

Course Name : Web Technologies

Course Code : CSEG7007



Course Instructor :

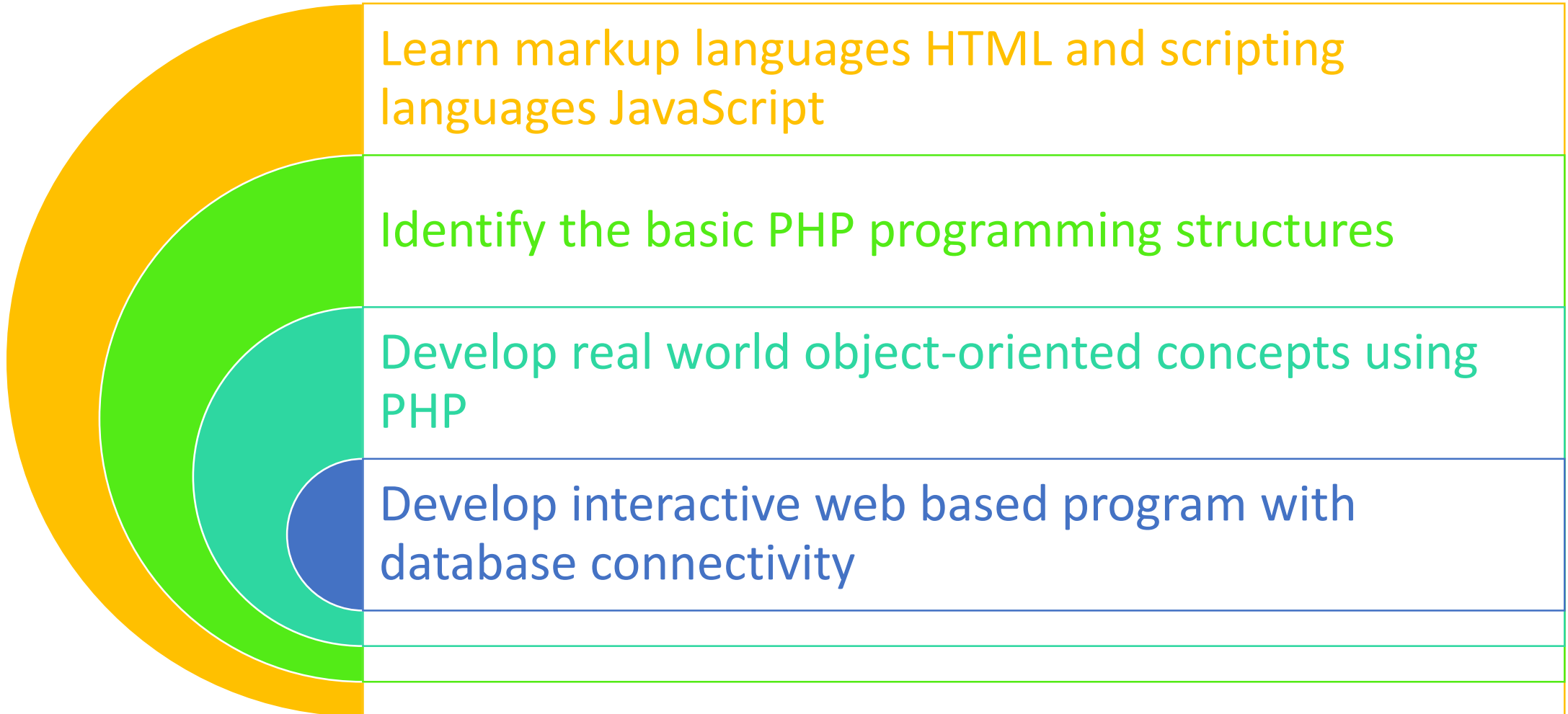
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Course Outcomes – Web Technology Through PHP



PHP Classes and Objects

Course Instructor

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AI Cluster | SOCS | UPES

Structured Blocks -> Functions

- **Solves a large problem**

- divides the problem into smaller modules called functions
- each have particular responsibility.

