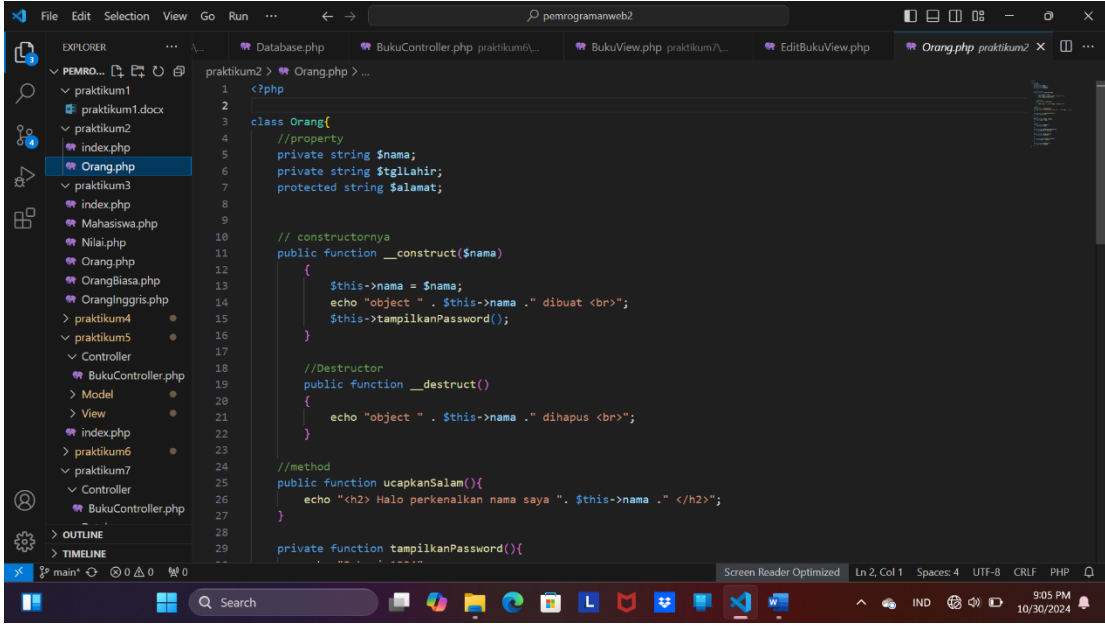
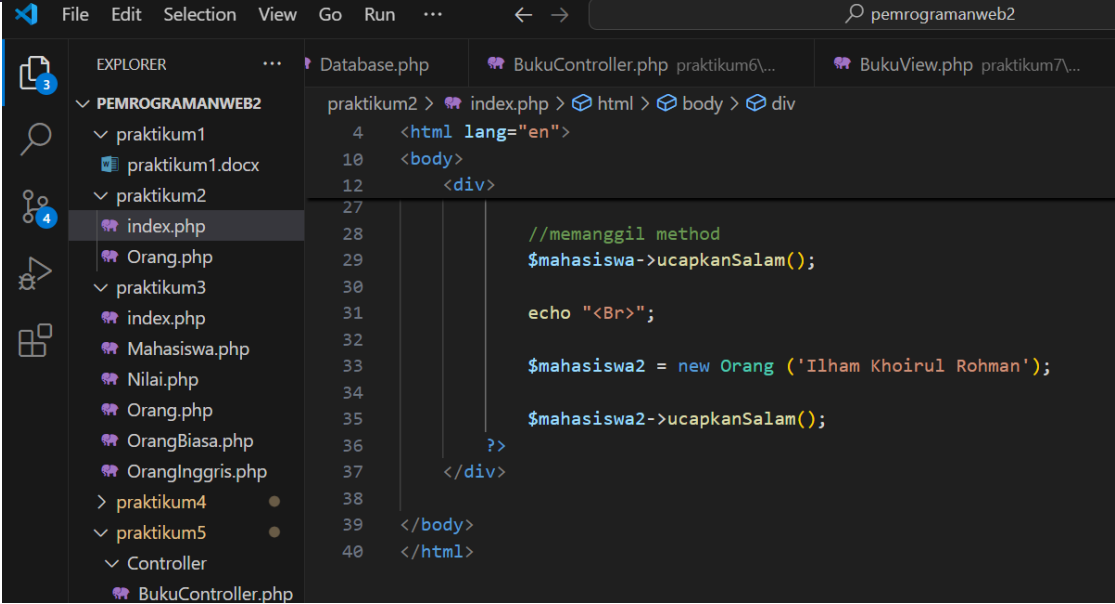


