

**TUGAS PRAKTIKUM 3**



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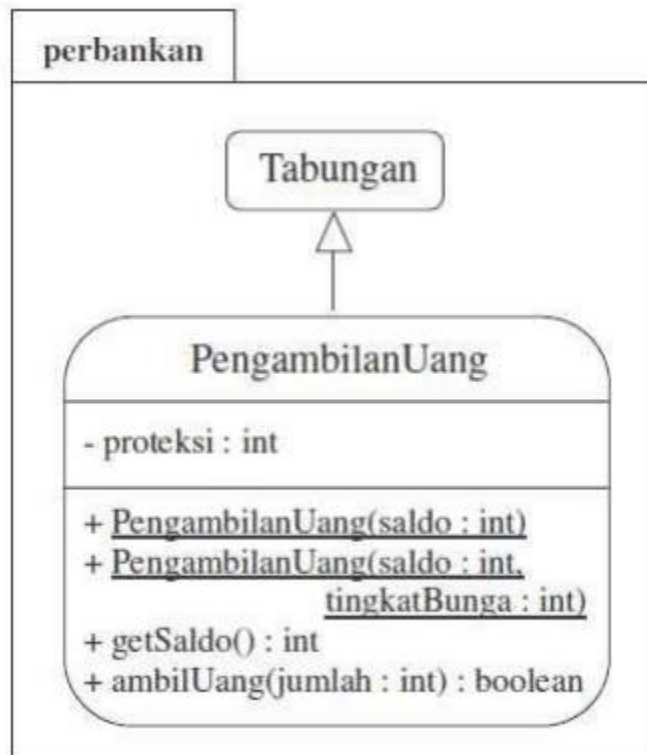
**D4 MANAJEMEN INFORMATIKA**

**2022**

## PRAKTIKUM 3

### INHERITANCE

1. Transformasikan UML class diagram dibawah ini kedalam program



Pseudocode dari soal diatas :

