Introduction to Web Programming Using PHP

Week One

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Introduction

Introduction

First, welcome to Introduction to web programming with PHP!

For our first class we will be examining what we need to begin working with PHP, from what editors we need to use, what kind of environment PHP requires to function, and then we will finish off our class by creating our first PHP document.

So, let's look at what software we will be using.

Software Requirements

Code Editor | Server | Database

Code Editor

Like HTML & CSS, PHP is a widely supported language which gives us a lot of options when choosing what code editor we choose to use. When we are choosing our editor the only requirement that it needs to meet is that it supports the .php file extension. Below are a few that I recommend:

- PHP Storm by JetBrains (Free for students)
  https://www.jetbrains.com/community/education/#students
- VS Code by Microsoft (Free)
  https://code.visualstudio.com/
- Brackets (Free)
  https://brackets.io/

Server

Unlike HTML, CSS, and JavaScript, PHP requires an Apache server to function. For our class we will be using the server that has been provided by Georgian, if you however prefer to use localhost you will need to download one of the following services:

- XAMP
- WAMP
- AMPPS

These services will create an Apache environment on your computer.

Server

Apache is a freely-available Web server software package that is distributed under an open-source license. Apache offers an extensible and secure web server with services in sync with modern HTTP standards. An HTTP Server is compatible with most UNIX-based operating systems (such as Mac OS, Linux & Microsoft Windows).

In order for us to interact with our Server we will need to use the following:

- OpenVPN
- FileZilla (File Transfer Protocol software)

The credentials that are required for our FTP connection can be found in your email from CSTech@georgian.

Database – Georgian Server

For our first option let's assume that we will be using the server provided by Georgian College.

To connect to our database, we will need to use a program called MySQL Workbench, Workbench is a free program provided by Microsoft. Using the VPN and the credentials provided in our email from CSTech we can establish our connection and begin creating tables as we need.

Our second option is a little more complicated, however we also have a little more control over our database.

Database – Localhost

Using one of the programs that I have mentioned in a previous slide we can create a database and use that to hold our data. In order to do this, we must follow steps below:

1. Open the control panel
2. Turn on our Apache & MYSQL service
3. Go to http://localhost/phpmyadmin/
4. Once there we can create as many databases as we want.

Note: Localhost is only available to you and is not available to the public.


mirror object to mirror
mirror_mod.mirror_object
operation == "MIRROR_X":
irror_mod.use_x = True
irror_mod.use_y = False
irror_mod.use_z = False
operation == "MIRROR_Y":
irror_mod.use_x = False
irror_mod.use_y = True
irror_mod.use_z = False
operation == "MIRROR_Z":
irror_mod.use_x = False
irror_mod.use_y = False
irror_mod.use_z = True
ob.select=1
er_ob.select=1
ntext.scene.objects.acti
("Selected" + str(modifier
irror_ob.select = 0
bpy.context.selected_ob
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types.Operator):
X mirror to the selected
ject.mirror_mirror_x"
ror X"
context):
xt.active_object is not

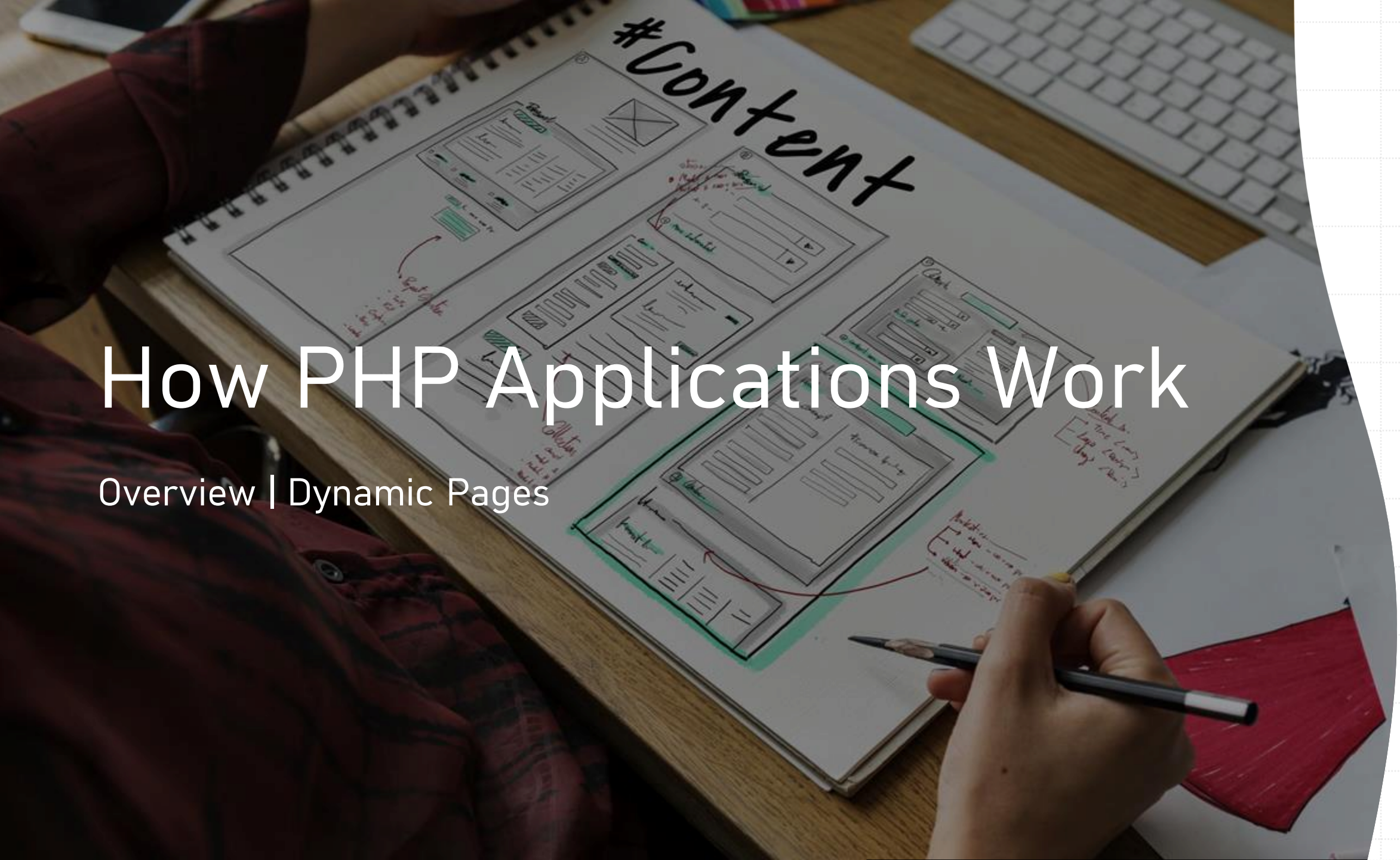
What is PHP?

