

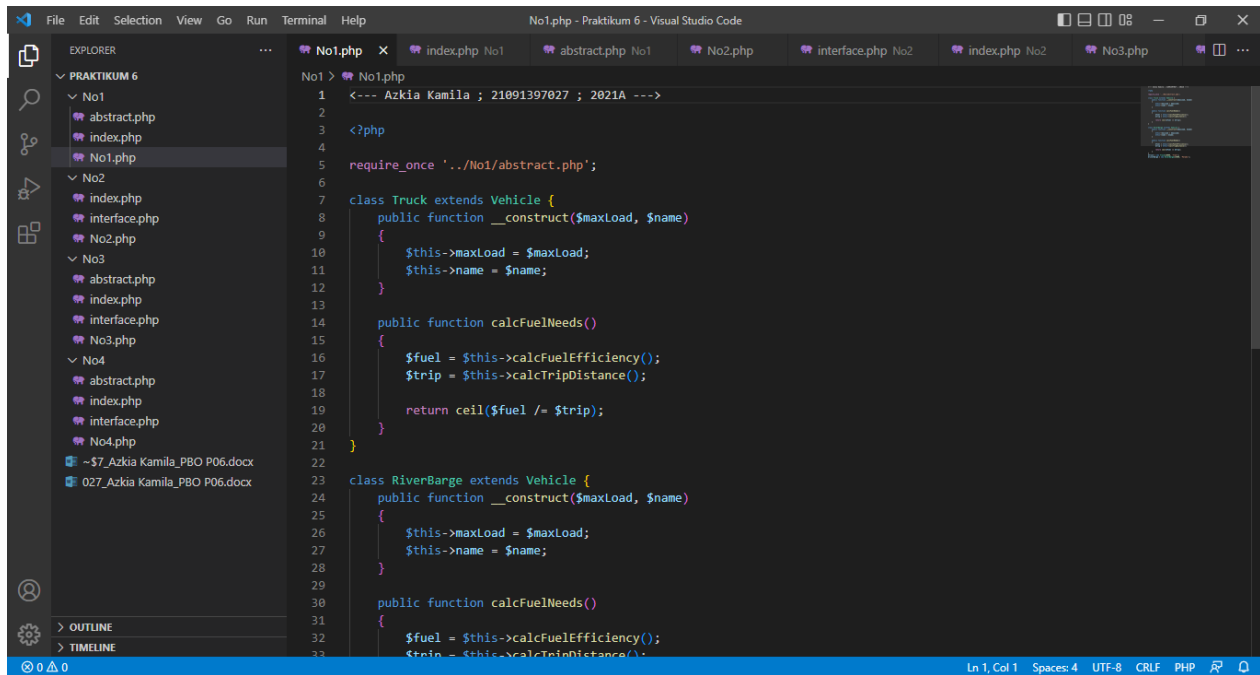
Tugas Pemrograman Berorientasi Objek
Praktikum 6



Disusun oleh:
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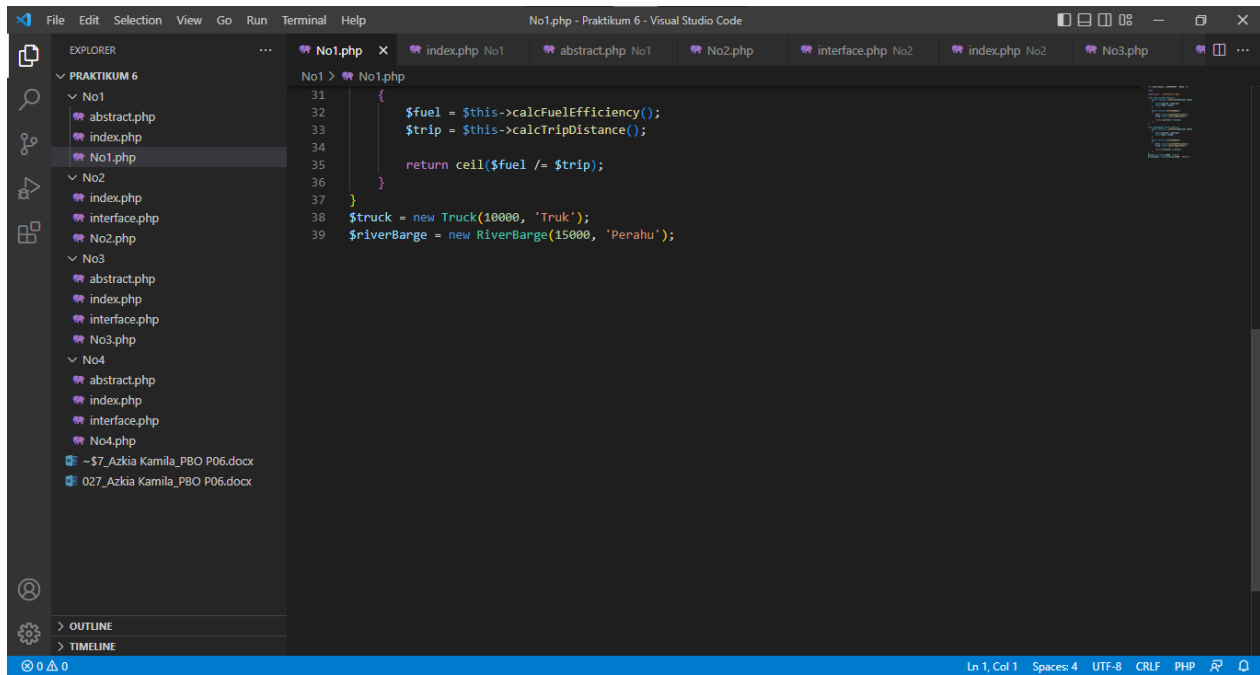
Program Studi D4 Manajemen Informatika
Fakultas Vokasi
Universitas Negeri Surabaya
2022

