Professional Diploma in Commercial Web Design

Lesson 1
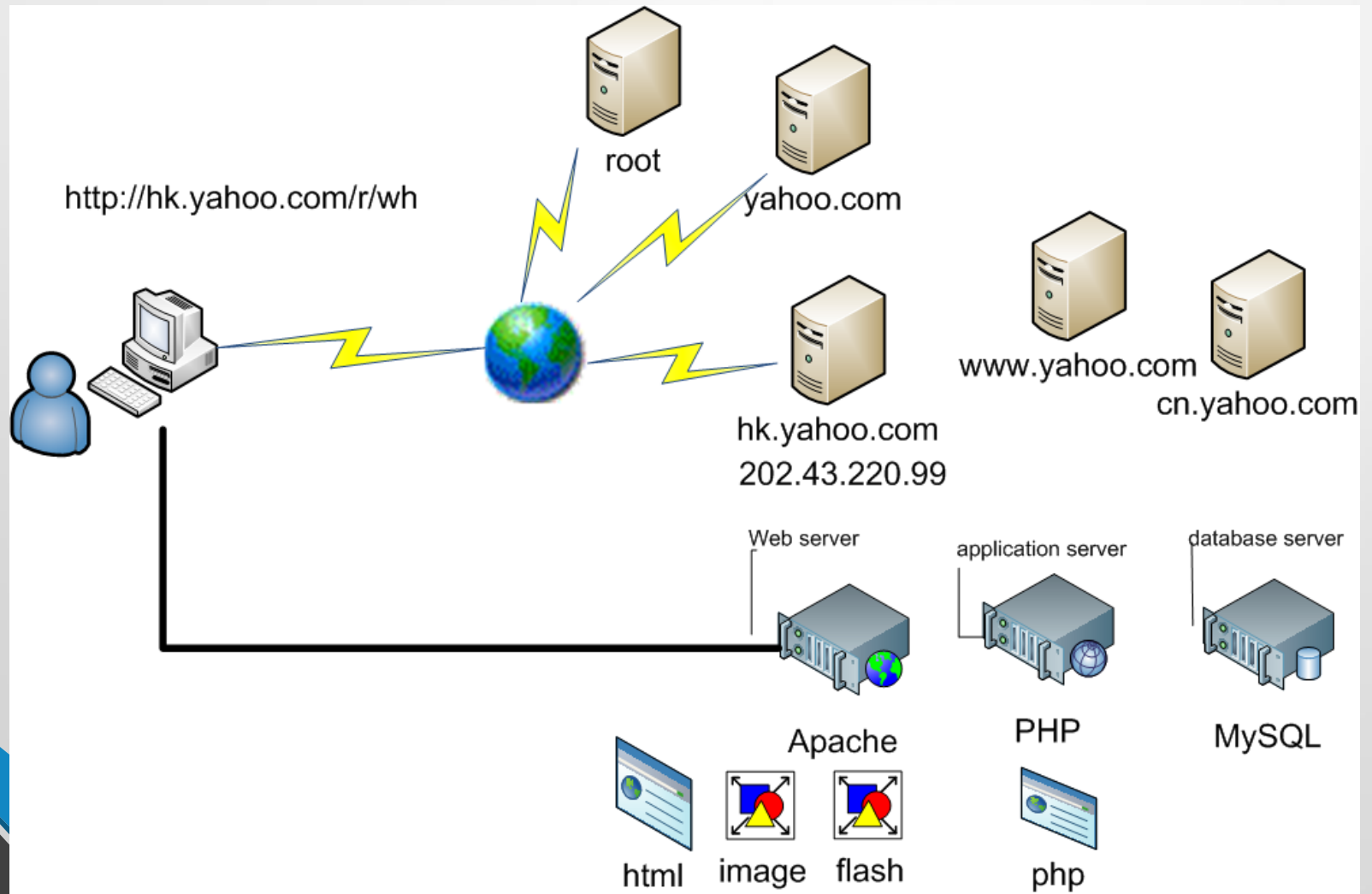
PHP

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Overview

- What is PHP
- History
- Who is using PHP
- Platform
- What is PHP for
- Why do we use PHP
- Strengths

LAMP

1XX Informational

100	Continue
101	Switching Protocols
102	Processing

2XX Success

200	OK
201	Created
202	Accepted
203	Non-authoritative Information
204	No Content
205	Reset Content
206	Partial Content
207	Multi-Status
208	Already Reported
226	IM Used

3XX Redirectional

300	Multiple Choices
301	Moved Permanently
302	Found
303	See Other
304	Not Modified
305	Use Proxy

4XX Client Error Continued

409	Conflict
410	Gone
411	Length Required
412	Precondition Failed
413	Payload Too Large
414	Request-URI Too Long
415	Unsupported Media Type
416	Requested Range Not Satisfiable
417	Expectation Failed
418	I'm a teapot
421	Misdirected Request
422	Unprocessable Entity
423	Locked
424	Failed Dependency
426	Upgrade Required
428	Precondition Required
429	Too Many Requests
431	Request Header Fields Too Large
444	Connection Closed Without Response
451	Unavailable For Legal Reasons
499	Client Closed Request

5XX Server Error

What is PHP

What is PHP

- Widely-used general-purpose scripting language that is especially suited for Web development and can be embedded into HTML.

