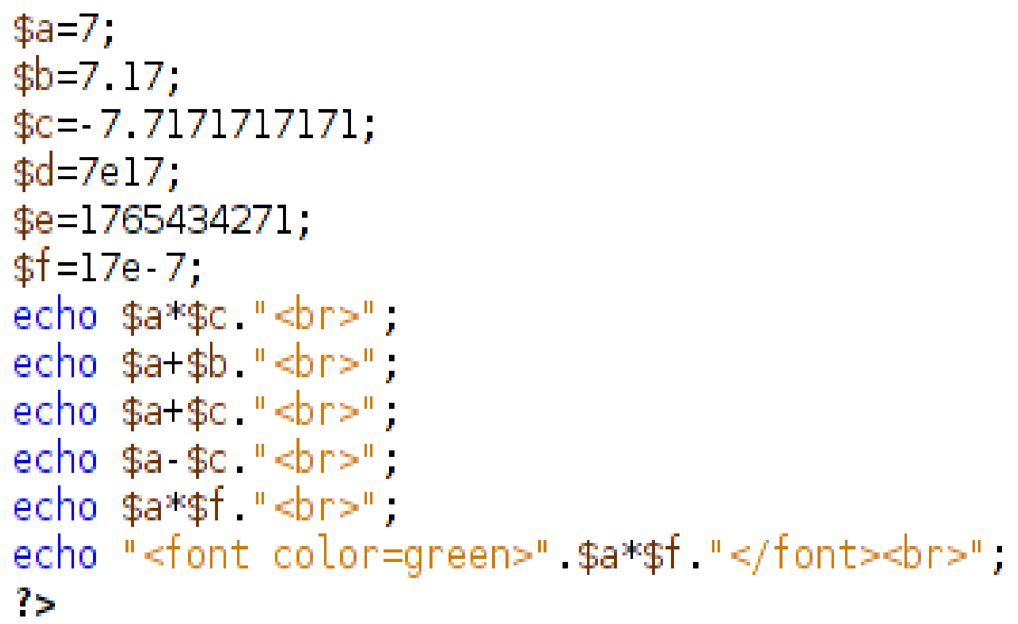
Tuesday 29th of March 2011 02:48:55 AM



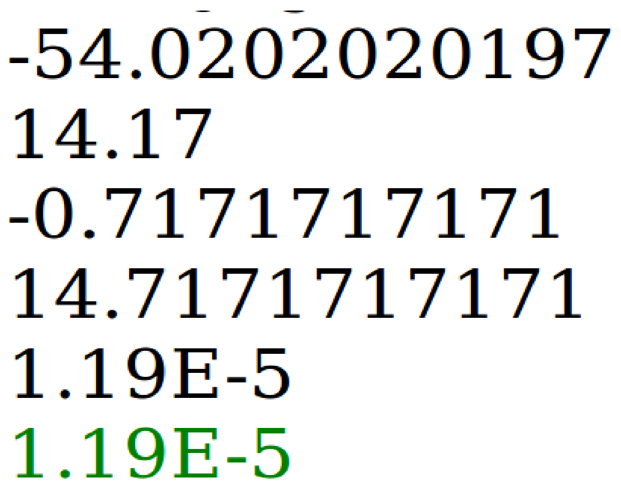
```
<body bgcolor="pink" class="b">
    <table border="0" cellpadding="0" cellspacing="0">
        <tr>
            <td>
                <?php
                date_default_timezone_set('Asia/Indonesia');
                echo "<p class='col1'>".date('l jS \of F Y');echo "</p><br>";
                ?>
            </td>
        </tr>
        <tr>
            <td>
                <?php
                date_default_timezone_set('Asia/Indonesia');
                echo "<p class='col2'>".date('h:i:s A');echo "</p><br>";
                ?>
            </td>
        </tr>
    </table>
</body>
```

```
Tuesday 29th of March 2011

03:09:11 AM
```

Number

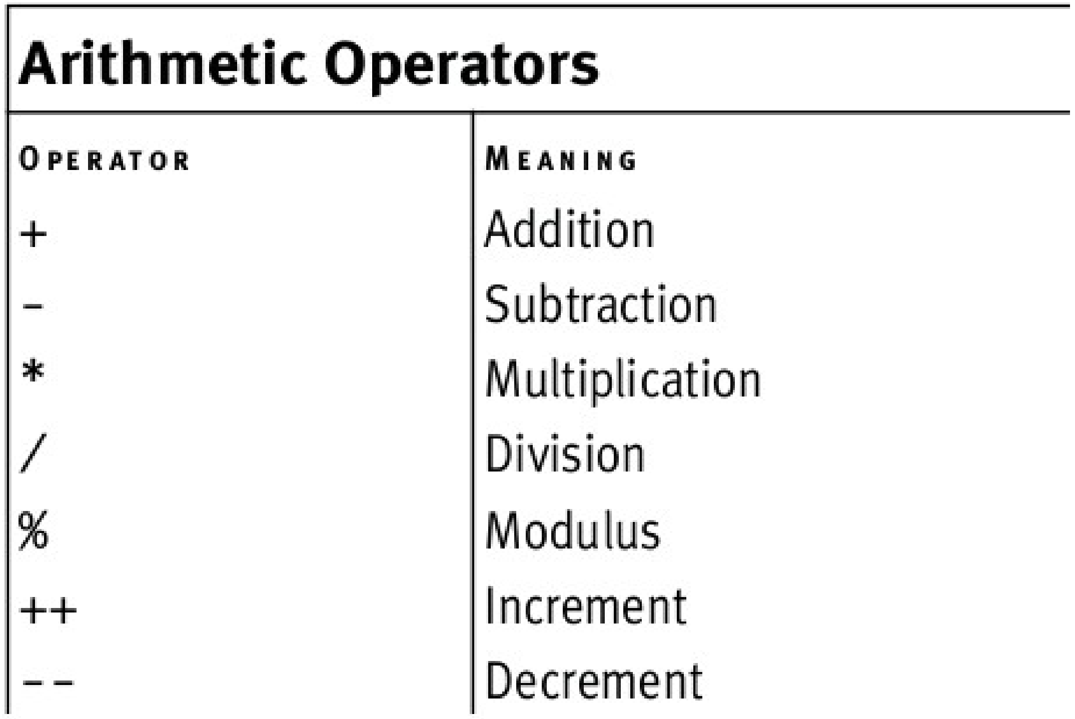


```
$a=7;
$b=7.17;
$c=-7.7171717171;
$d=7e17;
$e=1765434271;
$f=17e-7;
echo $a*$c."<br>";
echo $a+$b."<br>";
echo $a+$c."<br>";
echo $a-$c."<br>";
echo $a*$f."<br>";
echo "<font color=green>".$a*$f."</font><br>";
?>
```



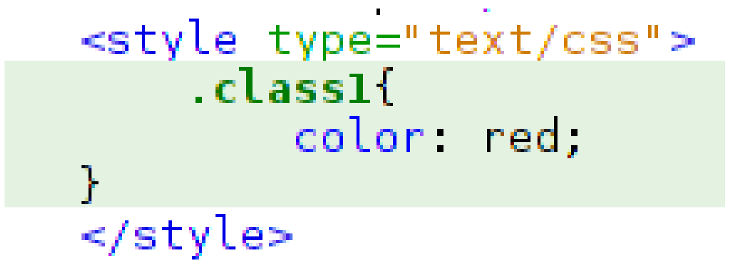
```
-54.0202020197
14.17
-0.7171717171
14.7171717171
1.19E-5
1.19E-5
```

