

Laporan Pemrograman Berorientasi Objek

Praktikum 6



Disusun oleh :

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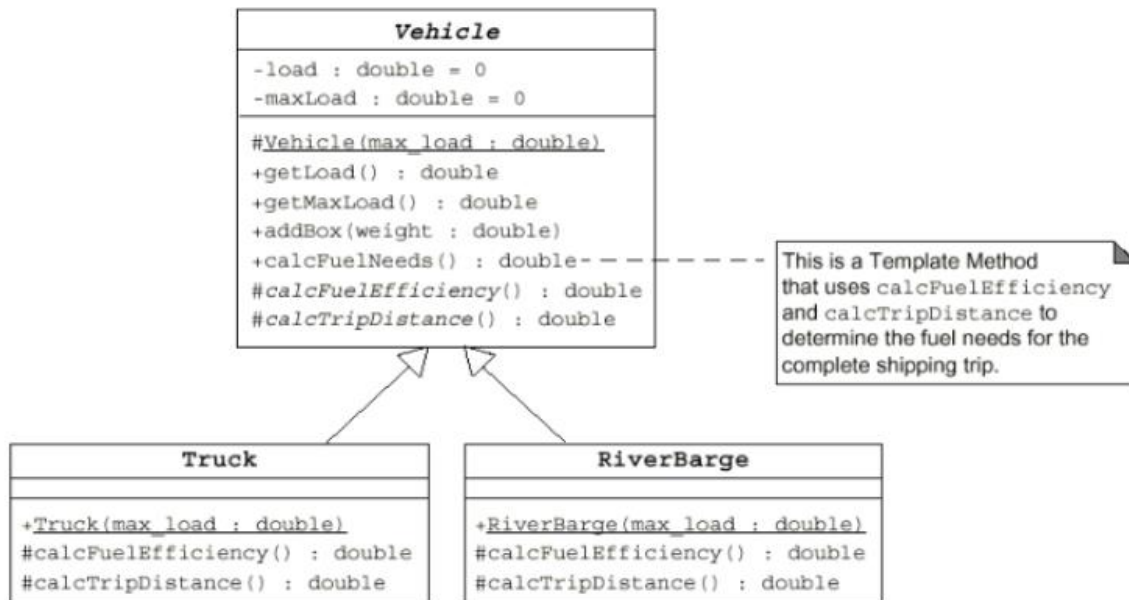
Program Studi D4 Manajemen Informatika

Program Vokasi

Universitas Negeri Surabaya

2022

1. Buat program berdasarkan UML berikut



Source Code

```
No 1 > No1.php
1  <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B --->
2
3  <?php
4
5  require_once 'abstract.php';
6
7  class Truck extends Vehicle {
8      public function __construct($maxLoad, $name)
9      {
10         $this->maxLoad = $maxLoad;
11         $this->name = $name;
12     }
13
14     public function calcFuelNeeds()
15     {
16         $fuel = $this->calcFuelEfficiency();
17         $trip = $this->calcTripDistance();
18
19         return ceil($fuel / $trip);
20     }
21 }
22
23 class RiverBarge extends Vehicle {
24     public function __construct($maxLoad, $name)
25     {
26         $this->maxLoad = $maxLoad;
27         $this->name = $name;
28     }
29
30     public function calcFuelNeeds()
31     {
32         $fuel = $this->calcFuelEfficiency();
33         $trip = $this->calcTripDistance();
```

Gambar 1 no 1.php

```

30     public function calcFuelNeeds()
31     {
32         $fuel = $this->calcFuelEfficiency();
33         $trip = $this->calcTripDistance();
34
35         return ceil($fuel /= $trip);
36     }
37 }
38 $truck = new Truck(7500, 'Truk');
39 $riverBarge = new RiverBarge(150000, 'Kapal');

