

# **LAPORAN PRAKTIKUM**

## **WEB FRAMEWORK**

**Modul 9**  
**Library**



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## **1. Tujuan Pembelajaran**

- a. Mahasiswa mampu memahami konsep library pada CI
- b. Mahasiswa mampu menggunakan library pada CI

## **2. Dasar Teori**

Library merupakan sebuah tempat yang digunakan untuk menempatkan beberapa file, yang didalamnya terdapat class atau subclass (class turunan) jadi saat kita menggunakan library, sebenarnya kita menggunakan class yang berada di library tersebut atau bisa juga lebih dari satu class, sehingga memungkinkan adanya keterkaitan antara 1 class dengan class lainnya. Berbeda dengan Helper diperuntukkan fungsi yang lebih sederhana, yang hanya memerlukan function – function tanpa menggunakan class didalamnya.

### **Load Library**

#### **1. Load didalam autoload**

file autoload.php, (application/config/autoload.php)

```
$autoload['libraries'] = array('session');
```

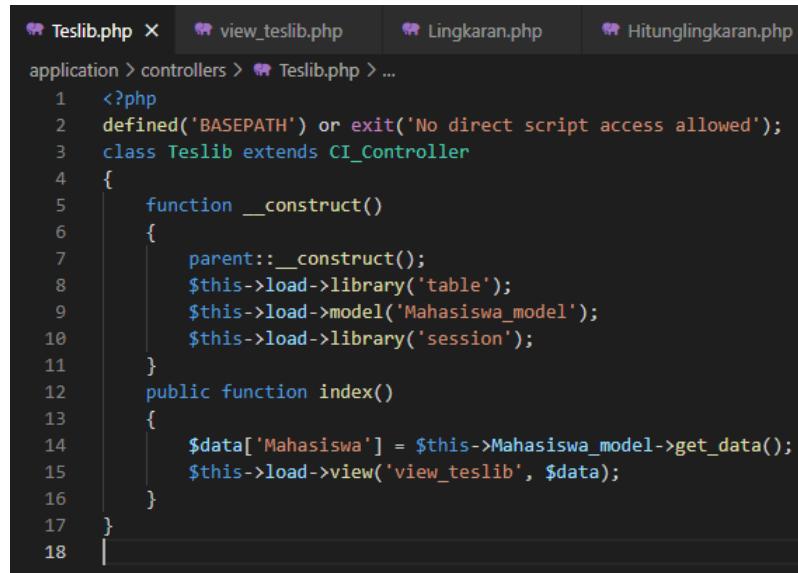
#### **2. Load didalam Controller**

Pada fungsi konstruktor

```
function __construct(){  
    parent::__construct();  
    $this->load->library('session');  
}
```

### 3. Kegiatan Praktikum

- Buatlah file dengan nama Teslib.php pada controller



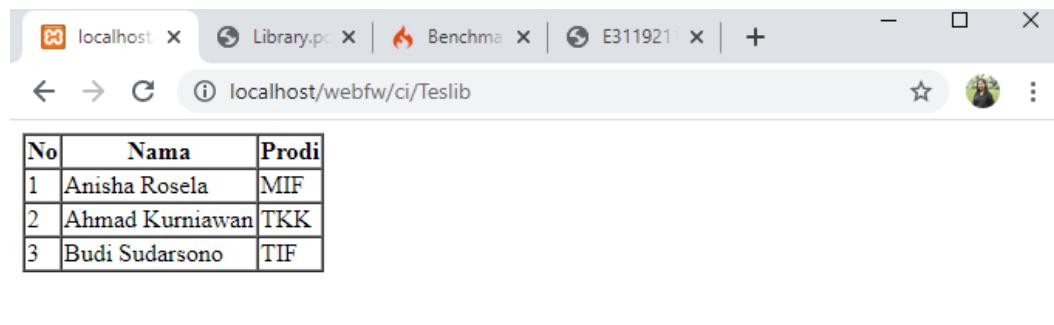
```
application > controllers > Teslib.php > ...
1  <?php
2  defined('BASEPATH') or exit('No direct script access allowed');
3  class Teslib extends CI_Controller
4  {
5      function __construct()
6      {
7          parent::__construct();
8          $this->load->library('table');
9          $this->load->model('Mahasiswa_model');
10         $this->load->library('session');
11     }
12     public function index()
13     {
14         $data['Mahasiswa'] = $this->Mahasiswa_model->get_data();
15         $this->load->view('view_teslib', $data);
16     }
17 }
18 |
```

