Nurul Fikri College of Technology
http://nurulfikri.ac.id
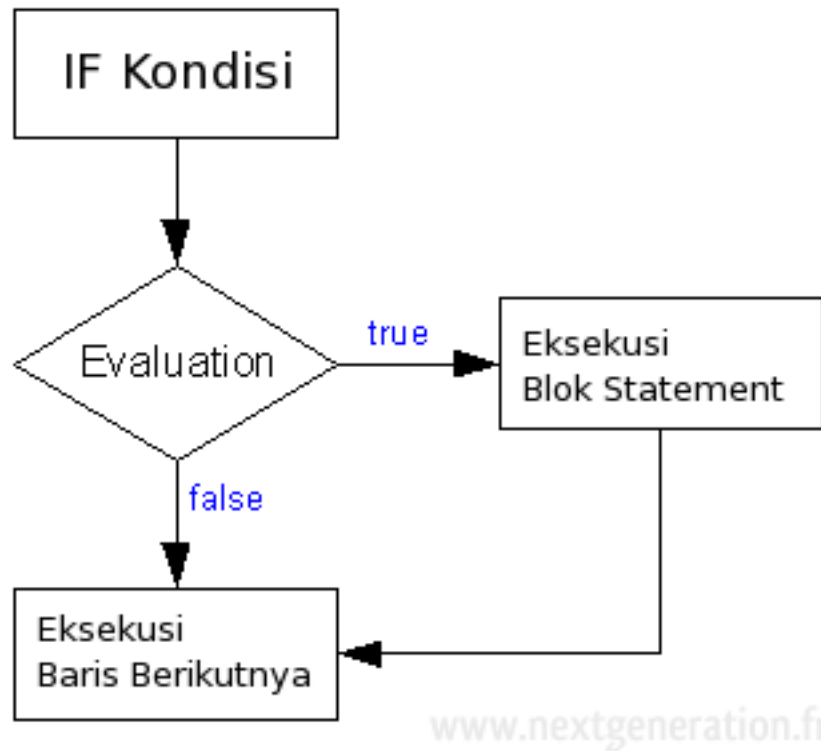
Pemrograman Web 2

Sirojul Munir | rojulman@nurulfikri.ac.id | @rojulman

5. PHP Control Structure

PHP Control Structures

- if (*expression*) {*block*} elseif {*block*} else {*block*}
- while (*expression*) {*block*} OR
- do {*block*} while (*expression*)
- for (expression) {block}
- foreach var (list) {block}
- switch (*variable*) //variable can be int or string

```
  case 0:
      // do something;
      break;
  case 1:
      // do something else;
      break;
```

- break;
- continue;
- return;

Control Structure : IF


```php
<?php
    if(condition)
    {
        // Blok Statement
    }
?>


<?php
    $
    if (!empty($nama))
    {
        echo 'Nama ' . $nama;
    }
?>
```

