MODULE – 4

• What Is Object Oriented Programming?

Ans :- Object-oriented programming (OOP) is a computer programming model that organizes software design around data, or objects, rather than functions and logic.

• What Are Properties Of Object Oriented Systems?

Ans :-Encapsulation

Data Abstraction

Polymorphism

Inheritance

**Object:** Objects in Object Oriented Systems interact through messages.  
  
**Inheritance:** The main class or the root class is called as a Base Class. Any class which is expected to have ALL properties of the base class along with its own is called as a Derived class. The process of deriving such a class is Derived class. For the “Food” class, a Derived class can be “Class Chinesefood”.  
  
**Abstraction:** Abstraction is creating models or classes of some broad concept. Abstraction can be achieved through Inheritance or even Composition.  
  
**Encapsulation:** Encapsulation is a collection of functions of a class and object. The “Food” class is an encapsulated form. It is achieved by specifying which class can use which members (private, public, protected) of an object.  
  
**Polymorphism:** Polymorphism means existing in different forms. Inheritance is an example of Polymorphism. A base class exists in different forms as derived classes. Operator overloading is an example of Polymorphism in which an operator can be applied in different situations.

• What Is Difference Between Class And Interface?

Writing an interface is similar to writing a class. But a class describes the attributes and behaviors of an object. And an interface contains behaviors that a class implements. Following are the important differences between Class and an Interface

• What Is Overloading?

Ans :- 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.

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

Ans :- The Scope Resolution Operator (also called Paamayim Nekudotayim) or in simpler terms, the double colon, is a token that allows access to [static](https://www.php.net/manual/en/language.oop5.static.php), [constant](https://www.php.net/manual/en/language.oop5.constants.php), and overridden properties or methods of a class.

When referencing these items from outside the class definition, use the name of the class.

It's possible to reference the class using a variable. The variable's value can not be a keyword (e.g. self, parent and static).

Paamayim Nekudotayim would, at first, seem like a strange choice for naming a double-colon. However, while writing the Zend Engine 0.5 (which powers PHP 3), that's what the Zend team decided to call it. It actually does mean double-colon - in Hebrew!

• What are the differences between abstract classes and interfaces?

|  |  |
| --- | --- |
| Interface Class | Abstract Class |
| Interface class supports multiple inheritance feature | Abstract class does not support multiple inheritances. |
| This does not contain a data member. | Abstract class does contain a data member. |
| The interface does not allow containers. | The abstract class supports containers. |
| An interface class only contains incomplete members which refer to the signature of the member. | Abstract class contains both incomplete(i.e. abstract) and complete members. |
| Since everything is assumed to be public, an interface class does not have access modifiers by default. | An abstract class can contain access modifiers within subs, functions, and properties. |
| Any member of an interface cannot be static. | Only a complete member of the abstract class can be static. |

• How to Load Classes in PHP?

PHP file should contain the contact class. Before using a class,you need to first define the class in a file nd second load it using the require,require\_once,include or include\_once statement.

• How to Call Parent Constructor?

Ans :- 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.

• Are Parent Constructor Called Implicitly When Create An ObjectOf Class?

No

• 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.

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

Magic Methods

\_\_get

\_\_ set

\_\_call

program for Static Keyword

|  |
| --- |
| <?php |
|  | class MethodOverloading{ |
|  | public static $PublicData = "something"; |
|  | public function FunctionName(){ |
|  | echo "called"; |
|  | } |
|  | } |
|  | echo MethodOverloading::$PublicData; |
|  | ?> |

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

|  |
| --- |
| <?php |
|  | trait RBINew{ |
|  | public function GiveInterest(){ |
|  | echo "caleld GiveInterest RBI new"; |
|  | } |
|  | } |
|  | trait RBI{ |
|  | public function GiveInterest1(){ |
|  | echo "caleld GiveInterest1 RBI new"; |
|  | } |
|  | } |
|  | class SBI { |
|  | // use RBI,RBINew; |
|  | use RBI; |
|  | use RBINew; |
|  | public function GiveInterest123(){ |
|  | $this->GiveInterest(); |
|  | echo "called"; |
|  | echo "called 3.5"; |
|  | } |
|  | } |
|  | $RBI = new SBI; |
|  | ?> |

• Write PHP Script of Object Iteration?