```

Gambar 2 no 1.php

```

No 1 > index.php
1 <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B ---->
2
3 <?php
4     require_once 'no1.php';
5 >
6
7 <!DOCTYPE html>
8 <html lang="id">
9
10 <head>
11     <!-- Bootstrap CSS -->
12     <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet"
13         integrity="sha384-1BmE4kWBq78iYhFtdvKuhFtAU6gau8tT94WrHffjDbrCEXSU1oBoqy12QvZ6jIW3" crossorigin="anonymous">
14
15     <title>PBO - Praktikum 6</title>
16 </head>
17
18 <body>
19     <div class="container">
20         <br>
21         <h2 class="text-center">PBO - Praktikum 6</h2>
22         <div class="row">
23             <div class="col-5 mx-auto border p-3 mt-2">
24                 <h4 class="text-center"><strong>Soal 1</strong></h4>
25                 <br><br>
26                 <b><?=$truck->getMaxLoad() . ' kg'; ?> <br></b>
27                 <br>
28                 <?=$truck->addBox(3000) . ' kg'; ?> <br>
29                 <?=$truck->addBox(1000) . ' kg'; ?> <br>
30                 <?=$truck->addBox(6000) . ' kg'; ?> <br>

```

Gambar 1 index.php

```

31
32         <?php
33             echo "Jadi, Butuh Bahan Bakar sebanyak " . $truck->calcFuelNeeds() . ' Liter'. '<br>';
34         ?>
35     <br>
36     -----
37     <br>
38     <br>
39     <b><?=$riverBarge->getMaxLoad() . ' kg'; ?> <br></b>
40     <br>
41     <?=$riverBarge->addBox(1000) . ' kg'; ?> <br>
42     <?=$riverBarge->addBox(6000) . ' kg'; ?> <br>
43     <?=$riverBarge->addBox(8000) . ' kg'; ?> <br>
44
45     <?php
46         echo "Jadi, Butuh Bahan Bakar sebanyak " . $riverBarge->calcFuelNeeds() . ' Liter';
47     ?>
48 </div>
49 </div>
50 </div>
51 </body>
52
53 </html>

```

Gambar 2 index.php

```

No 1 > abstract.php
1  <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 20218 --->
2
3  <?php
4
5  abstract class Vehicle {
6      private $load = 0;
7      protected $maxLoad = 0, $name;
8
9      protected function __construct($maxLoad, $name) {
10         $this->$maxLoad = $maxLoad;
11         $this->$name = $name;
12     }
13
14     public function getLoad() {
15         return $this->load;
16     }
17
18     public function getMaxLoad() {
19         echo 'Maksimal muatan ' . $this->name . ' ' ;
20         return $this->maxLoad;
21     }
22
23     public function addBox($weight) {
24         if ($this->load >= $this->maxLoad) {
25             echo "$this->name menambah muatan sebesar $weight <br>";
26             echo 'Muatan telah penuh tidak bisa menambah lagi';
27         }else {
28             $this->load += $weight;
29             echo "$this->name menambah muatan sebesar $weight";
30         }
31     }
32

```

Gambar 1 abstract.php

```

33     abstract public function calcFuelNeeds();
34
35     protected function calcFuelEfficiency() {
36         $range = 50000000;
37         $range /= $this->load;
38         return $range;
39     }
40
41     protected function calcTripDistance() {
42         return 500;
43     }
44 }

```

Gambar 2 abstract.php

Output

<--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B ---> <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B ---> <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B --->