- Buatlah file dengan nama view\_teslib.php pada view



```
application > views > view_teslib.php > ...
1  <?php
2
3  $template = array(
4      'table_open' => '<table border="1 cellpadding="4" cellspacing="0">',
5      'table_close' => '</table>'
6  );
7
8  $this->table->set_template($template);
9  $this->table->set_heading(array('No', 'Nama', 'Prodi'));
10 $num = 1;
11
12 foreach ($Mahasiswa as $row) {
13
14     $this->table->add_row(array($num, $row['nama'], $row['prodi']));
15     $num++;
16 }
17
18 echo $this->table->generate();
19 |
```

c. Hasil tampilan

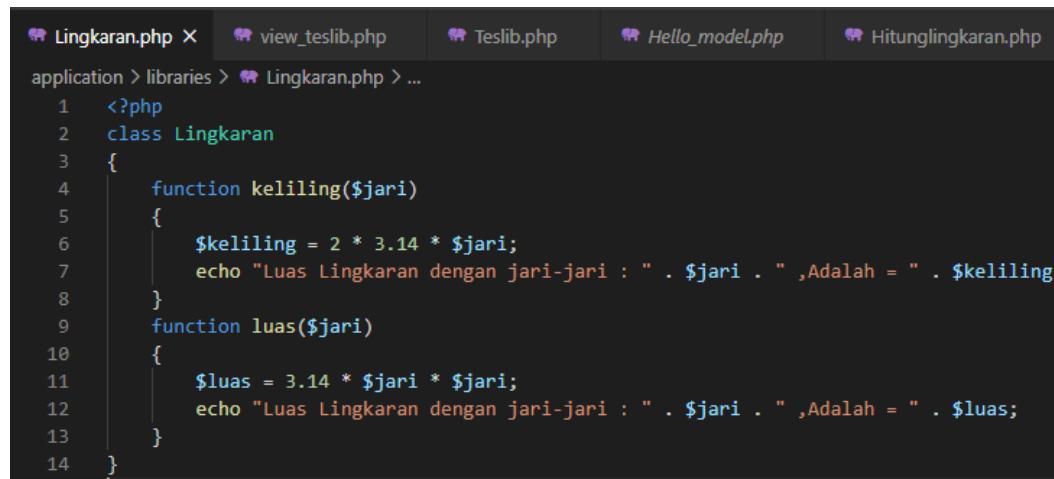


A screenshot of a web browser window titled "localhost". The address bar shows "localhost/webfw/ci/Teslib". The main content area displays a table with three rows of student information:

No	Nama	Prodi
1	Anisha Rosela	MIF
2	Ahmad Kurniawan	TKK
3	Budi Sudarsono	TIF

#### 4. Soal Latihan

- a. Buatlah file Lingkaran.php di folder application/libraries



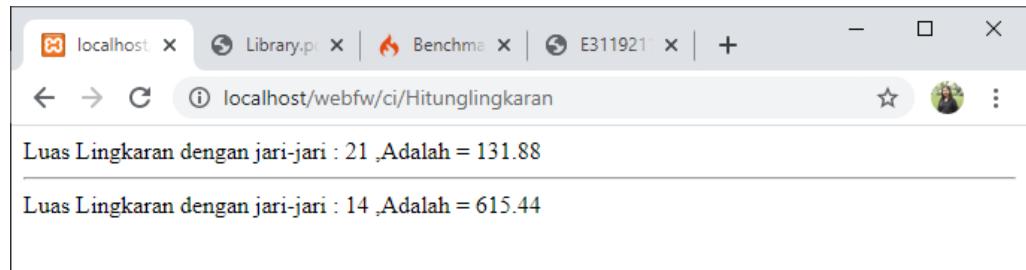
A screenshot of a code editor showing the content of the "Lingkaran.php" file. The file is located in the "libraries" folder of an application. The code defines a class "Lingkaran" with two methods: "keliling" and "luas". Both methods take a parameter "\$jari" (radius) and calculate the circumference and area of a circle respectively, using the formula  $\pi \times \text{radius}^2$ .

```
application > libraries > Lingkaran.php > ...
1  <?php
2  class Lingkaran
3  {
4      function keliling($jari)
5      {
6          $keliling = 2 * 3.14 * $jari;
7          echo "Luas Lingkaran dengan jari-jari : " . $jari . " ,Adalah = " . $keliling;
8      }
9      function luas($jari)
10     {
11         $luas = 3.14 * $jari * $jari;
12         echo "Luas Lingkaran dengan jari-jari : " . $jari . " ,Adalah = " . $luas;
13     }
14 }
```

