ADVANCE PHP

1. What Is Object Oriented Programming?
   - Object oriented programming is about creating objects that contain both data and methods.

2. **What Are Properties Of Object Oriented Systems?**
   => Properties of object-oriented
   - Class
   - Object
   - Encapsulation
   - Inheritance
   - Polymorphism
   - Abstraction
   - Interface
   - Constructor & Destructor

3. What Is the Difference Between Class And Interface?

   Class : A class is a blueprint of objects.

   - **Local Variable** : Variables defined inside methods, constructors or blocks are called local variables.The variable will be declared and initialized within the method and the variable will be destroyed when the method has completed.
   - **Global Variable (Instance Variable) :** Global variables within a class but outside any method. These variables are initialized when the class is instantiated. Instance variables can be accessed from inside any method, constructor or blocks of that particular class.

   Interface: It is similar to class. It is a collection of abstract methods. A class implements an interface, thereby inheriting the abstract methods of the interface.

Along with abstract methods, an interface may also contain constants, default methods, static methods, and nested types. Method bodies exist only for default methods and static methods.

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.

4. What Is Overloading?

- Function performs different tasks according to the number of arguments. Overloading refers to the ability to use a single identifier to define multiple methods of a class that differ in their input and output parameters. Overloaded methods are generally used when they conceptually execute the same task but with a slightly different set of parameters.

5. What Is T_PAAMAYIM_NEKUDOTAYIM (Scope Resolution Operator (::) with Example.

- The scope resolution operator is used to access variables,constants,properties and methods defined at class level.When referring to these items outside class definition,name of class is used along with scope resolution operator.

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

- An abstract class is a class that is declared with the keyword `abstract` and may contain abstract and non-abstract methods. An abstract method is a method that is declared without an implementation. An abstract class cannot be instantiated, but can be subclassed by other classes that provide the implementation of the abstract methods. An abstract class is used to provide a common template or blueprint for subclasses that share some common behavior or attributes.

- An interface is a type that is declared with the keyword `interface` and may contain only abstract methods, constants, default methods, static methods, and private methods. An interface cannot be instantiated, but can be implemented by other classes that provide the implementation of all the abstract methods. An

interface is used to specify a contract or a set of rules that the implementing classes must follow.

7. Define Constructor and Destructor?

- Constructor is a special type of function called to create an object.It prepares the new object for use,often accepting arguments that the constructor uses to set required member variables.
- Destructor is an instance member function that is invoked automatically whenever object is going to be destroyed.

8. How to Load Classes in PHP?

- One way to load classes in PHP is to use the autoloading feature, which allows you to register a function that will be called automatically when a class is used for the first time. This function can then include or require the file that contains the class definition, without the need to manually write the include or require statements for each class.

9. How to Call a Parent Constructor?

- super keyword to call the parent constructor from the child constructor.

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

- A common way to do this is to use a keyword or a function that refers to the parent class, such as super, parent, or base, and then invoke the parent constructor with the appropriate arguments.

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

- A private or protected constructor also prevents the inheritance of the class by other classes. This is because a subclass needs to call the constructor of its superclass, either explicitly or implicitly, in its own constructor. If the superclass constructor is not accessible, the subclass cannot be created. To enable inheritance, a public or protected constructor must be provided.

12. What are PHP Magic Methods/Functions? List them. Write a program for Static Keywords in PHP?
   - PHP magic methods are special methods that are called automatically when certain conditions are met. There are several magic methods in PHP.

```php
<?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 a single class?

   - PHP only supports single inheritance: a child class can inherit only from one single parent.
   - So, what if a class needs to inherit multiple behaviors? OOP traits solve this problem.
   - Traits are used to declare methods that can be used in multiple classes. Traits can have methods and abstract methods that can be used in multiple classes, and the methods can have any access modifier (public, private, or protected).

```php
<?php
trait first  // use trait insted of class
{
        function method1()
        {
                echo "This is method1.<br>";
        }
    function method2()
```

```php
        {
                echo "This is method2";
        }
}
class sample
{
        use first;  // here use word (use) for inheritance of class first

}
$obj= new sample;
$obj->method1();
$obj->method2();
?>
```

14. Use of The $this keyword

- The $this keyword is used to refer to the current object instance in PHP. It can be used to access the properties and methods of the object from within the object itself.

15. Create Hotel Room Booking System User can book room by 3 ways • Full day • Half day • Custom

16. What is jQuery?

- jQuery is a popular JavaScript library that simplifies the client-side scripting of HTML. It allows users to perform tasks such as selecting and manipulating elements, creating animations, handling events, and making AJAX calls with less code and more efficiency. jQuery is also cross-browser compatible, meaning it works on different types of browsers without requiring much modification.

17. How are JavaScript and jQuery different?

- JavaScript is a programming language that can run on web browsers and other platforms, while jQuery is a library of JavaScript code that simplifies common tasks such as selecting and manipulating elements, creating animations, handling events, and making AJAX calls.

18. Which is the starting point of code execution in jQuery?

- The starting point of code execution in jQuery is the $ (document).ready () function, which is executed when the whole HTML DOM is loaded and is totally rendered by the browser1234. This function ensures that the event handlers and other jQuery methods work correctly without any errors. It takes a callback function as an argument, which contains the jQuery code to be executed.

19. Document Load Vs Window. Load() jQuery

- The difference between document load and window load in jQuery is that the document load event is triggered when the HTML document is loaded and the DOM is ready, while the window load event is triggered when the entire page, including all the resources such as images, videos, and iframes, is fully loaded.

20. Image uploading with preview

```
<form id="upload-form" method="post" action="upload.php"
enctype="multipart/form-data">
        <input type="file" name="image" id="image" accept="image/*" required>
        <input type="submit" name="upload" id="upload" value="Upload">
</form>
<img id="preview" src="falana.jpg" alt="Image Preview" width="300"
height="300">

$(document).ready(function() {
  // Select the file input and the image preview
  var image = $("#image");
```