Control Structure : IF


```php
<?php
    $secretNumber = 453;
    if ($_POST['guess'] == $secretNumber) {
        echo "<p>Congratulations!</p>";
    }
?>
```
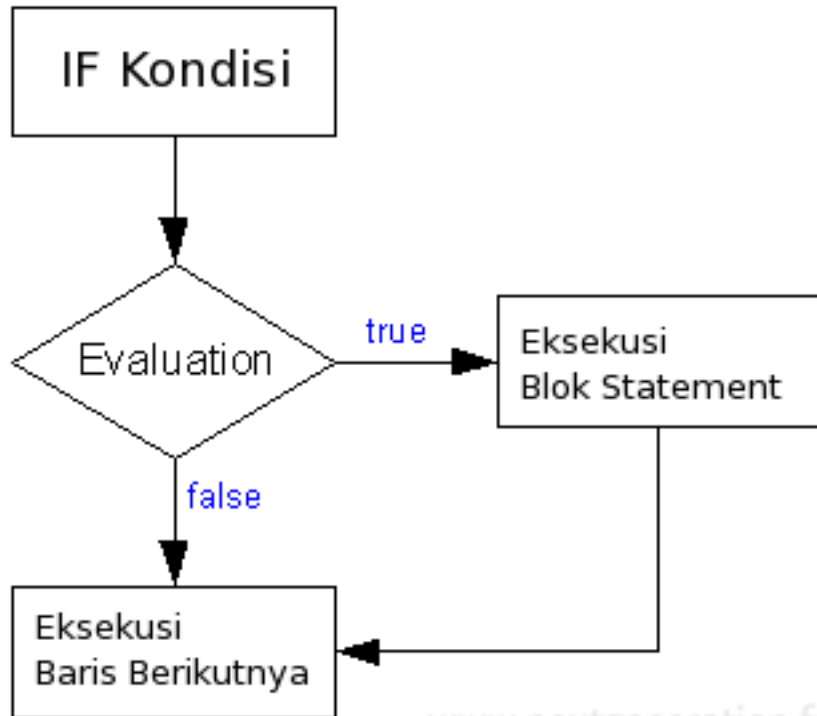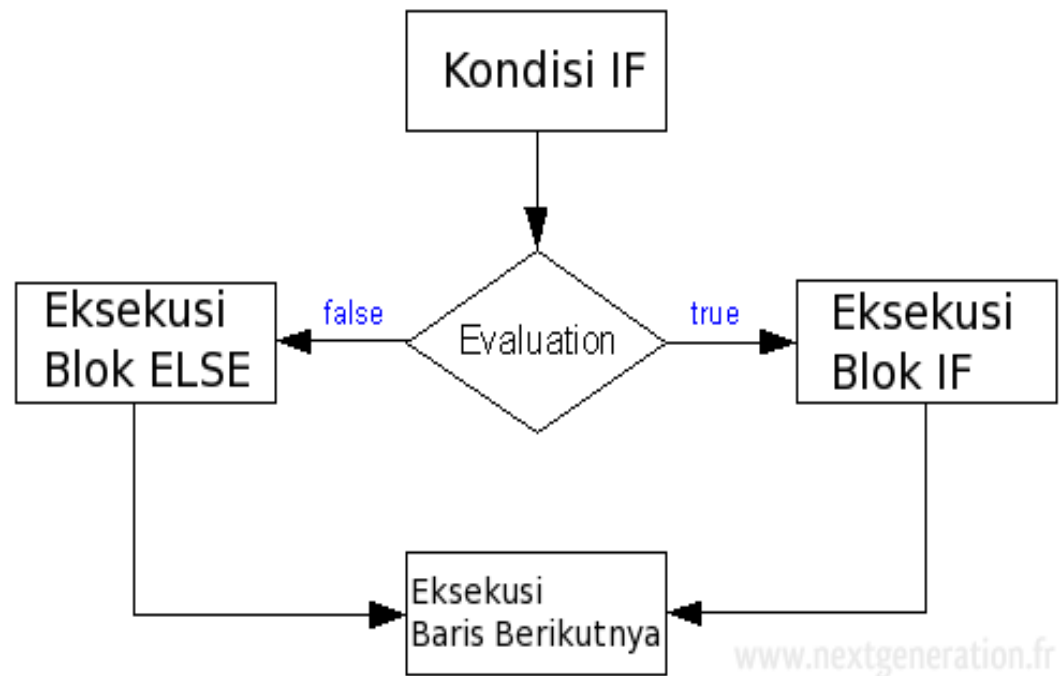
