

COMP 4021
Internet Computing

PHP

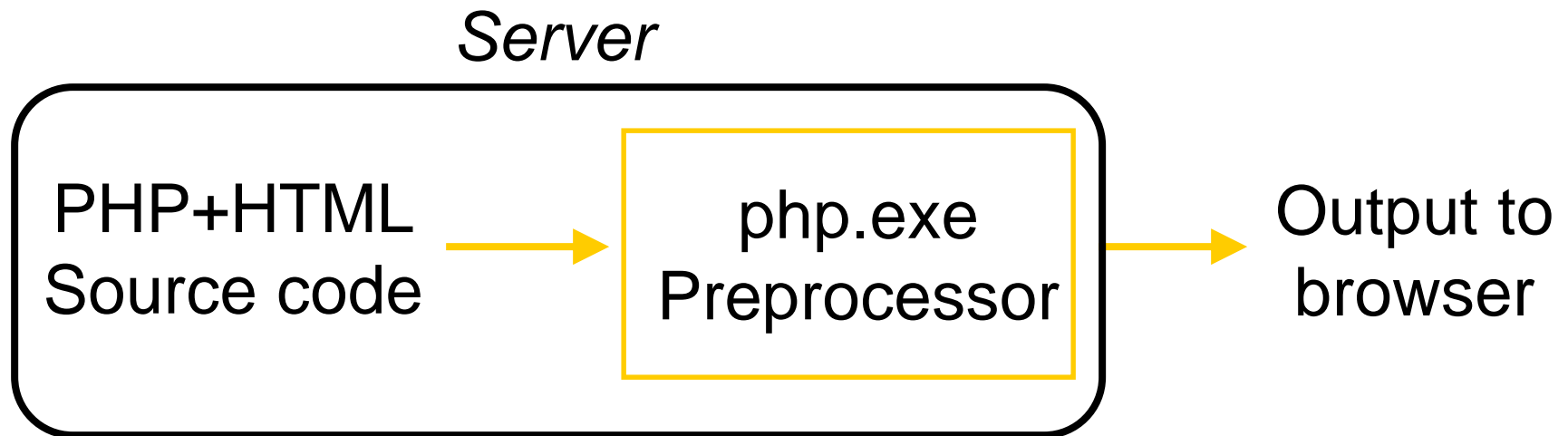
David Rossiter

PHP

'Hypertext' basically means
'has links' i.e. HTML

- ❑ PHP = Hypertext Preprocessor
- ❑ 'Preprocessor' means that a file gets processed on the server before it gets sent out to the browser
- ❑ So PHP is a server-side scripting language
- ❑ You usually embed PHP commands *inside* HTML
- ❑ Also, you could have a file which contains only PHP

PHP Operation



- ▣ Output could be HTML, JavaScript, XML, . . .
- ▣ Things that browser can understand; no more PHP code

A Web Site Built on PHP *http://www.php.net*

PHP: Hypertext Preprocessor - Windows Internet Explorer

http://php.net/

PHP: Hypertext Preprocessor

downloads | documentation | faq | getting help | mailing lists | licenses | wiki | reporting bugs | php.net sites | links | conferences | my php.net

search for _____ in the function list

What is PHP?

PHP is a widely-used general-purpose scripting language that is especially suited for Web development and can be embedded into HTML. If you are new to PHP and want to get some idea of how it works, try the [introductory tutorial](#). After that, check out the online [manual](#), and the example archive sites and some of the other resources available in the [links section](#).

Ever wondered how popular PHP is? see the [Netcraft Survey](#).

Thanks To

[easyDNS](#)
[Directi](#)
[pair Networks](#)
[Server Central](#)

Upcoming conferences: [PHP'n Rio 10](#)

PHP 5.3.3 Released!

[22-Jul-2010] The PHP development team would like to announce the immediate availability of PHP 5.3.3. This release focuses on improving the stability and security of the PHP 5.3.x branch with over 100 bug fixes, some of which are security related. All users are encouraged to upgrade to this release.

