

Tugas Pemrograman Berorientasi Objek
Praktikum 6



Nama:

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**DIV MANAJEMEN INFORMATIKA PROGRAM
VOKASI
UNIVERSITAS NEGERI SURABAYA TAHUN AJARAN
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6.1

Source Code:

Index.php

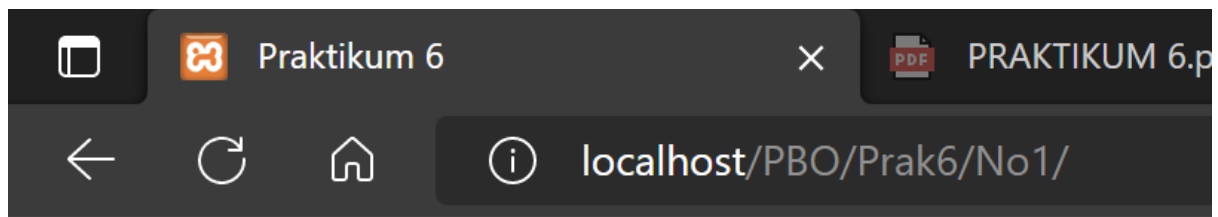
```
No1 > Index.php > ...
 1  <!-- Nama    : Riska Octavia Arianto -->
 2  <!-- NIM     : 21091397059 -->
 3  <!-- Kelas   : D4 Manajemen Informatika 2021A -->
 4  <!-- Praktikum 6 -->
 5
 6  <?php
 7  |   require_once 'no1.php';
 8  |   ?>
 9
10  <!DOCTYPE html>
11  <html lang="en">
12
13  <head>
14  |
15  |   <title>Praktikum 6</title>
16  |
17  </head>
18  <body>
19  |   <div class="container">
20  |   |   <h2 class="text-center">Praktikum 6</h2>
21  |   |   <div class="row">
22  |   |   |   <div class="col-5 mx-auto border p-3 mt-2">
23  |   |   |   |   <h4 class="text-center">Soal 1</h4>
24  |   |   |   |   <?= $truck->getMaxLoad(); ?> <br>
25  |   |   |   |   <?= $truck->addBox(3000); ?> <br>
26  |   |   |   |   <?= $truck->addBox(1000); ?> <br>
27  |   |   |   |   <?= $truck->addBox(6000); ?> <br>
28  |   |   |   |   <?= $truck->addBox(8000); ?> <br>
29  |   |   |   |   <?php
30  |   |   |   |   echo "Butuh Bahan Bakar " . $truck->calcFuelNeeds() . ' Liter'. '<br>';
31  |   |   |   |   ?>
32  |   |   |   |   <br>
33  |   |   |   |   <?= $riverBarge->addBox(3000); ?> <br>
34  |   |   |   |   <?= $riverBarge->addBox(1000); ?> <br>
35  |   |   |   |   <?= $riverBarge->addBox(6000); ?> <br>
36  |   |   |   |   <?= $riverBarge->addBox(8000); ?> <br>
37  |   |   |   |   <?= $riverBarge->addBox(9000); ?> <br>
38  |   |   |   |   <?php
39  |   |   |   |   echo 'Maksimal muatan Perahu ' . $riverBarge->getMaxLoad() . '<br>';
40  |   |   |   |   echo "Butuh Bahan Bakar " . $riverBarge->calcFuelNeeds() . ' Liter';
41  |   |   |   |   ?>
42  |   |   |   |   </div>
43  |   |   |   </div>
44  |   |   </div>
45  |   </body>
46
47  </html>
```

No1.php

No1 > 🐘 no1.php > PHP Intelephense > 🚚 Truck > 🏠 __construct

```
1  <?php
2
3  require_once '../Interface Abstract/abstract.php';
4
5  class Truck extends Vehicle {
6      public function __construct($maxLoad, $name)
7      {
8          $this->maxLoad = $maxLoad;
9          $this->name = $name;
10     }
11
12     public function calcFuelNeeds()
13     {
14         $fuel = $this->calcFuelEfficiency();
15         $trip = $this->calcTripDistance();
16
17         return ceil($fuel /= $trip);
18     }
19 }
20
21 class RiverBarge extends Vehicle {
22     public function __construct($maxLoad, $name)
23     {
24         $this->maxLoad = $maxLoad;
25         $this->name = $name;
26     }
27
28     public function calcFuelNeeds()
29     {
30         $fuel = $this->calcFuelEfficiency();
31         $trip = $this->calcTripDistance();
32
33         return ceil($fuel /= $trip);
34     }
35 }
36 $truck = new Truck(10000, 'Truk');
37 $riverBarge = new RiverBarge(15000, 'Perahu');
```