- **Need/Advantages of function**

- Modular Programming
- Enhance application software process
 - Program development becomes easy
- Reusability
 - Module once created can be used any no of time

- **Types**

- Built-in Functions
- User-defined Functions

```
<? php
    function function_name()
    {
        echo "Welcome to DevOpsSchool";
    }

    function_name();
?>
```



Function Define

Block of Statement

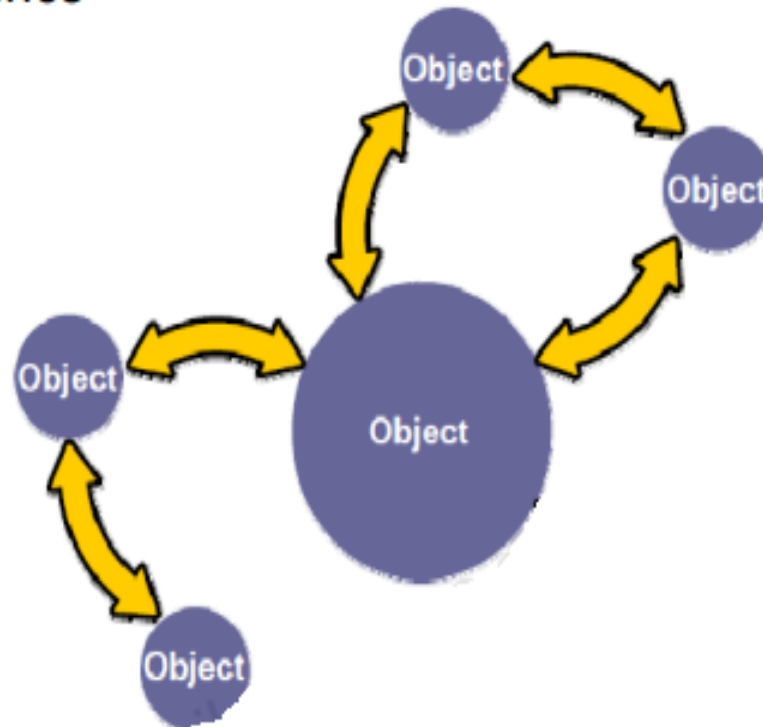
Function Calling

PHP an Object Oriented Language

- PHP is a **primarily procedural language**
- small programs are easily written without adding any classes or objects
- **larger programs**, however, become cluttered with so many **disorganized functions**
- grouping *related data and behavior into objects* **helps manage size and complexity**

PHP extended to support OOPS paradigm

- Interaction of objects
- No prescribed sequence
- Benefits:
 - Modularity
 - Information hiding
 - Code reuse
 - Maintainability



Encapsulation

```

1  <?php
2  //author: dhiviyarj@ddn.upes.ac.in
3  function function1()
4  {
5      echo "I am function1";
6      function function2()
7      {
8          echo "I am function2";
9      }
10 }
11 function1();
12 function2();
13 ?>
14 <br>
15 <br>
16 <hr>
17 <?php
18 //author: dhiviyarj@ddn.upes.ac.in
19 function3();
20 function function3()
21 {
22     echo "I am function3";
23 }
24 ?>
25