Backwards incompatible change:

- Methods with the same name as the last element of a namespaced class name will no longer be treated as constructor. This change doesn't affect non-namespaced classes.

```
<?php
namespace Foo;
class Bar {
    public function Bar() {
        // treated as constructor in PHP 5.3.0-5.3.2
        // treated as regular method in PHP 5.3.3
    }
}
```

Stable Releases

[Current PHP 5.3 Stable: 5.3.3](#)
[Current PHP 5.2 Stable: 5.2.14](#)

Upcoming Events [\[add\]](#)

November

Conferences

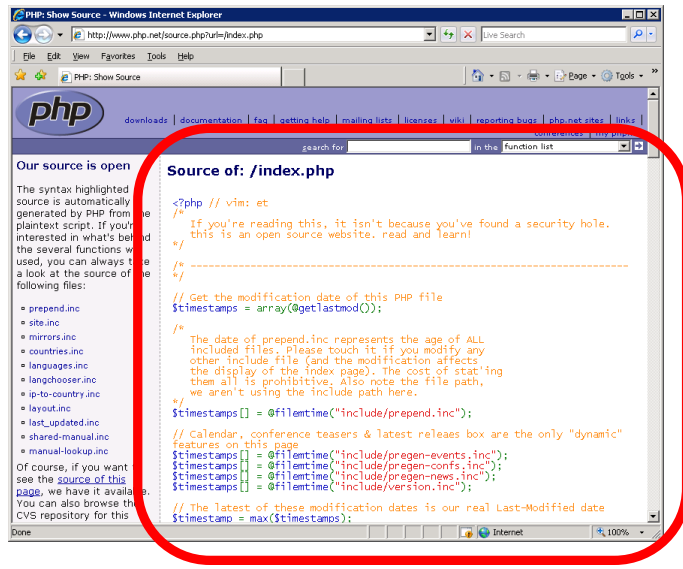
09. [CodeWorks Seattle](#)
11. [CodeWorks Portland](#)
13. [CodeWorks Austin](#)
15. [CodeWorks Baltimore](#)
17. [CodeWorks Orlando](#)
20. [PHP'n Rio 10](#)

User Group Events

07. [PHP meeting online in China](#)
07. [meeting de LAMPistas en La Paz](#)
08. [Queen City \(Charlotte\)](#)

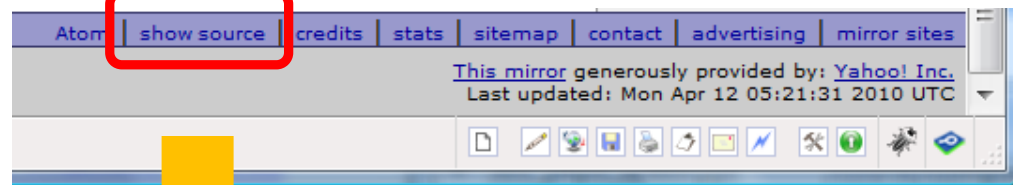
This web site lets you see the PHP source code for any page, which may be useful for learning various PHP techniques

A Web Site Built on PHP



- Visual result

- At the bottom of the page:



- PHP source

```
<?php // vim: et
/*
    If you're reading this, it isn't because you've found a security hole.
    this is an open source website. read and learn!
*/

/* -----
*/

// Get the modification date of this PHP file
$timestamps = array(@getlastmod());

/* The date of prepend.inc represents the age of ALL
   included files. Please touch it if you modify any
   other include file (and the modification affects
   the display of the index page). The cost of stat'ing
   them all is prohibitive. Also note the file path,
   we aren't using the include path here.
*/
$timestamps[] = @filemtime("include/prepend.inc");

// Calendar, conference teasers & latest releases box are the only "dynamic"
// features on this page
$timestamps[] = @filemtime("include/prgen-events.inc");
$timestamps[] = @filemtime("include/prgen-configs.inc");
$timestamps[] = @filemtime("include/prgen-news.inc");
$timestamps[] = @filemtime("include/version.inc");

/* The latest of these modification dates is our real Last-Modified date
$timestamp = max($timestamps);
```

Configuring Apache For PHP

- ❑ To install PHP in an Apache Web Server, you have to add a few lines in the configuration file *httpd.conf*


ScriptAlias /php/ "C:/php/"