PBO - Praktikum 6

Soal 1

Maksimal muatan Truk 7500 kg

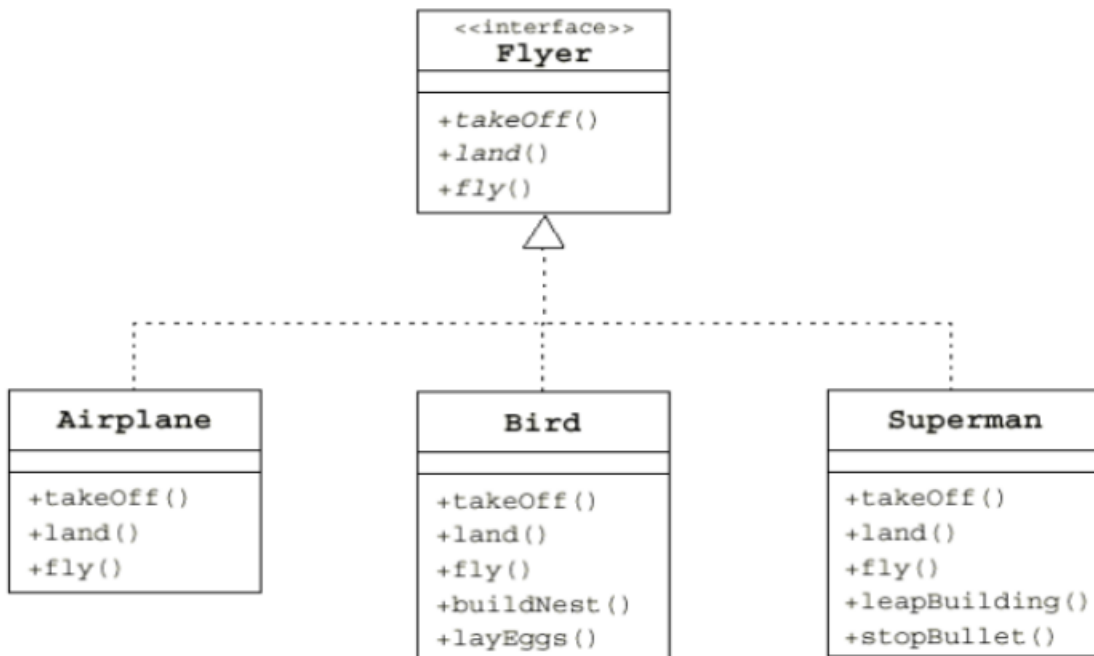
Truk menambah muatan sebesar 3000 kg
Truk menambah muatan sebesar 1000 kg
Truk menambah muatan sebesar 6000 kg
Jadi, Butuh Bahan Bakar sebanyak 10 Liter

Maksimal muatan Kapal 150000 kg

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

Gambar output No. 1

2. Buat program berdasarkan UML berikut



Source Code

```
No 2 > No2.php
1  <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B --->
2
3  <?php
4
5  require_once 'interface.php';
6
7  class Airplane implements Flyer {
8      public function takeOff() {
9          return 'Pesawat lepas landas..';
10     }
11     public function land() {
12         return 'Pesawat mendarat';
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     public function land() {
24         return 'Burung kembali pulang';
25     }
26     public function fly() {
27         return 'Burung terbang';
28     }
29     public function buildNest() {
30         return 'Burung membuat sarang';
31     }
32 }
```

Gambar 1 no 2.php

```
32     public function layEggs() {
33         return 'Burung bertelur';
34     }
35 }
36
37 class Superman implements Flyer {
38     public function takeOff() {
39         return 'Superman mengejar Batman';
40     }
41     public function land() {
42         return 'Superman melawan Batman';
43     }
44     public function fly() {
45         return 'Superman melancarkan pukulan';
46     }
47     public function leapBuilding() {
48         return 'Batman terpendak menabrak bangunan pencakar langit';
49     }
50     public function stopBullet() {
51         return 'Polisi menembaki superman namun ditangkis';
52     }
53 }
54
55 $airplane = new Airplane;
56 $bird = new Bird;
```

Gambar 2 no 2.php

```

No 2 > index.php
1  <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 20218 --->
2
3  <?php
4      require_once 'no2.php';
5  ?>
6
7  <!DOCTYPE html>
8  <html lang="en">
9
10 <head>
11     <!-- Bootstrap CSS -->
12     <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet"
13         integrity="sha384-18mE4kWBq78iYhFldvKuhfTAU6auU8tT94WrHftjDbrCEXSU1oBoqyl2QvZ6jIW3" crossorigin="anonymous">
14
15     <title>PBO - Praktikum 6</title>
16 </head>
17
18 <body>
19     <div class="container">
20         <br>
21         <h2 class="text-center">PBO - Praktikum 6</h2>
22         <div class="row">
23             <div class="col-5 mx-auto border p-3 mt-2">
24                 <h4 class="text-center"><strong>Soal 2</strong></h4>
25                 <br><br>
26                 <b><?php
27                     echo "Superman";
28                     ?></b> <br>
29                     <?= $superman->land(); ?> <br>
30                     <?= $superman->takeOff(); ?> <br>
31                     <?= $superman->fly(); ?> <br>
32                     <?= $superman->leapBuilding(); ?> <br>
33                     <?= $superman->stopBullet(); ?> <br>