- Arithmatic Operator

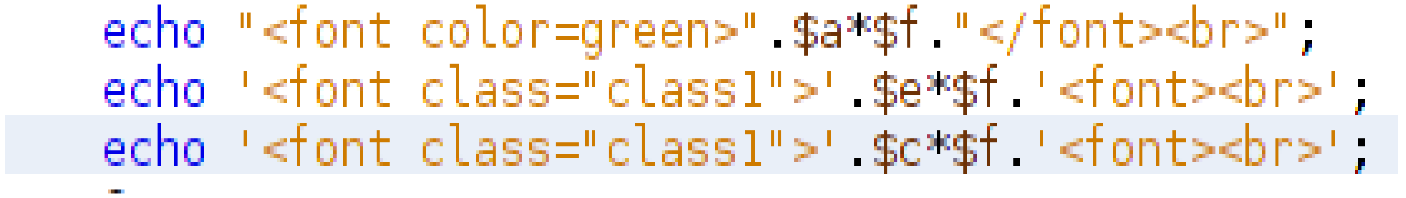


Arithmetic Operators

OPERATOR	MEANING
+	Addition
-	Subtraction
*	Multiplication
/	Division
%	Modulus
++	Increment
--	Decrement



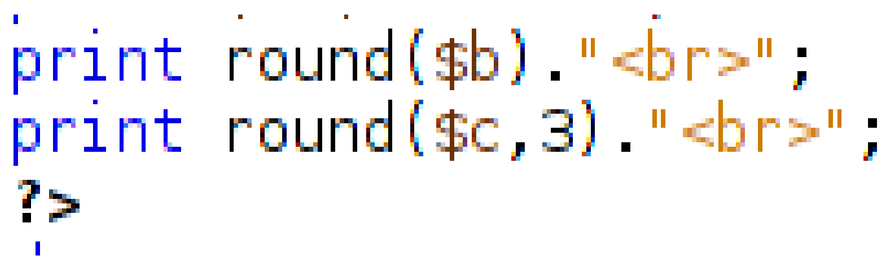
```
<style type="text/css">
        .class1{
            color: red;
}
</style>
```



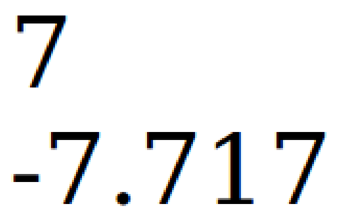
```
echo "<font color=green>".$a*$f."</font><br>";
echo '<font class="class1">'.$e*$f.'<font><br>';
echo '<font class="class1">'.$c*$f.'<font><br>';
```

```
1.19E-5
3001.2382607
-1.31191919191E-5
```

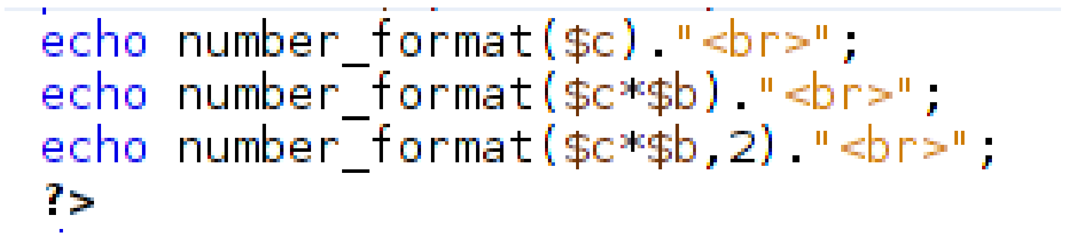
- Arithmatic built in function → a lot, explore by Urself



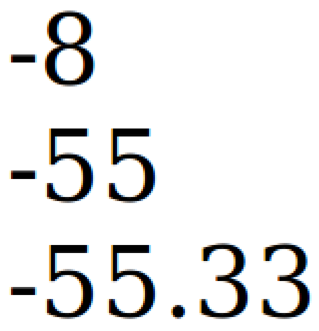
```
print round($b)."<br>";
print round($c,3)."<br>";
?>
```



```
7
-7.717
```



```
echo number_format($c)."<br>";
echo number_format($c*$b)."<br>";
echo number_format($c*$b,2)."<br>";
?>
```



```
-8
-55
-55.33
```