1. Source Code:



```
1 <--- Azkia Kamila ; 21091397027 ; 2021A --->
2
3 <?php
4
5 require_once '../No1/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();
```

Figure 1 No1.php



```
31 {
32     $fuel = $this->calcFuelEfficiency();
33     $trip = $this->calcTripDistance();
34
35     return ceil($fuel / $trip);
36 }
37
38 $truck = new Truck(10000, 'Truk');
39 $riverBarge = new RiverBarge(15000, 'Perahu');
```

Figure 2 No1.php

```
1 <!-- Azkia Kamila ; 21091397027 ; 2021A --->
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="sha384-1BmE4kqBq78iYhF1dvKuhfTAU6auU8tT94WrHftjDbrCEXSU1oBoqyl2QvZ6jIM3" 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><?=$truck->getMaxLoad() . ' kg'; ?></b><br>
27
28                 <?=$truck->addBox(3000) . ' kg'; ?><br>
29                 <?=$truck->addBox(1000) . ' kg'; ?><br>
30                 <?=$truck->addBox(6000) . ' kg'; ?><br>
31
32             <?php
33                 echo "Jadi, Butuh Bahan Bakar sebanyak " . $truck->calcFuelNeeds() . ' Liter';
```

Figure 3 index.php

```
31
32
33 <?php
34     echo "Jadi, Butuh Bahan Bakar sebanyak " . $truck->calcFuelNeeds() . ' Liter';
35 >
36 <br>
37
38 <br>
39 <b><?=$riverBarge->getMaxLoad() . ' kg'; ?></b><br>
40
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>
```

Figure 4 index.php

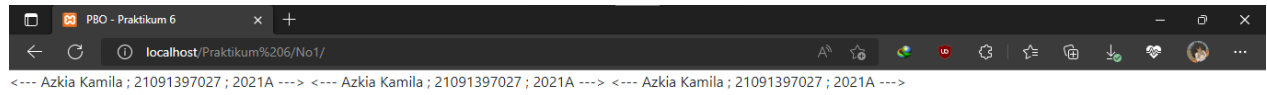
```
1 <--- Azkia Kamila ; 21091397027 ; 2021A --->
2
3 <?php
4
5 abstract class Vehicle {
6     private $load = 0;
7     protected $maxLoad = 0, $name;
8
9     protected function __construct($maxLoad, $name) {
10         $this->$maxLoad = $maxLoad;
11         $this->$name = $name;
12     }
13
14     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
33     abstract public function calcFuelNeeds();
```

Figure 5 abstract.php

```
28         $this->load += $weight;
29         echo "$this->name menambah muatan sebesar $weight";
30     }
31 }
32
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 }
```

Figure 6 abstract.php

Output:



PBO - Praktikum 6

Soal 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. Source Code:

```
1 <--- Azkia Kamila ; 21091397027 ; 2021A --->
2
3 <?php
4
5 require_once '../No2/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     public function layEggs() {
33         return 'Burung bertelur';
34     }
35 }
```

Figure 7 No2.php

```
29     public function buildNest() {
30         return 'Burung membuat sarang';
31     }
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 terpelantak 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;
57 $superman = new Superman;
```

Figure 8 No2.php

```
1 <--- Azkia Kamila ; 21091397027 ; 2021A --->
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 }
```

Figure 9 interface.php

```
1 <--- Azkia Kamila ; 21091397027 ; 2021A --->
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="sha384-1BmE4kqBq78iYhF1dVkuhftAU6au08tT94WrHftjDbrCEXSU1oBoqy12QvZ6jIM3" 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->ctonBullet(); ?> </b> </div>
34             </div>
35         </div>
36     </div>
37 </body>
38 </html>
```

Figure 10 index.php

```
29 <?= $superman->land(); ?> <br>
30 <?= $superman->takeOff(); ?> <br>
31 <?= $superman->fly(); ?> <br>
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 </body>
53 </html>
```

Figure 11 index.php

Output:



PBO - Praktikum 6

Soal 2

Superman

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

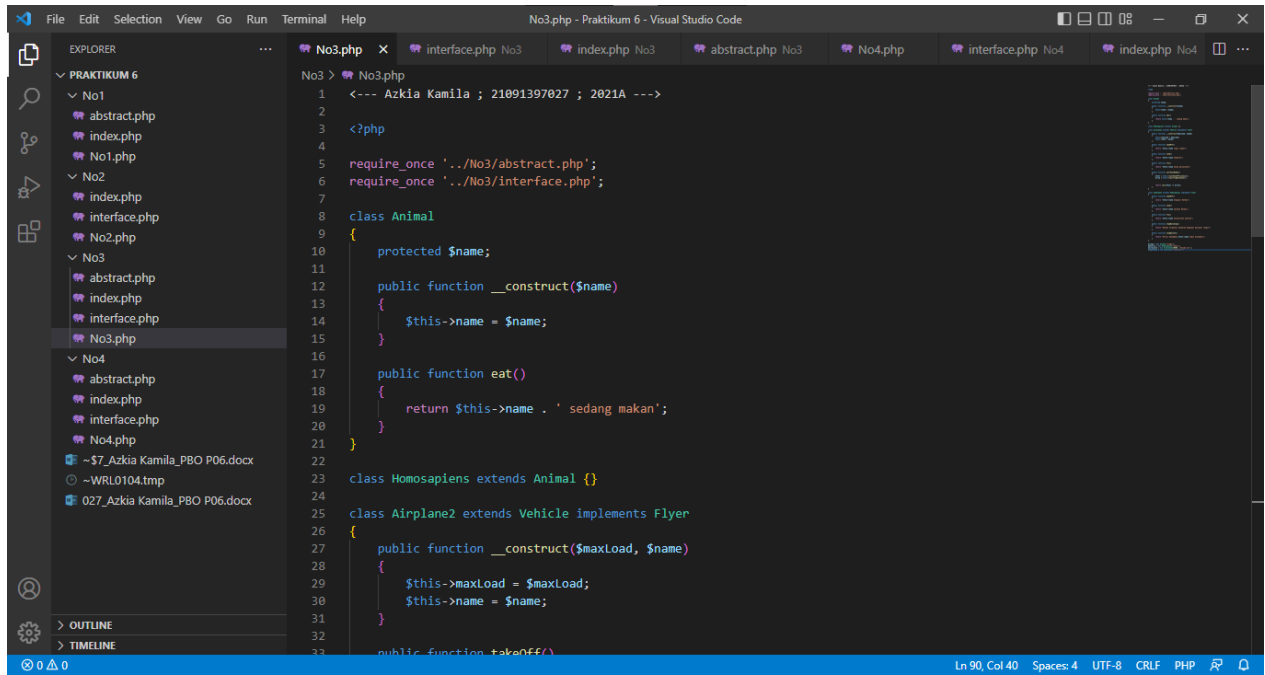
Bird

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

Airplane

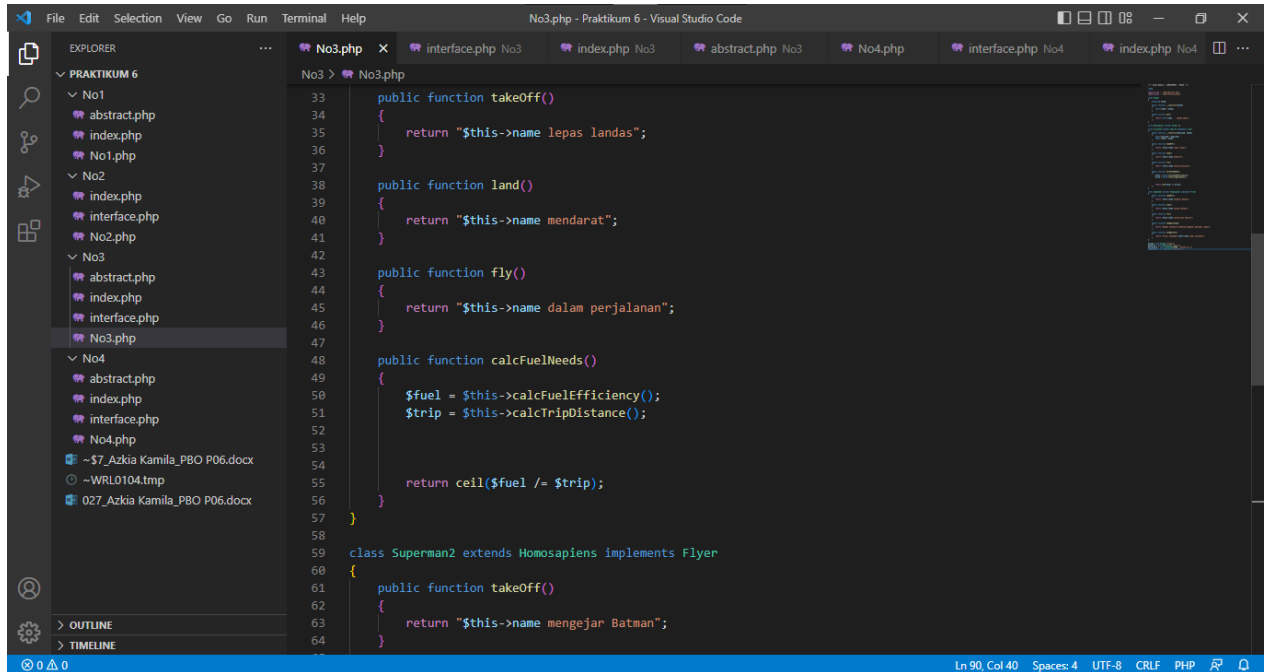
Pesawat lepas landas..
Pesawat dalam perjalanan
Pesawat mendarat

3. Source Code:



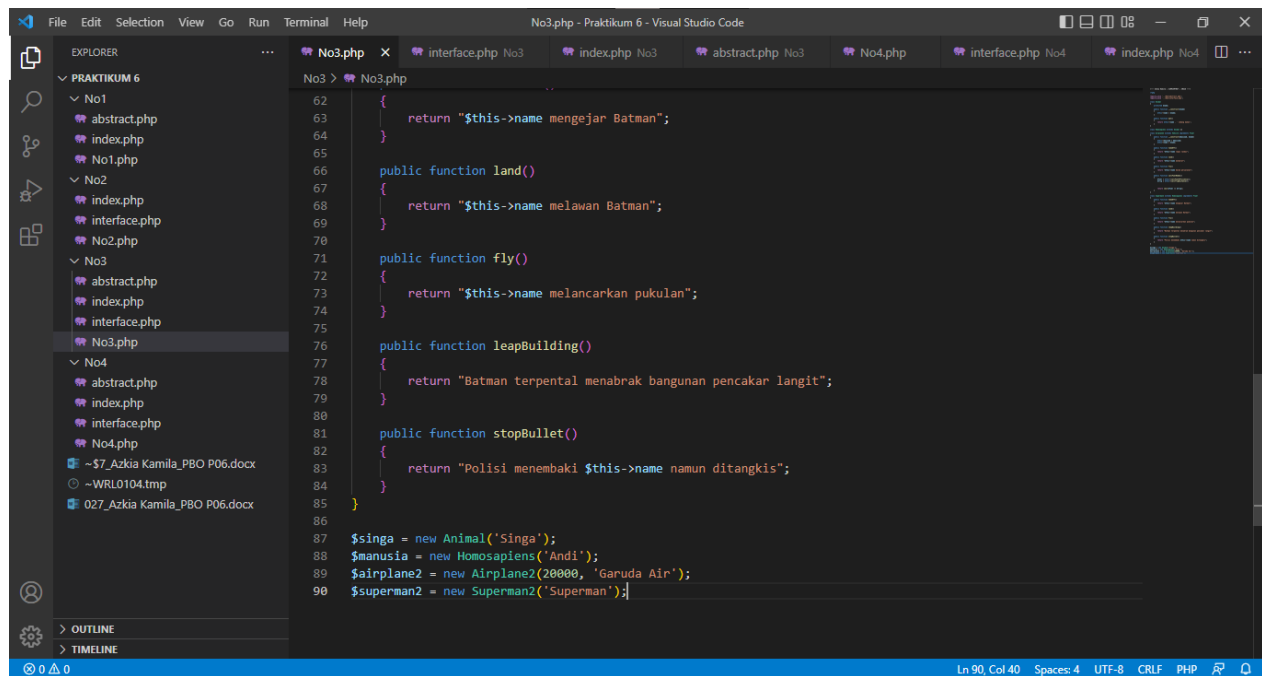
```
No3.php
1 <--- Azkia Kamila ; 21091397027 ; 2021A --->
2
3 <?php
4
5 require_once '../No3/abstract.php';
6 require_once '../No3/interface.php';
7
8 class Animal
9 {
10     protected $name;
11
12     public function __construct($name)
13     {
14         $this->name = $name;
15     }
16
17     public 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
33     public function takeOff()
```