```

Gambar 1 index.php

```

32         <?= $superman->leapBuilding(); ?> <br>
33         <?= $superman->stopBullet(); ?> <br>
34         <br>
35         <b><?php
36             echo "Bird";
37             ?></b> <br>
38             <?= $bird->buildNest(); ?> <br>
39             <?= $bird->takeOff(); ?> <br>
40             <?= $bird->fly(); ?> <br>
41             <?= $bird->land(); ?> <br>
42             <?= $bird->layEggs(); ?> <br>
43             <br>
44             <b><?php
45                 echo "Airplane";
46                 ?></b> <br>
47                 <?= $airplane->takeOff(); ?> <br>
48                 <?= $airplane->fly(); ?> <br>
49                 <?= $airplane->land(); ?> <br>
50             </div>
51         </div>
52     </div>
53 </body>
54
55 </html>

```

Gambar 2 index.php

```

No 2 > 🐞 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 }

```

Gambar inteface.php

Output

<--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B ---> <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B --->

PBO - Praktikum 6

Soal 2

Superman

Superman melawan Batman
 Superman mengejar Batman
 Superman melancarkan pukulan
 Batman terpental menabrak bangunan pencakar langit
 Polisi menembaki superman namun ditangkis

Bird

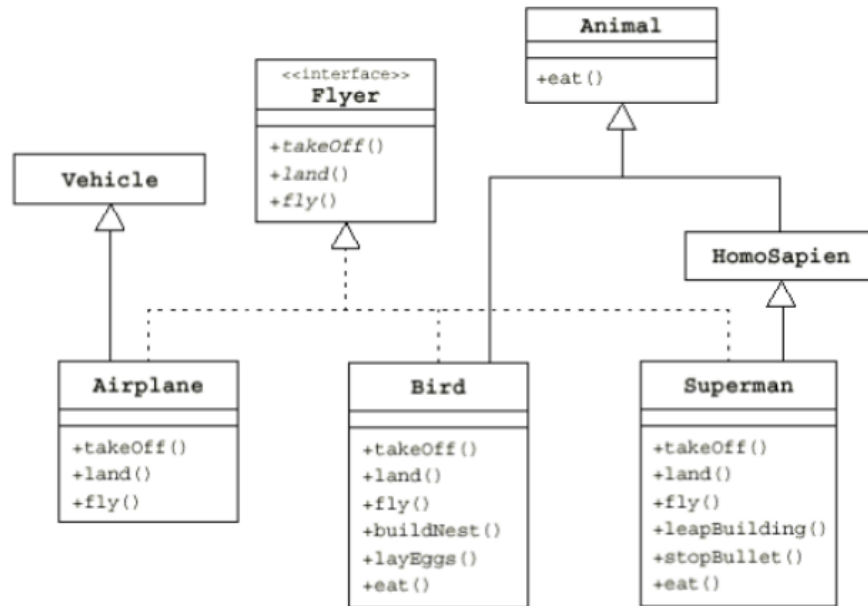
Burung membuat sarang
 Burung mencari makan
 Burung terbang
 Burung kembali pulang
 Burung bertelur

Airplane

Pesawat lepas landas..
 Pesawat dalam perjalanan
 Pesawat mendarat

Gambar output No. 2

3. Buat program berdasarkan UML berikut



Source Code

```
No 3 > No3.php
1  <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B --->
2
3  <?php
4
5  require_once 'abstract.php';
6  require_once 'interface.php';
7
8  class Animal
9  {
10     protected $name;
11
12     public function __construct($name)
13     {
14         $this->name = $name;
15     }
16
17     public function eat()
18     {
19         return $this->name . ' sedang makan';
20     }
21 }
22
23 class Homosapiens extends Animal {}
24
25 class Airplane2 extends Vehicle implements Flyer
26 {
27     public function __construct($maxLoad, $name)
28     {
29         $this->maxLoad = $maxLoad;
30         $this->name = $name;
31     }
32 }
```

