

# Developing Server Side Content Using PHP Technology

CGT 356

Web Programming, Development, & Database Integration  
Lecture 3

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1

## Resources

- <http://www.php.net/quickref.php>
- <http://www.php.net/docs.php>
- <http://www.phpfreaks.com/phpref.php>
- And many others... just search for it

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2

## What is PHP?

- Hypertext PreProcessor
- When first released... sometimes it was referred to as Paul's Home Page
- **PHP** is a server-side HTML embedded scripting language. It provides web developers with a full suite of tools for building dynamic websites

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3

## About PHP

- PHP can run anywhere
  - Linux
  - Windows
  - Mac
- PHP is Open Source
  - "human knowledge belongs to the world"  
- Antitrust (2001)

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## About PHP

- Capabilities:
  - Browser independent
  - Access databases, install application logic, accept user input via forms, send email, etc.
  - Replacement for CGI programming

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## Needs met by PHP?

- Dynamic content deployment
  - Links and content that changes multiple times each day [news sites, portal sites]
  - Application logic needed to perform calculations or perform logical functions.
  - Interface to "outside programs"
    - Custom Active X controls

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## How does it compare to CGI?

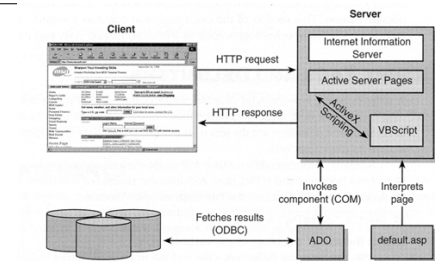
- ❑ Replacement for CGI
- ❑ Pools systems resources more efficiently than CGI. Threads can share.
- ❑ Guarantees the presence of a core set of methods and functions.
- ❑ Faster than CGI.

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## How does dynamic content (PHP, ASP, JSP, ASP.NET) work?



- ❑ Using specialized tags within HTML code to access methods provided PHP.
- ❑ Author constructs templates that are filled in at run time.

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## Server-Side Includes in PHP

- ❑ Syntax
  - `<?php include("openDbConn.php"); ?>`
  - or
  - `<?php include($absolutePath."xincludes/openDbConn.php"); ?>`

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9

## Server-Side Includes in HTML

- ❑ Yes, you can have them in a plain HTML document.
- ❑ Virtual includes (still a Server Side Include)
  - `<!-- #include virtual="filename.htm" -->`

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## General Format of PHP

- ❑ No general declaration at line 1
- ❑ Code segments encapsulated by

```
<?php ?> ie -- <?php echo "hi"; ?>
```
- ❑ Plain HTML can not appear inside `<?php ?>` alone, but can be alternated

```
<?php echo "<h1> Hello </h1>"; ?>
<h1> <?php echo "Hello"; ?> </h1>
```

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## Variables

- ❑ In PHP
  - ❑ No dimensioning required:
    - ❑ `$login = $_POST["login"];`
    - ❑ In PHP, variables start with a \$

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12

## echo and print in PHP

- echo "Hello, how are you?";
- print "I am fine, how are you?";
- For our purposes, echo and print are interchangeable. There is a difference between them, but it is not necessary to know for this course. As a rule for this course, use echo.

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13

## Example: Hello World

- Display Server Time
- Print Hello World increasing size
  - Expression Format
    - expression format
    - [helloworld\\_expression.php](http://cgtmm2.tech.purdue.edu/356/rjglotzbach/Lecture03Examples/helloworld_expression.php)
    - [http://cgtmm2.tech.purdue.edu/356/rjglotzbach/Lecture03Examples/helloworld\\_expression.php](http://cgtmm2.tech.purdue.edu/356/rjglotzbach/Lecture03Examples/helloworld_expression.php)
  - Encapsulated HTML
    - encapsulated format
    - [helloworld\\_encapsulated.php](http://cgtmm2.tech.purdue.edu/356/rjglotzbach/Lecture03Examples/helloworld_encapsulated.php)
    - [http://cgtmm2.tech.purdue.edu/356/rjglotzbach/Lecture03Examples/helloworld\\_encapsulated.php](http://cgtmm2.tech.purdue.edu/356/rjglotzbach/Lecture03Examples/helloworld_encapsulated.php)

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14

## More General Concepts

- if statements do not need to be contiguous
  - ```
if(login=="page1" && password=="alpha")
{
    ?>
    <a href="http://www.purdue.edu">Purdue</a>
    Place a page of text or more html
    elements in here... as much as needed
    OR... use a Redirect here
    <?php
}
```
- Client never sees the code on the server
  - Mix and Match of languages
  - Security

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## Requesting Data in PHP

- \$\_POST
  - echo \$\_POST["login"];
  - Writes the value of the variable login to the browser
- \$\_GET
  - echo \$\_GET["id"];
  - Writes the value of the variable id to the browser

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## Get vs. Post

- |                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>□ Get<ul style="list-style-type: none"><li>■ Encoded into URL<ul style="list-style-type: none"><li>□ Visible to users</li><li>□ Not good for passwords</li></ul></li><li>■ Limited by size</li><li>■ Retrieval in PHP:<ul style="list-style-type: none"><li>□ \$_GET["name"]</li></ul></li></ul></li></ul> | <ul style="list-style-type: none"><li>□ Post<ul style="list-style-type: none"><li>■ Encoded into page header<ul style="list-style-type: none"><li>□ Not visible to users</li></ul></li><li>■ Not limited by size</li><li>■ Retrieval in PHP:<ul style="list-style-type: none"><li>□ \$_POST["name"]</li></ul></li></ul></li></ul> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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17

## Logging Into a system

- Logging Into a system
  - Hard coded server side security
    - Login.php (form)
    - Login\_Action.php (form\_handler)
  - Examine Get vs. Put
  - Add cookies to recognize user
    - Session Object

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18

## Design Form

- Use HTML to design the form
- [login1.html](#)
  - <http://cgtmm2.tech.purdue.edu/356/rjglotzbach/Lecture03Examples/Login1/login1.html>
- Get method is the default <watch out>
- Set the Action to the form handler
- Name of each field is used to access on “the other side”

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19

## Design Login\_Action Page

- login\_action.php
  - **\$\_GET or \$\_POST** retrieves FORM information using the assigned name
  - Get is encoded into Query String
    - Retrieved using `$_GET["fieldname"]`
  - Post is sent in the header
    - Retrieved using `$_POST["fieldname"]`

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## Design Form (again)

- Use HTML to design the form
- [login2.html](#)
  - <http://cgtmm2.tech.purdue.edu/356/rjglotzbach/Lecture03Examples/Login2/login2.html>
- Method now equals Post
- Keep Action set to the form handler
- Name of each field used on “the other side”

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## Redirecting in PHP

- header()
  - Example: `header("Location: example.php");`
- in PHP, header() must occur before any output to the browser (HTML tags, echo statements, etc)

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22

## Redirecting the user

- Alter login\_action.php
  - Verify user has the proper login information
  - Use header();
  - [login3.htm](#)
    - <http://cgtmm2.tech.purdue.edu/356/rjglotzbach/Lecture03Examples/Login3/login3.html>

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23

## General Concepts - PHP

- ```
if(($login=="page1") && ($password=="alpha"))  
{  
    ?>  
    Page 1 html goes here  
    <?php  
}
```
- Comparison operator in PHP is `==`
- Logical AND in PHP is `&&`
- Logical OR in PHP is `||`

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24