b. Buat file Hitunglingkaran.php di controller

```
Hitunglingkaran.php X
application > controllers > Hitunglingkaran.php > Hitunglingkaran > index
1  <?php
2  defined('BASEPATH') or exit('No direct script access allowed');
3  class Hitunglingkaran extends CI_Controller
4  {
5      function __construct()
6      {
7          parent::__construct();
8          $this->load->library('lingkaran');
9      }
10
11     function index()
12     {
13         $this->lingkaran->keliling('21');
14         echo "<br/>";
15         $this->lingkaran->luas('14');
16     }
17 }
```

c. Hasil tampilan

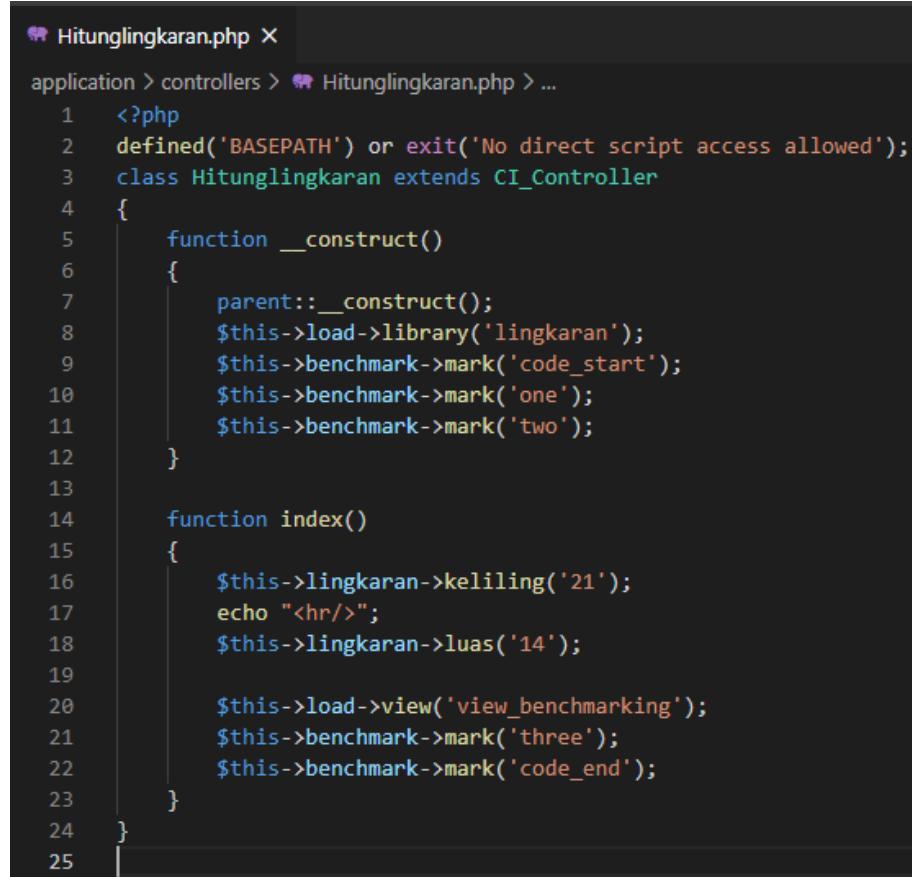


- d. Cobalah Benchmarkingmark pada CI yang pertama buat file view\_benchmarking.php di view