Gambar 1 no 3.php

```

No3.php x
No 3 > No3.php
33     public function takeOff()
34     {
35         return "$this->name lepas landas";
36     }
37
38     public function land()
39     {
40         return "$this->name mendarat";
41     }
42
43     public function fly()
44     {
45         return "$this->name dalam perjalanan";
46     }
47
48     public function calcFuelNeeds()
49     {
50         $fuel = $this->calcFuelEfficiency();
51         $trip = $this->calcTripDistance();
52
53
54         return ceil($fuel /= $trip);
55     }
56 }
57
58
59 class Superman2 extends Homosapiens implements Flyer
60 {
61     public function takeOff()
62     {
63         return "$this->name mengejar Batman";
64     }
65

```

Gambar 2 no 3.php

```

65
66     public function land()
67     {
68         return "$this->name melawan Batman";
69     }
70
71     public function fly()
72     {
73         return "$this->name melancarkan pukulan";
74     }
75
76     public function leapBuilding()
77     {
78         return "Batman terpentak menabrak bangunan pencakar langit";
79     }
80
81     public function stopBullet()
82     {
83         return "Polisi menembaki $this->name namun ditangkis";
84     }
85 }
86
87 $singa = new Animal('Serigala');
88 $manusia = new Homosapiens('Alex');
89 $airplane2 = new Airplane2(20000, 'Asia Air');

```

Gambar 3 no 3.php

```

No 3 > index.php
1  <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B --->
2
3  <?php
4      require_once 'no3.php';
5  ?>
6
7  <!DOCTYPE html>
8  <html lang="id">
9
10 <head>
11     <!-- Bootstrap CSS -->
12     <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet"
13         integrity="sha384-1BmE4kBQ78iYhF1dvKuhfTAU6auU8tT94WrHftjDbrCEXSU1oBoqyl2QvZ6jIW3" crossorigin="anonymous">
14
15     <title>PBO - Praktikum 6</title>
16 </head>
17 <body>
18     <div class="container">
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 3</strong></h4>
23                 <br><br>
24                 <?= $singa->eat(); ?> <br>
25                 <?= $manusia->eat(); ?> <br>
26                 <br>
27
28                 <b><?= $airplane2->getMaxLoad() . ' kg'; ?> <br></b>
29                 <?= $airplane2->addBox(5000) . ' kg'; ?> <br>
30                 <?= $airplane2->addBox(7000) . ' kg'; ?> <br>
31                 <?= $airplane2->addBox(3000) . ' kg'; ?> <br>
32                 <?= $airplane2->addBox(4000) . ' kg'; ?> <br>
33                 <?= $airplane2->takeOff(); ?> <br>

```

Gambar 1 index.php

```

28     <b><?= $airplane2->getMaxLoad() . ' kg'; ?> <br></b>
29     <?= $airplane2->addBox(5000) . ' kg'; ?> <br>
30     <?= $airplane2->addBox(7000) . ' kg'; ?> <br>
31     <?= $airplane2->addBox(3000) . ' kg'; ?> <br>
32     <?= $airplane2->addBox(4000) . ' kg'; ?> <br>
33     <?= $airplane2->takeOff(); ?> <br>
34     <?= $airplane2->fly(); ?> <br>
35     <?= $airplane2->land(); ?> <br>
36
37     <?php
38         echo "Jadi, Butuh Bahan Bakar sebanyak " . $airplane2->calcFuelNeeds() . ' Liter'. '<br>';
39     ?>
40     <br>
41     <?= $superman2->eat(); ?> <br>
42     <?= $superman2->land(); ?> <br>
43     <?= $superman2->takeOff(); ?> <br>
44     <?= $superman2->fly(); ?> <br>
45     <?= $superman2->leapBuilding(); ?> <br>
46     <?= $superman2->stopBullet(); ?> <br>
47 </div>
48 </div>
49 </div>
50 </body>
51
52 </html>

