

Tugas Ujian Tengah Semester Pemrograman Berorientasi Obyek
Praktikum 6 (Abstract and Interface)



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Program Studi D4 Manajemen Informatika

Program Vokasi

Universitas Negeri Surabaya

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1. Soal No. 1

```
PBOsem3 > praktikum > UTS > praktikum6 > no1 > no1.php
1  k?php
2
3  require_once '../No1/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 }
```

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF PHP

```
PBOsem3 > praktikum > UTS > praktikum6 > no1 > no1.php
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');
```

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF PHP

PBOsem3 > praktikum > UTS > praktikum6 > no1 > abstract.php

```
1  <?php
2
3  abstract class Vehicle {
4      private $load = 0;
5      protected $maxLoad = 0, $name;
6
7      protected function __construct($maxLoad, $name) {
8          $this->$maxLoad = $maxLoad;
9          $this->$name = $name;
10     }
11
12     public function getLoad() {
13         return $this->load;
14     }
15
16     public function getMaxLoad() {
17         echo 'Maksimal muatan ' . $this->name . ' ' ;
18         return $this->maxLoad;
19     }
20
21     public function addBox($weight) {
22         if ($this->load >= $this->maxLoad) {
23             echo "$this->name menambah muatan sebesar $weight <br>";
24             echo 'Muatan telah penuh tidak bisa menambah lagi';
25         }else {
26             $this->load += $weight;
27             echo "$this->name menambah muatan sebesar $weight";
28         }
29     }
30
31     abstract public function calcFuelNeeds();
32
33 }
```

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF PHP

PBOsem3 > praktikum > UTS > praktikum6 > no1 > abstract.php

```
14     }
15
16     public function getMaxLoad() {
17         echo 'Maksimal muatan ' . $this->name . ' ' ;
18         return $this->maxLoad;
19     }
20
21     public function addBox($weight) {
22         if ($this->load >= $this->maxLoad) {
23             echo "$this->name menambah muatan sebesar $weight <br>";
24             echo 'Muatan telah penuh tidak bisa menambah lagi';
25         }else {
26             $this->load += $weight;
27             echo "$this->name menambah muatan sebesar $weight";
28         }
29     }
30
31     abstract public function calcFuelNeeds();
32
33     protected function calcFuelEfficiency() {
34         $range = 50000000;
35         $range /= $this->load;
36         return $range;
37     }
38
39     protected function calcTripDistance() {
40         return 500;
41     }
42 }
```

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF PHP

```
PBOsem3 > praktikum > UTS > praktikum6 > no1 > index.php
1  <?php
2      require_once 'no1.php';
3  ?>
4
5  <!DOCTYPE html>
6  <html lang="id">
7
8  <head>
9      <!-- Bootstrap CSS -->
10     <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet"
11         integrity="sha384-1BmE4kWBq78iYhFldvKuhfTAU6au08tT94WrHftjDbrCEXSU1oBoqyl2QvZ6jIW3" crossorigin="anonymous">
12
13     <title>PBO - Praktikum 6</title>
14 </head>
15
16 <body>
17     <div class="container">
18         <br>
19         <h2 class="text-center">PBO - Praktikum 6</h2>
20         <div class="row">
21             <div class="col-5 mx-auto border p-3 mt-2">
22                 <h4 class="text-center"><strong>Soal Nomor 1</strong></h4>
23                 <br><br>
24                 <b><?= $truck->getMaxLoad() . ' kg'; ?> <br></b>
25                 <br>
26                 <?= $truck->addBox(3000) . ' kg'; ?> <br>
27                 <?= $truck->addBox(1000) . ' kg'; ?> <br>
28                 <?= $truck->addBox(6000) . ' kg'; ?> <br>
29
30                 <?php
31                     echo "Jadi, Butuh Bahan Bakar sebanyak " . $truck->calcFuelNeeds() . ' Liter'. ' <br>';
32                 ?>
33             </div>
34         </div>
35     </div>
36 </body>
37 </html>
```

```
PBOsem3 > praktikum > UTS > praktikum6 > no1 > index.php
22     <h4 class="text-center"><strong>Soal Nomor 1</strong></h4>
23     <br><br>
24     <b><?= $truck->getMaxLoad() . ' kg'; ?> <br></b>
25     <br>
26     <?= $truck->addBox(3000) . ' kg'; ?> <br>
27     <?= $truck->addBox(1000) . ' kg'; ?> <br>
28     <?= $truck->addBox(6000) . ' kg'; ?> <br>
29
30     <?php
31         echo "Jadi, Butuh Bahan Bakar sebanyak " . $truck->calcFuelNeeds() . ' Liter'. ' <br>';
32     ?>
33     <br>
34     -----
35     <br>
36     <br>
37     <b><?= $riverBarge->getMaxLoad() . ' kg'; ?> <br></b>
38     <br>
39     <?= $riverBarge->addBox(1000) . ' kg'; ?> <br>
40     <?= $riverBarge->addBox(6000) . ' kg'; ?> <br>
41     <?= $riverBarge->addBox(8000) . ' kg'; ?> <br>
42
43     <?php
44         echo "Jadi, Butuh Bahan Bakar sebanyak " . $riverBarge->calcFuelNeeds() . ' Liter';
45     ?>
46 </div>
47 </div>
48 </body>
49 </html>
```