- A server side scripting language designed for creating dynamic web pages

- Written in C

- Open Source and Freeware

- Stand for Personal Home Page

- PHP: Hypertext Preprocessor

History

- Conceived in 1994 by Rasmus Lerdorf for simple set of Perl scripts for tracking accesses to his online resume

- Personal Home Page / Forms Interpreter 2.0 in 1997

- PHP Hypertext Preprocessor 3.0 in 1998

- Rewrite the core engine for PHP 4.0

- PHP 5.6 then 7.0. No PHP 6.0

- Newest version is PHP 7.x now

What's new in PHP5

- Real Object-oriented programming (OO)
- Exceptions – procedures that happen when something goes wrong with unexpected error.
- Try/Catch/Throw
- Namespace

- Improved MySQL Extension

What's new in PHP6

- The project closed down because of the bad performance.

What's new in PHP7

- Up to 100% faster without rewrite PHP
- Constructors with name same as class
- Change in password_hash() function
- Calling static methods

- https://codingsec.net/2016/05/php-cheatsheet-upgrade-php7-5/

Who is using PHP

- Yahoo! – 3.5 billion/day
- Flickr, Facebook, Friendster, Second life, Hong Kong Art Festival
- Magento, WordPress, Joomla, Drupal, Discus
- www.php.net/usage.php
- https://www.google.com.hk/trends/explore#q=php
- http://trends.builtwith.com/framework/PHP

Who is using Zend

Platform

- Compatible for Linux, Unix, Mac OS X and Windows

- Comes with Red Hat 9.0

- Best work with Apache

- Works on IIS

Using PHP for

- User authentication and personalization
- Shopping carts
- Content management systems
- Web-based email
- Mailing list managers
- Web forums
- Document generation

Why do we use PHP

- Similar to html

- Script – no need to compile

- Using CGI concepts

- Using programming syntax

Strengths

- High performance
- Interfaces to many different database systems
- Built-in libraries for many common web tasks
- Low cost
- Ease of learning and use
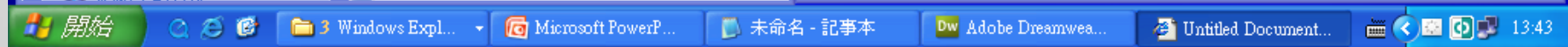- Portability
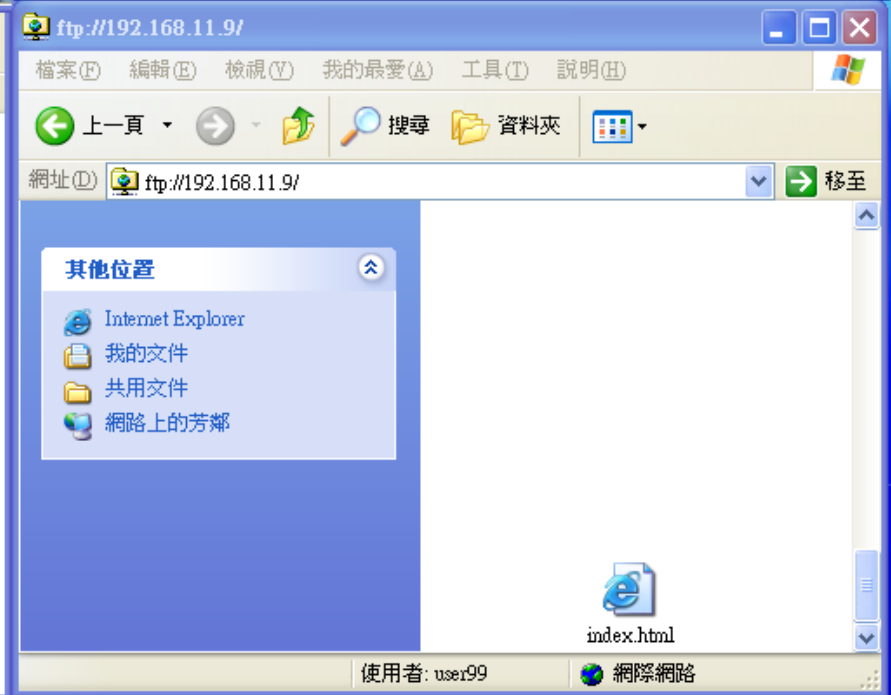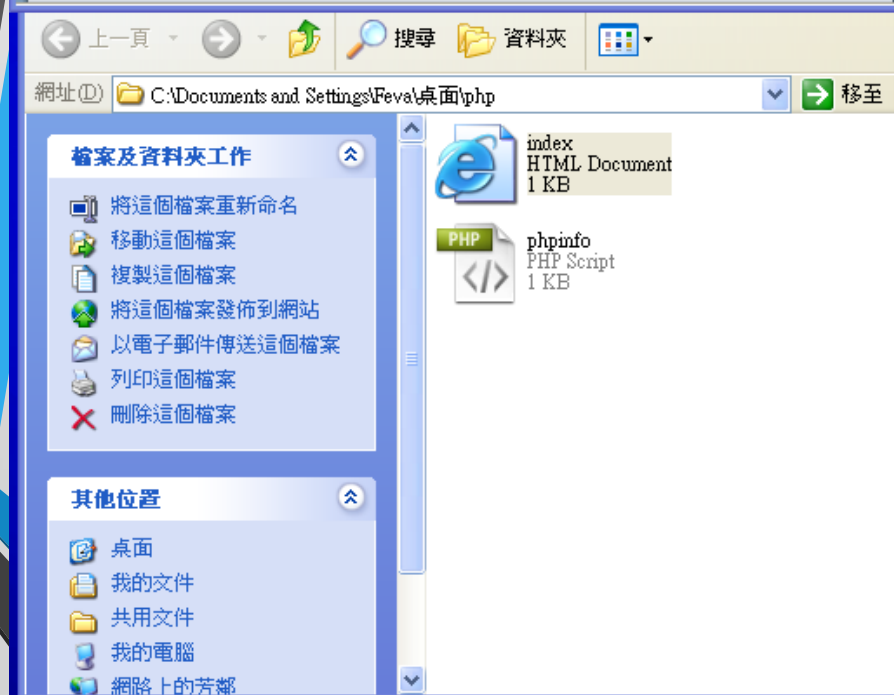
Overview