```

Gambar 2 index.php

```

No 3 > abstract.php
1  <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B --->
2  <?php
3
4  abstract class Vehicle {
5      private $load = 0;
6      protected $maxLoad = 0, $name;
7
8      protected function __construct($maxLoad, $name) {
9          $this->$maxLoad = $maxLoad;
10         $this->$name = $name;
11     }
12
13     public function getLoad() {
14         return $this->load;
15     }
16
17     public function getMaxLoad() {
18         echo 'Maksimal muatan ' . $this->name . ' ' ;
19         return $this->maxLoad;
20     }
21
22     public function addBox($weight) {
23         if ($this->load >= $this->maxLoad) {
24             echo "$this->name menambah muatan sebesar $weight <br>";
25             echo 'Muatan telah penuh tidak bisa menambah lagi';
26         }else {
27             $this->load += $weight;
28             echo "$this->name menambah muatan sebesar $weight";
29         }
30     }
31
32     abstract public function calcFuelNeeds();
33

```

Gambar 1 abstract.php

```

33
34     protected function calcFuelEfficiency() {
35         $range = 50000000;
36         $range /= $this->load;
37         return $range;
38     }
39
40     protected function calcTripDistance() {
41         return 500;
42     }
43 }

```

Gambar 2 abstract.php

```

No 3 > 🐞 interface.php
1  <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B --->
2
3  <?php
4
5  interface Flyer {
6      public function takeOff();
7      public function land();
8      public function fly();
9  }
10
11 interface Sailer {
12     public function dock();
13     public function cruise();
14 }

```

Gambar interface.php

Output

<--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B ---> <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B --->

PBO - Praktikum 6

Soal 3

Serigala sedang makan
Alex sedang makan

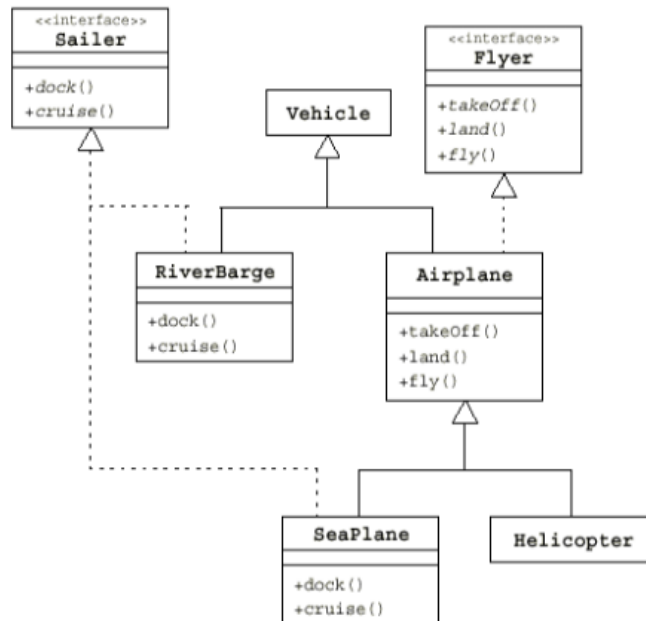
Maksimal muatan Asia Air 20000 kg

Asia Air menambah muatan sebesar 5000 kg
Asia Air menambah muatan sebesar 7000 kg
Asia Air menambah muatan sebesar 3000 kg
Asia Air menambah muatan sebesar 4000 kg
Asia Air lepas landas
Asia Air dalam perjalanan
Asia 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

Gambar output No. 3

4. Buat program berdasarkan UML berikut



Source Code

```
No 4 > No4.php
1 <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B --->
2
3 <?php
4
5 require_once 'abstract.php';
6 require_once 'interface.php';
7
8 class RiverBarge2 extends Vehicle implements Sailer {
9     public function __construct($maxLoad, $name) {
10         $this->maxLoad = $maxLoad;
11         $this->name = $name;
12     }
13
14     public function calcFuelNeeds() {
15         $fuel = $this->calcFuelEfficiency();
16         $trip = $this->calcTripDistance();
17
18         return ceil($fuel /= $trip);
19     }
20
21     public function dock() {
22         return $this->name . ' berada di dermaga';
23     }
24
25     public function cruise() {
26         return $this->name . ' sedang berlayar';
27     }
28 }
29
30 class Airplane2 implements Flyer {
31     public function takeOff() {
32         return 'Pesawat lepas landas';
33     }
34 }
```

