LAPORAN PRAKTIKUM 5

POLIMORFISME

Mata Kuliah Pemograman Berorientasi Objek

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2022

1. Suatu program terdiri dari class Pegawai sebagai parent class, class Manajer dan class Kurir sebagai subclass. Buatlah suatu program yang menerapkan konsep polymorphic argument (Polymorphic arguments adalah tipe suatu parameter yang menerima suatu nilai yang bertipe subclass-nya)

Source Code

```php
<!-- Aini Azzah / 2109139700 / 2021 B -->

<!DOCTYPE html>
<html lang="id">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Praktikum 5 No.1</title>
</head>
<body style="align-items: center;">
    <div class="container">
        <h2>Soal 1</h2>

        <?php
class Pegawai
{
    public $nama;
    public  function __construct($nama)
    {
        $this->nama = $nama;
    }
    public  function getNama()
    {
        return $this->nama;
    }
}
    class Manajer extends Pegawai
    {
        public $tunjangan;
        public  function __construct($nama, $tunjangan)
        {
            parent::__construct($nama);
            $this->tunjangan = $tunjangan;
        }
        public  function getTunjangan()
        {
            return $this->tunjangan;
        }
    }
    class Kurir extends Pegawai
    {
        public $gaji;

        public  function __construct($nama, $gaji)
        {
            parent::__construct($nama);

            $this->gaji = $gaji;

        }
        public  function getGaji()
        {
            return $this->gaji;
        }
    }
```
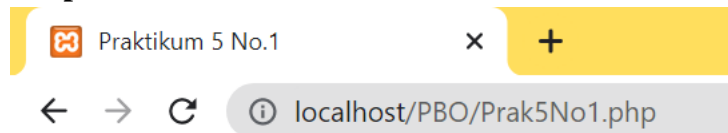
```php
57    class Soal1
58    {
59        public static
60        function Proses($peg)
61        {
62            if ($peg instanceof Manajer)
63            {
64                $man = $peg;
65                echo "<br>Nama manajer: ".$man->nama, "\n";
66                echo "<br>Tunjangan: Rp. ".strval($man->tunjangan), "\n";
67            }
68            else if ($peg instanceof Kurir)
69            {
70                $kur =  $peg;
71                echo "<br>Nama kurir: ".$kur->nama, "\n";
72                echo "<br>Gaji: Rp. ".strval($kur->gaji), "\n";
73            }
74        }
75        public static
76        function main($args)
77        {
78            echo "Aini Azzah - 21091397006";
79            echo "<br>", "<br>";
80            $peg1 = new Manajer("Hendrawan", 8000000);
81            Soal1::Proses($peg1);
82            echo "<br>";
83            $peg2 = new Kurir("Sarah", 24000000);
84            Soal1::Proses($peg2);
85        }
86    }
87    Soal1::main(array());
88    ?>
89
90        </div>
91    </body>
92    </html>
```
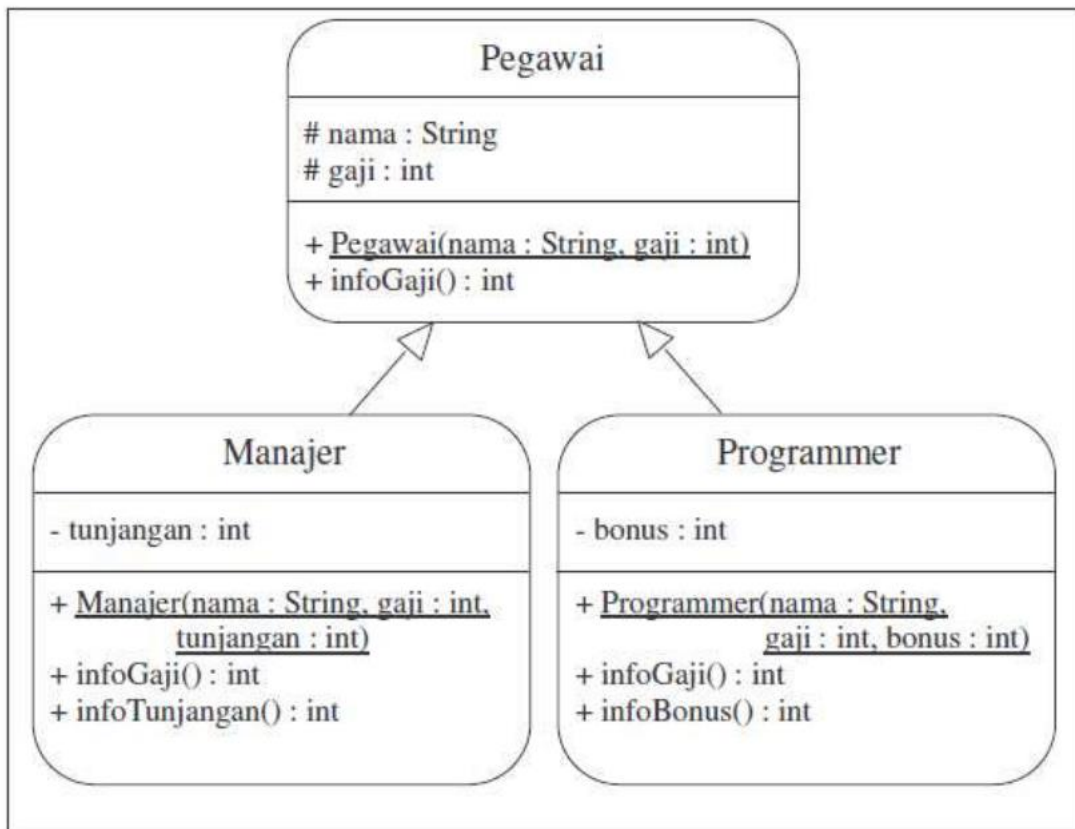
Output