Output:



Praktikum 6

Soal 1

Maksimal muatan Truk 10000
Truk menambah muatan sebesar 3000
Truk menambah muatan sebesar 1000
Truk menambah muatan sebesar 6000
Truk menambah muatan sebesar 8000
Muatan telah penuh tidak bisa menambah lagi
Butuh Bahan Bakar 10 Liter

Perahu menambah muatan sebesar 3000
Perahu menambah muatan sebesar 1000
Perahu menambah muatan sebesar 6000
Perahu menambah muatan sebesar 8000
Perahu menambah muatan sebesar 9000
Muatan telah penuh tidak bisa menambah lagi
Maksimal muatan Perahu Maksimal muatan Perahu 15000
Butuh Bahan Bakar 6 Liter

6.2

Source Code:

Index.php

```
No2 > index.php > ...
1  <!-- Nama : Riska Octavia Arianto -->
2  <!-- NIM : 21091397059 -->
3  <!-- Kelas : D4 Manajemen Informatika 2021A -->
4  <!-- Praktikum 6 -->
5
6  <?php
7  require_once 'no2.php';
8  ?>
9
10 <!DOCTYPE html>
11 <html lang="en">
12
13 <head>
14     <!-- Bootstrap CSS -->
15     <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet"
16     integrity="sha384-1BmE4kWBq78iYhFldvKuhfTAU6auU8tT94WrHftjDbrCEXSU1oBoqyl2QvZ6jIW3" crossorigin="anonymous">
17     <title>Praktikum 6</title>
18 </head>
19
20 <body>
21     <div class="container">
22         <h2 class="text-center">Praktikum 6</h2>
23         <div class="row">
24             <div class="col-5 mx-auto border p-3 mt-2">
25                 <h4 class="text-center">Soal 2</h4>
26                 <?= $superman->land(); ?> <br>
27                 <?= $superman->takeOff(); ?> <br>
28                 <?= $superman->fly(); ?> <br>
29                 <?= $superman->leapBuilding(); ?> <br>
30                 <?= $superman->stopBullet(); ?> <br>
31                 <br>
32                 <?= $bird->buildNest(); ?> <br>
33                 <?= $bird->takeOff(); ?> <br>
34                 <?= $bird->fly(); ?> <br>
35                 <?= $bird->land(); ?> <br>
36                 <?= $bird->layEggs(); ?> <br>
37                 <br>
38                 <?= $airplane->takeOff(); ?> <br>
39                 <?= $airplane->fly(); ?> <br>
40                 <?= $airplane->land(); ?> <br>
41             </div>
42         </div>
43     </div>
44 </body>
45
46 </html>
```