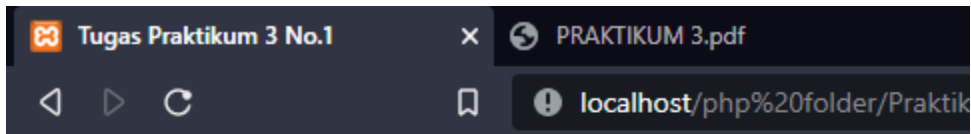
```
1 <!DOCTYPE html>
2 <html lang="id">
3 <head>
4 <link rel="stylesheet" href="mol.css">
5 <title>Tugas Praktikum 3 No.1</title>
6 </head>
7 <body>
8 <div class="container">
9 <?php
10 class Tabungan {
11     protected $saldo;
12 }
13 class PengambilanUang extends Tabungan {
14     private $proteksi;
15
16     public function __construct($saldo)
17     {
18         $this->saldo=$saldo;
19         $this->proteksi = 1000;
20     }
21
22     public function getSaldo(){
23         return "Uang yang ditabung : " . $this->saldo . "<br> Uang yang diproteksi : " . $this->proteksi;
24     }
25
26     public function ambilUang($jumlah){
27         if($jumlah == 4500){
28             return "Uang yang akan diambil : " . $jumlah . " false <br> Saldo sekarang : " . $this->saldo;
29         }else{
30             return "Uang yang akan diambil : " . $jumlah . " true <br> Saldo sekarang : " . $this->saldo -=$jumlah;
31         }
32     }
33 }
34
35 $tabungan = new PengambilanUang(5000);
36 echo $tabungan->getSaldo();
37 echo "<br> ----- <br>";
38 echo $tabungan->ambilUang(4500);
```

```

35 $tabungan = new PengambilanUang(5000);
36 echo $tabungan->getSaldo();
37 echo "<br>";
38 echo $tabungan->ambilUang(4500);
39 echo "<br>";
40 echo $tabungan->ambilUang(2500);
41
42 </div>
43 </body>
44 </html>
45

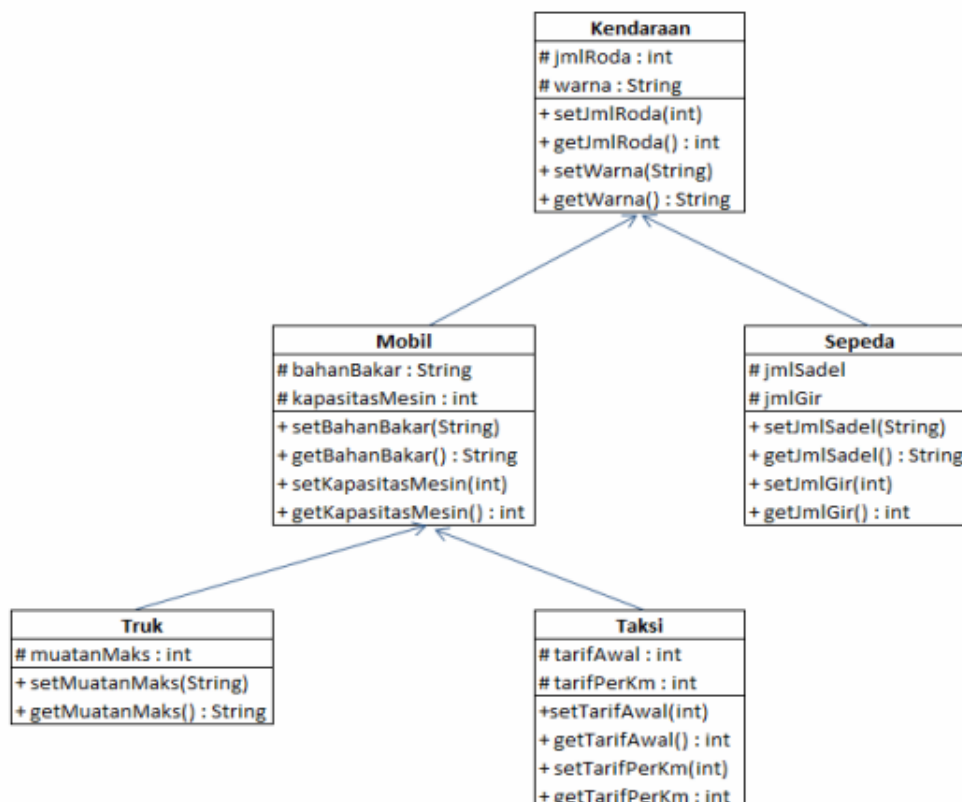
```

Output yang dihasilkan :



Uang yang ditabung : 5000  
 Uang yang diproteksi : 1000  
 -----  
 Uang yang akan diambil : 4500 false  
 Saldo sekarang : 5000  
 -----  
 Uang yang akan diambil : 2500 true  
 Saldo sekarang : 2500

2. a. Buatlah kelas-kelas berdasarkan UML class diagram dibawah ini!



Pseudocode dari class diagram di atas :

```
1  <?php
2
3
4  class Kendaraan {
5      protected $jmlRoda, $warna;
6      function setJmlRoda($jmlRoda) {
7          $this->jmlRoda = $jmlRoda;
8      }
9      public function getJmlRoda() {
10         return $this->jmlRoda;
11     }
12     public function setWarna($warna) {
13         $this->warna = $warna;
14     }
15     public function getWarna() {
16         return $this->warna;
17     }
18 }
19
20 class Mobil extends Kendaraan {
21     protected $bahanBakar, $kapasitasMesin;
22     public function setBahanBakar($bahanBakar) {
23         $this->bahanBakar = $bahanBakar;
24     }
25     public function getBahanBakar() {
26         return $this->bahanBakar;
27     }
28     public function setKapasitasMesin($kapasitasMesin) {
29         $this->kapasitasMesin = $kapasitasMesin;
30     }
31     public function getKapasitasMesin() {
32         return $this->kapasitasMesin;
33     }
34 }
35
36 class Sepeda extends Kendaraan {
37     protected $jmlSadel, $jmlGir;
38     public function setJmlSadel($jmlSadel) {
```