2. Buat program berdasarkan UML berikut

Source Code

```
Prak5No2.php ×

Prak5No2.php > ⬡ html > ⬡ body > ⬡ div.container > ⬡ Bayaran > ⬡ main
 1   <!-- Aini Azzah / 2109139700 / 2021 B -->
 2
 3   <!DOCTYPE html>
 4   <html lang="id">
 5   <head>
 6       <meta charset="UTF-8">
 7       <meta http-equiv="X-UA-Compatible" content="IE=edge">
 8       <meta name="viewport" content="width=device-width, initial-scale=1.0">
 9       <title>Praktikum 5 No.2</title>
10   </head>
11   <body>
12       <div class="container">
13           <h2>Soal 2</h2>
14
15           <?php
16               class Pegawai
17               {
18                   public  $nama;
19                   public $gaji;
20                   public  function __construct($nama, $gaji)
21                   {
22                       $this->nama = $nama;
23                       $this->gaji = $gaji;
24                   }
25                   public  function infoGaji()
26                   {
27                       return $this->gaji;
28                   }
29               }
```
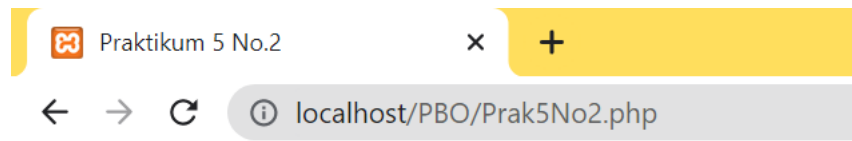
```php
            class Manajer extends Pegawai
            {
                private $tunjangan;
                public  function __construct($nama, $gaji, $tunjangan)
                {
                    parent::__construct($nama, $gaji);
                    $this->tunjangan = $tunjangan;
                }
                public  function infoGaji()
                {
                    return $this->gaji;
                }
                public  function infoTunjangan()
                {
                    return $this->tunjangan;
                }
            }
            class Programmer extends Pegawai
            {
                private $bonus;
                public  function __construct($nama, $gaji, $bonus)
                {
                    parent::__construct($nama, $gaji);
                    $this->bonus = $bonus;
                }
                public  function infoGaji()
                {
                    return $this->gaji;
                }
                public  function infoBonus()
                {
                    return $this->bonus;
                }
            }
            class Bayaran
            {
                public function hitungBayaran($peg)
                {
                    $uang = $peg->infoGaji();

                    return $uang;
                }
                public static function main($args)
                {
                    echo "Aini Azzah - 21091397006";
                    echo "<br>";
                    $man = new Manajer("Budi", 7000000, 500000);
                    $prog = new Programmer("Joko", 2000000, 8000000);
                    echo "<br>";
                    $hr = new Bayaran();
                    echo "<br> Gaji untuk Manajer Bernama ". $man->nama." : Rp. "
                    .strval($hr->hitungBayaran($man)) , "\n";
                    echo "<br>";
                    echo "<br>Gaji untuk Programmer Bernama ".$prog->nama. " : Rp. "
                    .strval($hr->hitungBayaran($prog)) , "\n";

                }
            }
            Bayaran::main(array());
        ?>
    </div>
</body>
</html>
```

Output

Soal 2

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Gaji untuk Manajer Bernama Budi : Rp. 7000000

Gaji untuk Programmer Bernama Joko : Rp. 2000000