No2.php

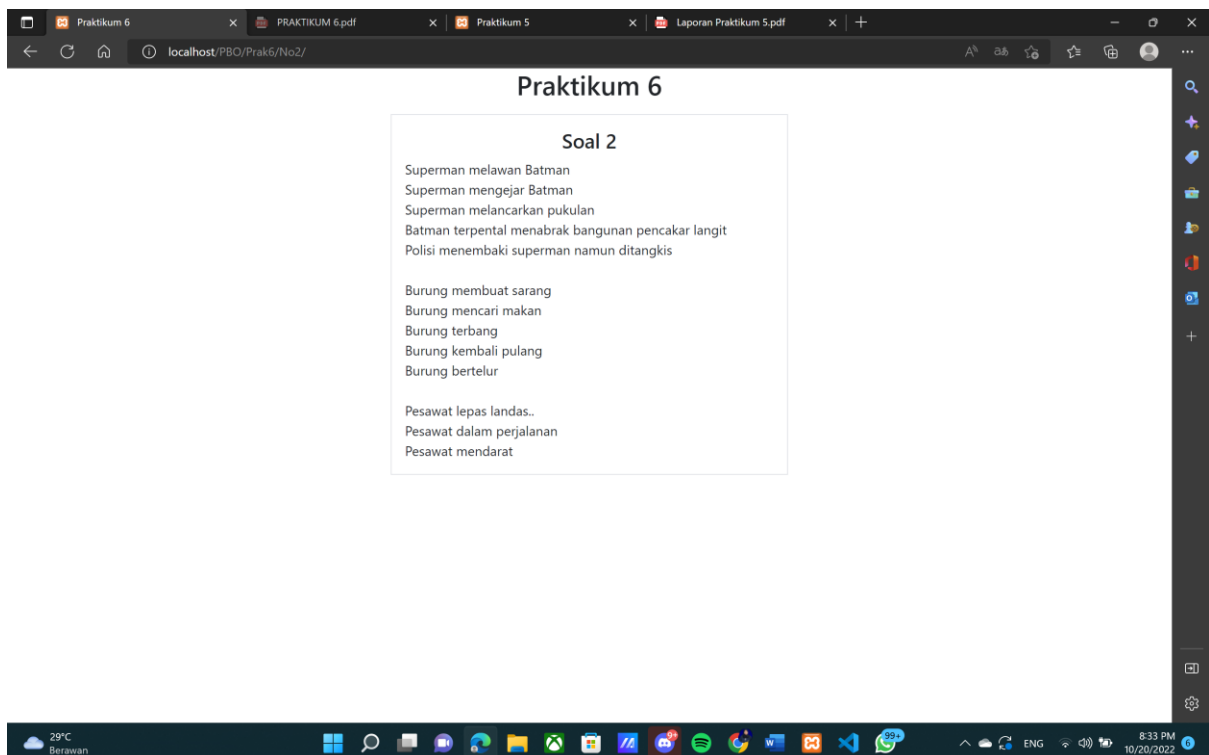
```
No2 > no2.php > ...
1  <?php
2
3  require_once '../Interface Abstract/Interface.php';
4
5  class Airplane implements Flyer {
6      public function takeOff() {
7          return 'Pesawat lepas landas..';
8      }
9
10     public function land() {
11         return 'Pesawat mendarat';
12     }
13
14     public function fly() {
15         return 'Pesawat dalam perjalanan';
16     }
17 }
18
19 class Bird implements Flyer {
20     public function takeOff() {
21         return 'Burung mencari makan';
22     }
23
24     public function land() {
25         return 'Burung kembali pulang';
26     }
27
28     public function fly() {
29         return 'Burung terbang';
30     }
31
32     public function buildNest() {
33         return 'Burung membuat sarang';
34     }
35
36     public function layEggs() {
37         return 'Burung bertelur';
38     }
39 }
```

```

40
41 class Superman implements Flyer {
42     public function takeOff() {
43         return 'Superman mengejar Batman';
44     }
45
46     public function land() {
47         return 'Superman melawan Batman';
48     }
49
50     public function fly() {
51         return 'Superman melancarkan pukulan';
52     }
53
54     public function leapBuilding() {
55         return 'Batman terpenjal menabrak bangunan pencakar langit';
56     }
57
58     public function stopBullet() {
59         return 'Polisi menembaki superman namun ditangkis';
60     }
61 }
62
63 $airplane = new Airplane;
64 $bird = new Bird;
65 $superman = new Superman;

```

Output:



6.3

Source Code:

Index.php

No3 > 🐘 index.php > ...

```
1  <!-- Nama      : Riska Octavia Arianto -->
2  <!-- NIM       : 21091397059 -->
3  <!-- Kelas    : D4 Manajemen Informatika 2021A -->
4  <!-- Praktikum 6 -->
5
6  <?php
7  require_once 'No3.php';
8  ?>
9
10 <!DOCTYPE html>
11 <html lang="en">
12
13 <head>
14 |
15 |     <title>Praktikum 6</title>
16 </head>
17
18 <body>
19 |     <div class="container">
20 |         <h2 class="text-center">Praktikum 6</h2>
21 |         <div class="row">
22 |             <div class="col-5 mx-auto border p-3 mt-2">
23 |                 <h4 class="text-center">Soal 3</h4>
24 |                 <?= $singa->eat(); ?> <br>
25 |                 <?= $manusia->eat(); ?> <br>
26 |                 <br>
27 |                 <?= $airplane2->getMaxLoad(); ?> <br>
28 |                 <?= $airplane2->addBox(5000); ?> <br>
29 |                 <?= $airplane2->addBox(7000); ?> <br>
30 |                 <?= $airplane2->addBox(3000); ?> <br>
31 |                 <?= $airplane2->addBox(2000); ?> <br>
32 |                 <?= $airplane2->calcFuelNeeds(); ?> <br>
33 |                 <?= $airplane2->takeOff(); ?> <br>
34 |                 <?= $airplane2->fly(); ?> <br>
35 |                 <?= $airplane2->land(); ?> <br>
36 |                 <br>
37 |                 <?= $superman2->eat(); ?> <br>
38 |                 <?= $superman2->land(); ?> <br>
39 |                 <?= $superman2->takeOff(); ?> <br>
```

```
40         <?= $superman2->fly(); ?> <br>
41         <?= $superman2->leapBuilding(); ?> <br>
42         <?= $superman2->stopBullet(); ?> <br>
43     </div>
44 </div>
45 </div>
46 </body>
47
48 </html>
```

No3.php

No3 > No3.php > PHP Intelephense > Airplane2 > takeOff

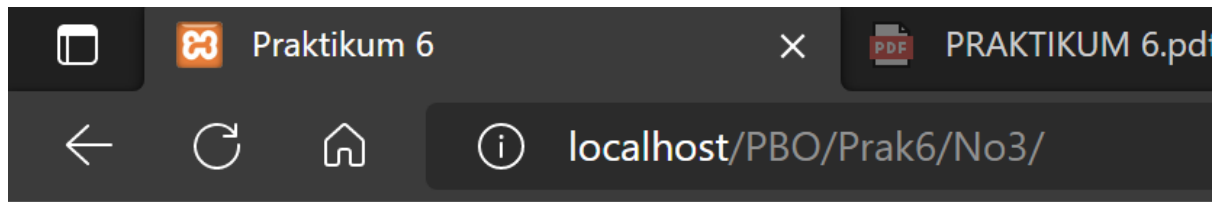
```
1  <?php
2
3  require_once '../Interface Abstract/Abstract.php';
4  require_once '../Interface Abstract/Interface.php';
5
6  class Animal
7  {
8      protected $name;
9
10     public function __construct($name)
11     {
12         $this->name = $name;
13     }
14
15     public function eat()
16     {
17         return $this->name . ' sedang makan';
18     }
19 }
20
21 class Homosapiens extends Animal {}
22
23 class Airplane2 extends Vehicle implements Flyer
24 {
25     public function __construct($maxLoad, $name)
26     {
27         $this->maxLoad = $maxLoad;
28         $this->name = $name;
29     }
30
31     public function takeOff()
32     {
33         return "$this->name lepas landas";
34     }
35
36     public function land()
37     {
38         return "$this->name mendarat";
39     }
}
```

No3 > No3.php > PHP Intelephense > Airplane2 > takeOff

```
40
41     public function fly()
42     {
43         return "$this->name dalam perjalanan";
44     }
45
46     public function calcFuelNeeds()
47     {
48         $fuel = $this->calcFuelEfficiency();
49         $trip = $this->calcTripDistance();
50
51         echo $this->name . ' membutuhkan bahan bakar sebanyak ';
52
53         return ceil($fuel /= $trip);
54     }
55 }
56
57 class Superman2 extends Homosapiens implements Flyer
58 {
59     public function takeOff()
60     {
61         return "$this->name mengejar Batman";
62     }
63
64     public function land()
65     {
66         return "$this->name melawan Batman";
67     }
68
69     public function fly()
70     {
71         return "$this->name melancarkan pukulan";
72     }
73
74     public function leapBuilding()
75     {
76         return "Batman terpelantai menabrak bangunan pencakar langit";
77     }
78 }
```

```
79     public function stopBullet()  
80     {  
81         return "Polisi menembaki $this->name namun ditangkis";  
82     }  
83 }  
84  
85 $singa = new Animal('Singa');  
86 $manusia = new Homosapiens('Andi');  
87 $airplane2 = new Airplane2(20000, 'Garuda Air');  
88 $superman2 = new Superman2('Superman');
```