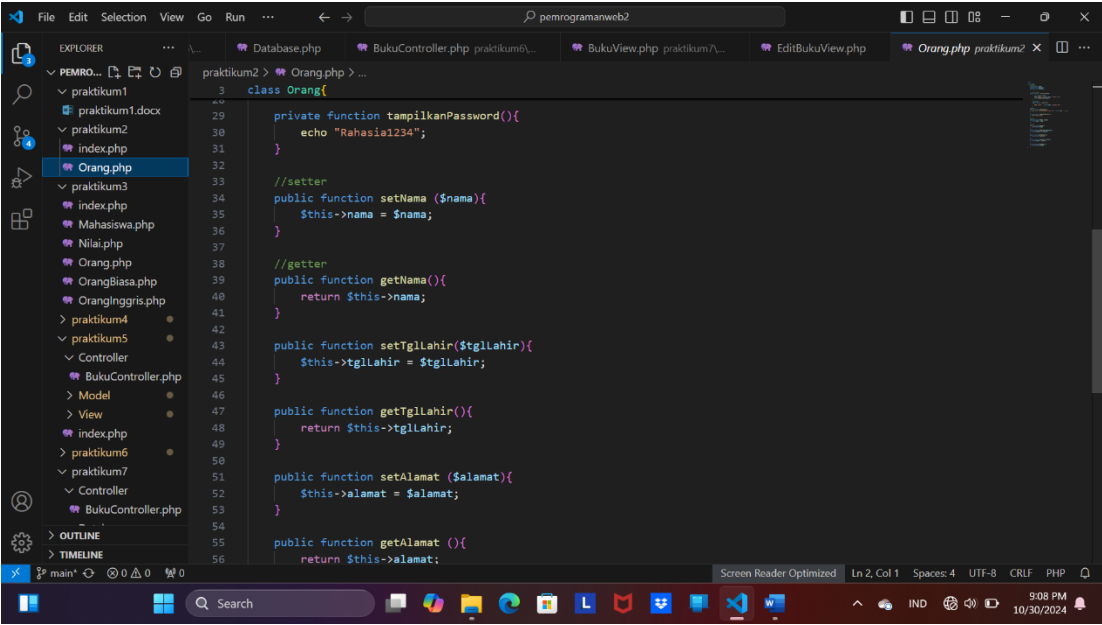
```
1 <?php
2     include "Orang.php";
3 ?>
4 <html lang="en">
5 <head>
6     <meta charset="UTF-8">
7     <meta name="viewport" content="width=device-width, initial-scale=1.0">
8     <title>Document</title>
9 </head>
10 <body>
11     <h1>Hello Praktikum 2</h1>
12     <div>
13     <?php
14         //proses instansiasi
15         $mahasiswa = new Orang ('Ririn Rahmawati');
16
17         // menggunakan setter dan getter
18         $mahasiswa->setNama('Ririn Rahmawati');
19         $mahasiswa->setTglLahir('2005-06-13');
20         $mahasiswa->setAlamat('Sungai Duren, Muaro Jambi');
21
22         echo "<br>";
23         echo "Data Mahasiswa ". $mahasiswa->getNama() . "<br>";
24         echo "Nama : " . $mahasiswa->getNama() . "<br>";
25         echo "Tgl Lahir : " . $mahasiswa->getTglLahir() . "<br>";
26         echo "Alamat : " . $mahasiswa->getAlamat() . "<br>";
27
28         //memanggil method
29         $mahasiswa->ucapkanSalam();
30     </div>
31 </body>
32 </html>
```



```
1 <?php
2
3 class Orang{
4     //property
5     private string $nama;
6     private string $tglLahir;
7     protected string $alamat;
8
9     // constructornya
10    public function __construct($nama)
11    {
12        $this->nama = $nama;
13        echo "object " . $this->nama . " dibuat <br>";
14        $this->tampilkanPassword();
15    }
16
17    //Destructor
18    public function __destruct()
19    {
20        echo "object " . $this->nama . " dihapus <br>";
21    }
22
23    //method
24    public function ucapkanSalam(){
25        echo "<h2> Halo perkenalkan nama saya " . $this->nama . " </h2>";
26    }
27
28    private function tampilkanPassword(){
29
30    }
```



```
1 <?php
2     include "Orang.php";
3 ?>
4 <html lang="en">
5 <head>
6     <meta charset="UTF-8">
7     <meta name="viewport" content="width=device-width, initial-scale=1.0">
8     <title>Document</title>
9 </head>
10 <body>
11     <h1>Hello Praktikum 2</h1>
12     <div>
13     <?php
14         //proses instansiasi
15         $mahasiswa = new Orang ('Ririn Rahmawati');
16
17         // menggunakan setter dan getter
18         $mahasiswa->setNama('Ririn Rahmawati');
19         $mahasiswa->setTglLahir('2005-06-13');
20         $mahasiswa->setAlamat('Sungai Duren, Muaro Jambi');
21
22         echo "<br>";
23         echo "Data Mahasiswa ". $mahasiswa->getNama() . "<br>";
24         echo "Nama : " . $mahasiswa->getNama() . "<br>";
25         echo "Tgl Lahir : " . $mahasiswa->getTglLahir() . "<br>";
26         echo "Alamat : " . $mahasiswa->getAlamat() . "<br>";
27
28         //memanggil method
29         $mahasiswa->ucapkanSalam();
30     </div>
31 </body>
32 </html>
```



```
1 <?php
2
3 class Orang{
4     //property
5     private string $nama;
6     private string $tglLahir;
7     protected string $alamat;
8
9     // constructornya
10    public function __construct($nama)
11    {
12        $this->nama = $nama;
13        echo "object " . $this->nama . " dibuat <br>";
14        $this->tampilkanPassword();
15    }
16
17    //Destructor
18    public function __destruct()
19    {
20        echo "object " . $this->nama . " dihapus <br>";
21    }
22
23    //method
24    public function ucapkanSalam(){
25        echo "<h2> Halo perkenalkan nama saya " . $this->nama . " </h2>";
26    }
27
28    private function tampilkanPassword(){
29
30    }
```

```

praktikum3 > index.php > html > body > div.
1  <html lang="en">
2  <head>
3      <meta charset="UTF-8">
4      <meta name="viewport" content="width=device-width, initial-scale=1.0">
5      <title>Praktikum 3</title>
6  </head>
7  <body>
8      <h1>Konsep Pewarisan</h1>
9      <div class="" style="font-size: 45px;">
10         <?php
11             include "OrangBiasa.php";
12             include "OrangInggris.php";
13             include "Mahasiswa.php";
14
15             $james = new OrangBiasa('James'); //memanggil construct
16             $james->ucapSalam(); //memanggil method
17             echo "<br>";
18
19             $parto = new OrangInggris('Parto');
20             $parto->ucapSalam(); //override
21             echo "<br>";
22
23             $emely = new Mahasiswa("Emely");
24             $emely->ucapSalam();
25             echo "<br>";
26             $emely->setNim("701230036");
27             $emely->setProdi("Sistem Informasi");
28
29             $nilaiEmely = new Nilai();

