MODULE – 4(Advance PHP)

1. What Is Object Oriented Programming?

=>OOP stands for Object-Oriented Programming.

Object-oriented programming has several advantages over procedural programming:

* OOP is faster and easier to execute
* OOP provides a clear structure for the programs
* OOP helps to keep the PHP code DRY "Don't Repeat Yourself", and makes the code easier to maintain, modify and debug
* OOP makes it possible to create full reusable applications with less code and shorter development time

2. What Are Properties Of Object Oriented Systems?

=> 1.class & object:-classes are blueprints or templates for creating objects. Objects are instances of classes.

2.Encapsulation:- Encapsulation is the practice of bundling data (attributes or properties) and the methods (functions) that operate on the data within a single unit, i.e., a class. You use access modifiers like **public**, **private**, and **protected** to control the visibility and access to class members.

3.Inheritence:- Inheritance in OOP = When a class derives from another class.

The child class will inherit all the public and protected properties and methods from the parent class. In addition, it can have its own properties and methods.

An inherited class is defined by using the extends keyword.

4. polymorphism:- Polymorphism allows objects of different classes to be treated as objects of a common base class. It enables you to write code that can work with objects of multiple classes in a consistent way.

5.Abstraction:- Data Abstraction is the most important features of any OOPS programming language. It shows only useful information, remaining are hidden form the end user. Abstraction is the any representation of data in which the implementation details are hidden (abstracted).

3.What Is Difference Between Class And Interface?

1.**Class**: A class is a blueprint for creating objects. It defines the properties (variables) and methods (functions) that an object of that class will have. It can also contain constructors and destructors to initialize and clean up the object.

**Interface**: An interface is a contract that defines a set of method signatures that a class implementing the interface must provide. It doesn't contain any actual code or implementation. It's used to ensure that classes follow a specific structure.

**2.Class**: Defined using the **class** keyword.

**Interface**: Defined using the **interface** keyword.

4. What Is Overloading?

=> Overloading in PHP provides means to dynamically create properties and methods. These dynamic entities are processed via magic methods one can establish in a class for various action types.

The overloading methods are invoked when interacting with properties or methods that have not been declared or are not [visible](https://www.php.net/manual/en/language.oop5.visibility.php) in the current scope. The rest of this section will use the terms inaccessible properties and inaccessible methods to refer to this combination of declaration and visibility.

All overloading methods must be defined as public.

5. What Is T\_PAAMAYIM\_NEKUDOTAYIM (Scope Resolution Operator (::) with Example

=>The Scope Resolution Operator (also called Paamayim Nekudotayim) or in simpler terms, the double colon, is a token that allows access to static, constant, and overridden properties or methods of a class.

Example:

<?php

class MyClass {

const CONST\_VALUE = 'A constant value';

}

$classname = 'MyClass';

echo $class name::CONST\_VALUE;

echo MyClass::CONST\_VALUE;

?>

6. What are the differences between abstract classes and interfaces?

=> Interfaces cannot have properties, while abstract classes can

All interface methods must be public, while abstract class methods is public or protected

All methods in an interface are abstract, so they cannot be implemented in code and the abstract keyword is not necessary

7. Define Constructor and Destructor?

Construction: A constructor allows you to initialize an object's properties upon creation of the object.

If you create a \_\_construct() function, PHP will automatically call this function when you create an object from a class.

Destruction: A destructor is called when the object is destructed or the script is stopped or exited.

If you create a \_\_destruct() function, PHP will automatically call this function at the end of the script.

8. How to Load Classes in PHP?

=>PHP load classes are used for declaring its object etc.

in object oriented applications. PHP parser loads it automatically, if it is registered with spl\_autoload\_register() function.

PHP parser gets the least chance to load class/interface before emitting an error.

9. How to Call Parent Constructor?

We can't run directly the parent class constructor in child class if the child class defines a constructor.

In order to run a parent constructor, a call to parent::\_\_construct() within the child constructor is required.

10. Are Parent Constructor Called Implicitly When Create An ObjectOf Class?

=> parent constructors are not called implicitly if the child class define a constructor in order to run a parent constructor, a call to parent::\_\_ construct() within the child constructor is required is required.if the child does not define a constructor then it may be inherited form the parent class just like a normal class method (if it was not declared as private)

11. What Happen, If Constructor Is Defined As Private Or Protected?

=> The constructor may be made private or protected to prevent it from being called externally.

If so, only a static method will be able to instantiate the class.