Output:

PBO - Praktikum 6

Soal Nomor 1

Maksimal muatan Truk 10000 kg

Truk menambah muatan sebesar 3000 kg
Truk menambah muatan sebesar 1000 kg
Truk menambah muatan sebesar 6000 kg
Jadi, Butuh Bahan Bakar sebanyak 10 Liter

Maksimal muatan Perahu 15000 kg

Perahu menambah muatan sebesar 1000 kg
Perahu menambah muatan sebesar 6000 kg
Perahu menambah muatan sebesar 8000 kg
Jadi, Butuh Bahan Bakar sebanyak 7 Liter

2. Soal No. 2

```
PBOsem3 > praktikum > UTS > praktikum6 > no2 > no2.php
1  <?php
2
3  require_once '../No2/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 terpelantai menabrak bangunan pencakar langit';
56     }
57
58     public function stopBullet() {
59         return 'Polisi menembaki superman namun ditangkis';
60     }
61 }
62
```

```
PBOsem3 > praktikum > UTS > praktikum6 > no2 > no2.php
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 terpelantai menabrak bangunan pencakar langit';
56     }
57
58     public function stopBullet() {
59         return 'Polisi menembaki superman namun ditangkis';
60     }
61 }
62
```

```
PBOsem3 > praktikum > UTS > praktikum6 > no2 > no2.php

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 terpengal 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;
```

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF PHP

```
PBOsem3 > praktikum > UTS > praktikum6 > no2 > index.php

1 <?php
2     require_once 'No2.php';
3 >
4
5 <!DOCTYPE html>
6 <html lang="en">
7
8 <head>
9     <!-- Bootstrap CSS -->
10     <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet"
11         integrity="sha384-1BmE4kWBq78iYhFdvKuhfTAU6auU8tT94WtHftjDbrCEXSU1oBoqyl2QvZ6jIW3" crossorigin="anonymous">
12
13     <title>PBO - Praktikum 6</title>
14 </head>
15
16 <body>
17     <div class="container">
18         <br>
19         <h2 class="text-center">PBO - Praktikum 6</h2>
20         <div class="row">
21             <div class="col-5 mx-auto border p-3 mt-2">
22                 <h4 class="text-center"><strong>Soal Nomor 2</strong></h4>
23                 <br><br>
24                 <b><?php
25                     echo "Superman";
26                     ?></b> <br>
27                     <?= $superman->land(); ?> <br>
28                     <?= $superman->takeOff(); ?> <br>
29                     <?= $superman->fly(); ?> <br>
30                     <?= $superman->leapBuilding(); ?> <br>
31                     <?= $superman->stopBullet(); ?> <br>
32                 </div>
```