Output:



Praktikum 6

Soal 3

Singa sedang makan
Andi sedang makan

Maksimal muatan Garuda Air 20000
Garuda Air menambah muatan sebesar 5000
Garuda Air menambah muatan sebesar 7000
Garuda Air menambah muatan sebesar 3000
Garuda Air menambah muatan sebesar 2000
Garuda Air membutuhkan bahan bakar sebanyak 6
Garuda Air lepas landas
Garuda Air dalam perjalanan
Garuda Air mendarat

Superman sedang makan
Superman melawan Batman
Superman mengejar Batman
Superman melancarkan pukulan
Batman terpelantak menabrak bangunan pencakar langit
Polisi menembaki Superman namun ditangkis

6.4

Source Code:

Index.php

```
No4 > Index.php > html > body > div.container > div.row > div > br
1  <!-- Nama : Riska Octavia Arianto -->
2  <!-- NIM : 21091397059 -->
3  <!-- Kelas : D4 Manajemen Informatika 2021A -->
4  <!-- Praktikum 6 -->
5
6  <?php
7  |   require_once 'no4.php';
8  ?>
9
10 <!DOCTYPE html>
11 <html lang="en">
12
13 <head>
14 |   <title>Praktikum 6</title>
15 </head>
16 |   <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet"
17 |   integrity="sha384-1BmE4kWbQ78iYhF1dvKuhfTAU6auU8tT94WrHftjDbrCEXSU1oBoqy12QvZ6jIW3" crossorigin="anonymous">
18 <body>
19 |   <h2 class="text-center">Praktikum 6</h2>
20 |   <div class="container">
21 |     <div class="row">
22 |       <h4 class="text-center">Soal 4</h4>
23 |       <div >
24 |         <h4>-----</h4>
25 |         <?= $riverBarge2->getMaxLoad(); ?> <br>
26 |         <?= $riverBarge2->addBox(12000); ?> <br>
27 |         <?= $riverBarge2->addBox(15000); ?> <br>
28 |         <?= $riverBarge2->addBox(1000); ?> <br>
29 |         <?= $riverBarge2->addBox(3000); ?> <br>
30 |         <?= $riverBarge2->dock(); ?> <br>
31 |         <?= $riverBarge2->cruise(); ?> <br>
32 |         <?= $riverBarge2->calcFuelNeeds(); ?> <br>
33 |       </div>
34 |       <div>
35 |         <h4>-----</h4>
36 |         <?= $seaPlane->getMaxLoad(); ?> <br>
37 |         <?= $seaPlane->addBox(12000); ?> <br>
38 |         <?= $seaPlane->addBox(8000); ?> <br>
39 |         <?= $seaPlane->addBox(3000); ?> <br>
```

```

40         <?= $seaPlane->dock(); ?> <br>
41         <?= $seaPlane->cruise(); ?> <br>
42         <?= $seaPlane->takeOff(); ?> <br>
43         <?= $seaPlane->fly(); ?> <br>
44         <?= $seaPlane->land(); ?> <br>
45         <?= $seaPlane->calcFuelNeeds(); ?> <br>
46     </div>
47     <div>
48         <h4>-----</h4>
49         <?= $helicopter->getMaxLoad(); ?> <br>
50         <?= $helicopter->addBox(8000); ?> <br>
51         <?= $helicopter->addBox(2000); ?> <br>
52         <?= $helicopter->addBox(3000); ?> <br>
53         <?= $helicopter->takeOff(); ?> <br>
54         <?= $helicopter->fly(); ?> <br>
55         <?= $helicopter->land(); ?> <br>
56         <?= $helicopter->calcFuelNeeds(); ?> <br>
57         <h4>-----</h4>
58     </div>
59 </div>
60 </div>
61 </body>
62
63 </html>