```

```

class
{

```

data members

+

methods (behavior)

```

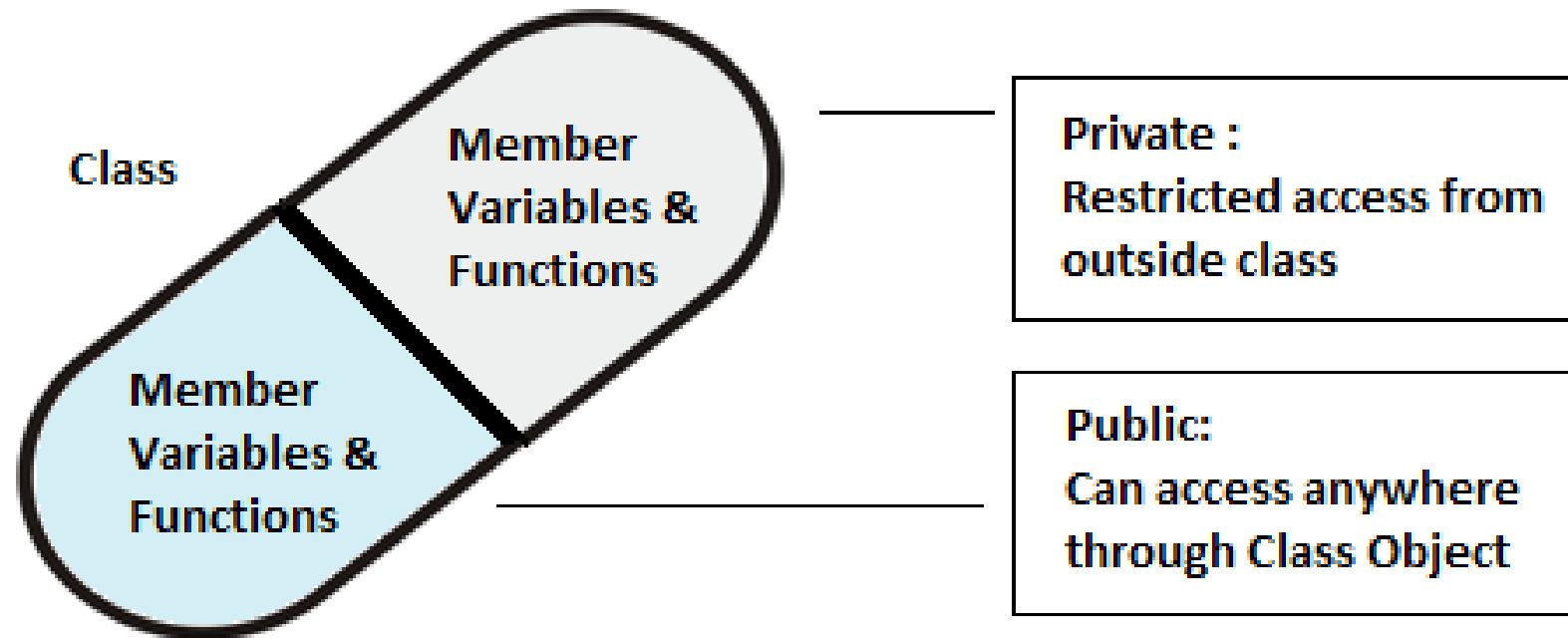
}

```

