

**“PRAKTIKUM 4 OVERRIDING DAN OVERLOADING  
PEMROGRAMAN BERORIENTASI OBYEK”**



Oleh:

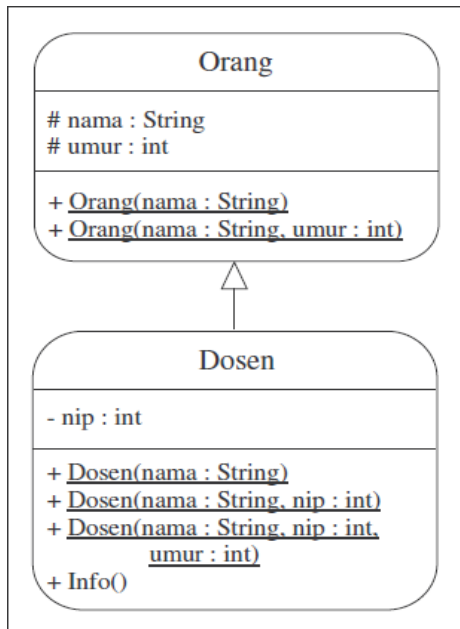
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**UNIVERSITAS NEGERI SURABAYA  
FAKULTAS VOKASI  
PRODI DIV MANAJEMEN INFORMATIKA  
2022/2023**

## TUGAS PRAKTIKUM

1. Buat program berdasarkan UML berikut



>>> CODINGAN

```
016_ALVIN NH_praktikum4_no1.php - Visual Studio Code
Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More

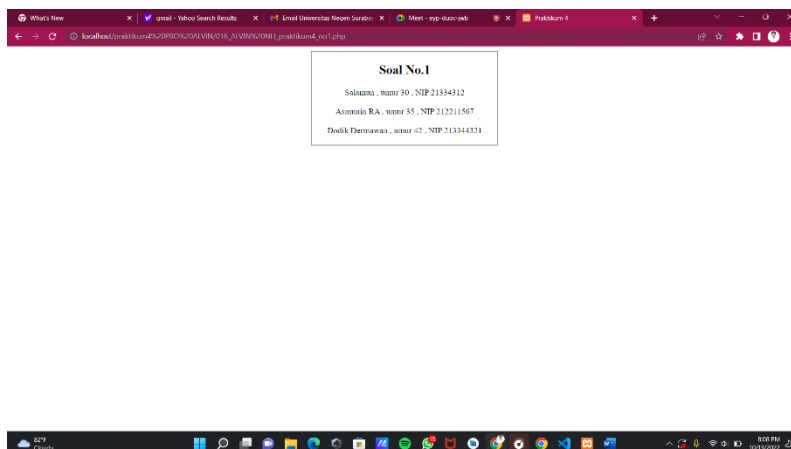
C:\> xampp > htdocs > praktikum4 PBO ALVIN > 016_ALVIN NH_praktikum4_no1.php
1 <!-- ALVIN NOOR HIDAYAH
2 21091397016
3 B/ DIV MANAJEMEN INFORMATIKA -->
4
5 <!DOCTYPE html>
6 <html lang="id">
7 <head>
8 <link rel="stylesheet" type="text/css" href="016_ALVIN NH_praktikum4_no1.css">
9 <title>Praktikum 4</title>
10 </head>
11 <body>
12 <div class="container">
13 <h2>Soal No.1</h2>
14 <?php
15 class Orang {
16     protected $nama,$umur;
17     public function __construct($nama,$umur){
18         $this->nama = $nama;
19         $this->umur = $umur;
20     }
21 }
22
23 class Dosen extends Orang {
24     private $nip;
25     public function __construct($nama, $umur, $nip) {
26         $this->nip = $nip;
27         parent::__construct($nama, $umur);
28     }
29
30     public function hasil() {
31         return $this->nama . ' , umur ' . $this->umur . ' , NIP ' . $this->nip;
32     }
33 }
34
35 $dosen1 = new Dosen('Salamun', 30, 21334312);
```

```
21
22
23 class Dosen extends Orang {
24     private $nip;
25     public function __construct($nama, $umur, $nip) {
26         $this->nip = $nip;
27         parent::__construct($nama, $umur);
28     }
29
30     public function hasil() {
31         return $this->nama . ' , umur ' . $this->umur . ' , NIP ' . $this->nip;
32     }
33 }
34
35 $dosen1 = new Dosen('Salamun', 30, 21334312);
36 $dosen2 = new Dosen('Asmunin RA', 35, 212211567);
37 $dosen3 = new Dosen('Dodik Dermawan', 42, 213344321);
38
39 echo $dosen1->hasil();
40 echo '<br> <br>';
41 echo $dosen2->hasil();
42 echo '<br> <br>';
43 echo $dosen3->hasil();
44 echo '<br> <br>';
45
46 >
47 </div>
48 </body>
49 </html>
```

