Web Development

Web Techology Usage

- The top 10 million websites (top 1 million before June 2013)
- information about the usage of various types of technologies on the web.

- Content Management
- Server-side Languages
- Client-side Languages
- JavaScript Libraries
- Markup Languages
- ….

Content Management Systems

- A content management system (CMS) is an application
- used to manage web content,
- allowing multiple contributors to create, edit and publish.
- Content in a CMS is typically stored in a database
- displayed in a presentation layer based on a set of templates

	Usage
WordPress	%33.4
Joomla	%2.9
Drupal	%1.9
Shopify	%1.5
Squarespace	%1.5

Server-side Programming Languages

Most popular languages

	Usage
PHP	79%
ASP.NET	11.5%
Java	4%
Ruby	2.5%
Static files	2.1%

Client–side Programming Languages

- Most popular languages
- JavaScipt – 137(daily number of additional sites in the top 10 million)

	Usage
JavaScript	95.1%
Flash	3.7%
Silverlight	0.1%

JavaScript Libraries

- 24.1% of the websites use none of the JavaScript libraries that we monitor.
- jQuery is used by 73.9% of all the websites, that is a JavaScript library market share of 97.3%.

	Usage	Market Share
jQuery	73.9%	97.3 %
Bootstrap	18.6%	24.5%
Modernizr	11.3%	14.9%
Underscore	3%	3.9%
MooTools	2.2%	2.9%

PHP

Hypertext Preprocessor (PHP) is a
- General-purpose programming language originally designed **for web development**.
- Created by Rasmus Lerdorf in **1994**
- PHP reference implementation is now produced by The PHP Group.
- PHP originally stood for Personal Home Page
- Now stands for the recursive initialism PHP

PHP

PHP
- server scripting language
- powerful tool for making dynamic and interactive Web pages.

PHP
- Widely-used
- Free
- Efficient alternative to competitors(MS ASP)

History

- PHP development began in 1994 when Rasmus Lerdorf
- wrote several Common Gateway Interface (CGI) programs in C
- to maintain his personal homepage

- Extended them to
- work with web forms
- to communicate with databases,
- called this implementation **Personal Home Page/Forms Interpreter** (PHP/FI)

PHP 3 & 4

- Zeev Suraski and Andi Gutmans rewrote the parser in 1997
- formed the base of PHP 3,
- changing the language's name to the **recursive acronym PHP: Hypertext Preprocessor**
- Public testing of PHP 3 began
- the official launch came in **June 1998**
- started a new rewrite of PHP's core, producing the Zend Engine in 1999

- 2000, PHP 4 powered by the Zend Engine 1.0, was released

PHP 5

- 2004, PHP 5

  - was released,

  - powered by the new Zend Engine II

- PHP 5 included new features

  - improved support for object-oriented programming

  - the PHP Data Objects (PDO) extension (lightweight & consistent interface to access DBs)

  - numerous performance enhancements.
- In 2008, PHP 5 became the only **stable version** under development

PHP 6 Unicode

- 2005, a project headed by Andrei Zmievski was initiated to bring native Unicode support throughout PHP,
- by embedding the International Components for Unicode (ICU) library,
- representing text strings as UTF-16 internally
- Cause major changes both to the internals of the language and to user code

- In March 2010,
- the project in its current form was officially abandoned
- PHP 5.4 release was prepared containing most remaining **non-Unicode** features from PHP 6,

PHP 7

PHP 7
- During 2014 and 2015
- New major PHP version was developed
- The foundation of PHP is a PHP branch that was originally dubbed **PHP next generation (phpng)**
- Authored by Dmitry Stogov, Xinchen Hui and Nikita Popov
- Aimed to optimize PHP performance by refactoring the Zend Engine while retaining near-complete language compatibility.

- As of 14 July 2014, **WordPress-based benchmarks**, which served as the main benchmark suite for the phpng project, showed an almost **100% increase in performance.**
- Changes from phpng are also expected to make it easier to improve performance in the future, as more compact data structures and other changes are seen as better suited for a successful migration to a just-in-time (JIT) compiler
- significant changes - Zend Engine 3,
- succeeding Zend Engine 2 - PHP 5

PHP 7

PHP 5 vs. PHP 7

- PHP 7 is the **newest version** of PHP

- PHP 7 is **much faster** than the previous popular stable release

- PHP 7 has improved

  - Error Handling

  - supports stricter Type Declarations

  - supports new operators, methods and properties

What is PHP

PHP is an acronym for PHP: Hypertext Preprocessor
- widely-used,
- open source scripting language
- PHP scripts are executed on the server
- free to download and use

PHP File – Syntax

PHP files can contain
- text,
- HTML,
- CSS,
- JavaScript,
- PHP code

- PHP code are executed **on the server**,
- the result is returned to the browser as **plain HTML**
- PHP files have extension ".php"

```
<?php
// PHP code goes here
?>
```

Sample

```
<!DOCTYPE html>
<html>
<body>

<?php
echo "PHP script";
?>

</body>
</html>
```

PHP do

- **generate dynamic page content**
- **create, open, read, write, delete, and close files on the server**
- **collect form data**
- **send and receive cookies**
- **add, delete, modify data in your database**
- **used to control user-access**
- **encrypt data**

PHP – Why

- runs on various platforms (Windows, Linux, Unix, Mac OS X, etc.)
- compatible with almost all servers used today (Apache, IIS, etc.)
- supports a wide range of databases
- free(official PHP resource: www.php.net)
- easy to learn and runs efficiently on the server side