```

```

praktikum3 > Mahasiswa.php > Mahasiswa
1  <?php
2
3      require_once "Orang.php";
4      require_once "Nilai.php";
5
6      class Mahasiswa extends Orang{
7          protected string $nim;
8          protected string $prodi;
9          protected Nilai $nilai;
10
11          //setter
12
13          public function setNim($nim){
14              $this->nim = $nim;
15          }
16
17          public function setProdi($prodi){
18              $this->prodi = $prodi;
19          }
20
21          public function setNilai($nilai){
22              $this->nilai = $nilai;
23          }
24
25          public function tampilkandata(){
26              echo "Nama : " . $this->nama . "<br>";
27              echo "NIM : " . $this->nim . "<br>";
28              echo "Prodi : " . $this->prodi . "<br>";
29              echo "Nilai Tugas : " . $this->nilai->getTugas() . "<br>";

```

```

praktikum3 > index.php > html > body > div.
1  <html lang="en">
7  <body>
9      <div class="" style="font-size: 45px;">
28
29          $nilaiEmely = new Nilai();
30          $nilaiEmely->setTugas(90);
31          $nilaiEmely->setUts(76);
32          $nilaiEmely->setUas(78);
33
34          $emely->setNilai($nilaiEmely);
35          $emely->tampilkanData();
36      ?>
37  </div>
38 </body>
39 </html>
40

```

```

praktikum3 > Mahasiswa.php > Mahasiswa
1
2
3      class Mahasiswa extends Orang{
4          protected string $nim;
5          protected string $prodi;
6          protected Nilai $nilai;
7
8          //setter
9
10
11          public function setNim($nim){
12              $this->nim = $nim;
13          }
14
15          public function setProdi($prodi){
16              $this->prodi = $prodi;
17          }
18
19          public function setNilai($nilai){
20              $this->nilai = $nilai;
21          }
22
23          public function tampilkandata(){
24              echo "Nama : " . $this->nama . "<br>";
25              echo "NIM : " . $this->nim . "<br>";
26              echo "Prodi : " . $this->prodi . "<br>";
27              echo "Nilai Tugas : " . $this->nilai->getTugas() . "<br>";
28              echo "Nilai UTS : " . $this->nilai->getUts() . "<br>";
29              echo "Nilai UAS : " . $this->nilai->getUas() . "<br>";
30          }
31      }
32
33

```

praktikum3 > Nilai.php > Nilai > setTugas

```
1  <?php
2  //Nilai.php
3  class Nilai{
4      protected $tugas = 0;
5      protected $uts = 0;
6      protected $uas = 0;
7
8      //Setter (memberi nilai)
9      public function setTugas($tugas){
10         if($tugas >= 0 && $tugas <= 100){
11             $this->tugas = $tugas;
12         }
13     }
14
15     public function setUts($uts){
16         if($uts >= 0 && $uts <= 100)
17             $this->uts = $uts;
18     }
19
20     public function setUas($uas){
21         if($uas >= 0 && $uas <= 100)
22             $this->uas = $uas;
23     }
24
25     //Getter
26     public function getTugas (){
27         return $this ->tugas;
28     }
29 }
```

praktikum3 > Orang.php > Orang

```
1  <?php
2
3  class Orang{
4      protected $nama;
5
6      //constructor
7      public function __construct($nama)
8      {
9          $this->nama = $nama;
10     }
11
12     //method
13     public function ucapSalam(){
14         echo "Hello nama saya " . $this->nama;
15     }
16 }
```

praktikum3 > Nilai.php > Nilai > setTugas

```
3  class Nilai{
9      public function setTugas($tugas){
12     }
13
14
15     public function setUts($uts){
16         if($uts >= 0 && $uts <= 100)
17             $this->uts = $uts;
18     }
19
20     public function setUas($uas){
21         if($uas >= 0 && $uas <= 100)
22             $this->uas = $uas;
23     }
24
25     //Getter
26     public function getTugas (){
27         return $this ->tugas;
28     }
29
30     public function getUts(){
31         return $this ->uts;
32     }
33
34     public function getUas(){
35         return $this ->uas;
36     }
37 }
```

praktikum3 > OrangBiasa.php > OrangBiasa

```
1  <?php
2
3  require_once "Orang.php";
4
5  class OrangBiasa extends Orang{
6
7  }
```

```

praktikum3 > index.php > html > body > div.
1  <html lang="en">
2  <head>
3      <meta charset="UTF-8">
4      <meta name="viewport" content="width=device-width, initial-scale=1.0">
5      <title>Praktikum 3</title>
6  </head>
7  <body>
8      <h1>Konsep Pewarisan</h1>
9      <div class="" style="font-size: 45px;">
10         <?php
11             include "OrangBiasa.php";
12             include "OrangInggris.php";
13             include "Mahasiswa.php";
14
15             $james = new OrangBiasa('James'); //memanggil construct
16             $james->ucapSalam(); //memanggil method
17             echo "<br>";
18
19             $parto = new OrangInggris('Parto');
20             $parto->ucapSalam(); //override
21             echo "<br>";
22
23             $emely = new Mahasiswa("Emely");
24             $emely->ucapSalam();
25             echo "<br>";
26             $emely->setNim("701230036");
27             $emely->setProdi("Sistem Informasi");
28
29             $nilaiEmely = new Nilai();