## CSS

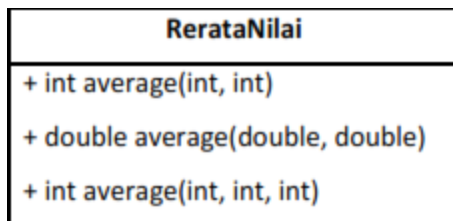
```
1
2
3 body {
4     align-items: center;
5 }
6
7 h2 {
8     text-align: center;
9 }
10
11 .container {
12     margin: auto;
13     text-align: center;
14     width: 300px;
15     border-style: groove;
16 }
```

## OUTPUT



**ANALISA NO. 1:** Disini kita bisa lihat bahwa, dengan menggunakan keysupper di konstruktor dan metode pada codingan tersebut ditambahkan parameter.

2. Buat program berdasarkan UML berikut



```
File Edit Selection View Go Run Terminal Help
016_ALVIN NH_praktikum4.no2.php - Visual Studio Code

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016_ALVIN NH_praktikum4.no1.css 016_ALVIN NH_praktikum4.no1.php 016_ALVIN NH_praktikum4.no2.css 016_ALVIN NH_praktikum4.no2.php X 016_ALVIN NH_praktikum4.no3.css 016_ALVIN NH_praktikum4.no4.css ...

C:\> xampp > htdocs > praktikum4 PBO ALVIN > 016_ALVIN NH_praktikum4.no2.php
1 <!-- ALVIN NOOR HIDAYAH
2 21091397016
3 B/ DIV MANAJEMEN INFORMATIKA -->
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         } // Menjelankan penghitungan pada nilai value/
19         else {
20             $str = '(' . $this->value . ' + ' . $this->value2 . ' + ' . $this->value2 . ' ) / 3 = ';
21             return $str . ($this->value + $this->value2 + $value3) / 3;
22         }
23     }
24 }
25
26
27 class RerataNilai2 extends RerataNilai{
28     public function __construct($value, $value2){
29         parent::__construct($value, $value2);
30     }
31
32     public function average($value3 = 0){
33         return parent::average($value3);
34     }
35 }
```