```php
<?php
    $secretNumber = 453;
    if ($_POST['guess'] == $secretNumber) echo"<p>Congratulations!</p>";
?>
```
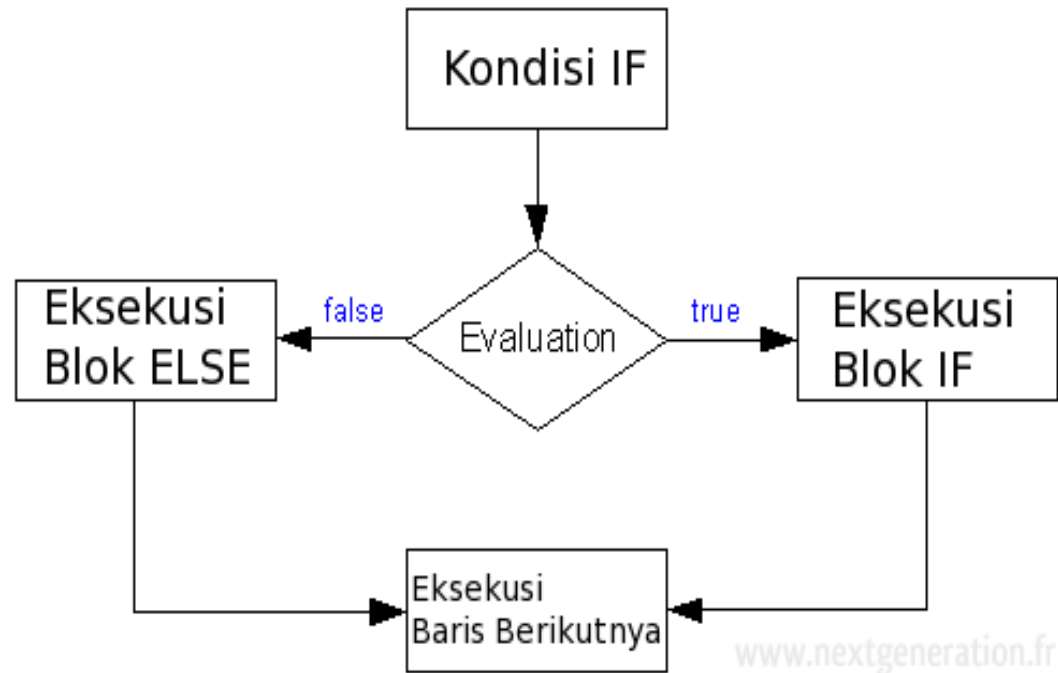
Control Structure : IF .. ELSE


```
if (condition) {
    code to be executed if condition is true;