What is PHP?

Hypertext Preprocessor or more commonly referred to as PHP is an open-source script on the server-side used for the creation of Static or Dynamic Web applications. There are two main types of PHP:

- Procedural
- Object-oriented (OOP)

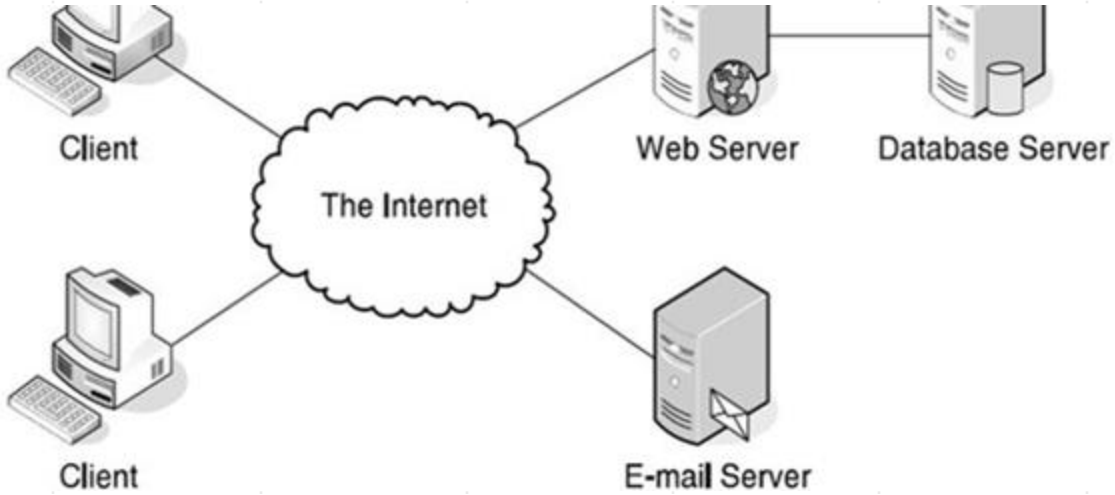
Procedural programming is about writing procedures or functions that perform operations on the data, object-oriented programming (OOP) is about creating objects that contain both data and functions.