## CSS

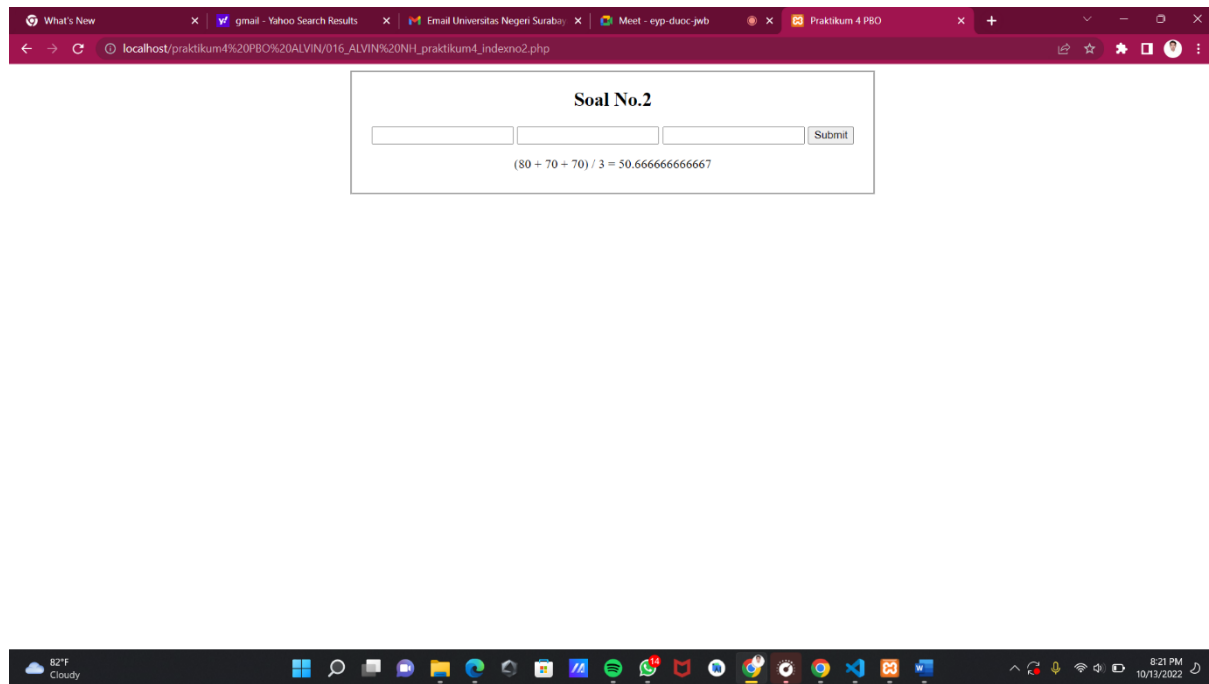
```
File Edit Selection View Go Run Terminal Help
016_ALVIN NH_praktikum4.no2.css - Visual Studio Code

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016_ALVIN NH_praktikum4.no1.css 016_ALVIN NH_praktikum4.no1.php 016_ALVIN NH_praktikum4.no2.css X 016_ALVIN NH_praktikum4.no3.css 016_ALVIN NH_praktikum4.no4.css ...

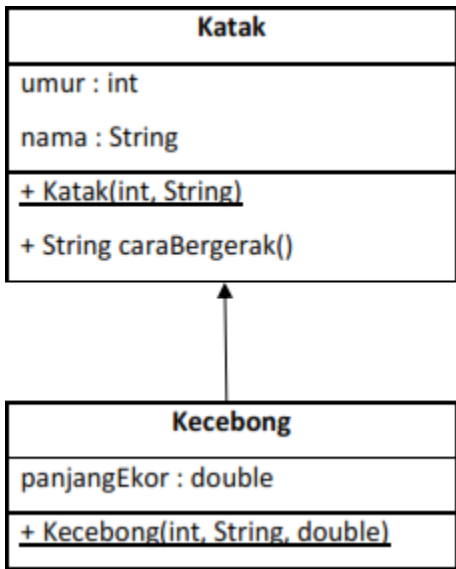
C:\> xampp > htdocs > praktikum4 PBO ALVIN > 016_ALVIN NH_praktikum4.no2.css > .container
1 .container {
2     margin: auto;
3     text-align: center;
4     width: 450px;
5     height: 150px;
6     border-style: groove;
7 }
```

## OUTPUT



**Analisa No2 :** Menurut saya, codingan diatas itu nama metodenya sama, namun parameter yang digunakan harus beda nilainya kemudian yg di return mempunyai tipe yg sama.