```

```

praktikum3 > Mahasiswa.php > Mahasiswa
1  <?php
2
3      require_once "Orang.php";
4      require_once "Nilai.php";
5
6      class Mahasiswa extends Orang{
7          protected string $nim;
8          protected string $prodi;
9          protected Nilai $nilai;
10
11          //setter
12
13          public function setNim($nim){
14              $this->nim = $nim;
15          }
16
17          public function setProdi($prodi){
18              $this->prodi = $prodi;
19          }
20
21          public function setNilai($nilai){
22              $this->nilai = $nilai;
23          }
24
25          public function tampilkandata(){
26              echo "Nama : " . $this->nama . "<br>";
27              echo "NIM : " . $this->nim . "<br>";
28              echo "Prodi : " . $this->prodi . "<br>";
29              echo "Nilai Tugas : " . $this->nilai->getTugas() . "<br>";

```

```

praktikum3 > index.php > html > body > div.
1  <html lang="en">
7  <body>
9      <div class="" style="font-size: 45px;">
28
29          $nilaiEmely = new Nilai();
30          $nilaiEmely->setTugas(90);
31          $nilaiEmely->setUts(76);
32          $nilaiEmely->setUas(78);
33
34          $emely->setNilai($nilaiEmely);
35          $emely->tampilkanData();
36      ?>
37  </div>
38 </body>
39 </html>
40

```

```

praktikum3 > Mahasiswa.php > Mahasiswa
1
2
3      class Mahasiswa extends Orang{
4          protected string $nim;
5          protected string $prodi;
6          protected Nilai $nilai;
7
8          //setter
9
10
11          public function setNim($nim){
12              $this->nim = $nim;
13          }
14
15          public function setProdi($prodi){
16              $this->prodi = $prodi;
17          }
18
19          public function setNilai($nilai){
20              $this->nilai = $nilai;
21          }
22
23          public function tampilkandata(){
24              echo "Nama : " . $this->nama . "<br>";
25              echo "NIM : " . $this->nim . "<br>";
26              echo "Prodi : " . $this->prodi . "<br>";
27              echo "Nilai Tugas : " . $this->nilai->getTugas() . "<br>";
28              echo "Nilai UTS : " . $this->nilai->getUts() . "<br>";
29              echo "Nilai UAS : " . $this->nilai->getUas() . "<br>";
30          }
31      }
32
33

```

praktikum3 > OrangInggris.php > OrangInggris

```
1  <?php
2
3  require_once "Orang.php";
4
5  class OrangInggris extends Orang{
6
7      //Overrede
8      public function ucapSalam()
9      {
10         echo "Hello My name is " . $this->nama;
11     }
12 }
```

praktikum4 > BsForm.php > BsForm > setInputText

```
2  class BsForm {
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28     public function setForm($action, $method){
29         $this->action = $action;
30         $this->method = $method;
31     }
32
33
34     public function showForm(){
35         echo'
36         <form action="'. $this->action .' " method="'. $this->method .' ">
37         ';
38
39         foreach($this->components as $item){
40             echo $item;
41         }
42
43         echo '</form>';
44     }
45 }
```

praktikum4 > BsForm.php > BsForm > setInputText

```
1  <?php
2  class BsForm {
3
4      protected $components = [];
5      protected $action = '';
6      protected $method = 'get';
7
8      public function setInputText($id, $name, $label){
9          $iText = '<div class="mb-3">
10                  <label for="'. $id .' ">'. $label .'</label>
11                  <input class="form-control" type="text" name="'. $name ." " id="'. $id .' ">
12                  </div>';
13          array_push($this->components, $iText);
14      }
15
16      public function setInputTextarea(){
17
18      }
19
20
21      public function setButton($label){
22          $btn = '<div class="mb-3">
23                  <button type="button" class="btn btn-primary">'. $label .'</button>
24                  </div>';
25          array_push($this->components, $btn);
26      }
27
28      public function setForm($action, $method){
29          $this->action = $action;
```