AddType application/x-httpd-php .php

AddType application/x-httpd-php-source .phps

Action application/x-httpd-php "/php/php.exe"

For displaying the php source code nicely with colors without executing it



- ❑ After Apache is configured, every file with an extension of *php* or *phps* (=PHP source code) is processed by *C:/php/php.exe* before the output is sent to the browser

Simple PHP Example

```
<html>
  <head>
    <title>PHP Test</title>
  </head>
  <body>
    <?php echo "Hello World";?>
  </body>
</html>
```



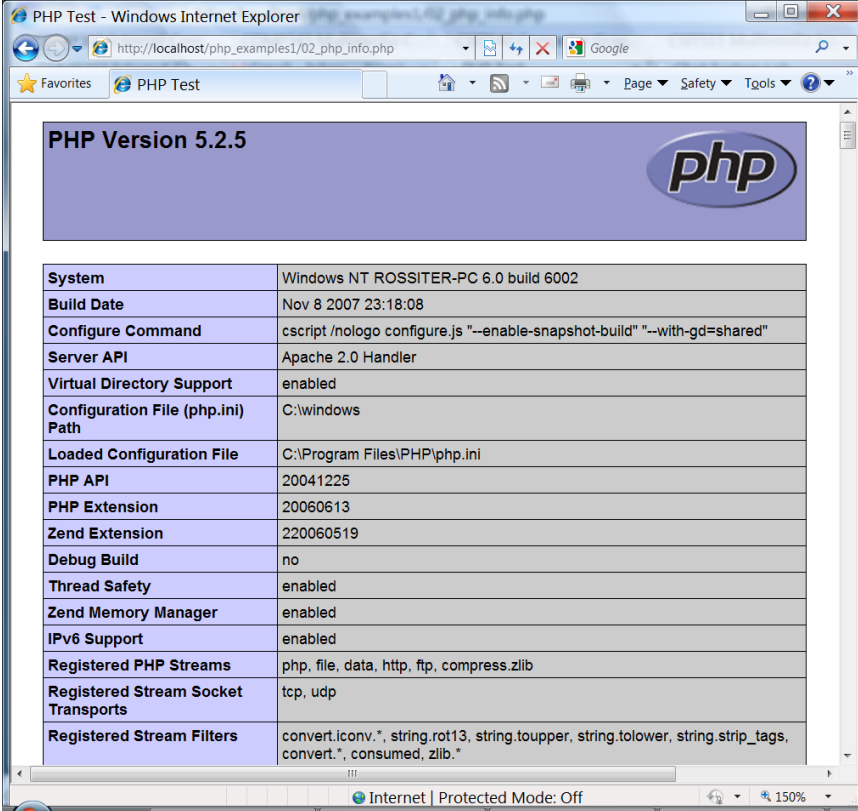
Demo – 01_starting_example.php

Try the link: [01_starting_example.phps](#)

PHP General Information

- The instruction `phpinfo()` simply displays some useful information about PHP

`<?php echo phpinfo() ?>`



PHP Version 5.2.5

System	Windows NT ROSSITER-PC 6.0 build 6002
Build Date	Nov 8 2007 23:18:08
Configure Command	cscript /nologo configure.js "--enable-snapshot-build" "--with-gd=shared"
Server API	Apache 2.0 Handler
Virtual Directory Support	enabled
Configuration File (php.ini) Path	C:\windows
Loaded Configuration File	C:\Program Files\PHP\php.ini
PHP API	20041225
PHP Extension	20060613
Zend Extension	220060519
Debug Build	no
Thread Safety	enabled
Zend Memory Manager	enabled
IPv6 Support	enabled
Registered PHP Streams	php, file, data, http, ftp, compress.zlib
Registered Stream Socket Transports	tcp, udp
Registered Stream Filters	convert.iconv.*, string.rot13, string.toupper, string.tolower, string.strip_tags, convert.*, consumed, zlib.*