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF PHP

```
PBOsem3 > praktikum > UTS > praktikum6 > no2 > index.php

25         echo "Superman";
26         ?></b> <br>
27         <?= $superman->land(); ?> <br>
28         <?= $superman->takeOff(); ?> <br>
29         <?= $superman->fly(); ?> <br>
30         <?= $superman->leapBuilding(); ?> <br>
31         <?= $superman->stopBullet(); ?> <br>
32         <br>
33         <b><?php
34             echo "Bird";
35             ?></b> <br>
36             <?= $bird->buildNest(); ?> <br>
37             <?= $bird->takeOff(); ?> <br>
38             <?= $bird->fly(); ?> <br>
39             <?= $bird->land(); ?> <br>
40             <?= $bird->layEggs(); ?> <br>
41             <br>
42             <b><?php
43                 echo "Airplane";
44                 ?></b> <br>
45                 <?= $airplane->takeOff(); ?> <br>
46                 <?= $airplane->fly(); ?> <br>
47                 <?= $airplane->land(); ?> <br>
48             </div>
49         </div>
50     </div>
51 </body>
52
53 </html>
```

```
PBOsem3 > praktikum > UTS > praktikum6 > no2 > interface.php

1  <?php
2
3  interface Flyer {
4      public function takeOff();
5      public function land();
6      public function fly();
7  }
8
9  interface Sailer {
10     public function dock();
11     public function cruise();
12 }
```


Output:

PBO - Praktikum 6

Soal Nomor 2

Superman

Superman melawan Batman

Superman mengejar Batman

Superman melancarkan pukulan

Batman terpenggal menabrak bangunan pencakar langit

Polisi menembaki superman namun ditangkis

Bird

Burung membuat sarang

Burung mencari makan

Burung terbang

Burung kembali pulang

Burung bertelur

Airplane

Pesawat lepas landas..

Pesawat dalam perjalanan

Pesawat mendarat

3. Soal No. 3

```
PBOsem3 > praktikum > UTS > praktikum6 > no3 > no3.php
1  {?php
2
3  require_once '../No3/abstract.php';
4  require_once '../No3/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 . " sedang lepas landas";
34     }
35
36     public function land()
37     {
38         return $this->name . " sedang mendarat";
39     }
40
41     public function fly()
42     {
43         return $this->name . " sedang dalam perjalanan";
44     }
45
46     public function calcFuelNeeds()
47     {
48         $fuel = $this->calcFuelEfficiency();
49         $trip = $this->calcTripDistance();
50
51         return ceil($fuel / $trip);
52     }
53 }
54
55 class Superman2 extends Homosapiens implements Flyer
56 {
57     public function takeOff()
58     {
59         return $this->name . " sedang mengejar Batman";
60     }
61 }
```

```
PBOsem3 > praktikum > UTS > praktikum6 > no3 > no3.php
30
31     public function takeOff()
32     {
33         return $this->name . " sedang lepas landas";
34     }
35
36     public function land()
37     {
38         return $this->name . " sedang mendarat";
39     }
40
41     public function fly()
42     {
43         return $this->name . " sedang dalam perjalanan";
44     }
45
46     public function calcFuelNeeds()
47     {
48         $fuel = $this->calcFuelEfficiency();
49         $trip = $this->calcTripDistance();
50
51         return ceil($fuel / $trip);
52     }
53 }
54
55 class Superman2 extends Homosapiens implements Flyer
56 {
57     public function takeOff()
58     {
59         return $this->name . " sedang mengejar Batman";
60     }
61 }
```

```
PBOsem3 > praktikum > UTS > praktikum6 > no3 > no3.php

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 terpelant 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');
```

```
PBOsem3 > praktikum > UTS > praktikum6 > no3 > abstract.php

1  <?php
2
3  abstract class Vehicle {
4      private $load = 0;
5      protected $maxLoad = 0, $name;
6
7      protected function __construct($maxLoad, $name) {
8          $this->$maxLoad = $maxLoad;
9          $this->$name = $name;
10     }
11
12     public function getLoad() {
13         return $this->load;
14     }
15
16     public function getMaxLoad() {
17         echo 'Maksimal muatan ' . $this->name . ' ' ;
18         return $this->maxLoad;
19     }
20
21     public function addBox($weight) {
22         if ($this->load >= $this->maxLoad) {
23             echo "$this->name menambah muatan sebesar $weight <br>";
24             echo 'Muatan telah penuh tidak bisa menambah lagi';
25         }else {
26             $this->load += $weight;
27             echo "$this->name menambah muatan sebesar $weight";
28         }
29     }
30
31     abstract public function calcFuelNeeds();
32 }
```

```
PBOsem3 > praktikum > UTS > praktikum6 > no3 > abstract.php
17     echo 'Maksimal muatan ' . $this->name . ' ' ;
18     return $this->maxLoad;
19 }
20
21 public function addBox($weight) {
22     if ($this->load >= $this->maxLoad) {
23         echo "$this->name menambah muatan sebesar $weight <br>";
24         echo 'Muatan telah penuh tidak bisa menambah lagi';
25     }else {
26         $this->load += $weight;
27         echo "$this->name menambah muatan sebesar $weight";
28     }
29 }
30
31 abstract public function calcFuelNeeds();
32
33 protected function calcFuelEfficiency() {
34     $range = 50000000;
35     $range /= $this->load;
36     return $range;
37 }
38
39 protected function calcTripDistance() {
40     return 500;
41 }
42 }
```

