

LAPORAN PRAKTIKUM 4
“ Pemograman Berorientasi Objek”



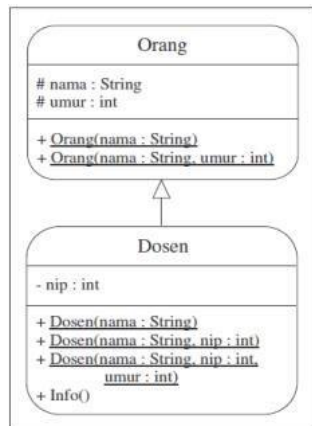
Oleh :

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Praktikum 4 - PBO

1. Buatlah program berdasarkan UML berikut



Source Code

- PHP

```
Praktikum4 No.1.php - Visual Studio Code

Praktikum4 No.1.php X
C:\> Users > DIAN NUR SAFITRI > Downloads > PBO > Praktikum4 No.1.php
1 <!DOCTYPE html>
2 <html lang="id">
3 <head>
4 <link rel="stylesheet" type="text/css" href="no1.css">
5 <title>Praktikum 4-No.1</title>
6 </head>
7 <body>
8 <div class="container">
9 <h2>Soal 1</h2>
10
11 <?php
12
13 class Orang {
14     protected $nama,$umur;
15     public function __construct($nama,$umur){
16         $this->nama = $nama;
17         $this->umur = $umur;
18     }
19 }
20
21 class Dosen extends Orang {
22     private $nip;
23     public function __construct($nama, $umur, $nip) {
24         $this->nip = $nip;
25         parent::__construct($nama, $umur);
26     }
27
28     public function hasil() {
29         return $this->nama . ' , umur ' . $this->umur . ' , NIP ' . $this->nip;
30     }
31 }
```

```
32 $dosen1 = new Dosen('Rava', 37, 20051397019);
33 $dosen2 = new Dosen('Safira', 29, 20051397110);
34 $dosen3 = new Dosen('Budi', 50, 20051397129);
35
36 echo $dosen1->hasil();
37     echo '<br> <br>';
38 echo $dosen2->hasil();
39     echo '<br> <br>';
40 echo $dosen3->hasil();
41     echo '<br> <br>';
42
43 ?>
44
45 </div>
46 </body>
47 </html>
```

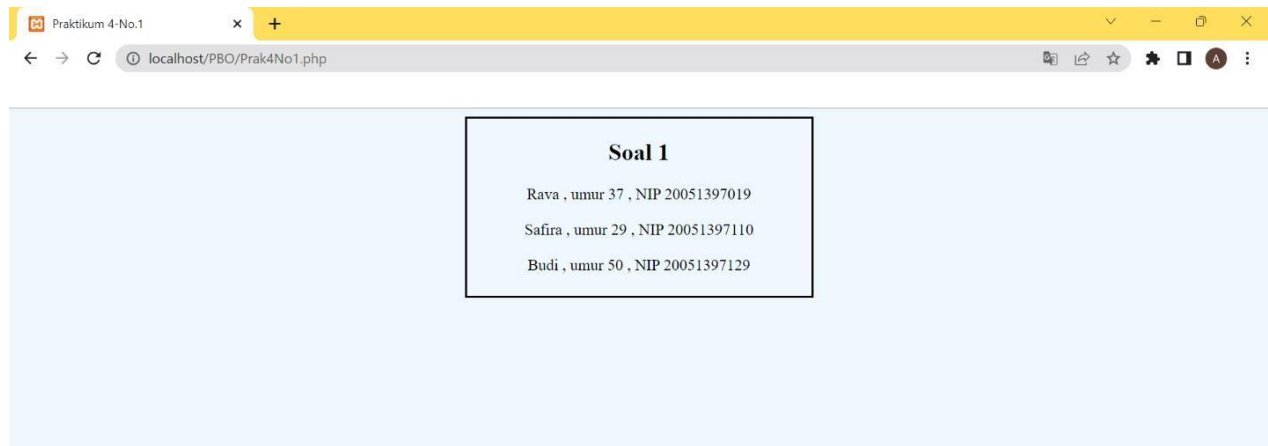
Ln 9, Col 16 Spaces: 4 UTF-8 CRLF PHP

- CSS

```
File Edit Selection View Go Run Terminal Help No.1 css.css - Visual Studio Code
Praktikum4 No.1.php # No.1 css.css X
C: > Users > DIAN NUR SAFITRI > Downloads > PBO > # No.1 css.css > .container
1 body {
2     align-items : center;
3     background-color: ■aliceblue;
4 }
5 h2{
6     text-align: center;
7 }
8
9 .container{
10     margin:auto;
11     text-align: center;
12     height: 180x;
13     width: 350px;
14     border: 2px solid □black;
15 }
16 }
```