Demo – 02_php_info.php

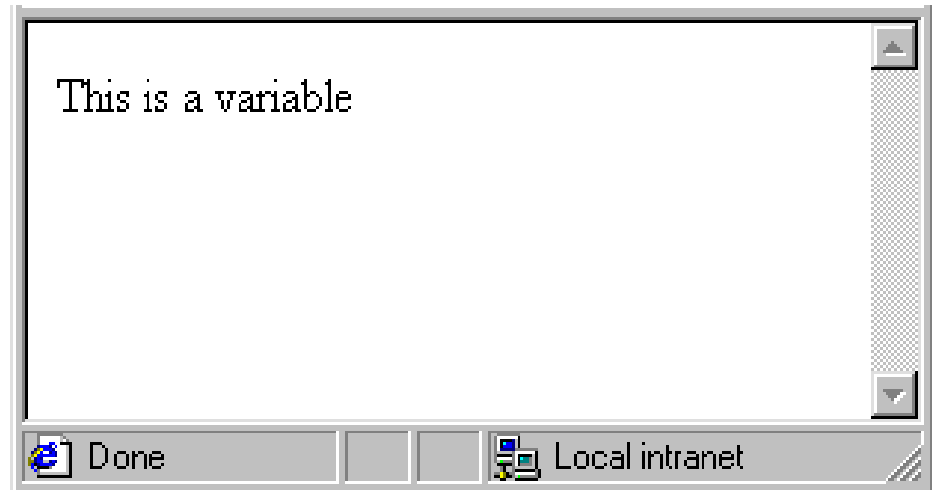
PHP Types

- ❑ PHP is a large language, supporting all the usual things you would expect to find:
 - arrays
 - floating-point numbers
 - integers
 - objects
 - strings

PHP Variables

- Simple example:

```
<?php  
$va= "This is a variable";  
echo $va;  
?>
```



Demo – 03_variable.php

- A PHP variable always begins with a dollar-sign

PHP Multi-Dimension Arrays

- ▣ Like many languages, PHP supports single dimension arrays as well as multi-dimension arrays. Examples:

`$a[1] = $f;` # one dimensional

`$a[1][0] = $f;` # two dimensional

`$a["foo"][2] = $f;` # two dimensional

you can mix numeric and associative indices

`$a["foo"][4]["bar"][0] = $f;` # four dimensional

If Statement

strstr(str1, str2) is a function for searching a string for another string

```
<?php if( strstr($HTTP_USER_AGENT,"MSIE")) {?>
```

```
    <center>
```

```
        <b>You are using Internet Explorer</b>
```

```
    </center>
```

```
<?php } else {?>
```

```
    <center>
```

```
        <b>You are not using Internet Explorer</b>
```

```
    </center>
```

```
<?php } ?>
```

If Statement – Checking the browser

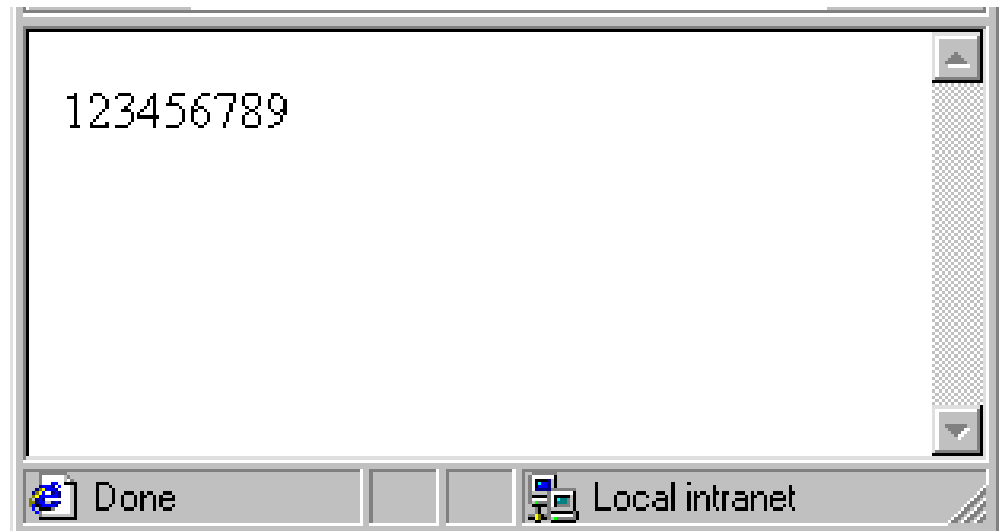


Demo – 04_check_browser.php

for Statement

- We want to print 1, 2, 3, ..., 9

```
<?php
    for ($i=1;$i<10;$i++)
        print $i;
?>
```