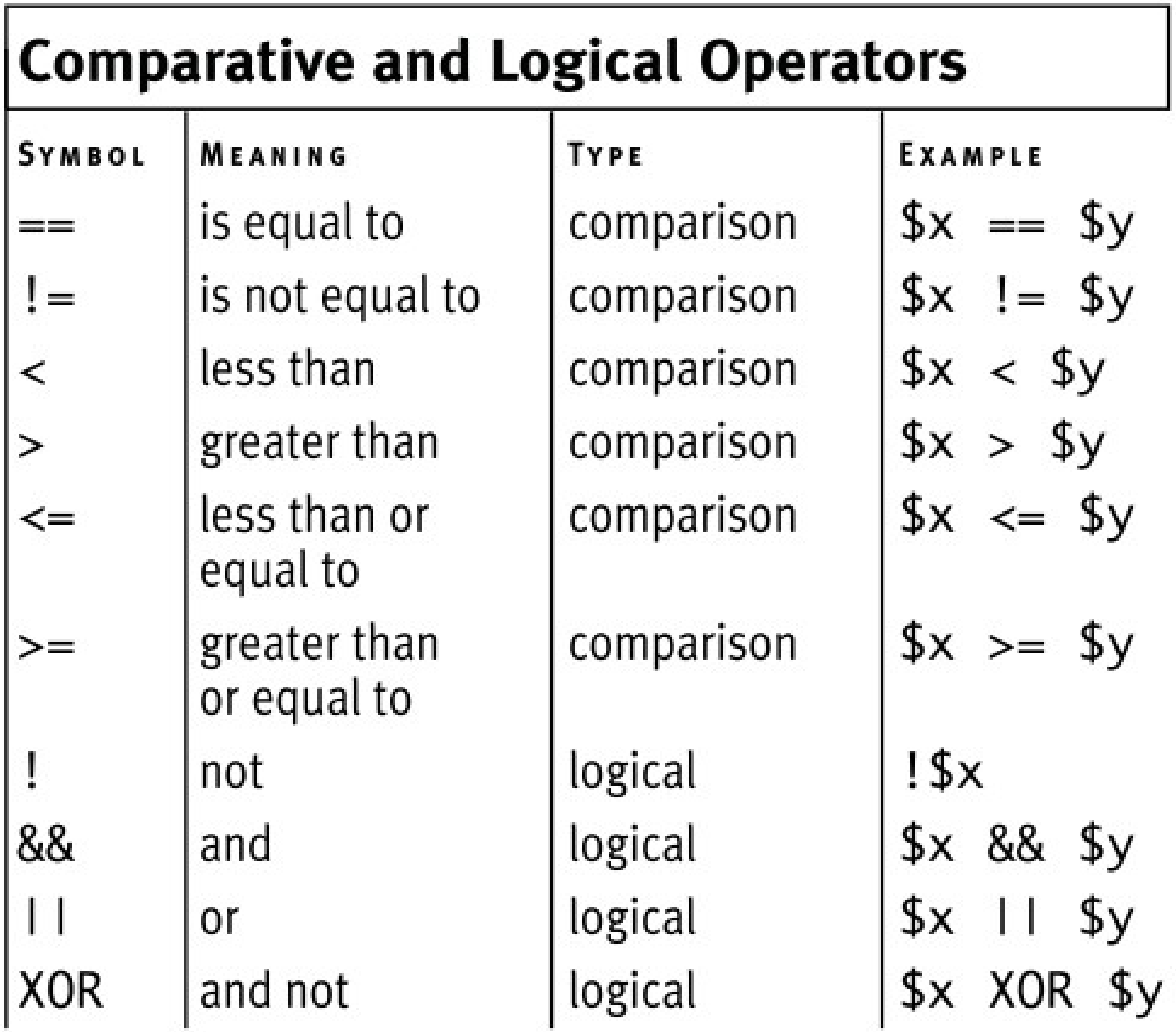
Conditional

- if, else, elseif
-

```
if (condition)
{
// .....
}
```

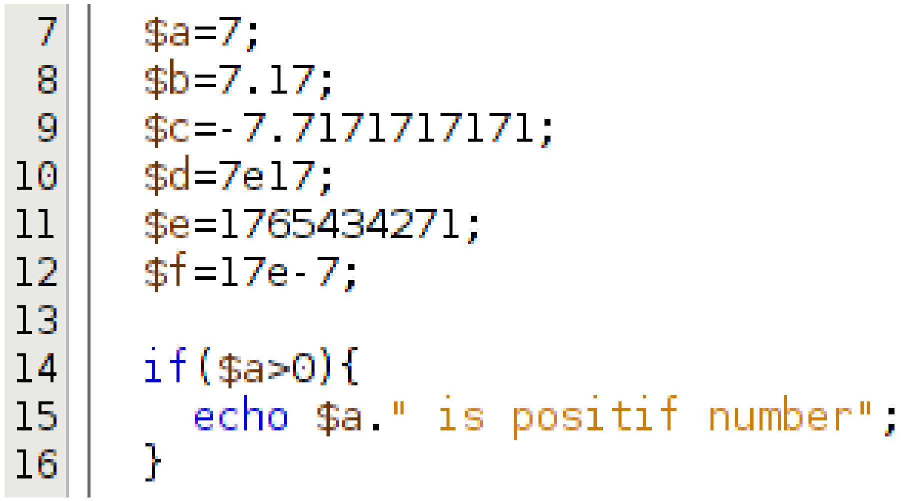
```
if (condition) {
// ....
} else {
// ....
}
```

```
if (condition1) {
// .....
} elseif (condition2) {
// .....
} else {
// ....
}
```



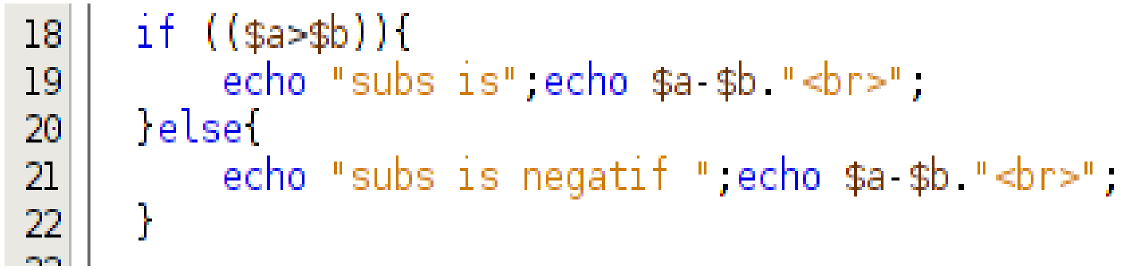
Comparative and Logical Operators

Symbol	Meaning	Type	Example
==	is equal to	comparison	$x == $y
!=	is not equal to	comparison	$x != $y
<	less than	comparison	$x < $y
>	greater than	comparison	$x > $y
<=	less than or equal to	comparison	$x <= $y
>=	greater than or equal to	comparison	$x >= $y
!	not	logical	!$x
&&	and	logical	$x && $y
||	or	logical	$x || $y
XOR	and not	logical	$x XOR $y



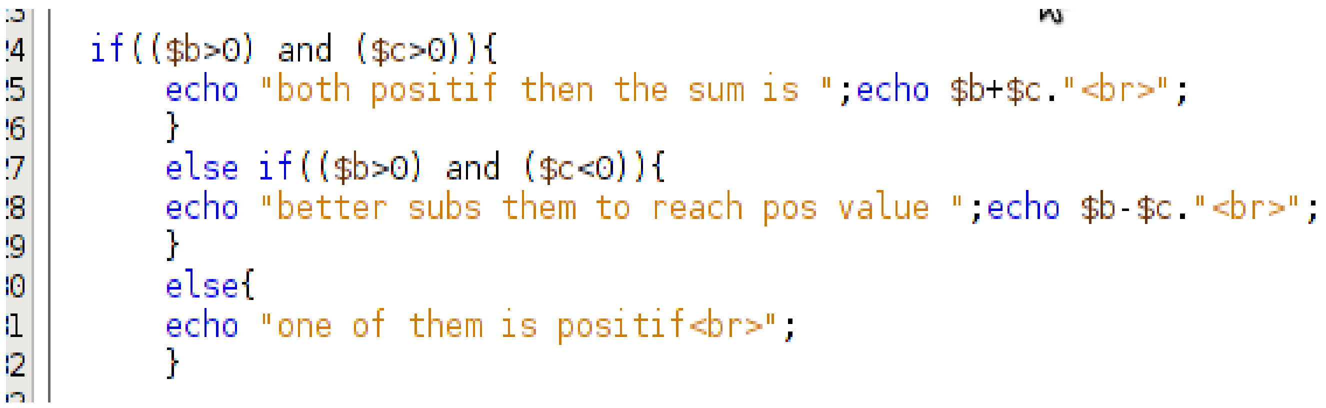
```php
$a=7;
$b=7.17;
$c=-7.7171717171;
$d=7e17;
$e=1765434271;
$f=17e-7;

if($a>0){
  echo $a." is positif number";
}
```

```
7 is positif number
```



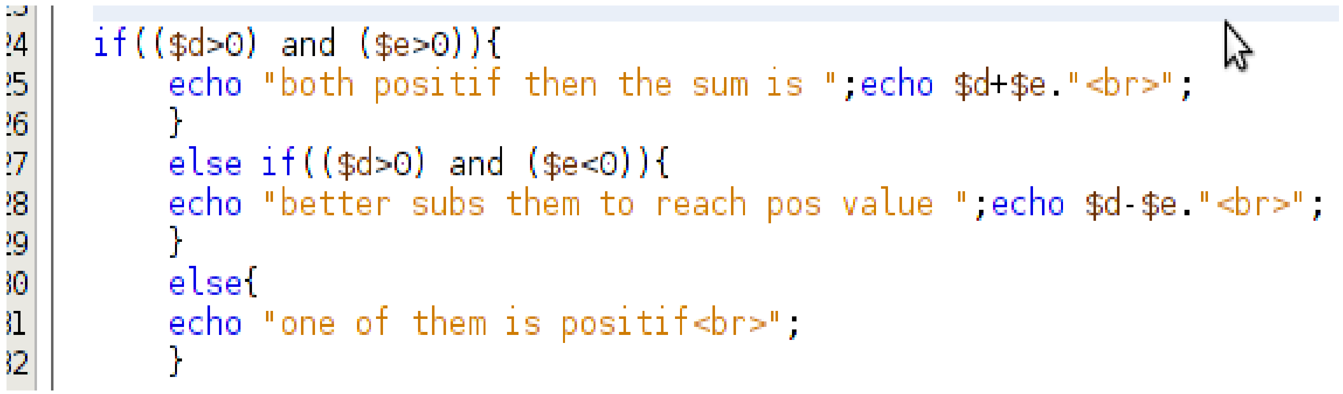
```php
if (($a>$b)){
     echo "subs is";echo $a-$b."<br>";
}else{
     echo "subs is negatif ";echo $a-$b."<br>";
}
```

```
subs is negatif -0.17
```