praktikum4 > index.php > html > head > link

```
1  <!doctype html>
2  <html>
3      <head>
4          <meta charset="UTF-8">
5          <title>Form Mahasiswa</title>
6          <meta name="viewport" content="width=device-width, initial-scale=1">
7
8          <!-- Bootstrap CSS -->
9          <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet"
10              integrity="sha384-18mE4kW8q78iYhF1dvKuhfTAU6auU8tT94WrHftjDbrCEXSU1oBoqyl2QvZ6jIW3" crossorigin="anonymous">
11
12      </head>
13      <body>
14          <div class="container">
15              <div class="row">
16                  <div class="col-6">
17                      <h1 class="">Form Mahasiswa</h1>
18                      <hr>
19                      <?php
20                          require_once "BsForm.php";
21                          $formMhs = new BsForm();
22                          $formMhs->setInputText('nama', 'nama', 'Nama');
23                          $formMhs->setInputText('nim', 'nim', 'NIM');
24                          $formMhs->setInputText('prodi', 'prodi', 'Program Studi');
25                          $formMhs->setInputText('fakultas', 'fakultas', 'Fakultas');
26                          $formMhs->setButton('Simpan');
27                          $formMhs->showForm();
28                      </?php>
29                  </div>
30              </div>
31          </div>
32      </body>
33  </html>
```

```

praktikum3 > index.php > html > body > div.
1  <html lang="en">
2  <head>
3      <meta charset="UTF-8">
4      <meta name="viewport" content="width=device-width, initial-scale=1.0">
5      <title>Praktikum 3</title>
6  </head>
7  <body>
8      <h1>Konsep Pewarisan</h1>
9      <div class="" style="font-size: 45px;">
10         <?php
11             include "OrangBiasa.php";
12             include "OrangInggris.php";
13             include "Mahasiswa.php";
14
15             $james = new OrangBiasa('James'); //memanggil construct
16             $james->ucapSalam(); //memanggil method
17             echo "<br>";
18
19             $parto = new OrangInggris('Parto');
20             $parto->ucapSalam(); //override
21             echo "<br>";
22
23             $emely = new Mahasiswa("Emely");
24             $emely->ucapSalam();
25             echo "<br>";
26             $emely->setNim("701230036");
27             $emely->setProdi("Sistem Informasi");
28
29             $nilaiEmely = new Nilai();

```

```

praktikum3 > Mahasiswa.php > Mahasiswa
1  <?php
2
3      require_once "Orang.php";
4      require_once "Nilai.php";
5
6      class Mahasiswa extends Orang{
7          protected string $nim;
8          protected string $prodi;
9          protected Nilai $nilai;
10
11          //setter
12
13          public function setNim($nim){
14              $this->nim = $nim;
15          }
16
17          public function setProdi($prodi){
18              $this->prodi = $prodi;
19          }
20
21          public function setNilai($nilai){
22              $this->nilai = $nilai;
23          }
24
25          public function tampilkandata(){
26              echo "Nama : " . $this->nama . "<br>";
27              echo "NIM : " . $this->nim . "<br>";
28              echo "Prodi : " . $this->prodi . "<br>";
29              echo "Nilai Tugas : " . $this->nilai->getTugas() . "<br>";

```

```

praktikum3 > index.php > html > body > div.
1  <html lang="en">
7  <body>
9      <div class="" style="font-size: 45px;">
28
29          $nilaiEmely = new Nilai();
30          $nilaiEmely->setTugas(90);
31          $nilaiEmely->setUts(76);
32          $nilaiEmely->setUas(78);
33
34          $emely->setNilai($nilaiEmely);
35          $emely->tampilkanData();
36      ?>
37  </div>
38 </body>
39 </html>
40

```

```

praktikum3 > Mahasiswa.php > Mahasiswa
1
2
3      class Mahasiswa extends Orang{
4          protected string $nim;
5          protected string $prodi;
6          protected Nilai $nilai;
7
8          //setter
9
10
11          public function setNim($nim){
12              $this->nim = $nim;
13          }
14
15          public function setProdi($prodi){
16              $this->prodi = $prodi;
17          }
18
19          public function setNilai($nilai){
20              $this->nilai = $nilai;
21          }
22
23          public function tampilkandata(){
24              echo "Nama : " . $this->nama . "<br>";
25              echo "NIM : " . $this->nim . "<br>";
26              echo "Prodi : " . $this->prodi . "<br>";
27              echo "Nilai Tugas : " . $this->nilai->getTugas() . "<br>";
28              echo "Nilai UTS : " . $this->nilai->getUts() . "<br>";
29              echo "Nilai UAS : " . $this->nilai->getUas() . "<br>";
30          }
31      }
32
33

```

praktikum3 > Nilai.php > Nilai > setTugas

```
1  <?php
2  //Nilai.php
3  class Nilai{
4      protected $tugas = 0;
5      protected $uts = 0;
6      protected $uas = 0;
7
8      //Setter (memberi nilai)
9      public function setTugas($tugas){
10         if($tugas >= 0 && $tugas <= 100){
11             $this->tugas = $tugas;
12         }
13     }
14
15     public function setUts($uts){
16         if($uts >= 0 && $uts <= 100)
17             $this->uts = $uts;
18     }
19
20     public function setUas($uas){
21         if($uas >= 0 && $uas <= 100)
22             $this->uas = $uas;
23     }
24
25     //Getter
26     public function getTugas (){
27         return $this ->tugas;
28     }
29 }
```

praktikum3 > Orang.php > Orang

```
1  <?php
2
3  class Orang{
4      protected $nama;
5
6      //constructor
7      public function __construct($nama)
8      {
9          $this->nama = $nama;
10     }
11
12     //method
13     public function ucapSalam(){
14         echo "Hello nama saya " . $this->nama;
15     }
16 }
```

praktikum3 > Nilai.php > Nilai > setTugas

```
3  class Nilai{
9      public function setTugas($tugas){
12     }
13
14
15     public function setUts($uts){
16         if($uts >= 0 && $uts <= 100)
17             $this->uts = $uts;
18     }
19
20     public function setUas($uas){
21         if($uas >= 0 && $uas <= 100)
22             $this->uas = $uas;
23     }
24
25     //Getter
26     public function getTugas (){
27         return $this ->tugas;
28     }
29
30     public function getUts(){
31         return $this ->uts;
32     }
33
34     public function getUas(){
35         return $this ->uas;
36     }
37 }
```