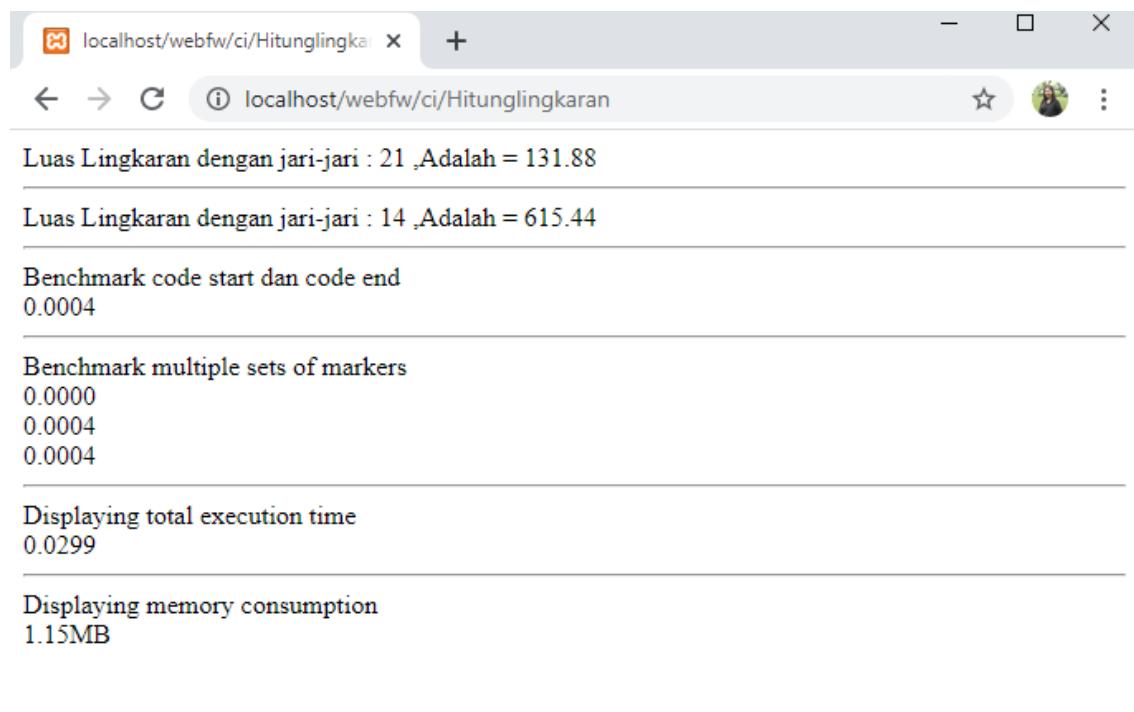
```
view_benchmarking.php X Hitunglingkaran.php
application > views > view_benchmarking.php
1 <?php
2 echo "<hr>Benchmark code start dan code end<br>";
3 echo $this->benchmark->elapsed_time('code_start', 'code_end');
4
5 echo "<hr>Benchmark multiple sets of markers<br>";
6 echo $this->benchmark->elapsed_time('one', 'two') . '<br>';
7 echo $this->benchmark->elapsed_time('two', 'three') . '<br>';
8 echo $this->benchmark->elapsed_time('one', 'three') . '<br>';
9
10 echo "<hr>Displaying total execution time<br>";
11 echo $this->benchmark->elapsed_time();
12
13 echo "<hr>Displaying memory consumption<br>";
14 echo $this->benchmark->memory_usage();
15
```

- e. Tambahkan kode berikut pada file Hitunglingkaran.php di controller



```
Hitunglingkaran.php X
application > controllers > Hitunglingkaran.php > ...
1 <?php
2 defined('BASEPATH') or exit('No direct script access allowed');
3 class Hitunglingkaran extends CI_Controller
4 {
5     function __construct()
6     {
7         parent::__construct();
8         $this->load->library('lingkaran');
9         $this->benchmark->mark('code_start');
10        $this->benchmark->mark('one');
11        $this->benchmark->mark('two');
12    }
13
14    function index()
15    {
16        $this->lingkaran->keliling('21');
17        echo "<br/>";
18        $this->lingkaran->luas('14');
19
20        $this->load->view('view_benchmarking');
21        $this->benchmark->mark('three');
22        $this->benchmark->mark('code_end');
23    }
24
25}
```

f. Hasil dari benchmarkingmark



A screenshot of a web browser window titled "localhost/webfw/ci/Hitunglingkaran". The page displays the results of a benchmarking script. The output includes:  
Luas Lingkaran dengan jari-jari : 21 ,Adalah = 131.88  
Luas Lingkaran dengan jari-jari : 14 ,Adalah = 615.44  
Benchmark code start dan code end  
0.0004  
Benchmark multiple sets of markers  
0.0000  
0.0004  
0.0004  
Displaying total execution time  
0.0299  
Displaying memory consumption  
1.15MB