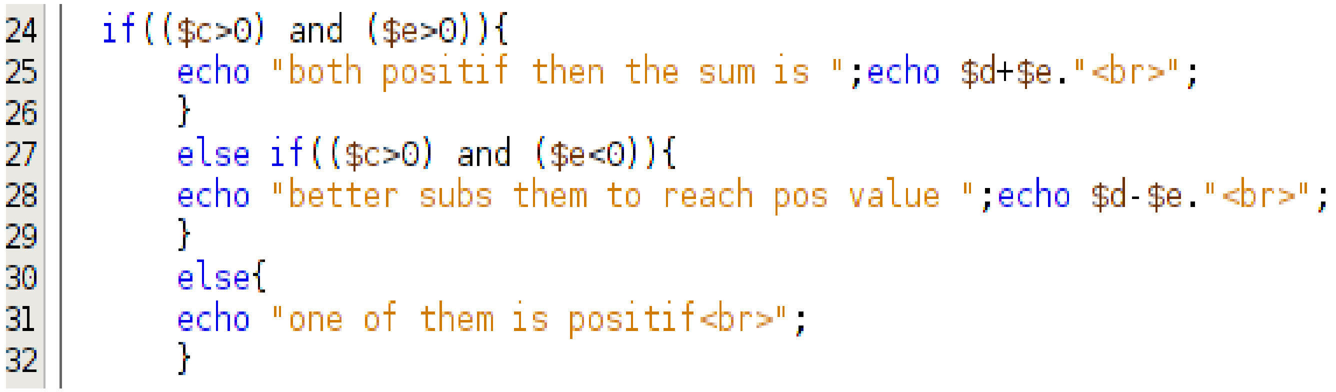
```
if(($b>0) and ($c>0)){
    echo "both positif then the sum is ";echo $b+$c."<br>";
    }
    else if(($b>0) and ($c<0)){
    echo "better subs them to reach pos value ";echo $b-$c."<br>";
    }
    else{
    echo "one of them is positif<br>";
    }
```

better subs them to reach pos value 14.8871717171



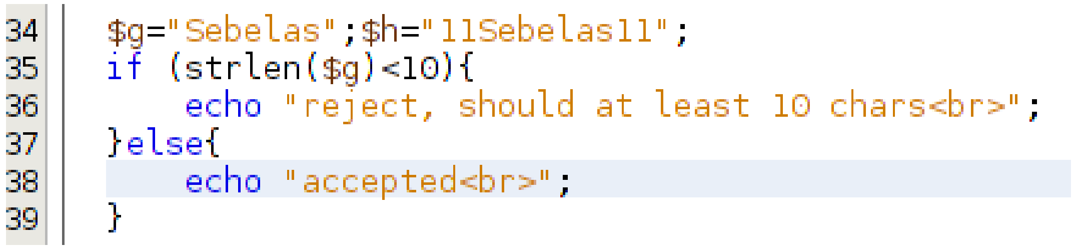
```
if(($d>0) and ($e>0)){
    echo "both positif then the sum is ";echo $d+$e."<br>";
    }
    else if(($d>0) and ($e<0)){
    echo "better subs them to reach pos value ";echo $d-$e."<br>";
    }
    else{
    echo "one of them is positif<br>";
    }
```

both positif then the sum is 7.00000001765E+17



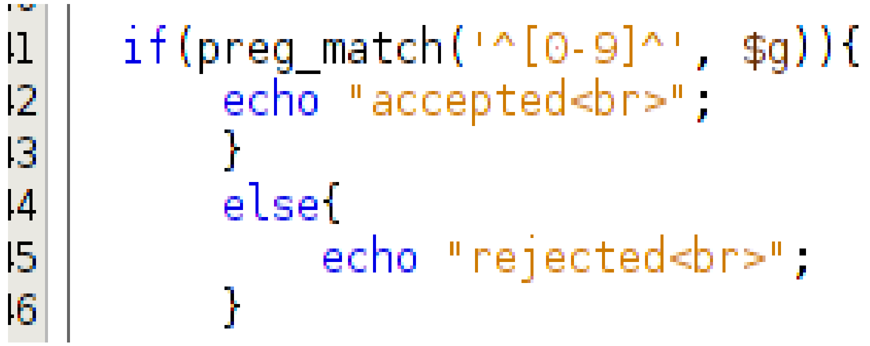
```
if(($c>0) and ($e>0)){
    echo "both positif then the sum is ";echo $d+$e."<br>";
    }
    else if(($c>0) and ($e<0)){
    echo "better subs them to reach pos value ";echo $d-$e."<br>";
    }
    else{
    echo "one of them is positif<br>";
    }
```

```
one of them is positif
```

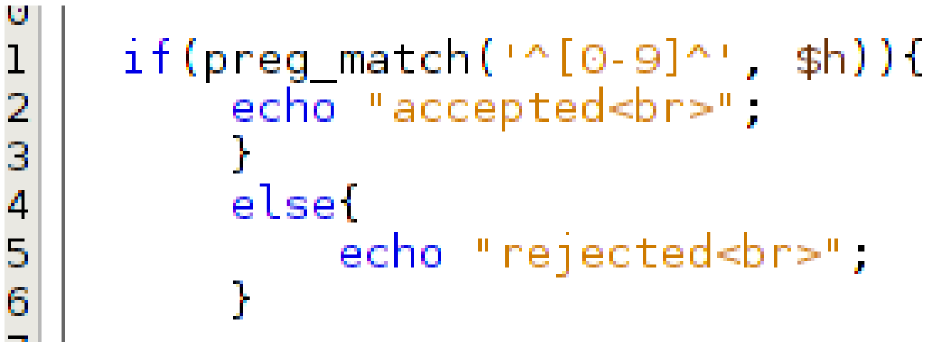


```
$g="Sebelas";$h="11Sebelas11";
if (strlen($g)<10){
    echo "reject, should at least 10 chars<br>";
}else{
    echo "accepted<br>";
}
```

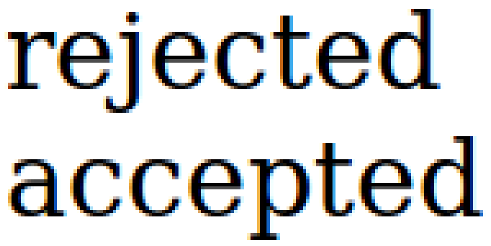
```
rejected, should at least 10 chars
```



```
if(preg_match('^[0-9]^', $g)){
    echo "accepted<br>";
    }
    else{
        echo "rejected<br>";
    }
```



```
if(preg_match('^[0-9]^', $h)){
    echo "accepted<br>";
    }
    else{
        echo "rejected<br>";
    }
```