praktikum3 > OrangBiasa.php > OrangBiasa

```
1  <?php
2
3  require_once "Orang.php";
4
5  class OrangBiasa extends Orang{
6
7  }
```



```

praktikum3 > index.php > html > body > div.
1  <html lang="en">
2  <head>
3      <meta charset="UTF-8">
4      <meta name="viewport" content="width=device-width, initial-scale=1.0">
5      <title>Praktikum 3</title>
6  </head>
7  <body>
8      <h1>Konsep Pewarisan</h1>
9      <div class="" style="font-size: 45px;">
10         <?php
11             include "OrangBiasa.php";
12             include "OrangInggris.php";
13             include "Mahasiswa.php";
14
15             $james = new OrangBiasa('James'); //memanggil construct
16             $james->ucapSalam(); //memanggil method
17             echo "<br>";
18
19             $parto = new OrangInggris('Parto');
20             $parto->ucapSalam(); //override
21             echo "<br>";
22
23             $emely = new Mahasiswa("Emely");
24             $emely->ucapSalam();
25             echo "<br>";
26             $emely->setNim("701230036");
27             $emely->setProdi("Sistem Informasi");
28
29             $nilaiEmely = new Nilai();

```

```

praktikum3 > Mahasiswa.php > Mahasiswa
1  <?php
2
3      require_once "Orang.php";
4      require_once "Nilai.php";
5
6      class Mahasiswa extends Orang{
7          protected string $nim;
8          protected string $prodi;
9          protected Nilai $nilai;
10
11          //setter
12
13          public function setNim($nim){
14              $this->nim = $nim;
15          }
16
17          public function setProdi($prodi){
18              $this->prodi = $prodi;
19          }
20
21          public function setNilai($nilai){
22              $this->nilai = $nilai;
23          }
24
25          public function tampilkandata(){
26              echo "Nama : " . $this->nama . "<br>";
27              echo "NIM : " . $this->nim . "<br>";
28              echo "Prodi : " . $this->prodi . "<br>";
29              echo "Nilai Tugas : " . $this->nilai->getTugas() . "<br>";

```

```

praktikum3 > index.php > html > body > div.
1  <html lang="en">
7  <body>
9      <div class="" style="font-size: 45px;">
28
29          $nilaiEmely = new Nilai();
30          $nilaiEmely->setTugas(90);
31          $nilaiEmely->setUts(76);
32          $nilaiEmely->setUas(78);
33
34          $emely->setNilai($nilaiEmely);
35          $emely->tampilkanData();
36      ?>
37  </div>
38 </body>
39 </html>
40

```

```

praktikum3 > Mahasiswa.php > Mahasiswa
1
2
3      class Mahasiswa extends Orang{
4          protected string $nim;
5          protected string $prodi;
6          protected Nilai $nilai;
7
8          //setter
9
10
11          public function setNim($nim){
12              $this->nim = $nim;
13          }
14
15          public function setProdi($prodi){
16              $this->prodi = $prodi;
17          }
18
19          public function setNilai($nilai){
20              $this->nilai = $nilai;
21          }
22
23          public function tampilkandata(){
24              echo "Nama : " . $this->nama . "<br>";
25              echo "NIM : " . $this->nim . "<br>";
26              echo "Prodi : " . $this->prodi . "<br>";
27              echo "Nilai Tugas : " . $this->nilai->getTugas() . "<br>";
28              echo "Nilai UTS : " . $this->nilai->getUts() . "<br>";
29              echo "Nilai UAS : " . $this->nilai->getUas() . "<br>";
30          }
31      }
32
33

```



```

praktikum4 > index.php > html > body > div.container > div > script
2   <html lang="en">
14  <body>
15  <div class="container">
16  <div class="row">
17  <div class="col-6">
20  <script>
21  require_once "BsForm.php";
22  $formMhs = new BsForm();
23  $formMhs->setInputText('nama', 'nama', 'Nama');
24  $formMhs->setInputText('nim', 'nim', 'NIM');
25  $formMhs->setInputText('prodi', 'prodi', 'Program Studi');
26  $formMhs->setInputText('fakultas', 'fakultas', 'Fakultas');
27  $formMhs->setButton('Simpan');
28  $formMhs->showForm();
29  ?>
30  </div>
31  </div>
32  <div>
33
34  <!-- Optional JavaScript; choose one of the two! -->
35
36  <!-- Option 1: Bootstrap Bundle with Popper -->
37  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js"
38  integrity="sha384-ka7Sk0Gln4gmtz2MlQnikT1wXgYsOg+OMhuP+IlRH9sENBO0LRn5q+8nbTov4+1p" crossorigin
39  ="anonymous"></script>
40
41
42  </body>
43  </html>

```

```

praktikum4 > Mahasiswa.php > Mahasiswa > getProdi
1  <?php
2  require_once "KoneksiDb.php";
3  class Mahasiswa{
4      protected $nama;
5      protected $nim;
6      protected $prodi;
7      protected $fakultas;
8      protected KoneksiDb $koneksi;
9
10
11      public function __construct()
12      {
13          $this->koneksi = new KoneksiDb('localhost', 'root', '', 'siakad');
14      }
15
16      public function setName($nama){
17          $this->nama = $nama;
18      }
19
20      public function setNim($nim){
21          $this->nim = $nim;
22      }
23
24      public function setProdi($prodi){
25          $this->prodi = $prodi;
26      }
27
28      public function setFakultas($fakultas){
29          $this->fakultas = $fakultas;
30      }
31
32
33
34
35
36
37
38
39
40
41
42
43
44
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48
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56
57

