**CSIS 3280:**

**Lecture 01: Learning PHP**

**Intro to PHP**

* *Static Websites:* the content does not change and is fixed. The content is the same for all visitors. E.g., personal websites.
* *Dynamic Websites:* pictures and contents are different for different visitors. E.g., Amazon.com
* PHP is a programming language for building dynamic websites.
* PHP is a server-side language.
  + Example: JavaScript is a client-side language.
  + Example: ASP.NET is a server-side language.
* PHP is free.
* OS X and most Linux distributions come with PHP already installed.

**Static Websites:**

* PHP runs on the server not on the client.

Diagram

Description automatically generated

**Dynamic Websites:**

Diagram

Description automatically generated

**PHP & PHP Engine:**

* PHP is a language.
* PHP Engine is the software.
  + Running on a Web Server.
  + Understanding PHP language and executes the commands.
  + For example, talking to DBMS, retrieving data and generating pages
* PHP Engine is written in the C programming language.
* PHP works with a web server running on Windows, Mac OS X, Linux, and many other versions of Unix.
* PHP works on Web Servers such as Apache, nginx, MS IIS, or any web server that supports CGI standard.
* PHP works on many DBMSs: MySQL, PostgreSQL, Oracle, MS SQL Server, SQLite, Redis, and MongoDB.
* PHP is used on more than 200 million different websites, including giants like Facebook, Wikipedia, and Yahoo.

**Basics of PHP:**

* It can be part of a HTML file.
* It starts with **<?** and ends with **?>**.
* PHP engine executes only code between, text out of them is ignored.
* If there is no code at the end of the file, **?>** end tag is optional.
* There can be multiple blocks of PHP code in an HTML file.
* PHP is a case-sensitive language.
* But language keywords (such as print) and function names are not case-sensitive.

Text

Description automatically generated

* Comments:
  + Inline: //.
  + Inline: #.
  + Multiline: /\* (…) \*/.

Graphical user interface, text, application, chat or text message

Description automatically generated

* Every program is composed of statements and every statement ends with a (;).
* You can write multiple PHP statements on the same line of a program if they are separated with a semicolon.
* You can put as many blank lines between statements as you want. The PHP engine ignores them.
* It is recommended to put one statement on a line and blank lines between statements only when it improves the readability.

**Lecture 02: Data: Working with Text and Numbers**

**Data Types:**

* String: a sequence of bytes (represented by characters).
* Strings can contain:
  + Letters a-z, and A-Z.
  + Numbers 0-9.
  + Punctuation . ; ? ! , ( ) :
  + Spaces.
  + Tabs.
  + Or any other character.

**Defining Strings:**

* String: a sequence of bytes (represented by characters).
* Surround the string with single-quote or double-quote.
  + There are differences between using ‘ and “.
* If you want to include a single quote inside a string, put a backslash (\) before it.
* Word processors often change straight quotes like ' and " into curly quotes like ‘, ’, “, and ”. The PHP engine only understands straight quotes as string delimiters.

Graphical user interface, text

Description automatically generated

**Escape Sequence:**

* Backslash (\) is an escape character in PHP (like C, C++, C#, JavaScript, Java).