- How to upload
- Phpinfo();
- echo
- Function
- Variables
- Operands
- pre- & post-increment

First html

- Open Dreamweaver -> New Document -> HTML

- Type your name

- Save it to C:\AppServ\www

- http://localhost:8o8o/index.html

Uploading

- Save it to C:\AppServ\www folder.

- http://localhost:8080/filename.php
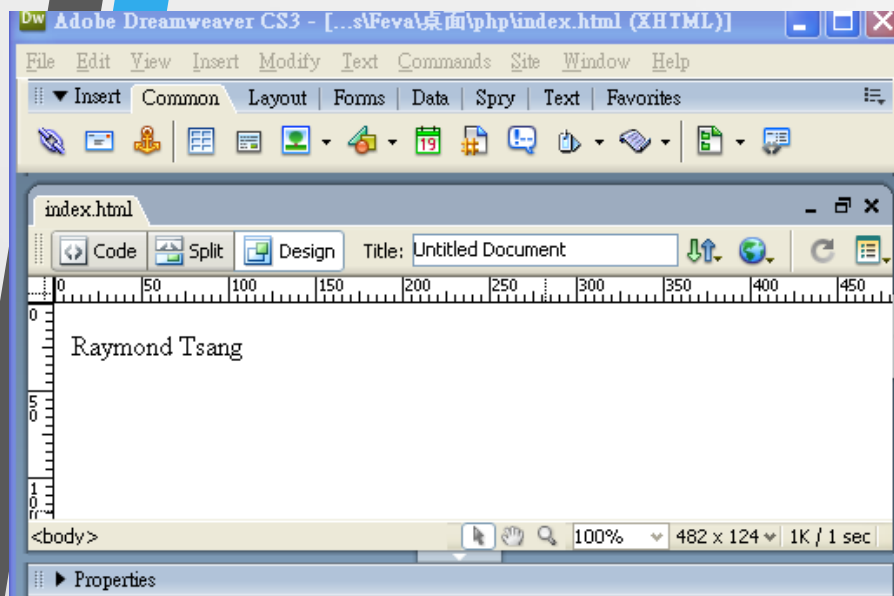
First PHP page

- Dreamweaver -> File -> new -> Dynamic page -> PHP

- <?php

- phpinfo();

- ?>

- phpinfo.php

phpinfo();

- Outputs information about PHP's configuration

- Commonly used to check configuration settings

- Usually used for testing the PHP engine on the web server

PHP style

- <?   phpinfo(); ?> - short style

- <?php   phpinfo(); ?> - XML style

- <script Language='php'> phpinfo(); </script> - script style

- <%   phpinfo(); %> - ASP style

Statements

- Tell the PHP interpreter what to do

- Ends with a semicolon

- Without a semicolon, you will see an error page indicating the line with an error

White space

- White space include new line, spaces, tabs

- Browsers ignore white spaces in both html and PHP

- Encourage to use white space for readability – usually one statement per line

Comments

- Notes for reading the code

- Usually used to explain the purpose of the script, when it was last modified

- /*   Author:Ray   */ - multiline comment

- //   Author:Ray   - single line comment (programming style)

- #   Author:Ray   - single line comment (shell style)

Echo

- Outputs all parameters

- echo "Hello, this is my first php page";

- echo.php

Print

- Similar to echo, it also outputs all parameters.