} else {
    code to be executed if condition is false;
}
```
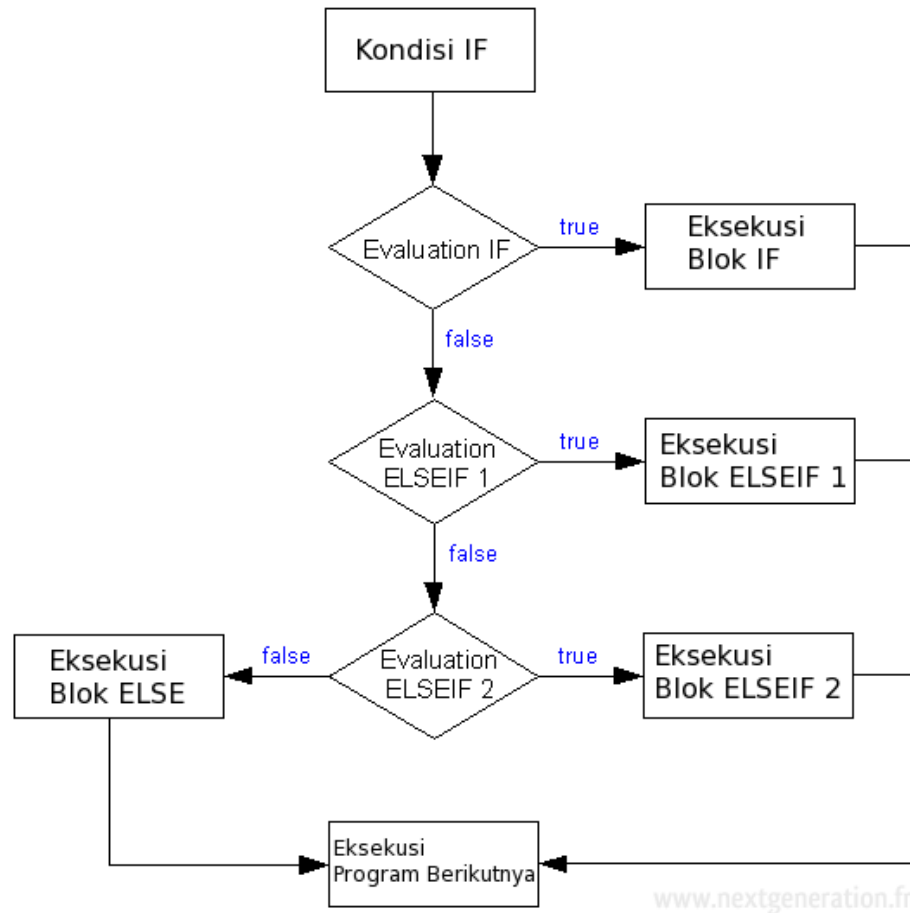
```php
<?php
    if ($_nilai > 55 ){
        echo 'LULUS';
    }else {
        echo 'TIDAK LULUS';
    }
?>
```