Demo – 05_for_loop.php

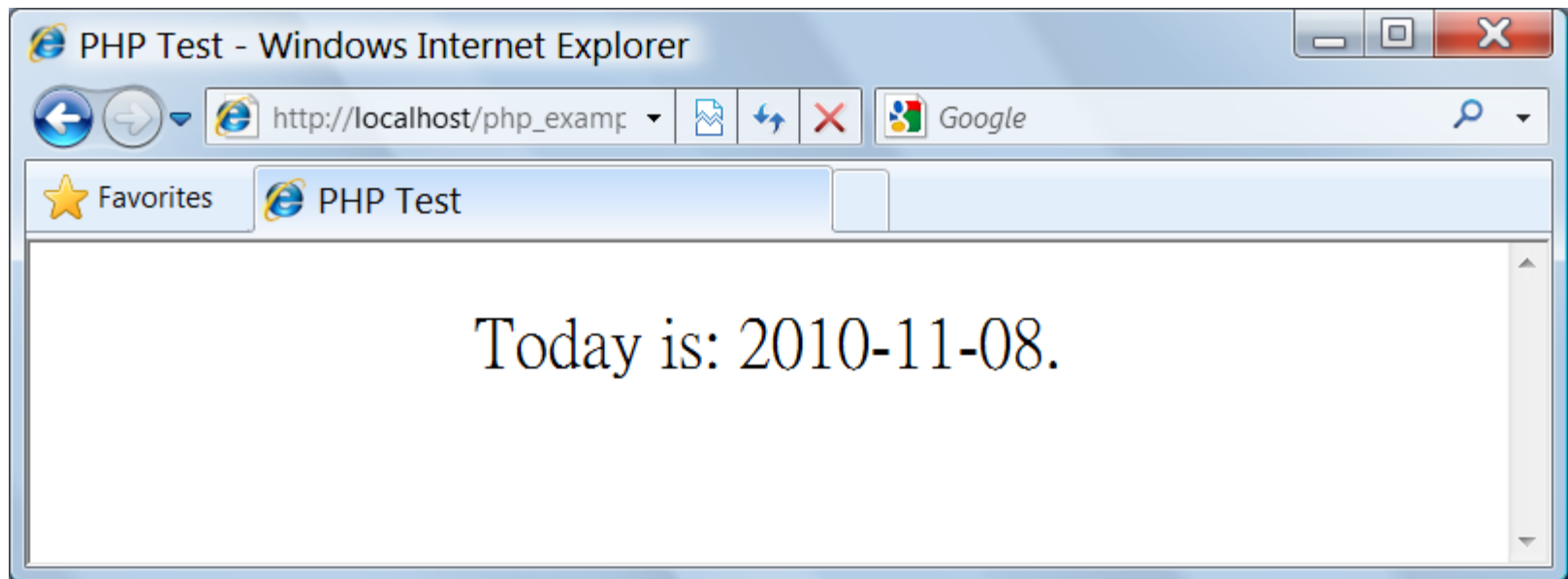
Functions

□ Example:

```
<?php
    function print_date(){
        $today = date("Y-m-d");
        print "<center>Today is:
            $today.</center>";
    }
    print_date();
?>
```

date(str) returns a string containing a date formatted according to the parameters

Functions



Demo – 06_function.php

Functions – Returning a Value

- ▣ General syntax for defining a function:

```
function name($arg_1, $arg_2, ..., $arg_n)
{
    //put your code here
    return value; //return a value
}
```