How PHP Applications Work

Overview | Dynamic Pages

How PHP Applications Work | Overview



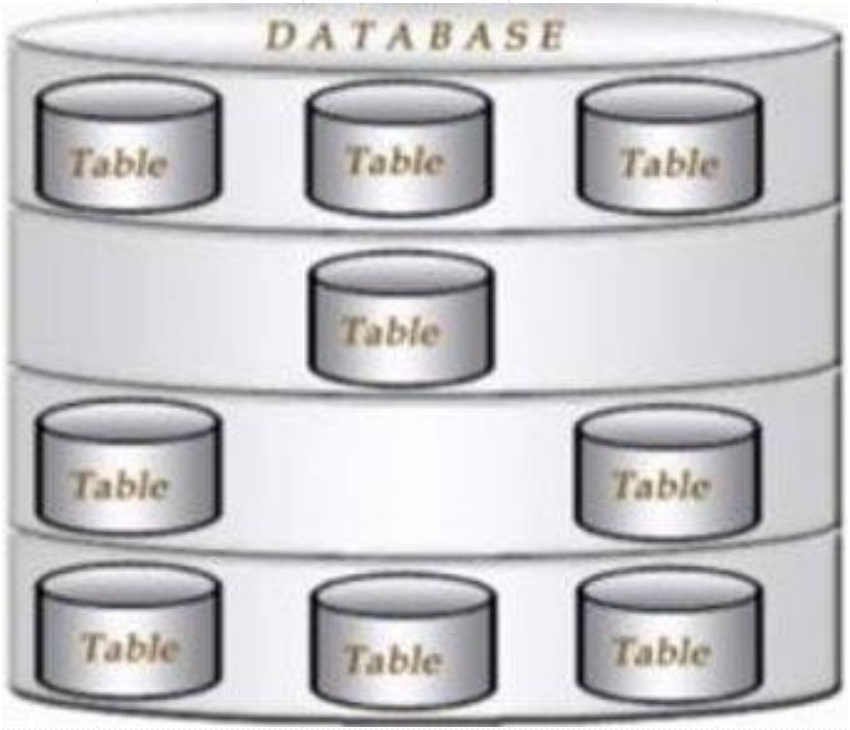
The web consists of many components that work together to bring a web page together. Before we can get into creating a PHP program, we need to understand how these components interact with one another and how PHP fits into this process.

How PHP Applications Work | Overview

If you think about it a web application is a lot like a pub. Both involve coordinating several pieces to deliver what the customer wants.

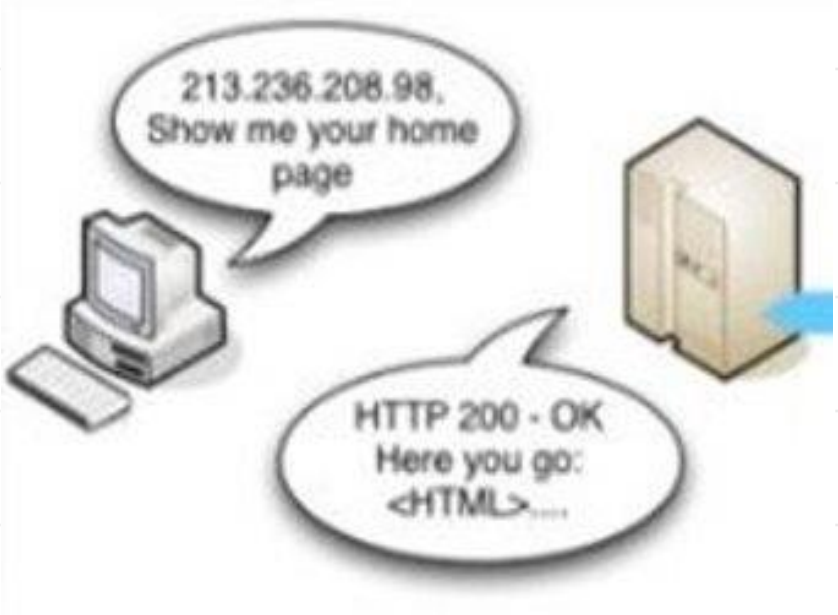
How PHP Applications Work | Overview

In both scenarios, the customer has no direct access to what they want.



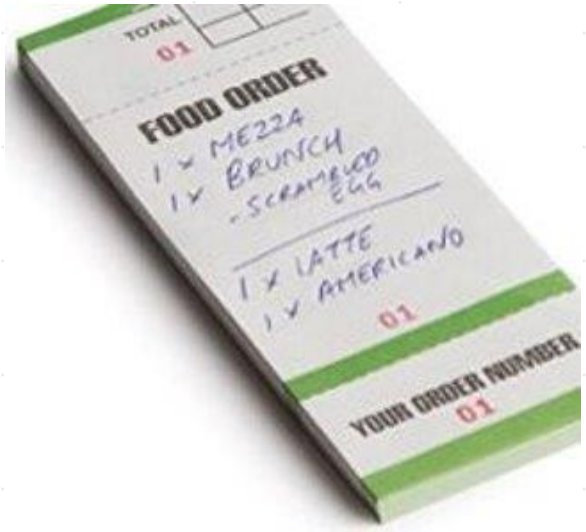
How PHP Applications Work | Overview

So how do the customers get what they want? Well, someone or something must listen to their request.



How PHP Applications Work | Overview

Then their request then must be transmitted to where the drinks/data are stored.



How PHP Applications Work | Dynamic Pages

The difference between a static page and a dynamic page is that a page built dynamically is created using a program or script that is running on a server. This allows developers to create a more scalable web applications. The other main difference is a dynamic web page is driven by using a database to store and display the content for the web application.

Some examples of dynamic web applications are social media sites, content management systems, blogs, and so on.

Code Example

Please open your code editors for the remainder of the lesson