Figure 12 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         $strip = $this->calcTripDistance();
52
53         return ceil($fuel / $strip);
54     }
55 }
56
57
58 class Superman2 extends Homosapiens implements Flyer
59 {
60     public function takeOff()
61     {
62         return $this->name mengejar Batman";
63     }
64 }
```

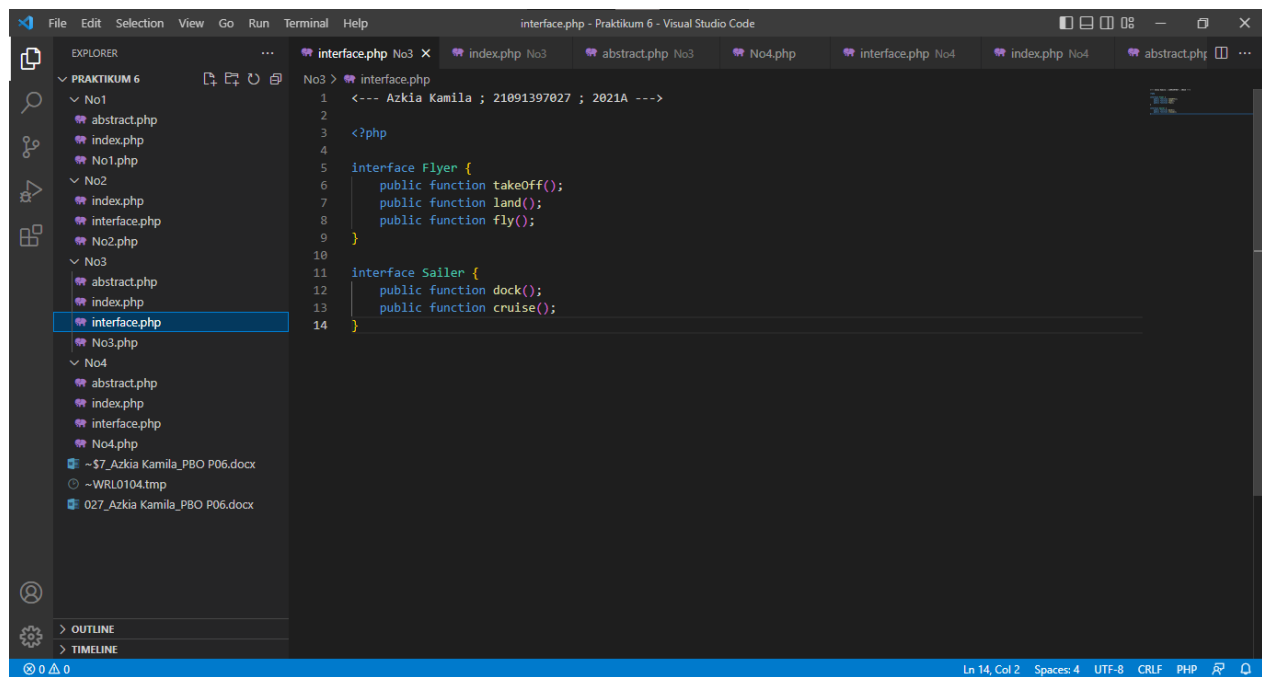
Figure 13 No3.php



The screenshot shows the Visual Studio Code editor with the file 'No3.php' open. The Explorer sidebar on the left shows a project structure for 'PRAKTIKUM 6' with subfolders 'No1', 'No2', 'No3', and 'No4'. Each folder contains 'abstract.php', 'index.php', and 'interface.php'. The 'No3.php' file is selected and its content is displayed in the main editor. The code defines a class 'Animal' with methods 'land()', 'fly()', 'leapBuilding()', and 'stopBullet()'. It also creates instances of 'Animal', 'Homosapiens', 'Airplane2', and 'Superman2'.