PHP Hypertext Preprocessor file | length: 3,680 | lines: 120 | Ln: 2 | Col: 1 | Pos: 3 | Windows (CR LF) | UTF-8 | INS | 27°C Berawan | 10:28 PM 9/23/2022

```
36 class Sepeda extends Kendaraan {
37     protected $jmlSadel, $jmlGir;
38     public function setJmlSadel($jmlSadel) {
39         $this->jmlSadel = $jmlSadel;
40     }
41     public function getJmlSadel() {
42         return $this->jmlSadel;
43     }
44     public function setJmlGir($jmlGir) {
45         $this->jmlGir = $jmlGir;
46     }
47     public function getJmlGir() {
48         return $this->jmlGir;
49     }
50 }
51
52 class Truk extends Mobil {
53     private $muatanMaks;
54     public function setMuatanMaks($muatanMaks) {
55         $this->muatanMaks = $muatanMaks;
56     }
57     public function getMuatanMaks() {
58         return $this->muatanMaks;
59     }
60 }
61
62 class Taksi extends Mobil {
63     private $tarifAwal, $tarifPerKm;
64     public function setTarifAwal($tarifAwal) {
65         $this->tarifAwal = $tarifAwal;
66     }
67     public function getTarifAwal() {
68         return $this->tarifAwal;
69     }
70     public function setTarifPerKm($tarifPerKm) {
71         $this->tarifPerKm = $tarifPerKm;
72     }
73     public function getTarifPerKm() {
```

PHP Hypertext Preprocessor file | length: 3,680 | lines: 120 | Ln: 2 | Col: 1 | Pos: 3 | Windows (CR LF) | UTF-8 | INS | 27°C Berawan | 10:28 PM 9/23/2022

```
D:\xampp\htdocs\php folder\Praktikum 3 No.2a.php - Notepad++ [Administrator]
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

Praktikum 3 No.1.php | Praktikum 3 No.2a.php

72
73     public function getTarifPerKm() {
74         return $this->tarifPerKm;
75     }
76
77
78     $truk1 = new Truk;
79     $truk1->setJmlRoda(4);
80     $truk1->setWarna('Kuning');
81     $truk1->setBahanBakar('Solar');
82     $truk1->setKapasitasMesin(1500);
83     $truk1->setMuatanMaks(1000);
84
85     $truk2 = new Truk;
86     $truk2->setJmlRoda(6);
87     $truk2->setWarna('Merah');
88     $truk2->setBahanBakar('Solar');
89     $truk2->setKapasitasMesin(2000);
90     $truk2->setMuatanMaks(5000);
91
92     $taksi1 = new Taksi;
93     $taksi1->setJmlRoda(4);
94     $taksi1->setWarna('Oranye');
95     $taksi1->setBahanBakar('Bensin');
96     $taksi1->setKapasitasMesin(1500);
97     $taksi1->setTarifAwal(10000);
98     $taksi1->setTarifPerKm(5000);
99
100     $taksi2 = new Taksi;
101     $taksi2->setJmlRoda(4);
102     $taksi2->setWarna('Biru');
103     $taksi2->setBahanBakar('Bensin');
104     $taksi2->setKapasitasMesin(1300);
105     $taksi2->setTarifAwal(7000);
106     $taksi2->setTarifPerKm(3500);
107
108     $sepeda1 = new Sepeda;
109     $sepeda1->setJmlRoda(2);

PHP Hypertext Preprocessor file | length: 3,680 | lines: 120 | Ln: 2 | Col: 1 | Pos: 3 | Windows (CR LF) | UTF-8 | INS
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```

```
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Praktikum 3 No.1.php | Praktikum 3 No.2a.php