```

```

praktikum4 > KoneksiDb.php > koneksiDb > getConnection
1  <?php
2
3  class koneksiDb{
4      protected $username = 'root';
5      protected $password = '';
6      protected $host = 'localhost';
7      protected $dbname = '';
8      protected $connection;
9
10     public function __construct($host, $username, $password, $dbname){
11         $this->host = $host;
12         $this->username = $username;
13         $this->password = $password;
14         $this->dbname = $dbname;
15
16         $this->connection = new mysqli($this->host, $this->username, $this->password, $this->dbname);
17     }
18
19     public function __destruct()
20     {
21         $this->connection->close();
22     }
23
24     public function getConnection(){
25         return $this->connection;
26     }
27 }

```

```

praktikum4 > Mahasiswa.php > Mahasiswa > getProdi
3  class Mahasiswa{
31     public function getName(){
32         return $this->nama;
33     }
34
35     public function getNim(){
36         return $this->nim;
37     }
38
39     public function getProdi(){
40         return $this->prodi;
41     }
42
43     public function getFakultas(){
44         return $this->fakultas;
45     }
46
47     public function create(){
48         $con = $this->koneksi->getConnection();
49         $sqlQuery = 'INSERT INTO mahasiswa (nama, nim, prodi, fakultas) VALUES
50         (?, ?, ?, ?)';
51         $statement = $con->prepare($sqlQuery);
52         $statement->bind_param('ssss', $nama, $nim, $prodi, $fakultas);
53
54         $nama = $this->nama;
55         $nim = $this->nim;
56         $prodi = $this->prodi;
57         $fakultas = $this->fakultas;
58     }
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
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89
90
91
92
93
94
95
96
97
98
99

```

```

praktikum4 > Mahasiswa.php > Mahasiswa > getProdi
3 class Mahasiswa{
47 public function create(){
48     $con = $this->koneksi->getConnection();
49     $sqlQuery = 'INSERT INTO mahasiswa (nama, nim, prodi, fakultas) VALUES
50     (?, ?, ?, ?)';
51     $statement = $con->prepare($sqlQuery);
52     $statement->bind_param('ssss', $nama, $nim, $prodi, $fakultas);
53
54     $nama = $this->nama;
55     $nim = $this->nim;
56     $prodi = $this->prodi;
57     $fakultas = $this->fakultas;
58
59     $statement->execute();
60     $statement->close();
61 }
62
63 public function update(){
64 }
65
66 public function read(){
67 }
68
69 public function delete(){
70 }
71
72 }
73
74 }

```

```

praktikum5 > Controller > BukuController.php > BukuController > jalankan
1 <?php
2 require_once "Model/DaftarBukuModel.php";
3
4 class BukuController{
5
6     public function jalankan(){
7
8         //Menggunakan Model
9         $dataModel = new DaftarBukuModel();
10
11         //Mengirim DataModel ke BukuView dan Menampilkannya
12         include "View/BukuView.php";
13
14     }
15 }
16

```

```

praktikum5 > Model > Buku.php > Buku > getTahun
1 <?php
2 class Buku{
3     protected $judul;
4     protected $pengarang;
5     protected $penerbit;
6     protected $tahun;
7
8     public function __construct($judul, $pengarang, $penerbit, $tahun)
9     {
10         $this->judul = $judul;
11         $this->pengarang = $pengarang;
12         $this->penerbit = $penerbit;
13         $this->tahun = $tahun;
14     }
15
16     /**
17      * Get the value of judul
18      */
19     public function getJudul()
20     {
21         return $this->judul;
22     }
23
24     /**
25      * Get the value of pengarang
26      */
27     public function getPengarang()
28     {
29         return $this->pengarang;
30     }
31
32     /**
33      * Get the value of penerbit
34      */
35     public function getPenerbit()
36     {
37         return $this->penerbit;
38     }
39
40     /**
41      * Get the value of tahun
42      */
43     public function getTahun()
44     {
45         return $this->tahun;
46     }
47 }

```

```

praktikum5 > Model > Buku.php > Buku > getTahun
2 class Buku{
19     public function getJudul()
20     {
21         return $this->judul;
22     }
23
24     /**
25      * Get the value of pengarang
26      */
27     public function getPengarang()
28     {
29         return $this->pengarang;
30     }
31
32     /**
33      * Get the value of penerbit
34      */
35     public function getPenerbit()
36     {
37         return $this->penerbit;
38     }
39
40     /**
41      * Get the value of tahun
42      */
43     public function getTahun()
44     {
45         return $this->tahun;
46     }
47 }