```
No3.php - Visual Studio Code
No3 > No3.php
62 {
63     return "$this->name mengejar Batman";
64 }
65
66 public function land()
67 {
68     return "$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 terpendak 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('Singa');
88 $manusia = new Homosapiens('Andi');
89 $airplane2 = new Airplane2(20000, 'Garuda Air');
90 $superman2 = new Superman2('Superman');
```

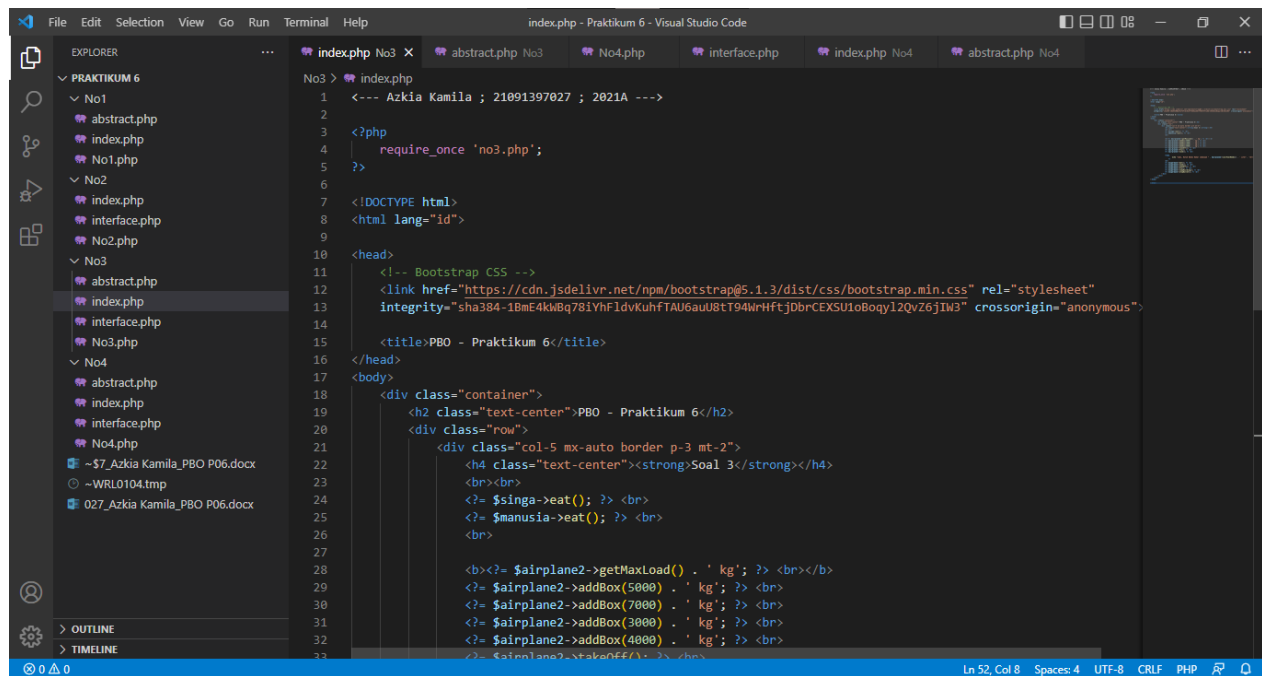
Figure 14 No3.php



The screenshot shows the Visual Studio Code editor with the file 'interface.php' open. The Explorer sidebar on the left shows the same project structure as Figure 14. The 'interface.php' file is selected and its content is displayed in the main editor. The code defines two interfaces: 'Flyer' with methods 'takeOff()', 'land()', and 'fly()'; and 'Sailer' with methods 'dock()' and 'cruise()'.

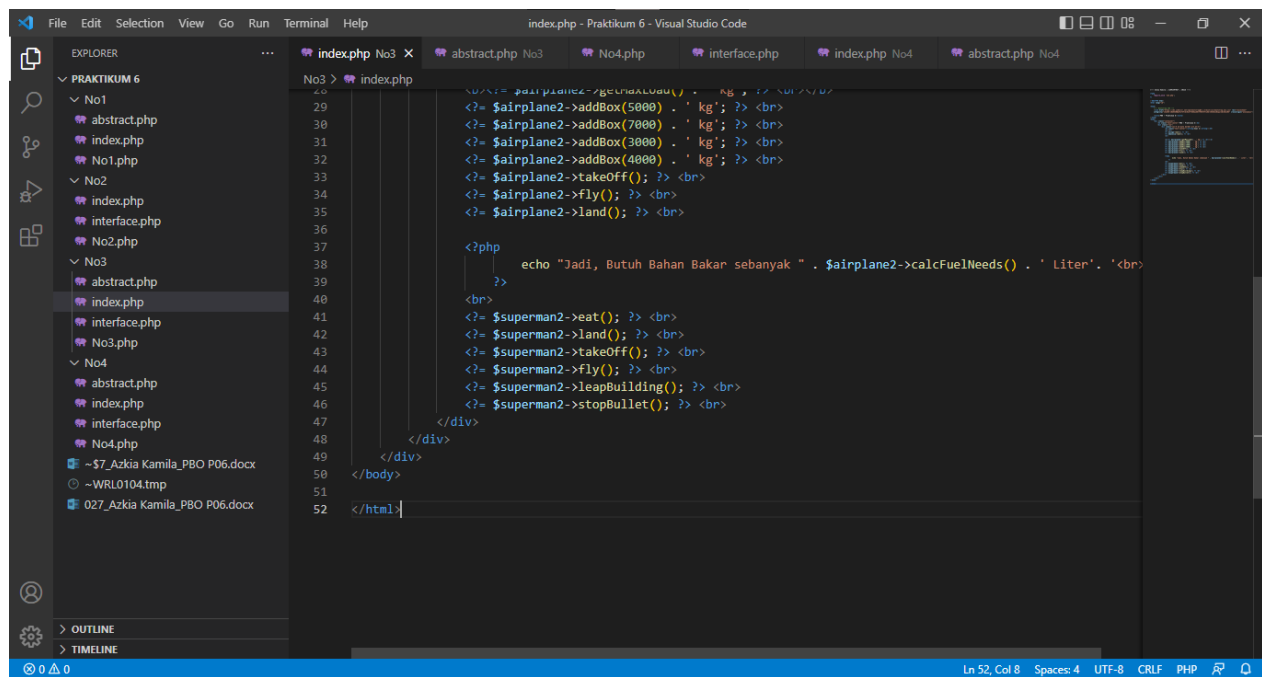
```
interface.php - Visual Studio Code
No3 > interface.php
1 <--- Azkia Kamila ; 21091397027 ; 2021A --->
2
3 <?php
4
5 interface Flyer {
6     public function takeOff();
7     public function land();
8     public function fly();
9 }
10
11 interface Sailer {
12     public function dock();
13     public function cruise();
14 }
```

Figure 15 interface.php