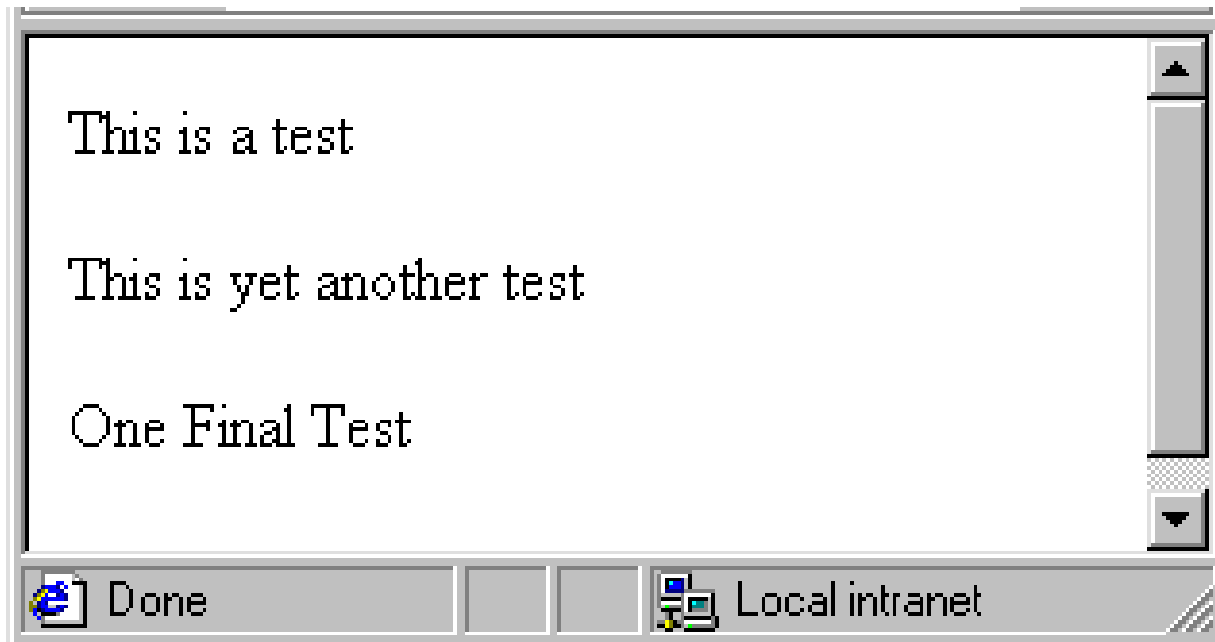
- ▣ The `return` statement will return a value, like C

PHP Comments

□ Example:

```
<?php echo "<p>This is a test</p>";  
    // This is a one-line c++ style comment  
    /* This is a multi line comment  
    which includes these words */  
    echo "<p>This is yet another test</p>";  
    echo "<p>One Final Test</p>";  
    # This is the last comment  
?>
```

Comments - Example



Demo – 07_comments.php

Handling Forms

- ❑ Handling HTML forms is very easy with PHP
- ❑ Example on the next few slides

Handling Forms – HTML code

```
<form action="09_action.php" method="post">  
  Your name: <input type="text" name="name">  
  You age: <input type="text" name="age">  
  <input type="submit">  
</form>
```

Handling Forms – PHP code

- ▣ The form data gets passed to the following PHP:

```
<html>
```

```
<head><title>PHP Test</title></head>
```

```
<body>
```

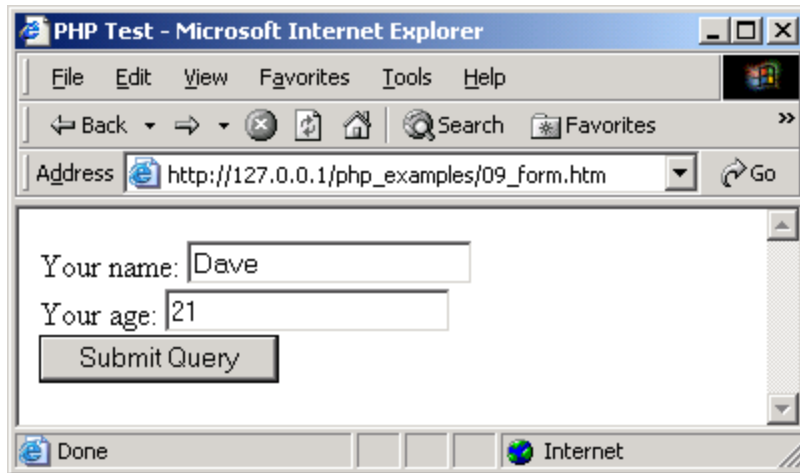
```
  Hi <?php echo $_POST['name'];?>. You are  
    <?php echo $_POST['age'];?> years old.
```

```
</body>
```

```
</html>
```

