

# Web Development using PHP

## Assignment - 2

- Write a PHP script to create a REST API where one can manage data related to the user and post generated by the user.

User table in MySQL will have basic details like - *user\_id(PK), name, email, phone, address, city, country*

UserPost table in MySQL will have basic details like - *id, user\_id(FK), post\_content, post\_date, post\_time, post\_last\_edited\_time, post\_edit\_count, post\_isdeleted*

Your API/ Class should be able to

- List all users
- List user of based on id
- List of Post created by user
- Create post for particular user
- Edit Post for particular user
- Delete Post for particular user.

The request/ response will accept/ provide the content in json format.

- Create an abstract class Shape which contains a counter to track all types of shapes created along with a member to hold the value of area of shape. This abstract class will have some abstract methods like `set_area()` [set area member], `get_area()` [returns area member] and `print_obj_to_string()`[print the class name, member values, area, counter for all shapes and counter for particular shape].

Create two classes Circle and Rectangle by extending Shape. Add the required private members along with their getters and setters. Each extension of Shape should have a Constructor and Destructor. Class should be implemented such that:

- Users may/ or may not provide values while instantiating objects.
- When any of the shapes is created/ destroyed the overall shape center and particular shape counters should be incremented/ decremented respectively.
- Create three objects of each Circle and Rectangle, Calculate its Area and print it.

Use below code to call your classes and generate output:

```
$c1 = new Circle();  
$c2 = new Circle(12);  
$c3 = new Circle(22);
```

```
echo $c1->obj_to_string();
echo $c2->obj_to_string();
echo $c3->obj_to_string();

$c4 = new Square();
$c5 = new Square(11);
$c6 = new Square(32);

echo $c4->obj_to_string();
echo $c5->obj_to_string();
echo $c6->obj_to_string();
```

**Expected Output:**

```
Constructed a Circle. Number of circles is: 1 1.
Constructed a Circle. Number of circles is: 2 2.
Constructed a Circle. Number of circles is: 3 3.
STRING OP::Circle[radius=1].
STRING OP::Circle[radius=12].
STRING OP::Circle[radius=22].
Constructed a Square. Number of circles is: 1 4.
Constructed a Square. Number of circles is: 2 5.
Constructed a Square. Number of circles is: 3 6.
STRING OP::Square[length=1].
STRING OP::Square[length=11].
STRING OP::Square[length=32].
Destructed a Square. Number of circles is: 2 5.
Destructed a Square. Number of circles is: 1 4.
Destructed a Square. Number of circles is: 0 3.
Destructed a Circle. Number of circles is: 2 2.
Destructed a Circle. Number of circles is: 1 1.
Destructed a Circle. Number of circles is: 0 0.
```