```
1 <!-- Azkia Kamila ; 21091397027 ; 2021A -->
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="sha384-1BmE4k4Bq78IYhF1dVkuhFTAU6auU8tT94wRHftjDbrCEXU10Boqy12QvZ6jIW3" 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                 <br>
28                 <br>
29                 <?= $airplane2->getMaxLoad() . ' kg'; ?> <br></div>
30                 <?= $airplane2->addBox(5000) . ' kg'; ?> <br>
31                 <?= $airplane2->addBox(7000) . ' kg'; ?> <br>
32                 <?= $airplane2->addBox(3000) . ' kg'; ?> <br>
33                 <?= $airplane2->addBox(4000) . ' kg'; ?> <br>
34                 <?= $airplane2->takeOff(); ?> <br>
35                 <?= $airplane2->fly(); ?> <br>
36                 <?= $airplane2->land(); ?> <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 </html>
```

Figure 16 index.php



```
1 <!-- Azkia Kamila ; 21091397027 ; 2021A -->
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="sha384-1BmE4k4Bq78IYhF1dVkuhFTAU6auU8tT94wRHftjDbrCEXU10Boqy12QvZ6jIW3" 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                 <br>
28                 <br>
29                 <?= $airplane2->getMaxLoad() . ' kg'; ?> <br>
30                 <?= $airplane2->addBox(5000) . ' kg'; ?> <br>
31                 <?= $airplane2->addBox(7000) . ' kg'; ?> <br>
32                 <?= $airplane2->addBox(3000) . ' kg'; ?> <br>
33                 <?= $airplane2->addBox(4000) . ' kg'; ?> <br>
34                 <?= $airplane2->takeOff(); ?> <br>
35                 <?= $airplane2->fly(); ?> <br>
36                 <?= $airplane2->land(); ?> <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 </html>
```

Figure 17 index.php

```
1 <--- Azkia Kamila ; 21091397027 ; 2021A --->
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 }
```

Figure 18 abstract.php

```
30 }
31
32 abstract public function calcFuelNeeds();
33
34 protected function calcFuelEfficiency() {
35     $range = 500000000;
36     $range /= $this->load;
37     return $range;
38 }
39
40 protected function calcTripDistance() {
41     return 500;
42 }
43 }
```

Figure 19 abstract.php

Output:



PBO - Praktikum 6

Soal 3

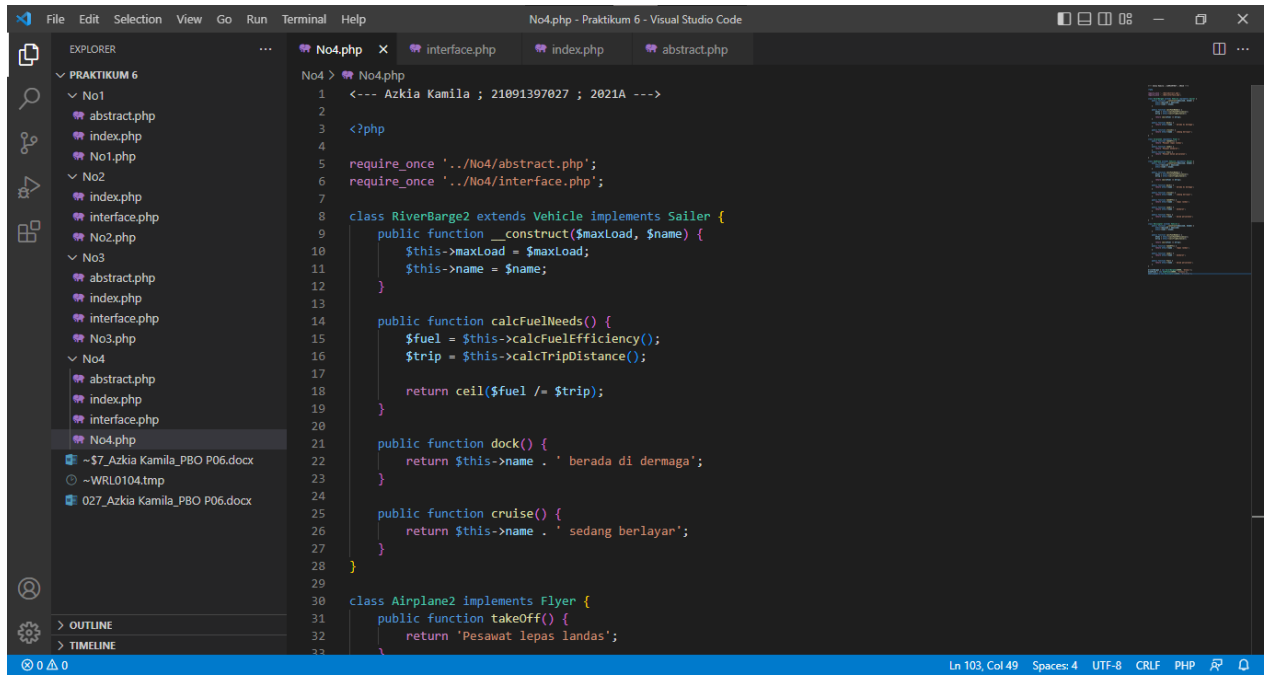
Singa sedang makan
Andi sedang makan

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

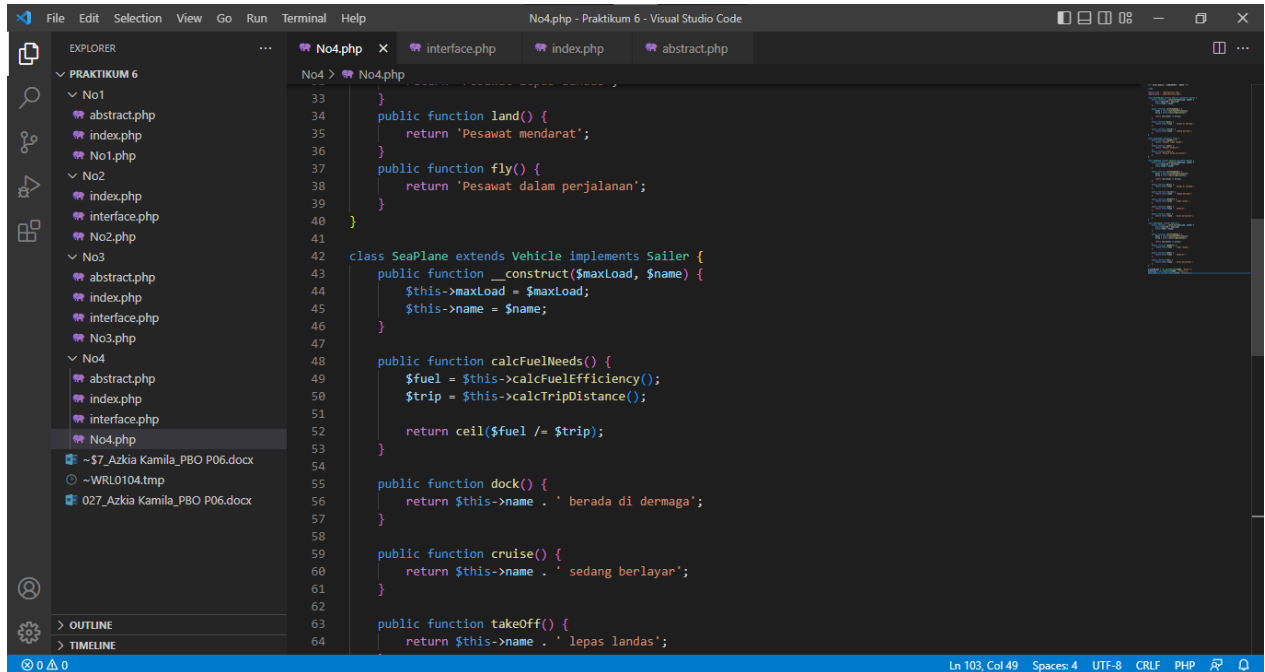
Superman sedang makan
Superman melawan Batman
Superman mengejar Batman
Superman melancarkan pukulan
Batman terpental menabrak bangunan pencakar langit
Polisi menembaki Superman namun ditangkis

4. Source Code:



```
1 <--- Azkia Kamila ; 21091397027 ; 2021A --->
2
3 <?php
4
5 require_once '../No4/abstract.php';
6 require_once '../No4/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 }
```

Figure 20 No4.php



```
33 }
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 }
```

Figure 21 No4.php

```
File Edit Selection View Go Run Terminal Help
No4.php - Praktikum 6 - Visual Studio Code

EXPLORER
PRAKTIKUM 6
  No1
    abstract.php
    index.php
    No1.php
  No2
    index.php
    interface.php
    No2.php
  No3
    abstract.php
    index.php
    interface.php
    No3.php
  No4
    abstract.php
    index.php
    interface.php
    No4.php
    ~$7_Azkia Kamila_PBO P06.docx
    ~WRL0104.tmp
    027_Azkia Kamila_PBO P06.docx

No4 > No4.php
63 public function takeOff() {
64     return $this->name . ' lepas landas';
65 }
66
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         $strip = $this->calcTripDistance();
85
86         return ceil($fuel / $strip);
87     }
88     public function takeOff() {
89         return $this->name . ' lepas landas';
90     }
91
92     public function land() {
93         return $this->name . ' mendarat';
94     }
95 }
```

Ln 103, Col 49 Spaces: 4 UTF-8 CRLF PHP

Figure 22 No4.php

```
File Edit Selection View Go Run Terminal Help
No4.php - Praktikum 6 - Visual Studio Code

EXPLORER
PRAKTIKUM 6
  No1
    abstract.php
    index.php
    No1.php
  No2
    index.php
    interface.php
    No2.php
  No3
    abstract.php
    index.php
    interface.php
    No3.php
  No4
    abstract.php
    index.php
    interface.php
    No4.php
    ~$7_Azkia Kamila_PBO P06.docx
    ~WRL0104.tmp
    027_Azkia Kamila_PBO P06.docx