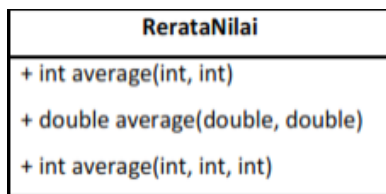
Ln 16, Col 2 Spaces: 4 UTF-8 CRLF CSS

- **Output**



- **Analisis**
Menggunakan kata kunci super di konstruktor dan method, pada program tersebut masing-masing ditambahkan konstruktor dengan paramaternya.

2. Buatlah Program berdasarkan UML dibawah ini



Source Code

- **PHP**

```
1 <!-- Dian Nur Safitri
2 21091397044
3 2021 B -->
4
5 <?php
6 require_once 'Prak4No2.php';
7 ?>
8
9 <html lang='id'>
10 <head>
11 <link rel='stylesheet' href='Prak4No2.css'>
12 <title>Praktikum 4-No. 2</title>
13 </head>
```

```
File Edit Selection View Go Run Terminal Help Index No.2.php - Visual Studio Code
Praktikum4 No.1.php # No.1.css Index No.2.php X
C:\Users\DIAN NUR SAFITRI\Downloads\PBO\Index No.2.php
14 <body>
15 <div class="container">
16 <h2>Soal No.2</h2>
17 <div class="form">
18 <form action="" method="post">
19 <input type="number" name="input1">
20 <input type="number" name="input2">
21 <input type="number" name="input3">
22 <button type="submit" name="submit">Submit</button>
23 </form>
24 </div>
25
26 <?php
27     if (isset($_POST['submit'])) {
28         if (!isset($_POST['input3'])) {
29             $value1 = new RerataNilai2($_POST['input1'], $_POST['input2']);
30             echo $value1->average(0);
31         } else {
32             $value1 = new RerataNilai2($_POST['input1'], $_POST['input2']);
33             echo $value1->average($_POST['input3']);
34         }
35     }
36 >>
37 </div>
38 </body>
39 </html>
```

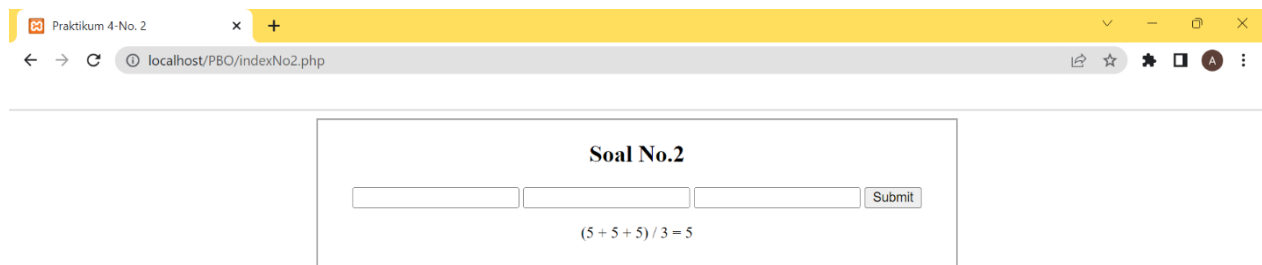
```
File Edit Selection View Go Run Terminal Help Praktikum4 No.2.php - Visual Studio Code
Praktikum4 No.1.php # No.1.css Index No.2.php Praktikum4 No.2.php X
C:\Users\DIAN NUR SAFITRI\Downloads\PBO\Praktikum4 No.2.php
1 <!-- Dian Nur Safitri
2 21091397044
3 2021 B -->
4
5 <?php
6
7 class RerataNilai {
8     protected $value, $value2;
9     public function __construct($value, $value2){
10         $this->value = $value;
11         $this->value2 = $value2;
12     }
13
14     public function average($value3 = 0){
15         if ($value3 == 0) {
16             $str = $this->value . ' + ' . $this->value2 . ' / 2 = ';
17             return $str . ($this->value + $this->value2) / 2;
18         } else {
19             $str = '(' . $this->value . ' + ' . $this->value2 . ' + ' . $this->value2 . ' ) / 3 = ';
20             return $str . ($this->value + $this->value2 + $value3) / 3;
21         }
22     }
23 }
24
25
26
27 class RerataNilai2 extends RerataNilai{
28     public function __construct($value, $value2){
29         parent::__construct($value, $value2);
30     }
31
32     public function average($value3 = 0){
33         return parent::average($value3);
34     }
35 }
36
37 >>
```