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF PHP

```
PBOsem3 > praktikum > UTS > praktikum6 > no3 > index.php
1 <?php
2     require_once 'No3.php';
3 >>
4
5 <!DOCTYPE html>
6 <html lang="id">
7
8 <head>
9     <!-- Bootstrap CSS -->
10     <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet"
11         integrity="sha384-1BmE4kBQ78iYhFdvKuhfTAU6auU8tT94WrHftjDbrCEXSU1oBoqyl2QvZ6jIW3" crossorigin="anonymous">
12
13     <title>PBO - Praktikum 6</title>
14 </head>
15 <body>
16     <div class="container">
17         <h2 class="text-center">PBO - Praktikum 6</h2>
18         <div class="row">
19             <div class="col-5 mx-auto border p-3 mt-2">
20                 <h4 class="text-center"><strong>Soal Nomor 3</strong></h4>
21                 <br><br>
22                 <?= $singa->eat(); ?> <br>
23                 <?= $manusia->eat(); ?> <br>
24                 <br>
25
26                 <b><?= $airplane2->getMaxLoad() . ' kg'; ?> <br></b>
27                 <?= $airplane2->addBox(5000) . ' kg'; ?> <br>
28                 <?= $airplane2->addBox(7000) . ' kg'; ?> <br>
29                 <?= $airplane2->addBox(3000) . ' kg'; ?> <br>
30                 <?= $airplane2->addBox(4000) . ' kg'; ?> <br>
31                 <?= $airplane2->takeOff(); ?> <br>
32                 <?= $airplane2->fly(); ?> <br>
33             </div>
34         </div>
35     </div>
36 </body>
37 </html>
```

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF PHP

```
PBOsem3 > praktikum > UTS > praktikum6 > no3 > index.php
22     <?= $singa->eat(); ?> <br>
23     <?= $manusia->eat(); ?> <br>
24     <br>
25
26     <b><?= $airplane2->getMaxLoad() . ' kg'; ?> <br></b>
27     <?= $airplane2->addBox(5000) . ' kg'; ?> <br>
28     <?= $airplane2->addBox(7000) . ' kg'; ?> <br>
29     <?= $airplane2->addBox(3000) . ' kg'; ?> <br>
30     <?= $airplane2->addBox(4000) . ' kg'; ?> <br>
31     <?= $airplane2->takeOff(); ?> <br>
32     <?= $airplane2->fly(); ?> <br>
33     <?= $airplane2->land(); ?> <br>
34
35     <?php
36     |         echo "Jadi, Butuh Bahan Bakar sebanyak " . $airplane2->calcFuelNeeds() . ' Liter'. '<br>
37     |     ?>
38     <br>
39     <?= $superman2->eat(); ?> <br>
40     <?= $superman2->land(); ?> <br>
41     <?= $superman2->takeOff(); ?> <br>
42     <?= $superman2->fly(); ?> <br>
43     <?= $superman2->leapBuilding(); ?> <br>
44     <?= $superman2->stopBullet(); ?> <br>
45 </div>
46 </div>
47 </div>
48 </body>
49
50 </html>
```

```
PBOsem3 > praktikum > UTS > praktikum6 > no3 > interface.php
1  <?php
2
3  interface Flyer {
4      public function takeOff();
5      public function land();
6      public function fly();
7  }
8
9  interface Sailer {
10     public function dock();
11     public function cruise();
12 }
```