Control Structure : IF .. ELSE


```php
<?php
    $secretNumber = 453;
    if ($_POST['guess'] == $secretNumber) {
        echo "<p>Congratulations!!</p>";
    } else {
        echo "<p>Sorry!</p>";
    }
?>
```
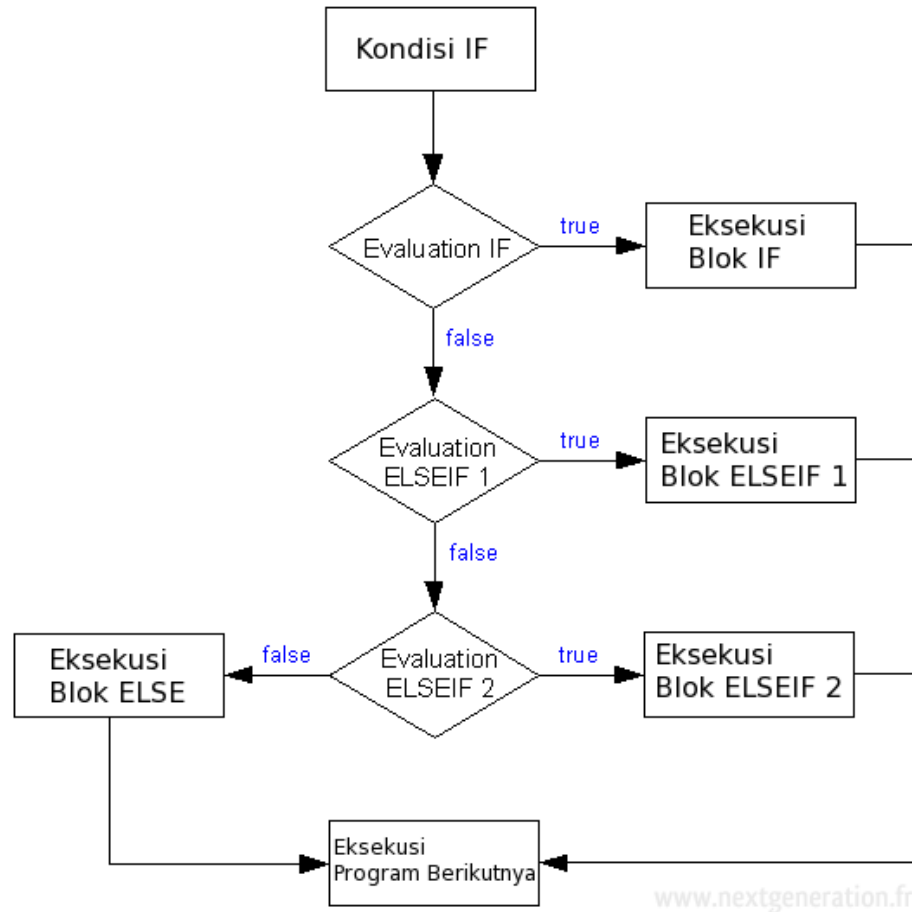
Control Structure : IF .. ELSE


```php
if (condition) {
    code to be executed if this condition is true;
} elseif (condition) {
    code to be executed if this condition is true;
} else {
    code to be executed if all conditions are false;
}
```
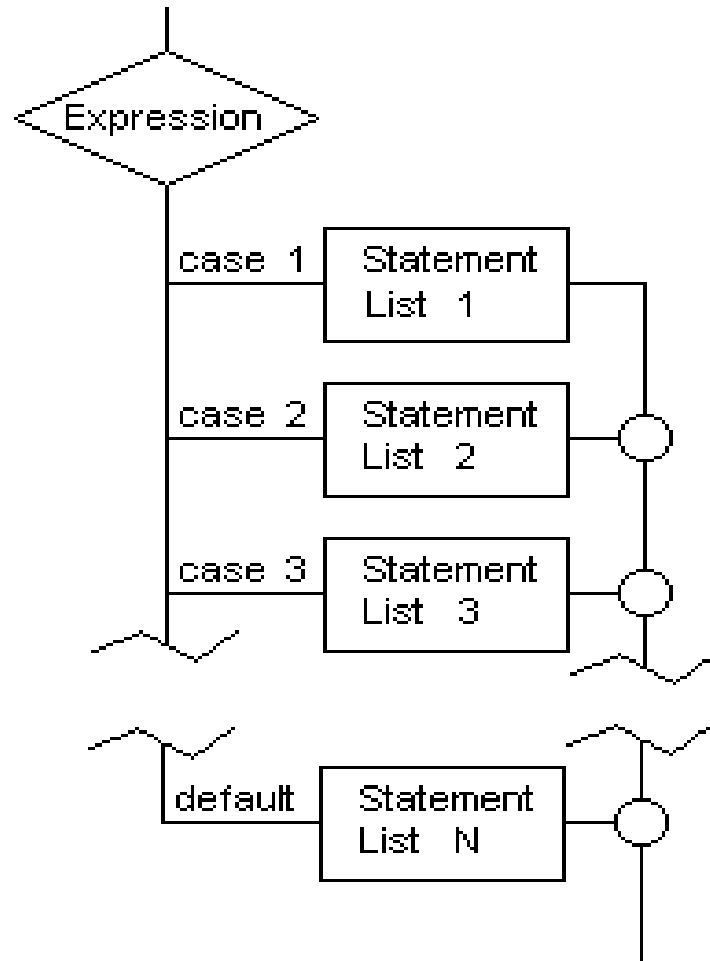
```php
<?php
    if ($_nilai <= 35 ){
        $_grade='E';
    }elseif ($_nilai <= 55 ){
        $_grade='D';
    }
    ...
    else {
        $_grade='I';
    } …
?>
```