Ans:-

<?php

class MyClass

{

public $var1 = 'value 1';

public $var2 = 'value 2';

public $var3 = 'value 3';

protected $protected = 'protected var';

private $private = 'private var';

function iterateVisible() {

echo "MyClass::iterateVisible:\n";

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

print "$key => $value\n";

}

}

}

$class = new MyClass();

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

print "$key => $value\n";

}

echo "\n";

$class->iterateVisible();

?>

• Use of The $this keyword

|  |
| --- |
| <?php |
|  | class ParentClass{ |
|  | function AdditionofTow($a,$b){ |
|  | return $a+$b; //50-60k |
|  | } |
|  | } |
|  | class ChildClass extends ParentClass{ |
|  | function Avrg($x,$z){ |
|  | // ($x+$z)/2; |
|  | $Addition = $this->AdditionofTow($x,$z);//parent function calling using $this peusudo variable |
|  | return $Addition/2; |
|  | } |
|  | } |
|  | $ChildObjectForAccessParentChildData = new ChildClass; |
|  | echo $ChildObjectForAccessParentChildData->Avrg(60,30); |
|  | echo "<br>"; |
|  | // echo $ChildObjectForAccessParentChildData->ParentClassFunction(); |
|  |  |
|  | ?> |

• Consider the exercise11and add a edit link near delete link e.g. Clicking up on edit button a particular row should be open in

• editing mode

• e.g. on the Particular row there should be filled text box with data and on the option column there should be a confirm button clicking upon it arrow should be updated.

• Create Hotel Room Booking System User can book room by 3 ways

• Full day

• Half day

• Custom

• If user select for the full day than user only have selection for the checking checkout date

• If user select Half day than user have option of date and slot option(like user want to book room for first half – Morning (8AM to 6PM) if user select for second halfit‟s for evening (7PM to Morning 7AM)). Do proper validation like if user can book only available slot. (have touse jQuery -> Ajax, validation, Json passing).

Jquery

• What is jQuery?

jQuery is a fast, small, and feature-rich JavaScript library. It makes things like HTML document traversal and manipulation, event handling, animation, and Ajax much simpler with an easy-to-use API that works across a multitude of browsers.

• How are JavaScript and jQuery different?

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.

• Which is the starting point of code execution in jQuery?

Ans:-

jQuery code runs on the web browser. In general, jQuery code is executed on the client side.

In order to use jQuery for your project, you first have to embed the library. You either have the option of hosting the JavaScript file on your own webspace, or including a link to an external webspace

• Document Load Vs Window. Load() jQuery

Ans:-The key difference between $(document). ready() and $(window). load() event is that the code included inside onload function will run once the entire page(images, iframes, stylesheets,etc) are loaded whereas the $(document). ready() event fires before all images,iframes etc

• What is the difference between prop and attr?

Ans:-jQuery .prop() Method: This method is used to get the value of a property for the first element in the set of matched elements.

jQuery .attr() method: This method is used to either fetch the value of an attribute from the first element in the matched set or set attribute values onto all matched elements.

• Explain Difference Between JQuery And JavaScript?

Ans:-

JavaScript: It is a major scripting programming language that is used to make websites more responsive and interactive. It is one of the pivoted parts alongside HTML and CSS which are used to create web pages. If HTML & CSS decorates and designed the web-pages so, Javascript makes the web pages dynamic(we can say it gives them life). JavaScript is a major client-side language. It’s not only confined to websites development but also used in many desktop and server programs ( Node.js is the best-known example) and Some databases, like MongoDB and CouchDB, also use JavaScript. Whenever your browser parses a web page, its responsibility is to create a tree-structure presentation in memory.

jQuery: JQuery is a framework for javaScript which developed from JavaScript. It is the most popular JavaScript library invented by John Resign and was released in January 2006 at BarCamp NYC. It is a free, open-source library and It’s a fast, concise, and rich-featured JavaScript library and also has cross-browser compatibility. The purpose of jQuery is to make life easier for the masses so that they can easily develop websites and browser-based applications using javaScript. In a concise manner, we can say that the “JQuery is a library to provide better client-side web page development” environment to the developer with the help of its feature-rich library.