Output:

PBO - Praktikum 6

Soal Nomor 3

Singa sedang makan

Andi sedang makan

Maksimal muatan Garuda Air 20000 kg

Garuda Air menambah muatan sebesar 5000 kg

Garuda Air menambah muatan sebesar 7000 kg

Garuda Air menambah muatan sebesar 3000 kg

Garuda Air menambah muatan sebesar 4000 kg

Garuda Air lepas landas

Garuda Air dalam perjalanan

Garuda Air mendarat

Jadi, Butuh Bahan Bakar sebanyak 6 Liter

Superman sedang makan

Superman melawan Batman

Superman mengejar Batman

Superman melancarkan pukulan

Batman terpental menabrak bangunan pencakar langit

Polisi menembaki Superman namun ditangkis

4. Soal No. 4

```
PBOsem3 > praktikum > UTS > praktikum6 > no4 > no4.php
1  {?php
2
3  require_once '../No4/abstract.php';
4  require_once '../No4/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 = $this->calcTripDistance();
15
16         return ceil($fuel /= $trip);
17     }
18
19     public function dock() {
20         return $this->name . ' berada di dermaga';
21     }
22
23     public function cruise() {
24         return $this->name . ' sedang berlayar';
25     }
26 }
27
28 class Airplane2 implements Flyer {
29     public function takeOff() {
30         return 'Pesawat lepas landas';
31     }
32     public function land() {
33         return 'Pesawat mendarat';
34     }
35     public function fly() {
36         return 'Pesawat dalam perjalanan';
37     }
38 }
39
40 class SeaPlane extends Vehicle implements Sailer {
41     public function __construct($maxLoad, $name) {
42         $this->maxLoad = $maxLoad;
43         $this->name = $name;
44     }
45
46     public function calcFuelNeeds() {
47         $fuel = $this->calcFuelEfficiency();
48         $trip = $this->calcTripDistance();
49
50         return ceil($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 'Pesawat lepas landas';
63     }
64     public function land() {
65         return 'Pesawat mendarat';
66     }
67     public function fly() {
68         return 'Pesawat dalam perjalanan';
69     }
70 }
```

```
PBOsem3 > praktikum > UTS > praktikum6 > no4 > no4.php
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
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 = $this->calcTripDistance();
49
50         return ceil($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 'Pesawat lepas landas';
63     }
64     public function land() {
65         return 'Pesawat mendarat';
66     }
67     public function fly() {
68         return 'Pesawat dalam perjalanan';
69     }
70 }
```

PBOsem3 > praktikum > UTS > praktikum6 > no4 > no4.php

```
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 = $this->calcTripDistance();
83
84         return ceil($fuel / $trip);
85     }
86     public function takeOff() {
87         return $this->name . ' lepas landas';
88     }
89
90     public function land() {
```

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF PHP

PBOsem3 > praktikum > UTS > praktikum6 > no4 > no4.php

```
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 = $this->calcTripDistance();
83
84         return ceil($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');
```

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF PHP

Output:

PBO - Praktikum 6

Soal Nomor 4

Maksimal muatan Atomic 30000 kg Atomic menambah muatan sebesar 12000 kg Atomic menambah muatan sebesar 14000 kg Atomic menambah muatan sebesar 1000 kg Atomic menambah muatan sebesar 3000 kg Atomic berada di dermaga Atomic sedang berlayar Jadi, Butuh Bahan Bakar sebanyak 4 Liter	Maksimal muatan Titanic 20000 kg Titanic menambah muatan sebesar 12000 kg Titanic menambah muatan sebesar 8000 kg Titanic berada di dermaga Titanic sedang berlayar Titanic lepas landas Titanic dalam perjalanan Titanic mendarat Jadi, Butuh Bahan Bakar sebanyak 5 Liter	Maksimal muatan Brocklyn 10000 kg Brocklyn menambah muatan sebesar 8000 kg Brocklyn menambah muatan sebesar 2000 kg Brocklyn lepas landas Brocklyn dalam perjalanan Brocklyn mendarat Jadi, Butuh Bahan Bakar sebanyak 10 Liter
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------