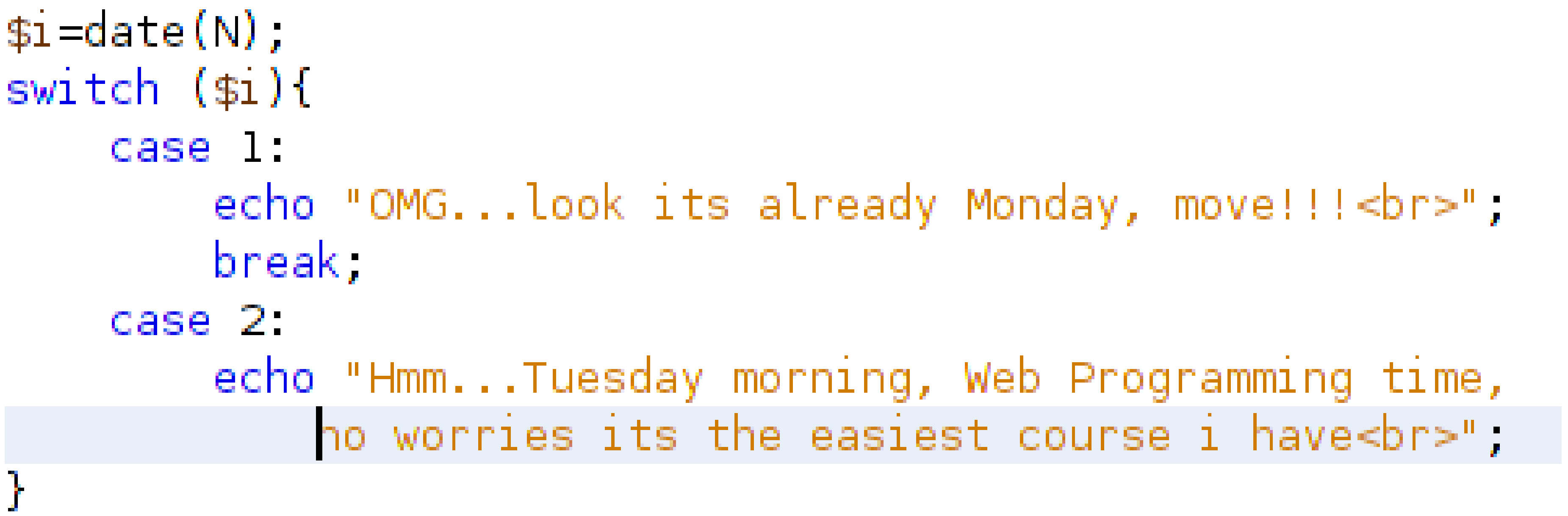


```
rejected
accepted
```

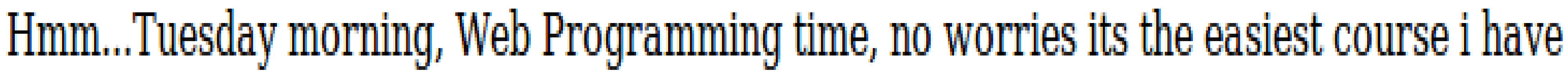
- Switch

The switch conditional compares the value of $variable to the different cases. When it finds a match, the following code is executed, up until the break. If no match is found, the default is executed, assuming it exists (it’s optional)

```
switch ($variable) {
case ‘value1’:
// Do this.
break;
case ‘value2’:
// Do this instead.
break;
default:
// Do this then.
break;
}
```



```
$i=date(N);
switch ($i){
    case 1:
        echo "OMG...look its already Monday, move!!!<br>";
        break;
    case 2:
        echo "Hmm...Tuesday morning, Web Programming time,
            no worries its the easiest course i have<br>";
}
```



```
Hmm...Tuesday morning, Web Programming time, no worries its the easiest course i have
```

Loop

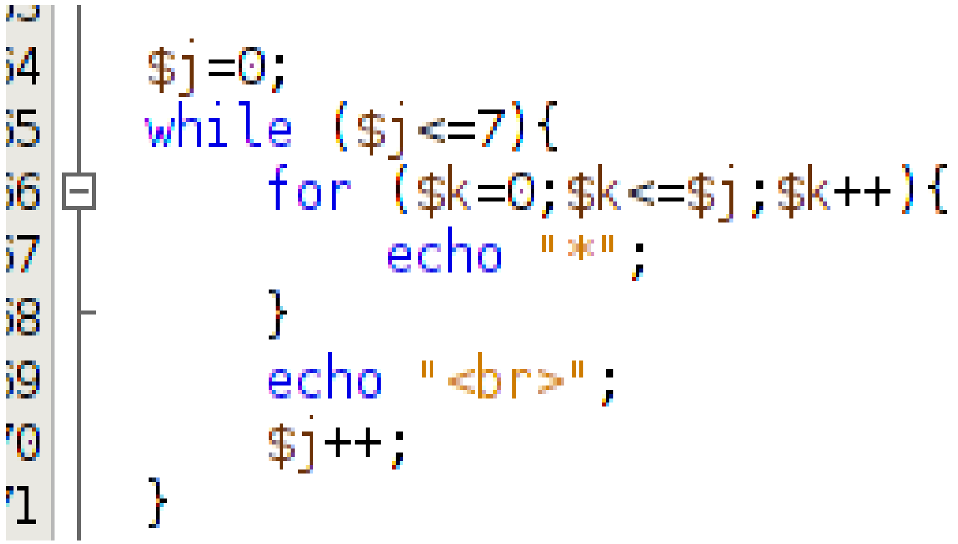
- for, while, foreach

```
while (condition)
{
// ....
}
```

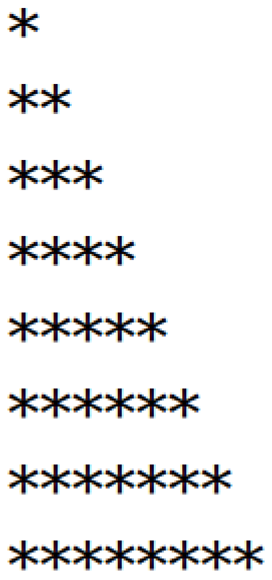
As long as the condition part of the loop is true, the loop will be executed.

```
for (initial; condition;closing) {
// ......
}
```

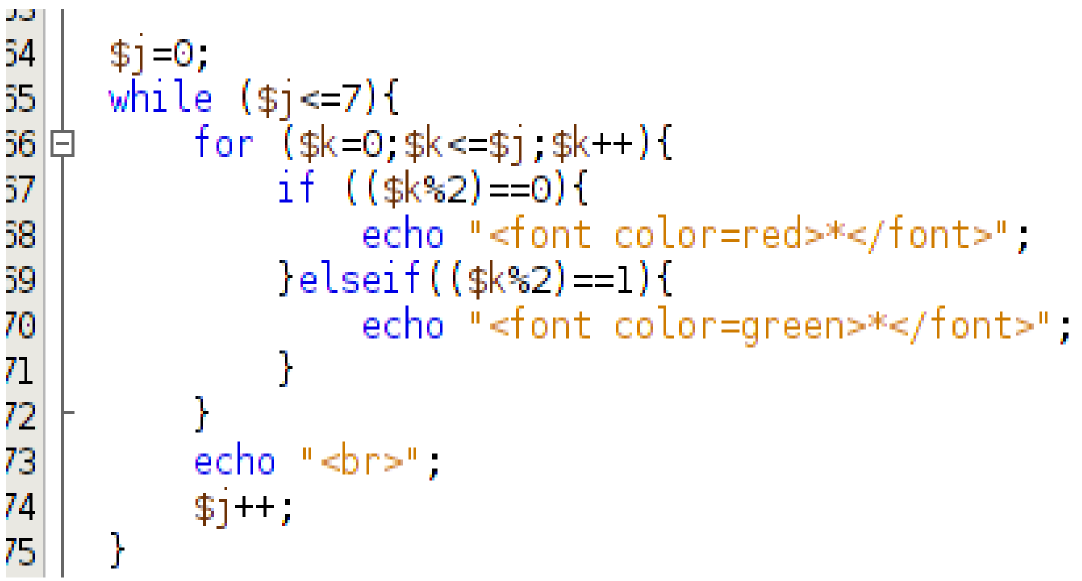
Upon first executing the loop, the initial expression is run. Then the condition is checked and, if true, the contents of the loop are executed. After execution, the closing expression is run and the condition is checked again.



