

Introduction to CS520/CS596_026

Lecture Two

- Gordon Tian
- 408-668-5680
- gtian@svuca.edu
- gordontian@126.com
- Fall 2015

Cygwin

- POSIX (Portable Operating System Interface) is a set of standard operating system interfaces based on the Unix operating system. Unix was selected as the basis for a standard system interface partly because it was "manufacturer-neutral."
- Cygwin is a distribution of popular GNU and other Open Source tools running on Microsoft Windows. The core part is the Cygwin library which provides the POSIX system calls and environment these programs expect.

Cygwin Install

- <https://cygwin.com/install.html>
- Download the 32-bit or 64-bit based on your laptop CPU
- Install directory c:\cygwin

Install Nginx/MySQL/PHP

- WT-NMP
- <http://wtriple.com/wtnmp/index.php>
- Install Directory: [c:\cygwin](#)\home\%USER%
- Pay attention to directory security settings
- Start WT-NMP
- Test it by going to URL localhost or 127.0.0.1

Running MySQL on Cmd

- In start menu, Right click Computer → Properties → Advanced System Settings → Advanced → Environment Variables → System Variables → Path

Add this `c:\cygwin\home\laptop\wt-nmp\bin;` after [c:\](#);

- Open windows Cmd to log into MySQL
- Set MySQL root password to svuwins using `mysql update`
- Add a new user svu and set its password svuwins using HeidiSql
- Flush Privileges - The FLUSH statement causes the server to reread the grant tables. Without it, the password change remains unnoticed by the server until you restart it.'
- Add user by: `Grant all on *.* to 'svu'@'localhost' identified by ''`
- `SHOW GRANTS FOR username@localhost;`

Create/Delete database

Create database;

Drop database;

CRUD

CRUD - Create Read Update Delete

HTML <Form> Tag

The <form> tag is used to create an HTML form for user input.

The <form> element can contain one or more of the following form elements:

<input>

<textarea>

<button>

<select>

<option>

<optgroup>

<fieldset>

<label>

PHP Basics

- PHP is a recursive acronym for "PHP: Hypertext Preprocessor".
- PHP is a server side scripting language that is embedded in HTML. It is used to manage dynamic content, databases, session tracking, even build entire e-commerce sites.
- It is integrated with a number of popular databases, including MySQL, PostgreSQL, Oracle, Sybase, Informix, and Microsoft SQL Server.
- PHP is pleasingly zippy in its execution, especially when compiled as an Apache module on the Unix side. The MySQL server, once started, executes even very complex queries with huge result sets in record-setting time.
- PHP supports a large number of major protocols such as POP3, IMAP, and LDAP. PHP4 added support for Java and distributed object architectures (COM and CORBA), making n-tier development a possibility for the first time.
- PHP is forgiving: PHP language tries to be as forgiving as possible.
- PHP Syntax is C-Like.
- PHP is Object Oriented Language
- When the end of a file is reached, PHP automatically releases all resources.

PHP Tag

Canonical PHP tags

1. `<?php ... ?>`

2. `<? ... ?>`

3. `<% ... %>`

PHP Expression/Statement

- Case sensitive
- Expressions are combinations of tokens

The smallest building blocks of PHP are the indivisible tokens, such as numbers (3.14159), strings (.two.), variables (\$two), constants (TRUE), and the special words that make up the syntax of PHP itself like if, else, while, for and so forth

- Statements are expressions terminated by semicolons

PHP Variables

- All variables in PHP are denoted with a leading dollar sign (\$).
- The value of a variable is the value of its most recent assignment.
- Variables are assigned with the = operator, with the variable on the left-hand side and the expression to be evaluated on the right.
- Variables can, but do not need, to be declared before assignment.
- Variables in PHP do not have intrinsic types - a variable does not know in advance whether it will be used to store a number or a string of characters.
- Variables used before they are assigned have default values.
- PHP does a good job of automatically converting types from one to another when necessary.
- PHP variables are Perl-like.

PHP Data Types

- Integers – are whole numbers, without a decimal point, like 4195.
- Doubles – are floating-point numbers, like 3.14159 or 49.1.
- Booleans – have only two possible values either true or false.
- NULL – is a special type that only has one value: NULL.
- Strings – are sequences of characters, like 'PHP supports string operations.'
- Arrays – are named and indexed collections of other values.
- Objects – are instances of programmer-defined classes, which can package up both other kinds of values and functions that are specific to the class.
- Resources – are special variables that hold references to resources external to PHP (such as database connections).