88     $truk2->setBahanBakar('Solar');
89     $truk2->setKapasitasMesin(2000);
90     $truk2->setMuatanMaks(5000);
91
92     $taksi1 = new Taksi;
93     $taksi1->setJmlRoda(4);
94     $taksi1->setWarna('Oranye');
95     $taksi1->setBahanBakar('Bensin');
96     $taksi1->setKapasitasMesin(1500);
97     $taksi1->setTarifAwal(10000);
98     $taksi1->setTarifPerKm(5000);
99
100     $taksi2 = new Taksi;
101     $taksi2->setJmlRoda(4);
102     $taksi2->setWarna('Biru');
103     $taksi2->setBahanBakar('Bensin');
104     $taksi2->setKapasitasMesin(1300);
105     $taksi2->setTarifAwal(7000);
106     $taksi2->setTarifPerKm(3500);
107
108     $sepeda1 = new Sepeda;
109     $sepeda1->setJmlRoda(2);
110     $sepeda1->setWarna('Hitam');
111     $sepeda1->setJmlSadel(1);
112     $sepeda1->setJmlGir(2);
113
114     $sepeda2 = new Sepeda;
115     $sepeda2->setJmlRoda(2);
116     $sepeda2->setWarna('Putih');
117     $sepeda2->setJmlSadel(2);
118     $sepeda2->setJmlGir(5);
119
120     ?>
```

b. Selanjutnya buatlah kelas Tes.php yang membuat obyek-obyek serta mengeset nilai variabel seperti pada Tabel 1 dan tampilkan data per obyek.

**Tabel 1. Data obyek**

Obyek	jmlRoda	warna	bahanBakar	kapasitasMesin	muatanMaks	
truk1	4	kuning	solar	1500	1000	
truk2	6	merah	solar	2000	5000	
					tarifAwal	tarifPerKm
taksi1	4	oranye	bensin	1500	10000	5000
taksi1	4	biru	bensin	1300	7000	3500
			jmlSadel	jmlGir		
sepeda1	3	hitam	1	2		
sepeda2	2	putih	2	5		

Pseudocodenya:

```

1  <?php
2  require_once 'Praktikum 3 No.2a.php';
3  ?>
4
5
6  <!DOCTYPE html>
7  <html lang="id">
8  <head>
9      <title>Praktikum 3</title>
10     <link rel="stylesheet" href="no2.css">
11 </head>
12
13 <body>
14     <div class="table1">
15         <table border="1" width="50%">
16             <tr>
17                 <td>No</td>
18                 <td>Object</td>
19                 <td>Jumlah Roda</td>
20                 <td>Warna</td>
21                 <td>Bahan Bakar</td>
22                 <td>Kapasitas Mesin</td>
23                 <td>Muatan Maksimal</td>
24                 <td>Tarif Awal</td>
25                 <td>Tarif Per Km</td>
26                 <td>Jumlah Sadel</td>
27                 <td>Jumlah Gir</td>
28             </tr>
29             <tr>
30                 <td>1</td>
31                 <td>Truk 1</td>
32                 <td>= $truk1-&gt;getJmlRoda(); ?&gt;&lt;/td&gt;
33                 &lt;td&gt;<?= $truk1-&gt;getWarna(); ?&gt;&lt;/td&gt;
34                 &lt;td&gt;<?= $truk1-&gt;getBahanBakar(); ?&gt;&lt;/td&gt;
35                 &lt;td&gt;<?= $truk1-&gt;getKapasitasMesin(); ?&gt;&lt;/td&gt;
36                 &lt;td&gt;<?= $truk1-&gt;getMuatanMaks(); ?&gt;&lt;/td&gt;
37                 &lt;td&gt;&lt;/td&gt;
38                 &lt;td&gt;&lt;/td&gt;
</pre

```