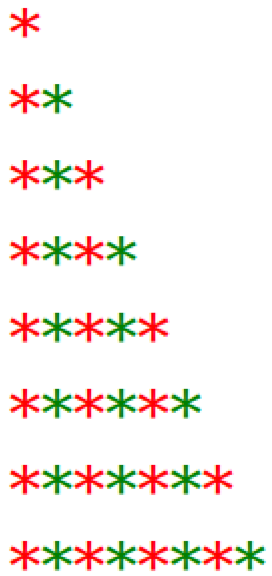
```php
$j=0;
while ($j<=7){
    for ($k=0;$k<=$j;$k++){
        echo "*";
    }
    echo "<br>";
    $j++;
}
```



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



```php
$j=0;
while ($j<=7){
    for ($k=0;$k<=$j;$k++){
        if (($k%2)==0){
            echo "<font color=red>*</font>";
        }elseif(($k%2)==1){
            echo "<font color=green>*</font>";
        }
    }
    echo "<br>";
    $j++;
}
```

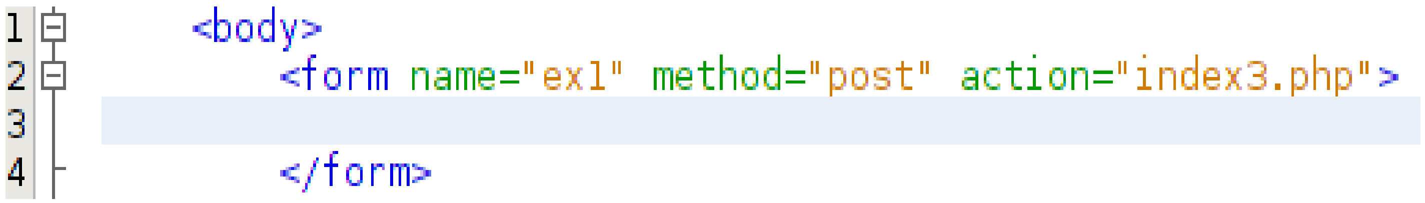


```
*
**
***
****
*****
******
*******
********
```

Working with Form

- Form is very important in dynamic page and perhaps the most important one
- U have already learned in HTML section, havent U? Mean already understood, not yet? U still have a time

- Lets break this simple example



```
    <body>
        <form name="ex1" method="post" action="index3.php">

        </form>
```

tag action dictates to
which page the form data will be sent

The method attribute of a form dictates
how the data is sent to the handling page

- The get method sends the submitted data to the receiving page as a series of name-value pairs appended to the URL.
- The benefit of using the get method is that the resulting page can be bookmarked in the user’s Web browser (sinceit’s a URL).
- For that matter, you can also click Back in your Web browser to return to a get page, or reload it without problems

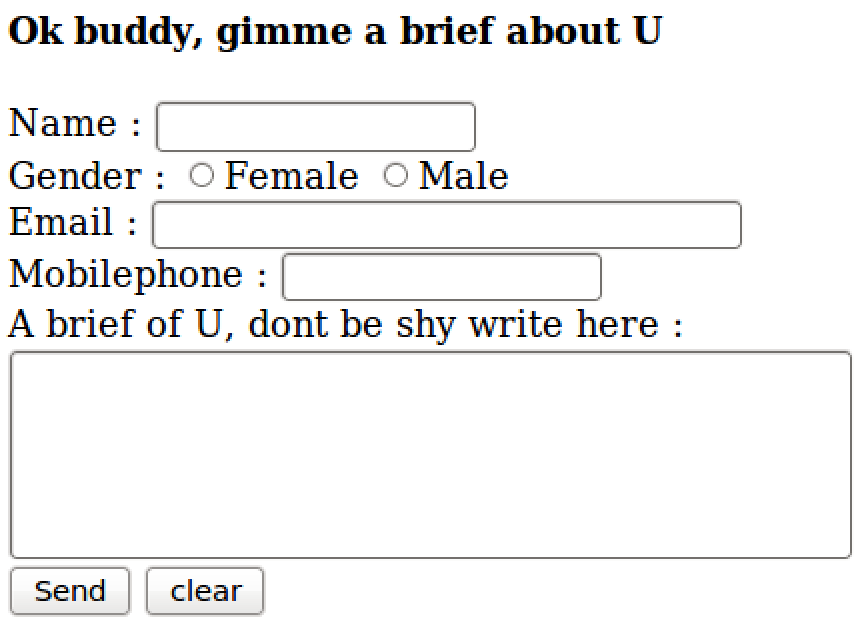
- Sends the submitted data to the receiving page as a series of name-value pairs appended to the URL

  ex: http://example.com/?name=uns

- But there is a limit in how much data can be transmitted via get, and this method is less secure (since the data is visible) and can be entered via URL
- Generally, get is used for requesting information, like a particular record from a database or the results of a search (searches almost always use get)

- The post method is used when an action is required,
- as when a database record will be updated or an email should be sent.
- More secure, not embed value in URL

```
<body>
    <form name="ex1" method="post" action="index3.php">
        <h4>Ok buddy, gimme a brief about U</h4>
        Name                   : <input name="Uname" type="text" size="15" maxlength="100"><br>
        Gender                 : <input type="radio" name="Ugender" value="female">Female <input type="radio" name="Ugender" valu
        Email                  : <input name="Uemail" type="text" size="30" maxlength="500"><br>
        Mobilephone            : <input name="Umphone" type="text" size="15" maxlength="15"><br>
        A brief of U, dont be shy write here :<br>
        <textarea name="UU" rows="5" cols="50"></textarea><br>
        <input type="submit" name="Usub" value="Send"> <input type="reset" name="Ures" value="clear">
    </form>
</body>
```



Ok buddy, gimme a brief about U

Name :

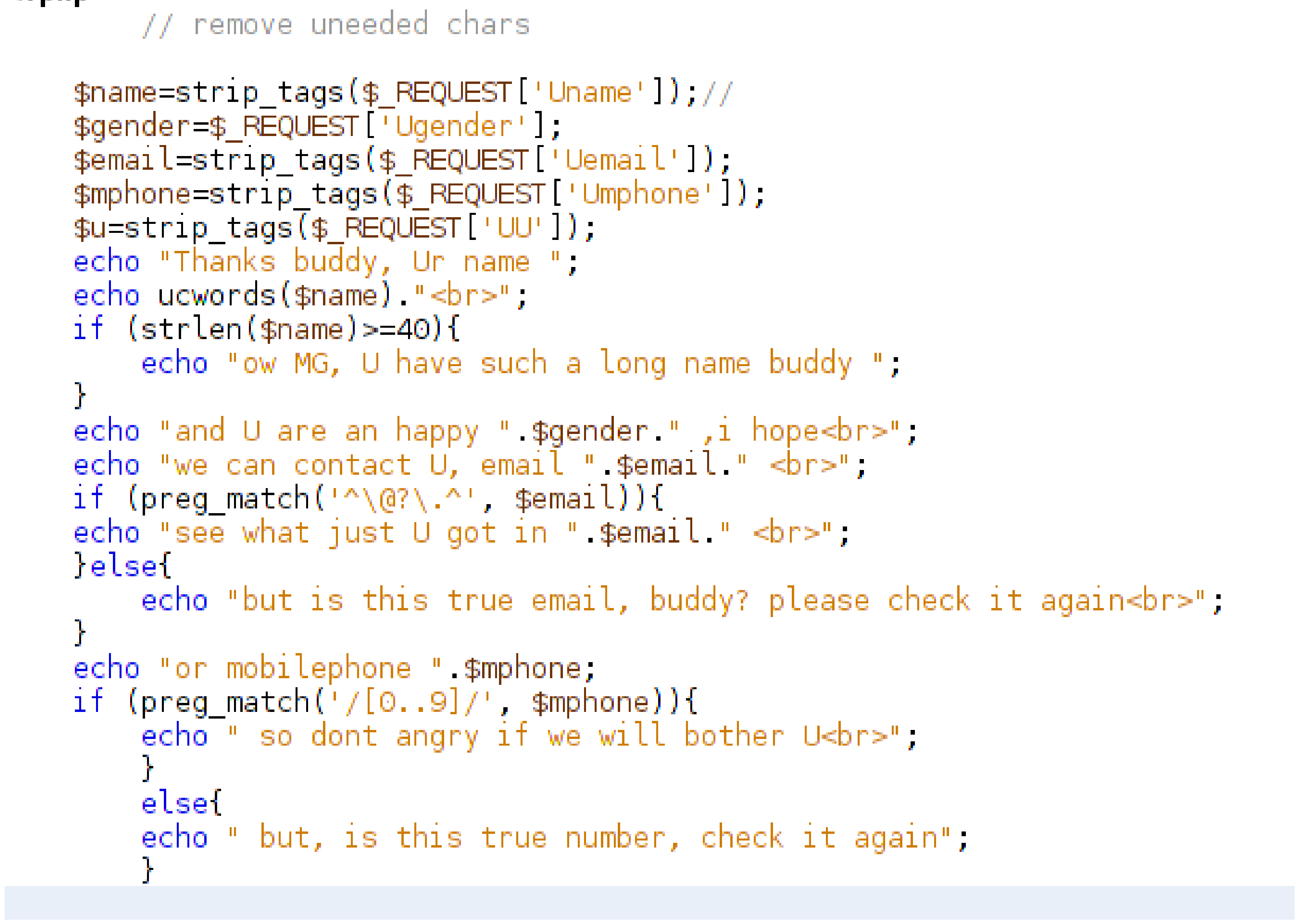
Gender : ○ Female ○ Male

Email :

