

PRAKTIKUM 5

Mata Kuliah Pemrograman Berorientasi Obyek



Oleh:

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PROGRAM STUDI D4 MANAJEMEN INFORMATIKA

FAKULTAS VOKASI

UNIVERSITAS NEGERI SURABAYA

1. Source Code: PHP

```
no1.php - Visual Studio Code
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no1.php x
C:\> xampp > htdocs > no1.php
1  <?php
2
3  class Pegawai
4  {
5      public $name;
6      public function __construct($name)
7      {
8          $this->name = $name;
9      }
10     public function getName()
11     {
12         return $this->name;
13     }
14 }
15
16 class Manager extends Pegawai
17 {
18     public $tunjangan;
19     public function __construct($name, $tunjangan)
20     {
21         parent::__construct($name);
22         $this->tunjangan = $tunjangan;
23     }
24     public function getTunjangan()
25     {
26         return $this->tunjangan;
27     }
28 }
29
30 class Kurir extends Pegawai
31 {
32     public $gaji;
```

```
no1.php - Visual Studio Code
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no1.php x
C:\> xampp > htdocs > no1.php
29  class Kurir extends Pegawai
30  {
31      public $gaji;
32      public function __construct($name, $gaji)
33      {
34          parent::__construct($name);
35          $this->gaji = $gaji;
36      }
37      public function getGaji()
38      {
39          return $this->gaji;
40      }
41  }
42  class SoalNo1
43  {
44      public static
45      function Proses($peg)
46      {
47          if ($peg instanceof Manager)
48          {
49              $man = $peg;
50              echo "<br>Nama Manager: ".$man->name, "\n";
51              echo "<br>Tunjangan: RP. ".strval($man->tunjangan), "\n";
52          }
53          else if ($peg instanceof Kurir)
54          {
55              $kur = $peg;
56              echo "<br>Nama Kurir: ".$kur->name, "\n";
57              echo "<br>Gaji= RP. ".strval($kur->gaji), "\n";
58          }
59      }
60  }
```

```
no1.php
C: > xampp > htdocs > no1.php
52
53     else if ($peg instanceof Kurir)
54     {
55         $kur = $peg;
56         echo "<br>Nama Kurir: ".$kur->name, "\n";
57         echo "<br>Gaji= RP. ".strval($kur->gaji), "\n";
58     }
59 }
60 public static
61 function main($args)
62 {
63     echo "21091397005 Salsabilla Octavianingrum", "\n";
64     echo "<br>", "<br>";
65     $peg1 = new Manager(["Salsabilla", 20000000]);
66     SoalNo1::Proses($peg1);
67     echo "<br>", "<br>";
68     $peg2 = new Kurir("Asya", 15000000);
69     SoalNo1::Proses($peg2);
70 }
71 }
72 SoalNo1::main(array());
73 ?>
```

Output

21091397005 Salsabilla Octavianingrum

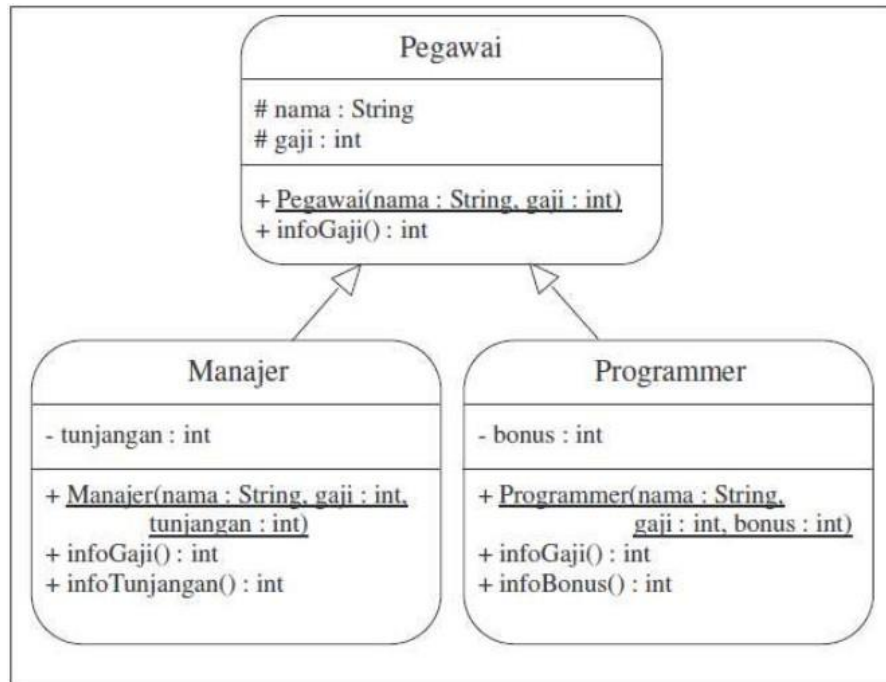
Nama Manager: Salsabilla
Tunjangan: RP. 20000000