Gambar 1 no 4.php

```

No 4 > No4.php
34     public function land() {
35         return 'Pesawat mendarat';
36     }
37     public function fly() {
38         return 'Pesawat dalam perjalanan';
39     }
40 }
41
42 class SeaPlane extends Vehicle implements Sailer {
43     public function __construct($maxLoad, $name) {
44         $this->maxLoad = $maxLoad;
45         $this->name = $name;
46     }
47
48     public function calcFuelNeeds() {
49         $fuel = $this->calcFuelEfficiency();
50         $trip = $this->calcTripDistance();
51
52         return ceil($fuel /= $trip);
53     }
54
55     public function dock() {
56         return $this->name . ' berada di dermaga';
57     }
58
59     public function cruise() {
60         return $this->name . ' sedang berlayar';
61     }
62
63     public function takeOff() {
64         return $this->name . ' lepas landas';
65     }
66 }

```

Gambar 2 no 4.php

```

No 4 > No4.php
67     public function land() {
68         return $this->name . ' mendarat';
69     }
70
71     public function fly() {
72         return $this->name . ' dalam perjalanan';
73     }
74 }
75
76 class Helicopter extends Vehicle {
77     public function __construct($maxLoad, $name) {
78         $this->maxLoad = $maxLoad;
79         $this->name = $name;
80     }
81
82     public function calcFuelNeeds() {
83         $fuel = $this->calcFuelEfficiency();
84         $trip = $this->calcTripDistance();
85
86         return ceil($fuel /= $trip);
87     }
88     public function takeOff() {
89         return $this->name . ' lepas landas';
90     }
91
92     public function land() {
93         return $this->name . ' mendarat';
94     }
95
96     public function fly() {
97         return $this->name . ' dalam perjalanan';
98     }
99 }

```

Gambar 3 no 4.php

```

95
96     public function fly() {
97         return $this->name . ' dalam perjalanan';
98     }
99 }
100
101 $riverBarge2 = new RiverBarge2(80000, 'Titanic');
102 $seaPlane = new SeaPlane(20000, 'Sukoi');
103 $helicopter = new Helicopter(120000, 'Jet');

```

Gambar 4 no 4.php

```

No 4 > index.php
1  <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B --->
2
3  <?php
4      require_once 'no4.php';
5  ?>
6
7  <!DOCTYPE html>
8  <html lang="en">
9
10 <head>
11     <!-- Bootstrap CSS -->
12     <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet"
13         integrity="sha384-1BmE4kWBq78iYhFldvKuhtTAU6auU8tT94WrHftjDbrCEXSU1oBoqyl2QvZ6jIW3" crossorigin="anonymous">
14
15     <title>PBO - Praktikum 6</title>
16 </head>
17 <body>
18     <h2 class="text-center">PBO - Praktikum 6</h2>
19     <div class="container">
20         <div class="row">
21             <h4 class="text-center"><strong>Soal 4</strong></h4>
22             <br><br>
23             <div class="col-4 mx-auto border p-2 mt-2">
24                 <b><?= $riverBarge2->getMaxLoad() . ' kg'; ?> <br></b>
25                 <?= $riverBarge2->addBox(12000) . ' kg'; ?> <br>
26                 <?= $riverBarge2->addBox(14000) . ' kg'; ?> <br>
27                 <?= $riverBarge2->addBox(1000) . ' kg'; ?> <br>
28                 <?= $riverBarge2->addBox(3000) . ' kg'; ?> <br>
29                 <?= $riverBarge2->dock(); ?> <br>
30                 <?= $riverBarge2->cruise(); ?> <br>
31             <?php
32                 echo "Jadi, Butuh Bahan Bakar sebanyak " . $riverBarge2->calcFuelNeeds() . ' Liter'. '<br>';
33             ?>