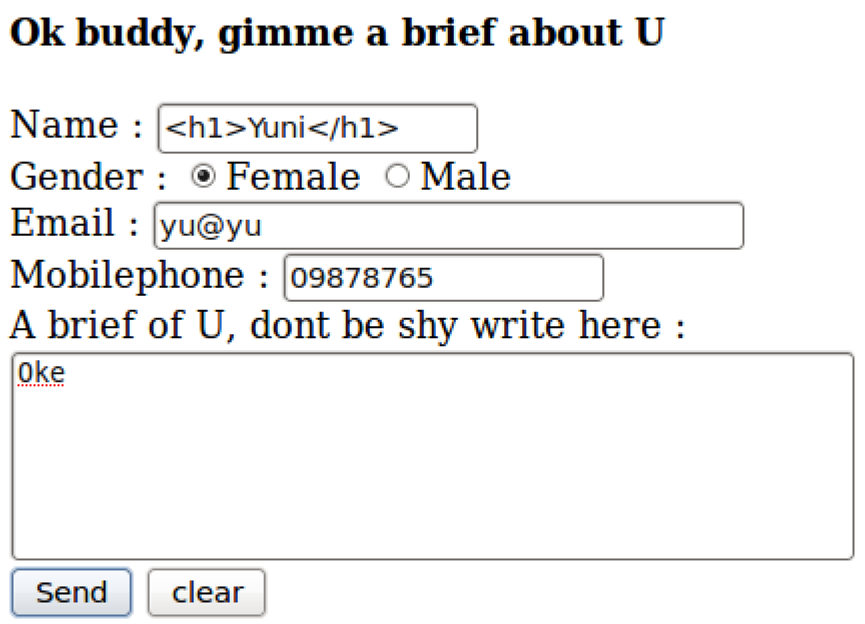
Mobilephone :

A brief of U, dont be shy write here :

- Let php handle it
- Whatever the user types into those elements will be accessible via a PHP variable named $_REQUEST['...']
- Yes, case sensitive, below not same
- $_REQUEST['Uname'], $_REQUEST['UName'], $_REQUEST['uname']



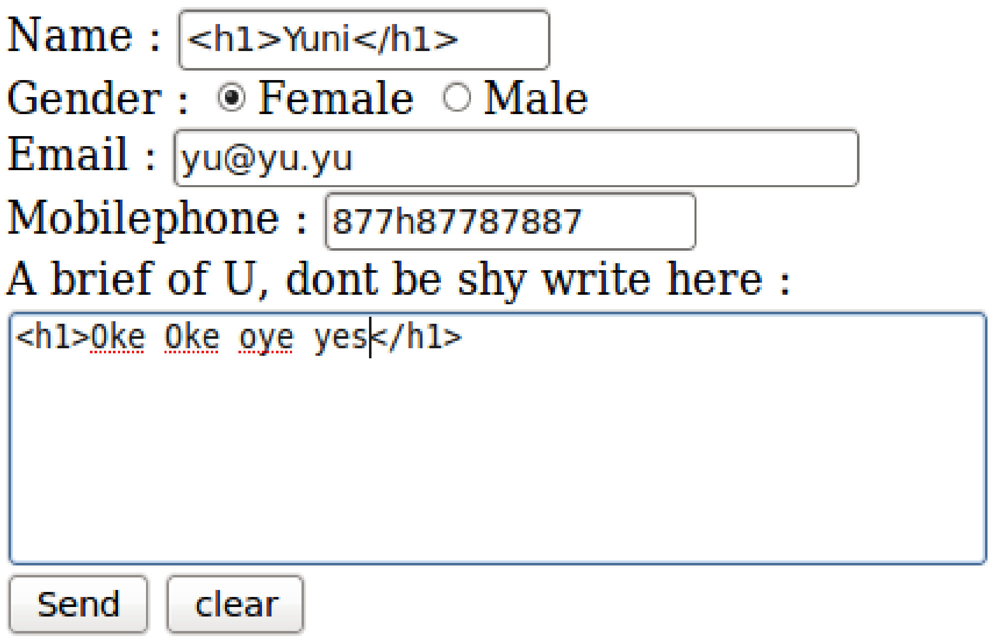
```
<?php
        // remove uneeded chars

    $name=strip_tags($_REQUEST['Uname']);//
    $gender=$_REQUEST['Ugender'];
    $email=strip_tags($_REQUEST['Uemail']);
    $mphone=strip_tags($_REQUEST['Umphone']);
    $u=strip_tags($_REQUEST['UU']);
    echo "Thanks buddy, Ur name ";
    echo ucwords($name)."<br>";
    if (strlen($name)>=40){
        echo "ow MG, U have such a long name buddy ";
    }
    echo "and U are an happy ".$gender." ,i hope<br>";
    echo "we can contact U, email ".$email." <br>";
    if (preg_match('^\@?\.^', $email)){
    echo "see what just U got in ".$email." <br>";
    }else{
        echo "but is this true email, buddy? please check it again<br>";
    }
    echo "or mobilephone ".$mphone;
    if (preg_match('/[0..9]/', $mphone)){
        echo " so dont angry if we will bother U<br>";
        }
        else{
        echo " but, is this true number, check it again";
        }


    ?>
```



Ok buddy, gimme a brief about U

Name : <h1>Yuni</h1>
Gender : [✓ Female] Male
Email : yu@yu
Mobilephone : 09878765
A brief of U, dont be shy write here :
0ke

Thanks buddy, Ur name Yuni
and U are an happy female ,i hope
we can contact U, email yu@yu
but is this true email, buddy? please check it again
or mobilephone 09878765 so dont angry if we will bother U