- **CSS**

```

1 .container {
2     margin: auto;
3     text-align: center;
4     width: 650px;
5     height: 150px;
6     border-style: groove;
7 }
  
```

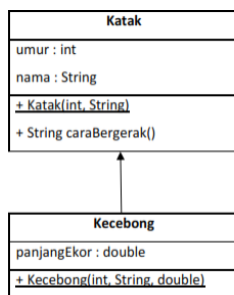
- **Output**



- **Analisis**

Di atas adalah program dengan nama method boleh Sama, Tapi Jumlah parameter mesti berbeda nilai yang di Return harus mempunyai tipe yang sama.

3. Buatlah Program berdasarkan UML dibawah ini

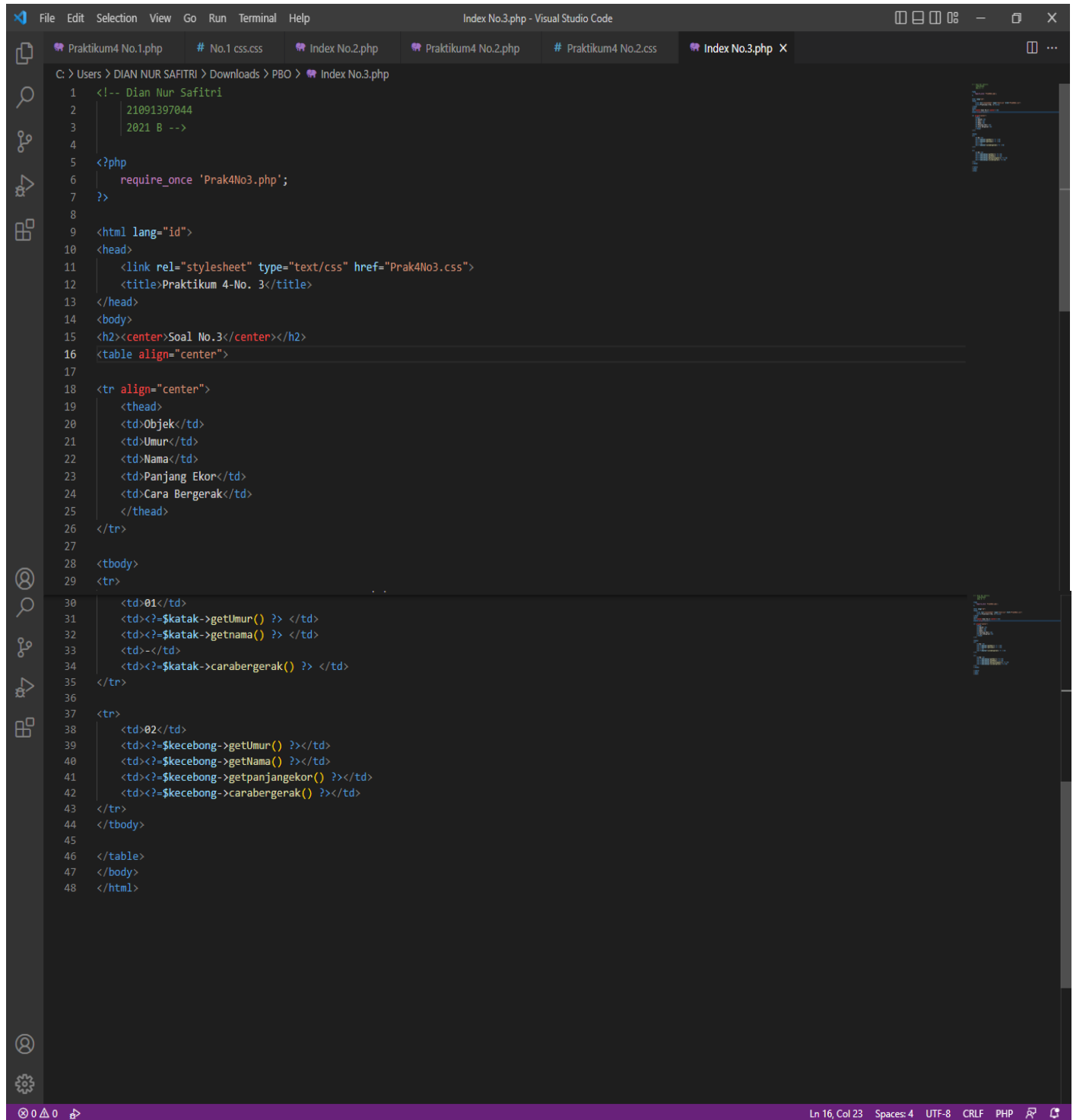


Dan buat objek dengan karakteristik seperti tabel dibawah ini

Obyek	umur	nama	panjangEkor	caraBergerak
O1	5	Froggy		melompat
O2	2	Junior Frog	10	berenang