```
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File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
Praktikum 3 No.1.php Praktikum 3 No.2a.php Praktikum 3 No.2b.php
38 <td></td>
39 <td></td>
40 <td></td>
41 </tr>
42 <tr>
43 <td>2</td>
44 <td>Truk 2</td>
45 <td>= $struk2-&gt;getJmlRoda(); ?&gt;&lt;/td&gt;
46 &lt;td&gt;<?= $struk2-&gt;getWarna(); ?&gt;&lt;/td&gt;
47 &lt;td&gt;<?= $struk2-&gt;getBahanBakar(); ?&gt;&lt;/td&gt;
48 &lt;td&gt;<?= $struk2-&gt;getKapasitasMesin(); ?&gt;&lt;/td&gt;
49 &lt;td&gt;<?= $struk2-&gt;getMuatanMaks(); ?&gt;&lt;/td&gt;
50 &lt;td&gt;&lt;/td&gt;
51 &lt;td&gt;&lt;/td&gt;
52 &lt;td&gt;&lt;/td&gt;
53 &lt;td&gt;&lt;/td&gt;
54 &lt;/tr&gt;
55 &lt;tr&gt;
56 &lt;td&gt;3&lt;/td&gt;
57 &lt;td&gt;Taksi 1&lt;/td&gt;
58 &lt;td&gt;<?= $taksi1-&gt;getJmlRoda(); ?&gt;&lt;/td&gt;
59 &lt;td&gt;<?= $taksi1-&gt;getWarna(); ?&gt;&lt;/td&gt;
60 &lt;td&gt;<?= $taksi1-&gt;getBahanBakar(); ?&gt;&lt;/td&gt;
61 &lt;td&gt;<?= $taksi1-&gt;getKapasitasMesin(); ?&gt;&lt;/td&gt;
62 &lt;td&gt;&lt;/td&gt;
63 &lt;td&gt;<?= $taksi1-&gt;getTarifAwal(); ?&gt;&lt;/td&gt;
64 &lt;td&gt;<?= $taksi1-&gt;getTarifPerKm(); ?&gt;&lt;/td&gt;
65 &lt;td&gt;&lt;/td&gt;
66 &lt;td&gt;&lt;/td&gt;
67 &lt;/tr&gt;
68 &lt;tr&gt;
69 &lt;td&gt;4&lt;/td&gt;
70 &lt;td&gt;Taksi 2&lt;/td&gt;
71 &lt;td&gt;<?= $taksi2-&gt;getJmlRoda(); ?&gt;&lt;/td&gt;
72 &lt;td&gt;<?= $taksi2-&gt;getWarna(); ?&gt;&lt;/td&gt;
73 &lt;td&gt;<?= $taksi2-&gt;getBahanBakar(); ?&gt;&lt;/td&gt;
74 &lt;td&gt;<?= $taksi2-&gt;getKapasitasMesin(); ?&gt;&lt;/td&gt;
75 &lt;td&gt;&lt;/td&gt;
76 &lt;td&gt;&lt;/td&gt;
77 &lt;td&gt;&lt;/td&gt;
78 &lt;td&gt;&lt;/td&gt;
79 &lt;/tr&gt;
80 &lt;tr&gt;
81 &lt;td&gt;5&lt;/td&gt;
82 &lt;td&gt;Sepeda 1&lt;/td&gt;
83 &lt;td&gt;<?= $sepeda1-&gt;getJmlRoda(); ?&gt;&lt;/td&gt;
84 &lt;td&gt;<?= $sepeda1-&gt;getWarna(); ?&gt;&lt;/td&gt;
85 &lt;td&gt;&lt;/td&gt;
86 &lt;td&gt;&lt;/td&gt;
87 &lt;td&gt;&lt;/td&gt;
88 &lt;td&gt;&lt;/td&gt;
89 &lt;td&gt;&lt;/td&gt;
90 &lt;td&gt;<?= $sepeda1-&gt;getJmlSadel(); ?&gt;&lt;/td&gt;
91 &lt;td&gt;<?= $sepeda1-&gt;getJmlGir(); ?&gt;&lt;/td&gt;
92 &lt;td&gt;&lt;/td&gt;
93 &lt;td&gt;&lt;/td&gt;
94 &lt;/tr&gt;
95 &lt;tr&gt;
96 &lt;td&gt;6&lt;/td&gt;
97 &lt;td&gt;Sepeda 2&lt;/td&gt;
98 &lt;td&gt;<?= $sepeda2-&gt;getJmlRoda(); ?&gt;&lt;/td&gt;
99 &lt;td&gt;<?= $sepeda2-&gt;getWarna(); ?&gt;&lt;/td&gt;
100 &lt;td&gt;&lt;/td&gt;
101 &lt;td&gt;&lt;/td&gt;
102 &lt;td&gt;&lt;/td&gt;
103 &lt;td&gt;&lt;/td&gt;