Name : <h1>Yuni</h1>

Gender : [✓ Female] Male

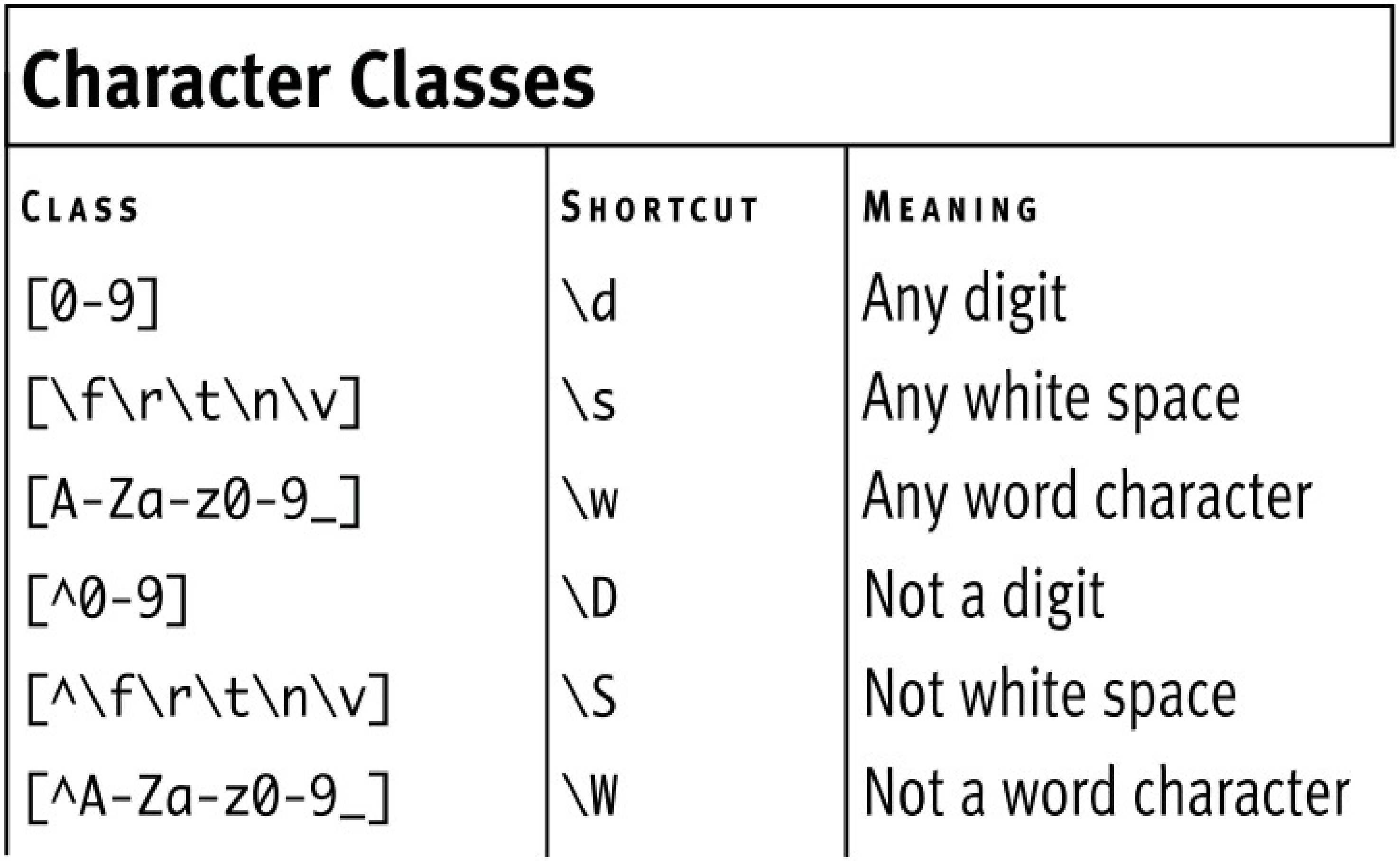
Email : yu@yu.yu

Mobilephone : 877h87787887

A brief of U, dont be shy write here :

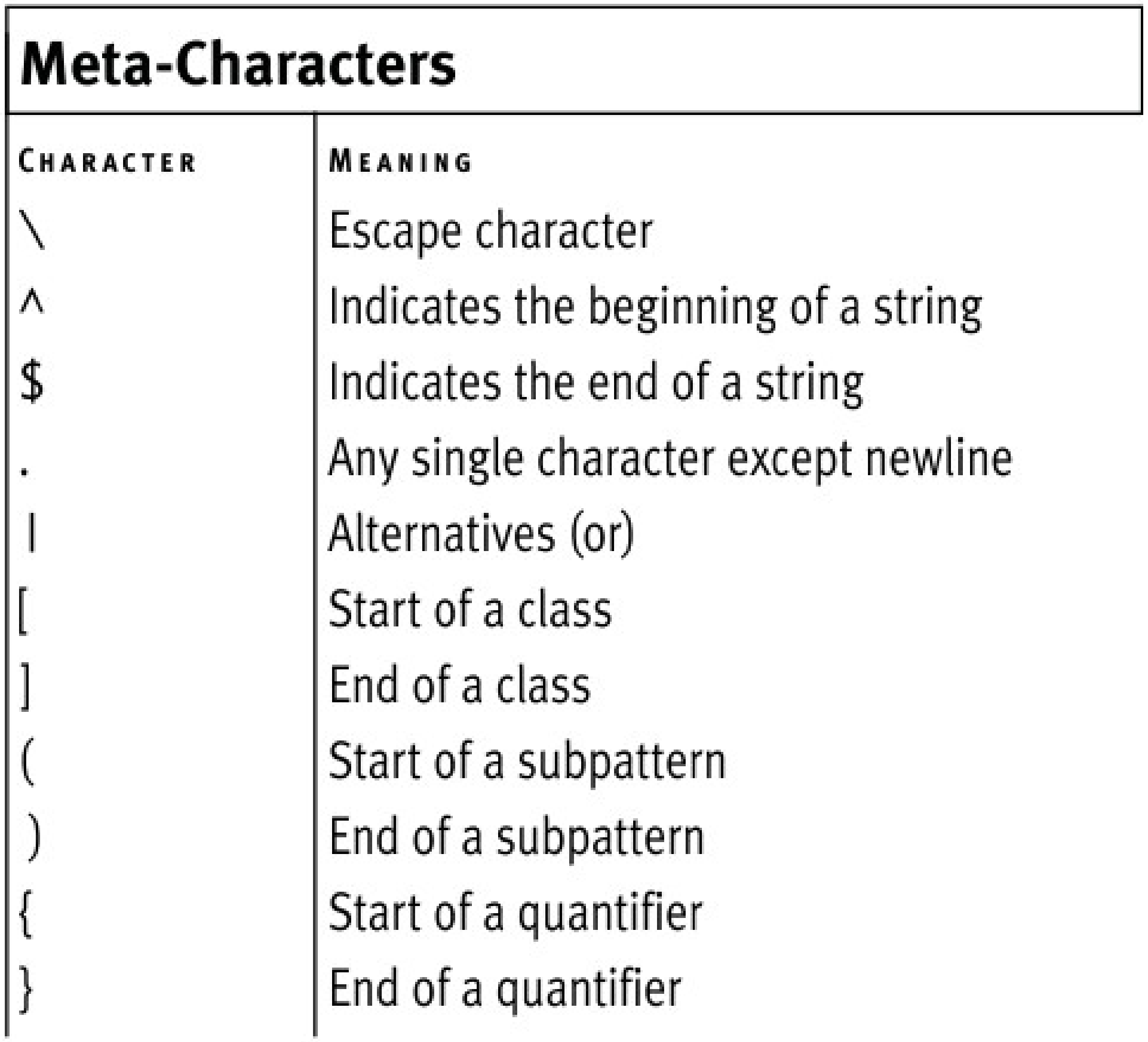
```
<h1>Oke Oke oye yes</h1>
```

Thanks buddy, Ur name Yuni
and U are an happy female ,i hope
we can contact U, email yu@yu.yu
see what just U got in yu@yu.yu
or mobilephone 877h87787887 but, is this true number, check it again



Character Classes

Class	Shortcut	Meaning
[0-9]	\d	Any digit
[\f\r\t\n\v]	\s	Any white space
[A-Za-z0-9_]	\w	Any word character
[^0-9]	\D	Not a digit
[^\f\r\t\n\v]	\S	Not white space
[^A-Za-z0-9_]	\W	Not a word character



Meta-Characters

Character	Meaning
\	Escape character
^	Indicates the beginning of a string
$	Indicates the end of a string
.	Any single character except newline
|	Alternatives (or)
[	Start of a class
]	End of a class
(	Start of a subpattern
)	End of a subpattern
{	Start of a quantifier
}	End of a quantifier