DOM manipulation: DOM elements can be easily traversed, modified.

Animations Lots of built-in features for animations.

HTML event handling and manipulation.

Ajax is much simpler with an easy-to-use API that works across a multitude of browsers.

CSS manipulation

Has a high-level UI widget library.

Cross-browser support: work well on browsers like Chrome, Opera, etc.

Lightweight: Only 19kb in size.

And other common utilities

• How We Can Select The Specified <li> Element From The ListOf <li>

Elements In <ul>?

Ans:-<!DOCTYPE html>

<html>

<head>

<title>

Check if ul has li with a specific text in jQuery.

</title>

</head>

<body>

<h1 style="color: green">

Hello </h1>

<b>

How to check if ul has li with

a specific text in jQuery?

</b>

<ul id="list">

<li>English</li>

<li>Computer</li>

<li>Science</li>

<li>Portal</li>

</ul>

<p>

The li elements contain the text "Computer":

<span class="output">

</span>

</p>

<p>

The li elements contain the text "Python":

<span class="output2">

</span>

</p>

<button onclick="runChecks()">

Check for the text

</button>

<script src="https://code.jquery.com/jquery-3.4.1.min.js">

</script>

<script>

function checkforText(requiredText) {

let found = false;

$("#list li").each((id, elem) => {

if (elem.innerText == requiredText) {

found = true;

}

});

return found;

}

function runChecks() {

ans1 = checkforText('Computer');

document.querySelector(".output").textContent = ans1;

ans2 = checkforText('Python');

document.querySelector(".output2").textContent = ans2;

}

</script>

</body>

</html>

• In <table> Design Change The Color Of Even <tr> Elements To

“green”And Change The Color Of Odd <tr> Elements To “blue” Color? Give

An Example Code?

Ans:-

:nth-child(number) {

css declarations;

}

//use selector

//odd keyword

th:nth-child(odd) {

background: red;

}

//even keyword

p:nth-child(even) {

background: blue;

}

//arithmetic operator

p:nth-child(4n+0) {

background: blue;

}

// Create CSS Files

<style>

table {

font-family: arial, sans-serif;

border-collapse: collapse;

width: 100%;

}

td, th {

border: 2px solid blue;

text-align: left;

padding: 8px;

}

tr:nth-child(even) {

background-color: green;

}

</style>

//Create HTML Files

<h2>Employee</h2>

<table>

<tr>

<th>Name</th>

<th>City</th>

<th>Address</th>

</tr>

<tr>

<td>Vithal Wadje</td>

<td>Latur</td>

<td>India</td>

</tr>

<tr>

<td>Sudhir Wadje</td>

<td>Pune</td>

<td>India</td>

</tr>

<tr>

<td>Vishal</td>

<td>New York</td>

<td>USA</td>

</tr>

<tr>

<td>Kapil</td>

<td>London</td>

<td>UK</td>

</tr>

</table>

• How We Can Implement Animation Effects In Jquery?

Ans:-

•Apply jQuery validation using library.

Ans:-

Then to define rules use simple syntax. jQuery(document). ready(function() { jQuery("#forms). validate({ rules: { firstname: 'required', lastname: 'required', u\_email: { required: true, email: true,//add an email rule that will ensure the value entered is valid email id.

• Create custom dynamic function for require field validator.

Ans:-

<script src="http://code.jquery.com/jquery-latest.js"></script>

<script type="text/javascript" src="http://jzaefferer.github.com/jquery-validation/jquery.validate.js"></script>

<script>

$(document).ready(function(){

$("#commentForm").validate();

});

function addInput() {

var obj = document.getElementById("list").cloneNode(true);

document.getElementById('parent').appendChild(obj);

}

</script>

<form id="commentForm" method="get" action="">

<p id="parent">

<input id="list" class="required" />

</p>

<input class="submit" type="submit" value="Submit"/>

<input type="button" value="add" onClick="addInput()" />

</form>