```

no4.php

No4 > no4.php > ...

```
1  <?php
2
3  require_once '../Interface Abstract/Abstract.php';
4  require_once '../Interface Abstract/Interface.php';
5
6  class RiverBarge2 extends Vehicle implements Sailer {
7      public function __construct($maxLoad, $name) {
8          $this->maxLoad = $maxLoad;
9          $this->name = $name;
10     }
11
12     public function calcFuelNeeds() {
13         $fuel = $this->calcFuelEfficiency();
14         $trip = $this->calcTripDistance();
15         echo $this->name . ' membutuhkan bahan bakar sebanyak ';
16         return ceil($fuel /= $trip);
17     }
18
19     public function dock() {
20         return $this->name . ' berada di dermaga';
21     }
22
23     public function cruise() {
24         return $this->name . ' sedang berlayar';
25     }
26 }
27
28 class Airplane2 implements Flyer {
29     public function takeOff() {
30         return 'Pesawat lepas landas';
31     }
32     public function land() {
33         return 'Pesawat mendarat';
34     }
35     public function fly() {
36         return 'Pesawat dalam perjalanan';
37     }
38 }
39
```

No4 > no4.php > ...

```
40 class SeaPlane extends Vehicle implements Sailer {
41     public function __construct($maxLoad, $name) {
42         $this->maxLoad = $maxLoad;
43         $this->name = $name;
44     }
45
46     public function calcFuelNeeds() {
47         $fuel = $this->calcFuelEfficiency();
48         $trip = $this->calcTripDistance();
49         echo $this->name . ' membutuhkan bahan bakar sebanyak ' . $fuel . ' liter';
50         return ceil($fuel / $trip);
51     }
52
53     public function dock() {
54         return $this->name . ' berada di dermaga';
55     }
56
57     public function cruise() {
58         return $this->name . ' sedang berlayar';
59     }
60
61     public function takeOff() {
62         return $this->name . ' lepas landas';
63     }
64
65     public function land() {
66         return $this->name . ' mendarat';
67     }
68
69     public function fly() {
70         return $this->name . ' dalam perjalanan';
71     }
72 }
73
74 class Helicopter extends Vehicle {
75     public function __construct($maxLoad, $name) {
76         $this->maxLoad = $maxLoad;
77         $this->name = $name;
78     }
```

```

79
80     public function calcFuelNeeds() {
81         $fuel = $this->calcFuelEfficiency();
82         $trip = $this->calcTripDistance();
83         echo $this->name . ' membutuhkan bahan bakar sebanyak ';
84         return ceil($fuel /= $trip);
85     }
86     public function takeOff() {
87         return $this->name . ' lepas landas';
88     }
89
90     public function land() {
91         return $this->name . ' mendarat';
92     }
93
94     public function fly() {
95         return $this->name . ' dalam perjalanan';
96     }
97 }
98
99 $riverBarge2 = new RiverBarge2(30000, 'Atomic');
100 $seaPlane = new SeaPlane(20000, 'Titanic');
101 $helicopter = new Helicopter(10000, 'Brocklyn');

```

Output:

Praktikum 6

Soal 4

Maksimal muatan Atomic 30000
Atomic menambah muatan sebesar 12000
Atomic menambah muatan sebesar 15000
Atomic menambah muatan sebesar 1000
Atomic menambah muatan sebesar 3000
Atomic berada di dermaga
Atomic sedang berlayar
Atomic membutuhkan bahan bakar sebanyak 4

Maksimal muatan Titanic 20000
Titanic menambah muatan sebesar 12000
Titanic menambah muatan sebesar 8000
Titanic menambah muatan sebesar 3000
Muatan telah penuh tidak bisa menambah lagi
Titanic berada di dermaga
Titanic sedang berlayar
Titanic lepas landas
Titanic dalam perjalanan
Titanic mendarat
Titanic membutuhkan bahan bakar sebanyak 5

Maksimal muatan Brocklyn 10000
Brocklyn menambah muatan sebesar 8000
Brocklyn menambah muatan sebesar 2000
Brocklyn menambah muatan sebesar 3000
Muatan telah penuh tidak bisa menambah lagi
Brocklyn lepas landas
Brocklyn dalam perjalanan
Brocklyn mendarat
Brocklyn membutuhkan bahan bakar sebanyak 10
