LEB#4: a. Implement OOP concepts with PHP for following program: Use Student, Teacher and Subject Class to define relation between each of them. Display the details of the student studying a particular subject under a particular teacher. Use Constructors and Polymorphism.

Lab4.php:

```php
<?php

require 'Subject.php';

require 'Teacher.php';

require 'Student.php';


$teacher = new Teacher("Mr Sharma","ML","01IT0102");

$student = new Student("Mr TK",$teacher);


echo 'Name of student is '.$student->get_name()."<br>His faculty name is ".$teacher->get_name().

"<br>He teaches subject named ".$student->get_sname()."<br>Subject code of this subject is ".$student->get_scode()."<br>";


echo '<b>Teacher Object.. Details method from Subject class.. Implemented from University interface</b><br>';

$teacher->details();
```

```php
echo '<br><b>Student Object.. Details method from same class..
Implemented from University interface</b><br>';

$student->details();

?>
```

Teacher.php

```php
<?php
class Teacher extends Subject{

        private $tname;

        function __construct($tname,$subject,$code) {

        $this->tname = $tname;

        parent::__construct($subject, $code);

        }
        public function get_name(){

                return $this->tname;

        }
        public function set_name($tname){

                $this->tname = $tname;

        }
        public function university_Details()
```

```php
        {
                echo "University Name is Marwadi University. Located in
                Rajkot";

        }
    }
?>
```

Subject.php

```php
<?php
interface University
{
    public function details();
}
class Subject implements University{
    private $sub_name;
    private $sub_code;

    function __construct($sub_name, $sub_code) {
        $this->sub_name = $sub_name;
        $this->sub_code = $sub_code;
```

```php
        }

    public function get_sname(){

        return $this->sub_name;

    }

    public function set_name($sub_name){

        $this->sub_name = $sub_name;

    }

    public function get_scode(){

        return $this->sub_code;

    }

    public function set_code($sub_code){

        $this->sub_code = $sub_code;

    }

    public function details()

    {

        echo "University Name is Marwadi University. Located in Rajkot.
Subject Class";

    }

}

?>
```

Student.php

```php
<?php

class Student extends Teacher implements University{

   private $sname;

   function __construct($sname,$obj) {

     $this->sname = $sname;

          parent::__construct($obj->get_name(),$obj->get_sname(),$obj->get_scode());

   }

   public function get_name(){

     return $this->sname;

   }

   public function set_name($sname){

     $this->sname = $sname;

   }

   public function details()

   {

     echo "University Name is Marwadi University. Located in Rajkot. Student Class";

   }

}
?>
```