104 &lt;td&gt;<?= $sepeda2-&gt;getJmlSadel(); ?&gt;&lt;/td&gt;
105 &lt;td&gt;<?= $sepeda2-&gt;getJmlGir(); ?&gt;&lt;/td&gt;
106 &lt;td&gt;&lt;/td&gt;
107 &lt;td&gt;&lt;/td&gt;
108 &lt;/table&gt;
109 &lt;/div&gt;
110 &lt;/body&gt;
111 &lt;/html&gt;
PHP Hypertext Preprocessor file length: 4,134 lines: 110 Ln: 1 Col: 1 Pos: 1 Windows (CR LF) UTF-8 INS
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```

```
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File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
Praktikum 3 No.1.php Praktikum 3 No.2a.php Praktikum 3 No.2b.php
75 <td></td>
76 <td>= $taksi2-&gt;getTarifAwal(); ?&gt;&lt;/td&gt;
77 &lt;td&gt;<?= $taksi2-&gt;getTarifPerKm(); ?&gt;&lt;/td&gt;
78 &lt;td&gt;&lt;/td&gt;
79 &lt;td&gt;&lt;/td&gt;
80 &lt;/tr&gt;
81 &lt;tr&gt;
82 &lt;td&gt;5&lt;/td&gt;
83 &lt;td&gt;Sepeda 1&lt;/td&gt;
84 &lt;td&gt;<?= $sepeda1-&gt;getJmlRoda(); ?&gt;&lt;/td&gt;
85 &lt;td&gt;<?= $sepeda1-&gt;getWarna(); ?&gt;&lt;/td&gt;
86 &lt;td&gt;&lt;/td&gt;
87 &lt;td&gt;&lt;/td&gt;
88 &lt;td&gt;&lt;/td&gt;
89 &lt;td&gt;&lt;/td&gt;
90 &lt;td&gt;<?= $sepeda1-&gt;getJmlSadel(); ?&gt;&lt;/td&gt;
91 &lt;td&gt;<?= $sepeda1-&gt;getJmlGir(); ?&gt;&lt;/td&gt;
92 &lt;td&gt;&lt;/td&gt;
93 &lt;td&gt;&lt;/td&gt;
94 &lt;/tr&gt;
95 &lt;tr&gt;
96 &lt;td&gt;6&lt;/td&gt;
97 &lt;td&gt;Sepeda 2&lt;/td&gt;
98 &lt;td&gt;<?= $sepeda2-&gt;getJmlRoda(); ?&gt;&lt;/td&gt;
99 &lt;td&gt;<?= $sepeda2-&gt;getWarna(); ?&gt;&lt;/td&gt;
100 &lt;td&gt;&lt;/td&gt;
101 &lt;td&gt;&lt;/td&gt;
102 &lt;td&gt;&lt;/td&gt;
103 &lt;td&gt;&lt;/td&gt;
104 &lt;td&gt;<?= $sepeda2-&gt;getJmlSadel(); ?&gt;&lt;/td&gt;
105 &lt;td&gt;<?= $sepeda2-&gt;getJmlGir(); ?&gt;&lt;/td&gt;
106 &lt;td&gt;&lt;/td&gt;
107 &lt;td&gt;&lt;/td&gt;
108 &lt;/table&gt;
109 &lt;/div&gt;
110 &lt;/body&gt;
111 &lt;/html&gt;
PHP Hypertext Preprocessor file length: 4,134 lines: 110 Ln: 1 Col: 1 Pos: 1 Windows (CR LF) UTF-8 INS
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```

Outputnya:

Praktikum 3

×

PRAKTIKUM 3.pdf

AhmedNs38

◀ ▶ ↻

🔖

localhost/php%20folder/Praktikum%203%20No.2b.php

No	Object	Jumlah Roda	Warna	Bahan Bakar	Kapasitas Mesin	Muatan Maksimal	Tarif Awal	Tarif Per KM	Jumlah Sadel	Jumlah Gir
1	Truk 1	4	Kuning	Solar	1500	1000	-	-	-	-
2	Truk 2	6	Merah	Solar	2000	5000	-	-	-	-
3	Taksi 1	4	Oranye	Bensin	1500	-	10000	5000	-	-
4	Taksi 2	4	Biru	Bensin	1300	-	7000	3500	-	-
5	Sepeda 1	3	Hitam	-	-	-	-	-	1	2
6	Sepeda 2	2	Putih	-	-	-	-	-	2	5