3. Buat program berdasarkan UML berikut



Dan buat objek dengan karakteristik seperti tabel dibawah ini

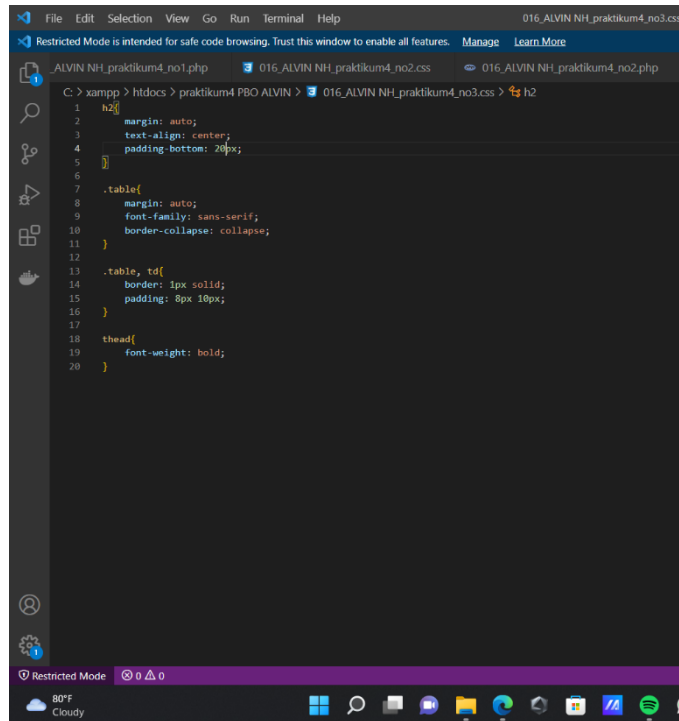
| Obyek | umur | nama        | panjangEkor | caraBergerak |
|-------|------|-------------|-------------|--------------|
| O1    | 5    | Froggy      |             | melompat     |
| O2    | 2    | Junior Frog | 10          | berenang     |

```

1  <?php
2  // ALVIN NHI praktikum4 no3.php
3  // 21081307816
4  // DIV MANAJEMEN INFORMATIKA-->
5
6  <?php
7
8  class Katak{
9      protected $umur, $nama;
10     public function __construct($umur, $nama){
11         $this->umur = $umur;
12         $this->nama = $nama;
13     }
14     public function getUmur(){
15         return $this->umur;
16     }
17     public function getNama(){
18         return $this->nama;
19     }
20     public function carabergesak(){
21         return "Melompat";
22     }
23     // pembuatan class
24 }
25
26 class Kecebong extends Katak{
27     private $panjangekor;
28     public function __construct($umur, $nama, $sekor){
29         $this->panjangekor = $sekor;
30         parent::__construct($umur, $nama);
31     }
32     public function getpanjangekor(){
33         return $this->panjangekor;
34     }
35     public function carabergesak(){
36         return "Berenang";
37     }
38     // deklarasi pada superclass be subclass
39 }
40
41 $katak = new Katak(5, 'Froggy');
42 $kecebong = new Kecebong(5, 'Junior Froggy', 10);

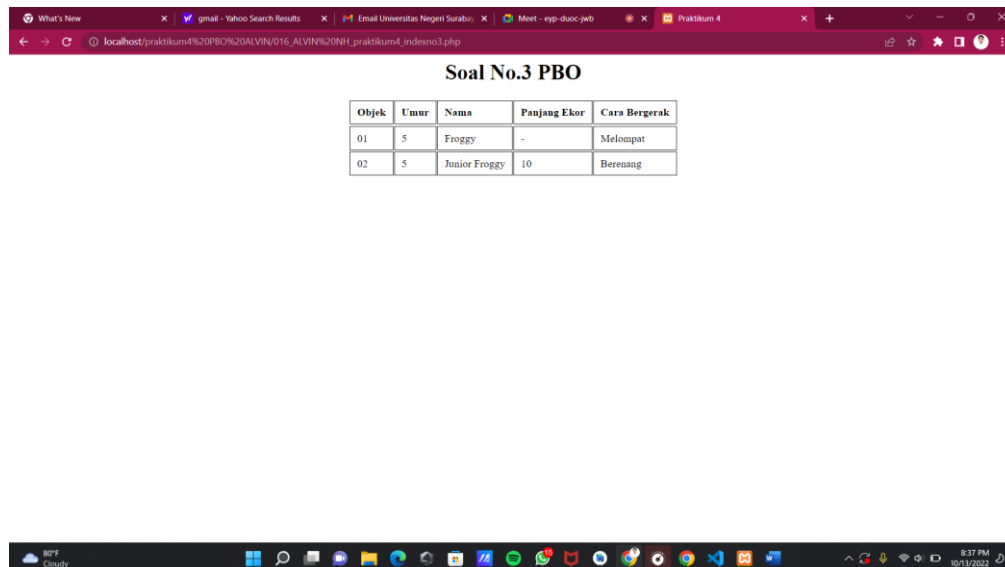
```

## CSS



```
016_ALVIN NH_praktikum4_no3.css
1  h2{
2      margin: auto;
3      text-align: center;
4      padding-bottom: 20px;
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:



**Analisa no3:** Menurut yg saya pahami bahwa codingan diatas keyword super tidak bisa digunakan secara langsung karena didalam codingan tersebut metode menggunakan static seperti pada method main.