Because they are in the same class definition they have access to private methods, even if not of the same object instance.

12. What are PHP Magic Methods/Functions? List them Write program for Static Keyword in PHP?

=> Magic methods are special methodswhichoverridephp’s default ‘s action when certain actions are performed on an object Caution. All methods names starting with \_\_ are reserved by PHP. Therefore, it is not recommended to use such method names unless overriding PHP's behavior.

=>static keyword program:

<?php

class MyClass {

public static $str = "Hello World!";

public static function hello() {

echo MyClass::$str;

}

}

echo MyClass::$str;

echo "<br>";

echo MyClass::hello();

?>

13. Create multiple Traits and use it in to a single class?

=>

<?php

Trait message1 {

public function msg1() {

echo “oop is fun “;

}

}

class Welcome {

use message1;

}

$obj = new Welcome();

$obj->msg1();

?>

14. Write PHP Script of Object Iteration?

=><?php

Class myclass{

Private $var;

Protected $var1;

Public $x,$y,$z;

Public function \_\_construct(){

$this->var=”private variable”;

$this->var1=TRUE;

$THIS->x=100;

$this->v=200;

$this->z=300;

}

Public function iterate(){

foreach($this as $key=>$value){

print”$key=>$value

“;

}

}

}

$obj=new class();

foreach($obj as $key=>$value){

Print “$key =>$value

“;

}

echo”

“ ;

$obj->iterate();

?>

15. Use of The $this keyword?

=>The $this keyword refers to the current object, and is only available inside methods.

Jquery

a)What is jQuery?

=> jQuery is a lightweight, "write less, do more", JavaScript library.

The purpose of jQuery is to make it much easier to use JavaScript on

your website.

jQuery takes a lot of common tasks that require many lines of JavaScript

code to accomplish, and wraps them into methods that

you can call with a single line of code.

jQuery also simplifies a lot of the complicated things from JavaScript,

like AJAX calls and DOM manipulation.

b) How are JavaScript and jQuery different?

**jquery Javascript**

|  |  |
| --- | --- |
| It is a javascript library. | It is a dynamic and interpreted web-development programming language. |
| The user only need to write the required jQuery code | The user needs to write the complete js code |
| It is less time-consuming. | It is more time consuming as the whole script is written. |
| There is no requirement for handling multi-browser compatibility issues. | Developers develop their own code for handling multi-browser compatibility. |
| It is required to include the URL of the jQuery library in the header of the page. | JavaScript is supportable on every browser. Any additional plugin need not to be included. |
| It depends on the JavaScript as it is a library of js. | jQuery is a part of javascript. Thus, the js code may or may not depend on jQuery. |
| It contains only a few lines of code. | The code can be complicated, as well as long. |

c) Which is the starting point of code execution in jQuery?

=> The starting point of jQuery code execution is $(document). ready() function which is executed when DOM is loaded.

d) Document Load Vs Window. Load() jQuery ?

=> The key different between $(document). ready() and $(window). load() event is that the code included inside onload function will run once the entire page (images,iframes,stylesheet,etc) are loaded whereas the $(docoment). ready()event files all images, iframes etc.

e) What is the difference between prop and attr?

=>prop()

* This method returns the current value.
* This method is mainly used when the user wants to change the value for an HTML tag’s attribute.
* It changes properties for the HTML tag as the per the DOM tree. It changes attributes for the HTML tag.

Its syntax is-:$(selector).prop(property)

* It takes three parameters property, value and a function.

=>attr()

* This method returns the default value.
* This method mainly used to set the default value for an HTML tag’s attribute.
* It changes attributes for that HTML tag.

Its syntax is-: $(selector).attr(attribute).

* It takes three parameters an attribute, value, and a function.

f) Explain Difference Between JQuery And JavaScript?

**JavaScript:**

* JavaScript is a programming language.
* There are no special symbols to define JavaScript like JQuery.
* JavaScript uses JIT[Just in time compiler] which is a combination of ECMA script and DOM(Document object Model).
* JavaScript is an language, obviously, it would be heavier than JQuery.
* JavaScript is an independent language and can exist on its own.

**Jquery:**

* Jquery is an Application programming interface(API).
* There are special symbols to define jquery .
* While jquery Uses the resources that are provide by javasript to make.

Things esier .It is a lightweight JavaScript library .It has only the DOM.

* While jquery is a library. Derived from Javascript hence,it is lightweight.

g)