- Print returns a value of 1 and has precedence so that it can be used in the middle of a longer expression. However, the need for this is rare, and the fact that is returns a value makes it ever so slightly slower than echo. So we use echo.

- Using with <<<, it prints all html

- print.php

html in PHP

- Nothing to change for the html code

- Encapsulate PHP code before and after html code

- echo "Hello
";

Homework

- Open a new php file and save as "birthday.php"

- Echo your name in PHP

- Browse http://localhost/birthday.php

Install PHP + MySQL

- Download XAMPP from http://www.xampp.org

- Install to c:\

- Open XAMPP Control Panel, start Apache, MySQL

- Test Apache http://localhost

- Test PHP. Save your php files under c:\xampp\htdocs\

- Test your web page: http://localhost/filename.php

Functions

- echo date("H:i, jS F");
- echo date("l dS of F Y h:i:s A");
- Case sensitive
- date.php
- gmdate('H:i:s', time()+8*3600);
- date_default_timezone_set('Asia/Hong_Kong');
- http://hk2.php.net/manual/en/function.date.php

Homework

- Open birthday.php

- Echo your birthday as YYYYMMDD format.

- EG. (31-Jan-1990) echo "19900131";

- Echo today date as YYYYMMDD format

- EG. echo date("xxx");

Functions

- Find an integer of a decimal number
- echo round(3.4);
- echo round(3.5);
- echo floor(3.4);
- echo floor(3.5);
- roundFloor.php

- Q: How to find the next integer value?

Variable I

- Each variable start with a dollar sign ($)

- PHP is case sensitive $car<>$Car

- Hello.php

Variable II

- "\" is used for special command or character
- " \n " is next line in email, same as <br> in html
- " \r " = carriage return
- " \t " = tab
- " \$ " is printing the $ sign
- " \\ " is printing the \ sign
- " \" " = ?

Variable III

- Examples of valid variables names are: $total, $_cell1, $length_of_string

- Examples of invalid variables names are: $1_total, $2_length, $!total

- $oneTwoThree

- $thisIsVariable

Variable Types

- Integer – whole number, "1"

- Double – real number, "1.00"

- Character – "A", "B" .. "z"

- String – strings of characters, "Hello"

- Boolean – true or false, 1 or 0

- Array – multiple data types items, "$car[I]", array.php

- Object – instances of classes, "$car->tire=good"

Homework

- Open birthday.php

- Store your name in variable $name

- Store your birth year in $birthday

- Store today date in $today

- Echo the value in the variables so people can see your name and date of birth in the web page.

Operands I

- +, -, *, /, %
- $a=7; $b=3;
- $sum=$a+$b;
- $difference=$a-$b;
- $product=$a*$b;
- $quotient=$a/$b;
- $mod=$a%$b;
- operand.php

Errors

- Errors will be shown in the page with line number
- Ctrl+G to go the line

Debug

- Ctrl+backspace - Delete a word on the left

- Ctrl+Delete - Delete a word on the right

Exercise

- Find out your age

- Age = this year – your birth year

- Use date function to find out this year in the format (yyyy). EG. 2009

- Calculate your age.

- Display your age.

More Exercise

- Open birthday.php

- Find your age by $age=$today-$birthday

- How to remove the last four digit?

- How to cut off the decimal places?

$$\begin{array}{r} 20160131 \\ -20001231 \\ \hline 158900 \end{array}$$

Best hosting server

- http://www.zaturday.com

Sites (eng)

- http://www.php.net
- http://www.phpbuilder.com
- http://www.phpfreaks.com/
- http://phpnuke.org
- http://www.phpbuddy.com
- http://www.php-security.org/

Sites (eng) 2

- http://www.devshed.com

- http://px.sklar.com/

- http://www.phpgroupware.org

- http://www.phpclasses.org

Sites (中文)

- http://www.phpini.com/

Download Server

- http://www.apache.org/
- http://www.php.net
- http://www.mysql.com/
- http://www.phpmyadmin.com
- http://www.appservnetwork.com/
- http://www.apachefriends.org
- http://www.xampp.org

ebooks

- http://precisebench.com/best-free-books-for-learning-php/

Facebook

- www.facebook.com/groups/teachonetofish/
- www.facebook.com/teachonetofish/

QUESTIONS