No4 > No4.php
85
86     return ceil($fuel / $strip);
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 }
100
101 $riverBarge2 = new RiverBarge2(30000, 'Atomic');
102 $seaPlane = new SeaPlane(20000, 'Titanic');
103 $helicopter = new Helicopter(10000, 'Brocklyn');
```

Ln 103, Col 49 Spaces: 4 UTF-8 CRLF PHP

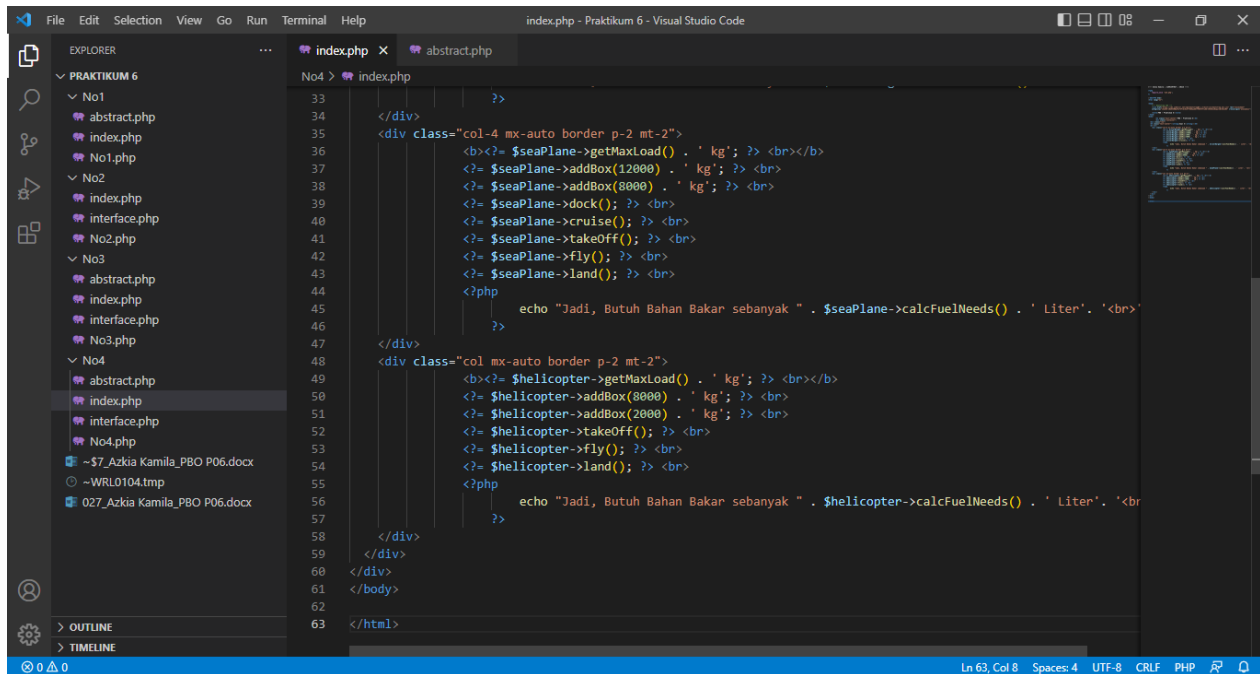
Figure 23 No4.php

```
1 <--- Azkia Kamila ; 21091397027 ; 2021A --->
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 }
```

Figure 24 interface.php

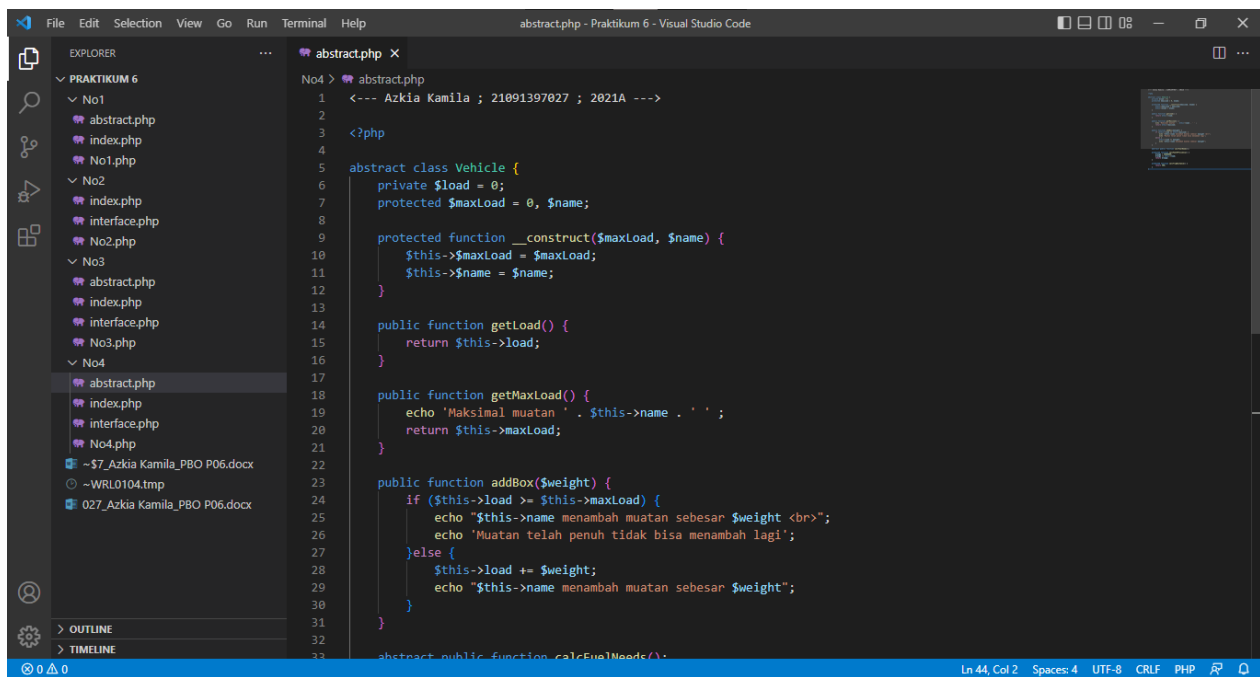
```
1 <--- Azkia Kamila ; 21091397027 ; 2021A --->
2
3 <?php
4     require_once 'no4.php';
5 ?>
6
7 <!DOCTYPE html>
8 <html lang="en">
9
10 <head>
11     <!-- Bootstrap CSS -->
12     <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet"
13         integrity="sha384-18mE4kWBq781YhF1dvKuhfTAU6auU8tT94MrHfjDbrCEXSU1oBoqy12QvZ6jIW3" 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             </div>
32             <pre>echo "Jadi, Butuh Bahan Bakar sebanyak " . $riverBarge2->calcFuelNeeds() . ' Liter'. ' </pre>
33         </div>
34     </div>
35 </body>
36 </html>
```

Figure 25 index.php



```
33
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```

Figure 26 index.php



```
1
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28
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33
```

Figure 27 abstract.php

```

31 }
32
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

```

Figure 28 abstract.php

Output:

<--- Azkia Kamila ; 21091397027 ; 2021A ---> <--- Azkia Kamila ; 21091397027 ; 2021A ---> <--- Azkia Kamila ; 21091397027 ; 2021A ---> <--- Azkia Kamila ; 21091397027 ; 2021A --->

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