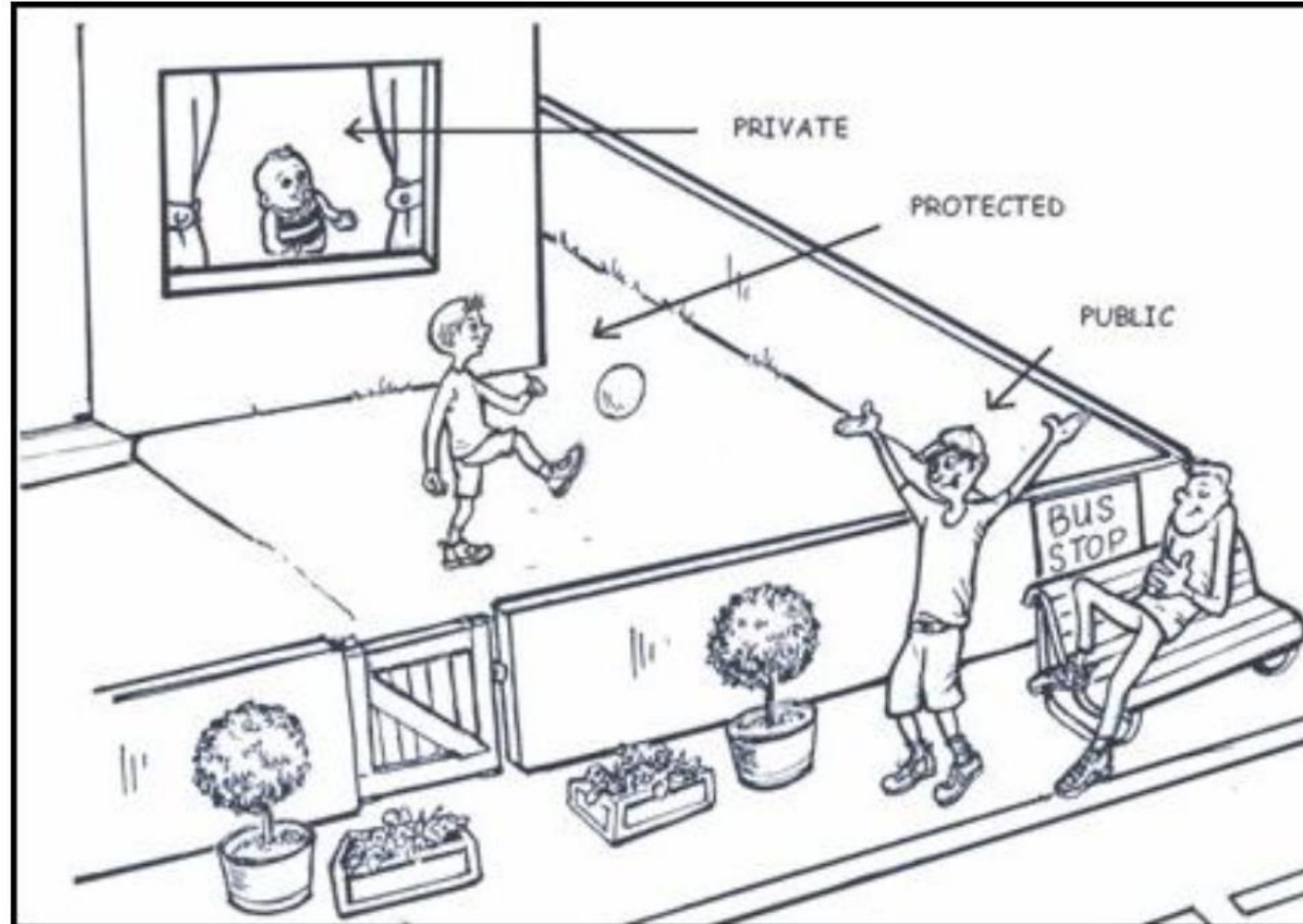
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Encapsulation and Data Hiding