An Illustration of the Process

Open the form, input your details,
submit the data



Demo – 09_form.htm

PHP program response



Demo – 09_action.php

Handle File Upload – HTML code

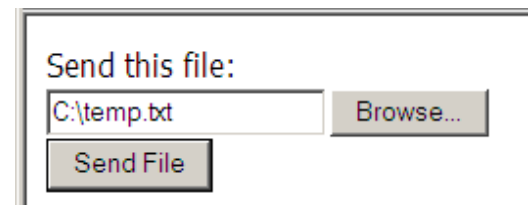
□ Example form:

```
<form enctype="multipart/form-data"
      action="10_file_upload.php" method="post">
```

```
<input type="hidden"
      name="MAX_FILE_SIZE" value="640000">
```

Send this file:

```
<input name="userfile" TYPE="file">
<input type="submit" VALUE="Send File">
</form>
```



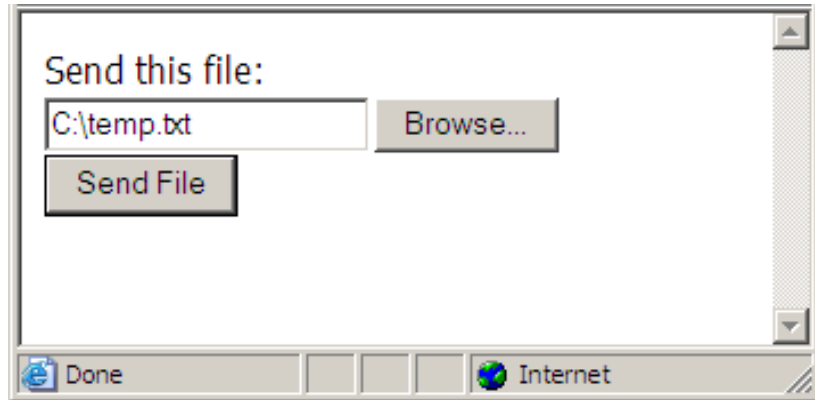
Handle File Upload – PHP code

- ❑ The form data is passed to this PHP:

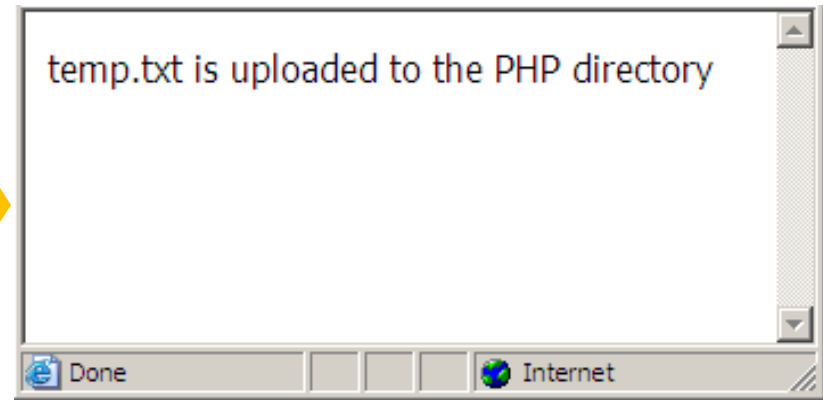
```
<?php
move_uploaded_file(
    $_FILES['userfile']['tmp_name'],
    $_FILES['userfile']['name']);

echo $_FILES['userfile']['name'],
    " is uploaded to the PHP directory";
?>
```

An Illustration of the Process



Demo – 10_file.html



Demo – 10_file_upload.php

Take Home Message

- ❑ PHP is the most popular system for dynamic website development
 - Easy to program
 - Probably not as efficient as JSP and servlets but most websites do not need high efficiency
- ❑ PHP can be used to build large website (e.g., Facebook)