Source Code

- PHP



```
1 <!-- Dian Nur Safitri
2     21091397044
3     2021 B -->
4
5 <?php
6     require_once 'Prak4No3.php';
7 >?
8
9 <html lang="id">
10 <head>
11     <link rel="stylesheet" type="text/css" href="Prak4No3.css">
12     <title>Praktikum 4-No. 3</title>
13 </head>
14 <body>
15 <h2><center>Soal No.3</center></h2>
16 <table align="center">
17
18 <tr align="center">
19     <thead>
20     <td>Objek</td>
21     <td>Umur</td>
22     <td>Nama</td>
23     <td>Panjang Ekor</td>
24     <td>Cara Bergerak</td>
25     </thead>
26 </tr>
27
28 <tbody>
29 <tr>
30     <td>01</td>
31     <td><?=$katak->getUmur() ?> </td>
32     <td><?=$katak->getNama() ?> </td>
33     <td>-</td>
34     <td><?=$katak->carab Bergerak() ?> </td>
35 </tr>
36
37 <tr>
38     <td>02</td>
39     <td><?=$kecebong->getUmur() ?></td>
40     <td><?=$kecebong->getNama() ?></td>
41     <td><?=$kecebong->getpanjangekor() ?></td>
42     <td><?=$kecebong->carab Bergerak() ?></td>
43 </tr>
44 </tbody>
45 </table>
46 </body>
47 </html>
```

```
File Edit Selection View Go Run Terminal Help
Praktikum4 No.3.php - Visual Studio Code
Praktikum4 No.1.php # No.1 css.css Index No.2.php Praktikum4 No.2.php # Praktikum4 No.2.css Index No.3.php Praktikum4 No.3.php X

C:\> Users > DIAN NUR SAFITRI > Downloads > PBO > Praktikum4 No.3.php
1 <!-- Dian Nur Safitri
2 21091397044
3 2021B -->
4
5 <?php
6
7 class Katak{
8     protected $umur, $nama;
9     public function __construct($umur, $nama){
10         $this->umur = $umur;
11         $this->nama = $nama;
12     }
13
14     public function getUmur(){
15         return $this->umur;
16     }
17     public function getNama(){
18         return $this->nama;
19     }
20     public function caraBergerak(){
21         return 'Melompat';
22     }
23 }
24
25 class Kecebong extends Katak{
26     private $panjangEkor;
27     public function __construct($umur, $nama, $ekor){
28         $this->panjangEkor = $ekor;
29         parent::__construct($umur, $nama);
30     }
31     public function getpanjangekor(){
32         return $this->panjangEkor;
33     }
34     public function carabergerak(){
35         return 'Berenang';
36     }
37 }
38
39 $katak = new katak(5, 'Froggy');
40 $kecebong = new kecebong(5, 'Junior Froggy', 10);
41
42 ?>
```

- CSS

```
File Edit Selection View Go Run Terminal Help
Praktikum4 No.3.css - Visual Studio Code
Praktikum4 No.1.php # No.1 css.css Index No.2.php Praktikum4 No.2.php # Praktikum4 No.2.css Index No.3.php Praktikum4 No.3.php # Praktikum4 No.3.css X

C:\> Users > DIAN NUR SAFITRI > Downloads > PBO > # Praktikum4 No.3.css > thead
1 h2{
2     margin: auto;
3     text-align: center;
4     padding-bottom: 10px;
5 }
6
7 .table{
8     margin: auto;
9     font-family: sans-serif;
10    border-collapse: collapse;
11 }
12
13 .table, td{
14     border: 1px solid;
15     padding: 8px 10px;
16 }
17
18 thead{
19     font-weight: bold;
20 }
```


- **Output**



Soal No.3

Objek	Umur	Nama	Panjang Ekor	Cara Bergerak
01	5	Froggy	-	Melompat
02	5	Junior Froggy	10	Berenang

- **Analisis**

Keyword super tidak bisa digunakan secara langsung didalam method static seperti pada method main, jadi harus di panggil pada method void atau return terlebih dahulu lalu panggil pada method main/static.