Access Specifiers



Src: <https://www.w3programmers.com/visibility-or-access-modifier-in-php/>

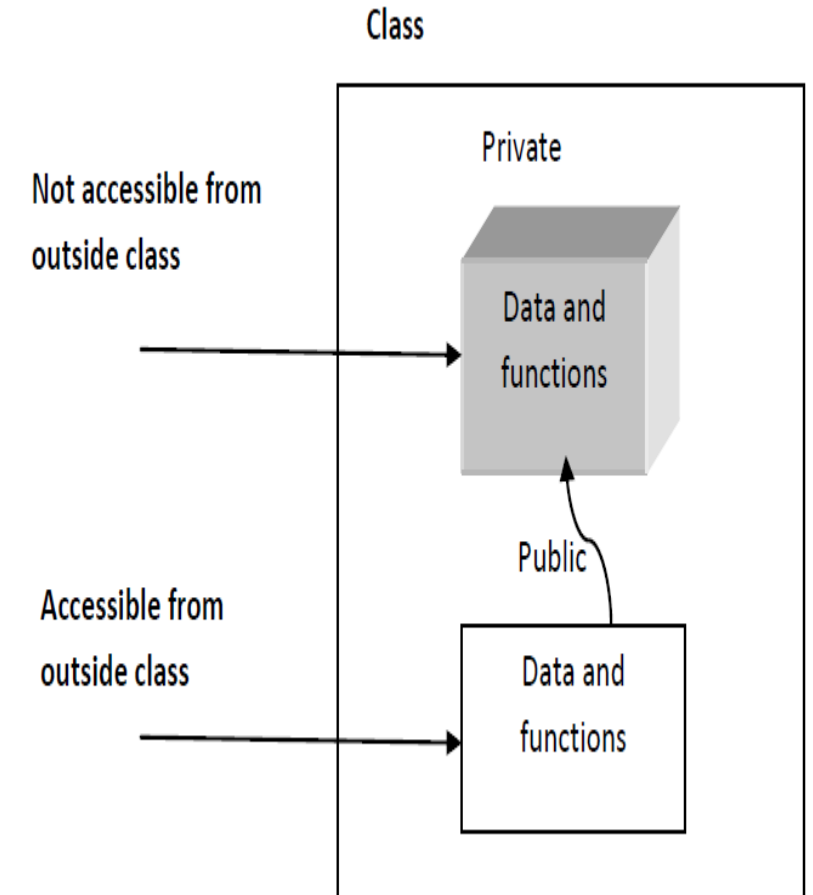
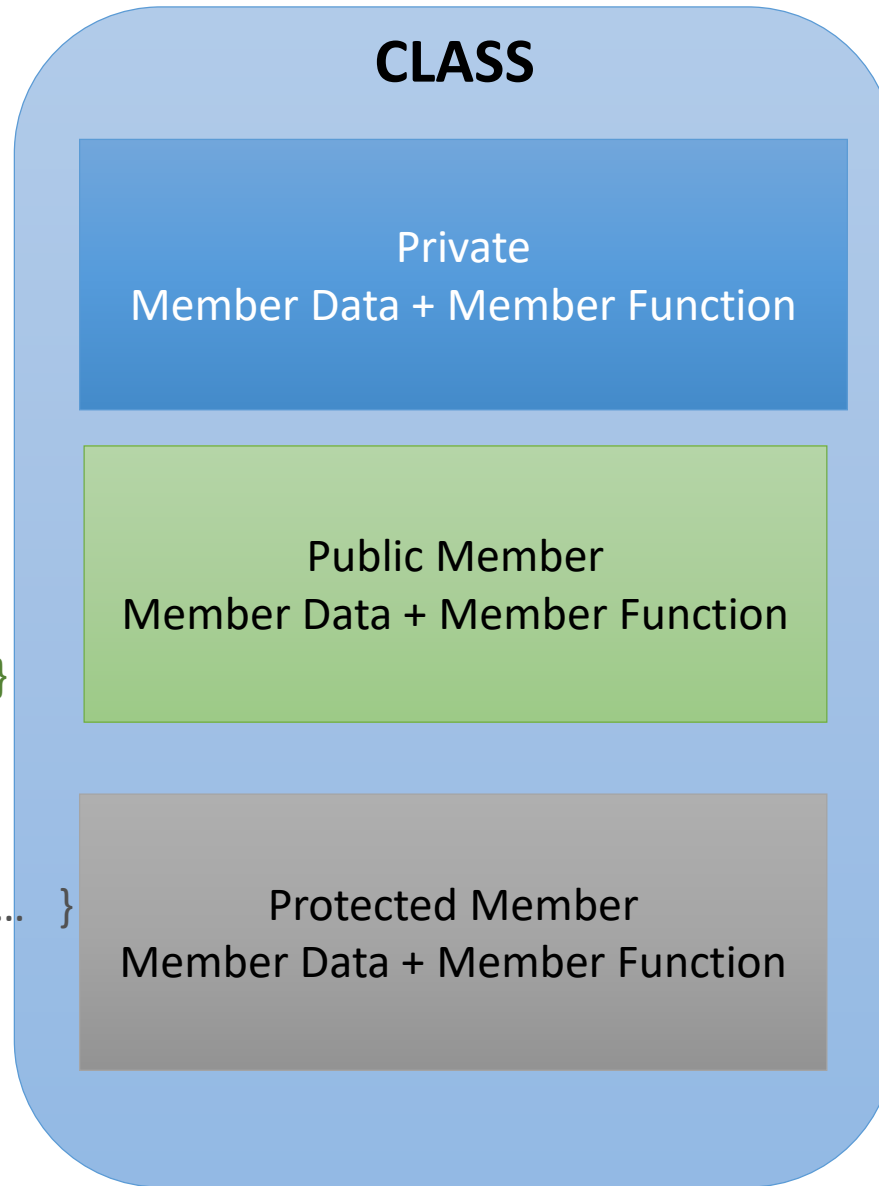
Encapsulation

```
class sample
{
    private member
        // data eg. private int a;
        // func void f1() { ..... }

    public member
        // data eg. private int b;
        // func private void f2() { ..... }

    protected member
        // data eg. protected int c;
        // func protected void f3() { ..... }

};
```



Creating Classes in PHP

```
1  <?php
2  //author: dhiviyarj@ddn.upes.ac.in
3  class Example1
4  {
5      public function function1()
6      {
7          echo "I am function1";
8      }
9      public function function2()
10     {
11         echo "I am function2";
12     }
13     public function function3()
14     {
15         echo "I am function3";
16     }
17 }
18 ?>
```