```

```
praktikum5 > Model > DaftarBukuModel.php > ...
1  <?php
2
3  require_once "Buku.php";
4
5  class DaftarBukuModel{
6
7      public function getData(){
8          $daftar_buku = array(
9              new Buku('Belajar Pemograman Web', 'Robert T.', 'Informatika', '2024'),
10             new Buku('Matematika Diskrit', 'Rinaldi M.', 'Andi Publisher', '2017'),
11             new Buku('Kalkulus', 'Emely S.', 'Airlangga', '2024'),
12             new Buku('Metodologi Penelitian', 'James W', 'UIN Publisher', '2018'),
13         );
14
15         return $daftar_buku;
16     }
17
18     public function getKolomTabel(){
19         $kolom_tabel = array(
20             'No', 'Judul', 'Pengarang', 'penerbit', 'Tahun'
21         );
22
23         return $kolom_tabel;
24     }
25 }
26
```

```
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<qτλ cτεεε=„lom„>
<qτλ cτεεε=„coufεγuελ„>
<ρoqλ>
5 <μϰωτ τεuε=„εu„>
brεkτkkuελ > λfεw > εuεkuλfεw'εpε > εμwλ > ερoqλ > εcλfε
```

```
praktikum5 > View > BukuView.php > html > head > link
1  <!doctype html>
2  <html lang="en">
3  <head>
4      <meta charset="utf-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1">
6      <title>Bootstrap demo</title>
7      <link href="https://cdn.jsdelivrivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet"
8      integrity="sha384-rbsA2VBKQhggwzxH7pPCaAqO46MgnOM80zW1RuU61DGLWZJEdK2Kadq2F9CUG65" crossorigin="anonymous">
9  </head>
10 <body>
11
12 <div class="container">
13     <div class="row">
14         <div class="col">
15             <h1>Daftar Buku</h1>
16             <table class="table table-striped">
17                 <thead>
18                     <tr>
19                         <?php foreach($dataModel->getKolomTabel() as $kolom):?>
20                             <th scope="col"><?php echo $kolom;?></th>
21                         <?php endforeach?>
22                     </tr>
23                 </thead>
24                 <tbody>
25                     <?php $no = 0?>
26                     <?php foreach($dataModel->getData() as $buku):?>
27                         <tr>
28                             <td><?php echo ++$no?></td>
29                             <td><?php echo $buku->getJudul():?></td>
```

```
praktikum5 > index.php > ...
1  <?php
2
3  require_once "Controller/BukuController.php";
4
5  $aplikasi = new BukuController();
6  $aplikasi->jalankan();
```

Berikut adalah penjelasan detail mengenai konsep **abstraction**, **encapsulation**, dan **inheritance** dalam pemrograman berorientasi objek (OOP) beserta contohnya.

1. Abstraksi (*Abstraction*)

Abstraksi adalah konsep untuk menyembunyikan detail yang tidak penting dari pengguna dan hanya menampilkan informasi yang relevan. Abstraksi memungkinkan kita fokus pada apa yang dilakukan sebuah objek tanpa perlu mengetahui bagaimana cara kerja internalnya. Dengan abstraksi, kita dapat mendefinisikan objek-objek melalui interface atau kelas abstrak.

****Contoh:****

Misalkan kita memiliki kelas `Mobil`. Saat kita mengemudi, kita hanya perlu tahu bagaimana cara mengemudikan mobil tanpa mengetahui detail mesin dan cara kerjanya. Dalam OOP, kita bisa membuat kelas `Mobil` yang hanya menampilkan informasi penting seperti `mengemudi()` tanpa perlu menunjukkan detail fungsi mesin.

```
```python
```

```
from abc import ABC, abstractmethod
```

```
class Kendaraan(ABC):
```

```
 @abstractmethod
```

```
 def mengemudi(self):
```

```
 pass
```

```
class Mobil(Kendaraan):
```

```
 def mengemudi(self):
```

```
 print("Mobil berjalan di jalan raya")
```

```
Hanya perlu tahu metode mengemudi, detail lainnya tersembunyi
```

```
kendaraan = Mobil()
```

```
kendaraan.mengemudi()
```

```
...
```

### ### 2. Enkapsulasi (\*Encapsulation\*)

Enkapsulasi adalah konsep membungkus data (variabel) dan metode dalam satu kesatuan kelas, serta mengatur aksesibilitas data tersebut menggunakan kata kunci akses seperti `private`, `protected`, atau `public`. Tujuan enkapsulasi adalah untuk menjaga data dari modifikasi langsung oleh luar kelas, sehingga bisa lebih terkontrol.

**\*\*Contoh:\*\***

Misalkan kita memiliki kelas `BankAccount` yang memiliki informasi saldo yang tidak boleh diakses secara langsung dari luar kelas. Kita bisa menggunakan enkapsulasi untuk membatasi akses ke variabel `saldo`.

```
```python
```

```
class BankAccount:
```

```
    def __init__(self, initial_balance):
```

```
        self.__saldo = initial_balance # saldo hanya bisa diakses di dalam kelas
```

```
    def deposit(self, amount):
```

```
        self.__saldo += amount
```

```
    def get_balance(self):
```

```
        return self.__saldo
```

```
# Penggunaan
```

```
akun = BankAccount(1000)
```

```
akun.deposit(500)
```

```
print(akun.get_balance()) # Output: 1500
```

```
...
```

3. Pewarisan (*Inheritance*)

Pewarisan memungkinkan sebuah kelas untuk mewarisi sifat dan metode dari kelas lain. Dengan pewarisan, kita dapat membuat hubungan antara kelas induk (*parent*) dan kelas turunan (*child*). Kelas turunan dapat mewarisi sifat-sifat kelas induknya dan dapat menambahkan atau mengubah metode sesuai kebutuhan.

****Contoh:****

Misalkan kita memiliki kelas `Hewan` sebagai kelas induk dan `Kucing` sebagai kelas turunan. `Kucing` dapat mewarisi properti dan metode dari `Hewan` serta menambahkan fungsionalitas tambahan.

```
```python
```

```
class Hewan:
```

```
 def bergerak(self):
```

```
 print("Hewan bergerak")
```

```
class Kucing(Hewan):
```

```
 def bersuara(self):
```

```
 print("Meong!")
```

```
Penggunaan
```

```
kucing = Kucing()
```

```
kucing.bergerak() # Output: Hewan bergerak
```

```
kucing.bersuara() # Output: Meong!
```

```
```
```

Dalam contoh ini, kelas `Kucing` mewarisi metode `bergerak()` dari kelas `Hewan` tetapi juga memiliki metode tambahan `bersuara()`.