```

Gambar 1 index.php


```

33     ?>
34 </div>
35 <div class="col-4 mx-auto border p-2 mt-2">
36     <b><?=$seaPlane->getMaxLoad() . ' kg'; ?> <br></b>
37     <?= $seaPlane->addBox(12000) . ' kg'; ?> <br>
38     <?= $seaPlane->addBox(8000) . ' kg'; ?> <br>
39     <?= $seaPlane->dock(); ?> <br>
40     <?= $seaPlane->cruise(); ?> <br>
41     <?= $seaPlane->takeOff(); ?> <br>
42     <?= $seaPlane->fly(); ?> <br>
43     <?= $seaPlane->land(); ?> <br>
44     <?php
45         echo "Jadi, Butuh Bahan Bakar sebanyak " . $seaPlane->calcFuelNeeds() . ' Liter'. '<br>';
46     ?>
47 </div>
48 <div class="col mx-auto border p-2 mt-2">
49     <b><?=$helicopter->getMaxLoad() . ' kg'; ?> <br></b>
50     <?= $helicopter->addBox(8000) . ' kg'; ?> <br>
51     <?= $helicopter->addBox(2000) . ' kg'; ?> <br>
52     <?= $helicopter->takeOff(); ?> <br>
53     <?= $helicopter->fly(); ?> <br>
54     <?= $helicopter->land(); ?> <br>
55     <?php
56         echo "Jadi, Butuh Bahan Bakar sebanyak " . $helicopter->calcFuelNeeds() . ' Liter'. '<br>';
57     ?>
58 </div>
59 </div>
60 </div>
61 </body>
62
63 </html>

```

Gambar 2 index.php

```

No 4 > abstract.php
1  <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B --->
2
3  <?php
4
5  abstract class Vehicle {
6      private $load = 0;
7      protected $maxLoad = 0, $name;
8
9      protected function __construct($maxLoad, $name) {
10         $this->$maxLoad = $maxLoad;
11         $this->$name = $name;
12     }
13
14     public function getLoad() {
15         return $this->load;
16     }
17
18     public function getMaxLoad() {
19         echo 'Maksimal muatan ' . $this->name . ' ' ;
20         return $this->maxLoad;
21     }
22
23     public function addBox($weight) {
24         if ($this->load >= $this->maxLoad) {
25             echo "$this->name menambah muatan sebesar $weight <br>";
26             echo 'Muatan telah penuh tidak bisa menambah lagi';
27         }else {
28             $this->load += $weight;
29             echo "$this->name menambah muatan sebesar $weight";
30         }
31     }
32

```

Gambar 1 abstract.php

```

33     abstract public function calcFuelNeeds();
34
35     protected function calcFuelEfficiency() {
36         $range = 50000000;
37         $range /= $this->load;
38         return $range;
39     }
40
41     protected function calcTripDistance() {
42         return 500;
43     }
44 }

```

Gambar 2 abstract.php

```

No 4 > 🐞 interface.php
1  <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B --->
2
3  <?php
4
5  interface Flyer {
6      public function takeOff();
7      public function land();
8      public function fly();
9  }
10
11 interface Sailer {
12     public function dock();
13     public function cruise();
14 }

```

Gambar interface.php

Output

<--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B ---> <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B ---> <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B ---> <--- Muhammad Dhafa Jawadil Ubaid ; 21091397058 ; 2021B --->

PBO - Praktikum 6

Soal 4

Maksimal muatan Titanic 80000 kg Titanic menambah muatan sebesar 12000 kg Titanic menambah muatan sebesar 14000 kg Titanic menambah muatan sebesar 1000 kg Titanic menambah muatan sebesar 3000 kg Titanic berada di dermaga Titanic sedang berlayar Jadi, Butuh Bahan Bakar sebanyak 4 Liter	Maksimal muatan Sukoi 20000 kg Sukoi menambah muatan sebesar 12000 kg Sukoi menambah muatan sebesar 8000 kg Sukoi berada di dermaga Sukoi sedang berlayar Sukoi lepas landas Sukoi dalam perjalanan Sukoi mendarat Jadi, Butuh Bahan Bakar sebanyak 5 Liter	Maksimal muatan Jet 120000 kg Jet menambah muatan sebesar 8000 kg Jet menambah muatan sebesar 2000 kg Jet lepas landas Jet dalam perjalanan Jet mendarat Jadi, Butuh Bahan Bakar sebanyak 10 Liter
---	--	---

Gambar output No. 4