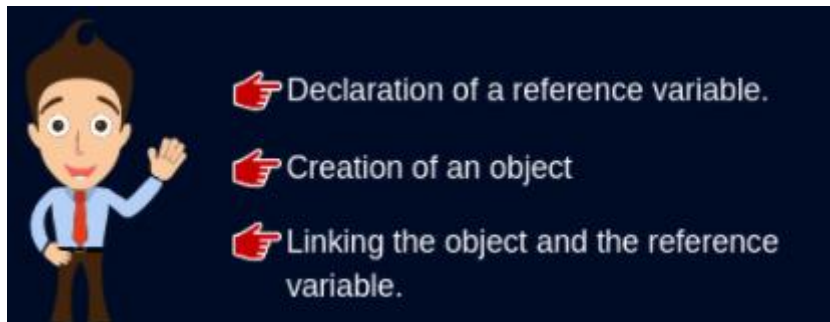
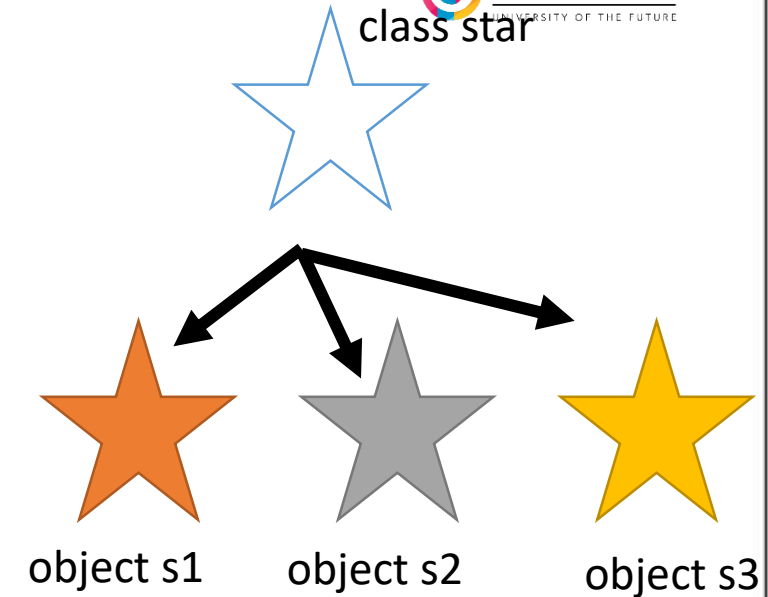
Syntax for Creating Classes

```
class ClassName
{
    # memberdata
    public $varname; # public field
    private $varname; # private field
    # member functions
    public function funcname(parameters)
    {
        statement(s);
    }
}
```

OBJECT CREATION

- Memory gets allocated
- Object also called as instance of the class
- Object creation or instantiation
- n number of object can be created for a class
- Syntax of object creation

\$objectname = new classname();

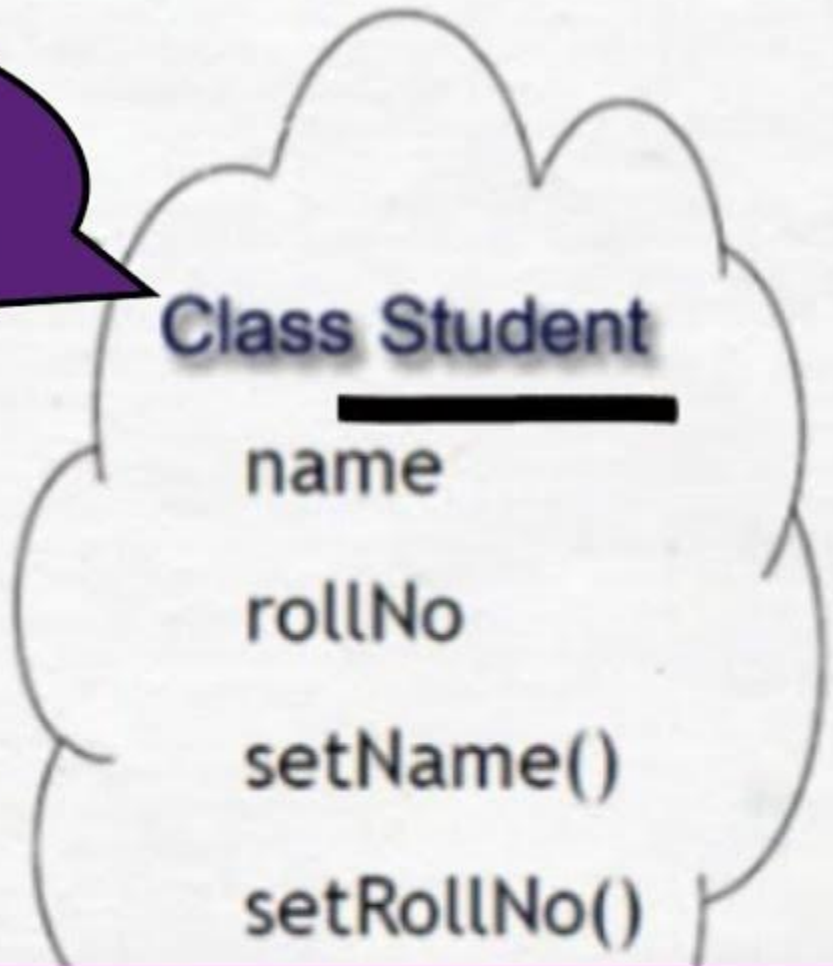


```

20 <?php
21 $object1=new Example1();
22 echo "<br>";
23 $object1->function1();
24 echo "<br>";
25 $object1->function2();
26 echo "<br>";
27 $object1->function3();
28 ?>
  