Nama Kurir: Asya
Gaji= RP. 15000000

Analisa

Dalam kasus diatas implementasi dari polymorphic argument berada di class info dimana method info dibuat static supaya pemanggilannya tidak perlu diinisiasi, sehingga bisa langsung dimasukkan menjadi parameter pada method info di class info

2. Buat program berdasarkan UML berikut



Source Code: PHP

```
no2.php - Visual Studio Code
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no1.php no2.php
C:\> xampp > htdocs > no2.php
1 <?php
2
3 class Pegawai
4 {
5     public $nama;
6     public $gaji;
7     public function __construct($nama, $gaji)
8     {
9         $this->nama = $nama;
10        $this->gaji = $gaji;
11    }
12    public function infoGaji()
13    {
14        return $this->gaji;
15    }
16 }
17 class Manajer extends Pegawai
18 {
19     private $tunjangan;
20     public function __construct($nama, $gaji, $tunjangan)
21     {
22         parent::__construct($nama, $gaji);
23         $this->tunjangan = $tunjangan;
24     }
25     public function infoGaji()
26     {
27         return $this->gaji;
28     }
29     public function infoTunjangan()
30     {
31         return $this->tunjangan;
32     }
33 }
```

```
File Edit Selection View Go Run Terminal Help
no2.php - Visual Studio Code
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no1.php no2.php X
C:\> xampp > htdocs > no2.php
29
30 public function infoTunjangan()
31 {
32     return $this->tunjangan;
33 }
34 class Programmer extends Pegawai
35 {
36     private $bonus;
37     public function __construct($name, $gaji, $bonus)
38     {
39         parent::__construct($name, $gaji);
40         $this->bonus = $bonus;
41     }
42     public function infoBonus()
43     {
44         return $this->bonus;
45     }
46 }
47 class Bayaran
48 {
49     public function hitungBayaran($peg)
50     {
51         $uang = $peg->infoGaji();
52
53         return $uang;
54     }
55     public static function main($args)
56     {
57         echo "Salsabilla Octavianingrum", "\n";
58         echo "21091397005", "\n";
```

```
File Edit Selection View Go Run Terminal Help
no2.php - Visual Studio Code
Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More

no1.php no2.php X
C:\> xampp > htdocs > no2.php
52
53     return $uang;
54 }
55 public static function main($args)
56 {
57     echo "Salsabilla Octavianingrum", "\n";
58     echo "21091397005", "\n";
59     echo "<br>", "<br>";
60     $man = new Manager("Salsabilla", 20000000, 45);
61     $prog = new Programmer("Asya", 18000000, 30);
62     $hr = new Bayaran();
63     echo "<br>Gaji Manager ". $man->name." : RP. ".strval($hr->hitungBayaran($man)), "\n";
64     echo "<br>Gaji Programmer ". $prog->name." : RP. ".strval($hr->hitungBayaran($prog)), "\n";
65 }
66 }
67 Bayaran::main(array());
68 ?>
```

Output

Salsabilla Octavianingrum 21091397005

Gaji Manager Salsabilla : RP. 20000000

Gaji Programmer Asya : RP. 18000000

Analisa

Program diatas adalah penerapan inheritance dengan konsep overriding, dimana pemanggilan construct di masing-masing class turunan hanya akan menginisiasi properti yang dimiliki dengan visibilitasprivate dan properti lain yang diturunkan akan langsung diinisiasi dengan construct dari parentnya.