```

Object

Class



Nancy	James	Goldy	Gabby
1999	1876	1654	1659

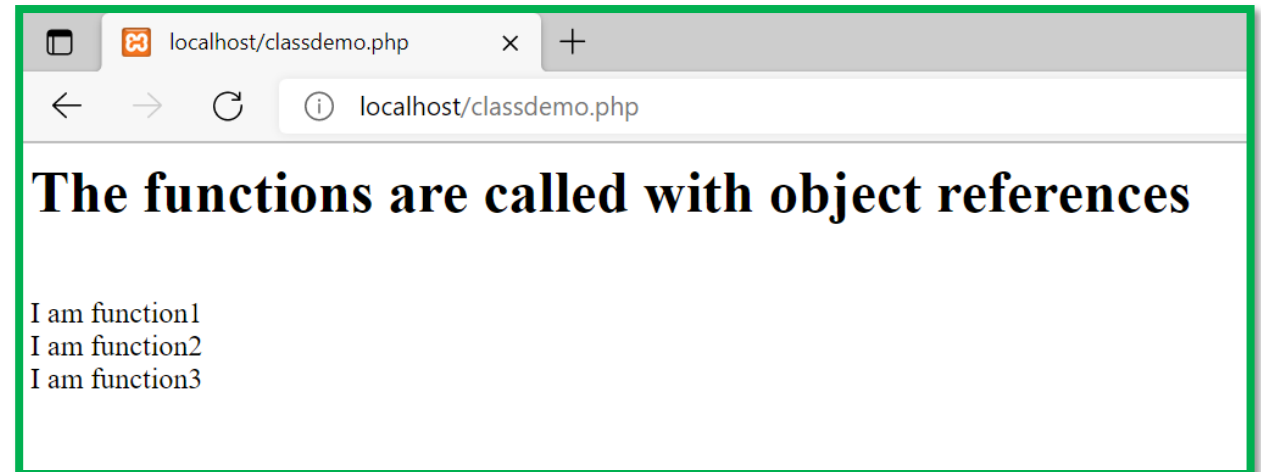
Blueprint

Function Invocation with Objects

```

1  <?php
2  //author: dhiviyarj@ddn.upes.ac.in
3  class Example1
4  {
5  public function function1()
6  {
7      echo "I am function1";
8  }
9  public function function2()
10 {
11     echo "I am function2";
12 }
13 public function function3()
14 {
15     echo "I am function3";
16 }
17 }
18 ?>
19 <h1> The functions are called with object references </h1>
20 <?php
21 $object1=new Example1();
22 echo "<br>";
23 $object1->function1();
24 echo "<br>";
25 $object1->function2();
26 echo "<br>";
27 $object1->function3();
28 ?>

```



```
1  #include <iostream>
2  using namespace std;
3  //Class Definition my class is named as "myclass1" it has 2 func add and sub inside it's public room
4  //packing the func and data into a single un
5  class myclass1
6  {
7  public:
8      int a,b,c;    // data members of the class
9      void getdata()
10     {
11         cout<<"Enter the value of a and b";
12         cin>>a>>b;
13     }
14     void add()
15     {
16         c=a+b;
17         cout<<"Answer="<<c<<endl;
18     }
19     void sub()
20     {
21         c=a-b;
22         cout<<"Answer="<<c<<endl;
23     }
24 };
25
26 int main()
27 {
28     myclass1 a1;    // object a1 created for myclass1
29     a1.getdata();
30     a1.add();
31     a1.sub();
32     return 0;
33 }
```

Identify which Language is this?

Convert this Class into PHP and call

*Thank
you*