Control Structure : IF .. ELSE


```php
<?php
    $secretNumber = 453;
    $_POST['guess'] = 442;
    if ($_POST['guess'] == $secretNumber) {
        echo "<p>Congratulations!</p>";
    } elseif (abs ($_POST['guess'] - $secretNumber) < 10) {
        echo "<p>You're getting close!</p>";
    } else {
        echo "<p>Sorry!</p>";
    }
?>
```

Control Structure : Switch


```
switch (n) {
    case label1:
        code to be executed if n=label1;
        break;
    case label2:
        code to be executed if n=label2;
        break;
    case label3:
        code to be executed if n=label3;
        break;
    ...
    default:
        code to be executed if n is different from all labels;
}
```

Control Structure : Switch

```
switch (n) {
    case label1:
        code to be executed if n=label1;
        break;
    case label2:
        code to be executed if n=label2;
        break;
    case label3:
        code to be executed if n=label3;
        break;
    ...
    default:
        code to be executed if n is different from all labels;
}
```

```
switch (  $_grade )
{
    case  'E' :
        $_predikat = 'SANGAT KURANG';
         break;
    case  'D' :
        $_predikat = 'KURANG';
         break;
        --
    default :
        $_predikat = 'TIDAK ADA';
}
```
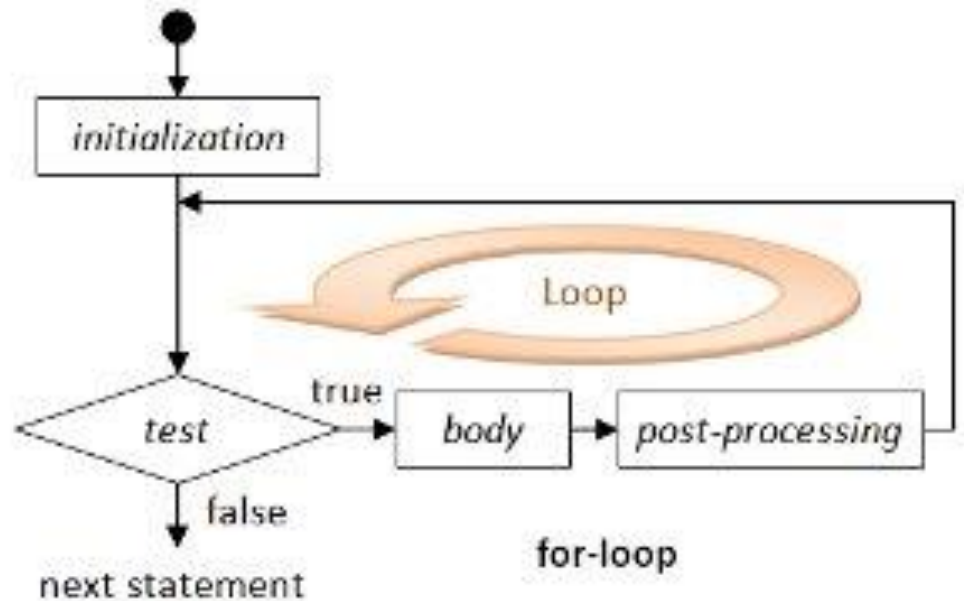
Control Structure : Switch

```
switch (n) {
    case label1:
        code to be executed if n=label1;
        break;
    case label2:
        code to be executed if n=label2;
        break;
    case label3:
        code to be executed if n=label3;
        break;
    ...
    default:
        code to be executed if n is different from all labels;
}
```

```php
<?php
    switch($category) {
        case "news":
            print "<p>What's happening around the World</p>";
            break;
        case "weather":
            print "<p>Your weekly forecast</p>";
            break;
        case "sports":
            print "<p>Latest sports highlights</p>";
            break;
        default:
            print "<p>Welcome to my Web site</p>";
    }
?>
```

Looping For

for-loop

```
for  (expr1 ; expr2 ; expr3)
{
    blok statement
}

<select name="tgl">
<?php
for ( $x = 1 ; $x <= 30 ; $x++)
{
    echo '<option value=" '.$x. '">'.$x. '</option>';
}
?>
</select>
```

Looping For

- Expression 1 dievaluasi pada saat iterasi pertama
- Expression 2 dievaluasi pada saat awal disetiap iterasi, bagian ini menentukan apakah akan dilanjutkan iterasi berikutnya
- Expression 3 akan di eksekusi hasil dari logika untuk setiap loop

```
for (expression1; expression2; expression3) {
    statements
}
```

Looping For

for-loop

```
for  (expr1 ; expr2 ; expr3)
{
   blok statement
}

<select name="tgl">
<?php
for ( $x = 1 ; $x <= 30 ; $x++)
{
   echo '<option value=" '.$x. '">'.$x. '</option>';
}
?>
</select>
```
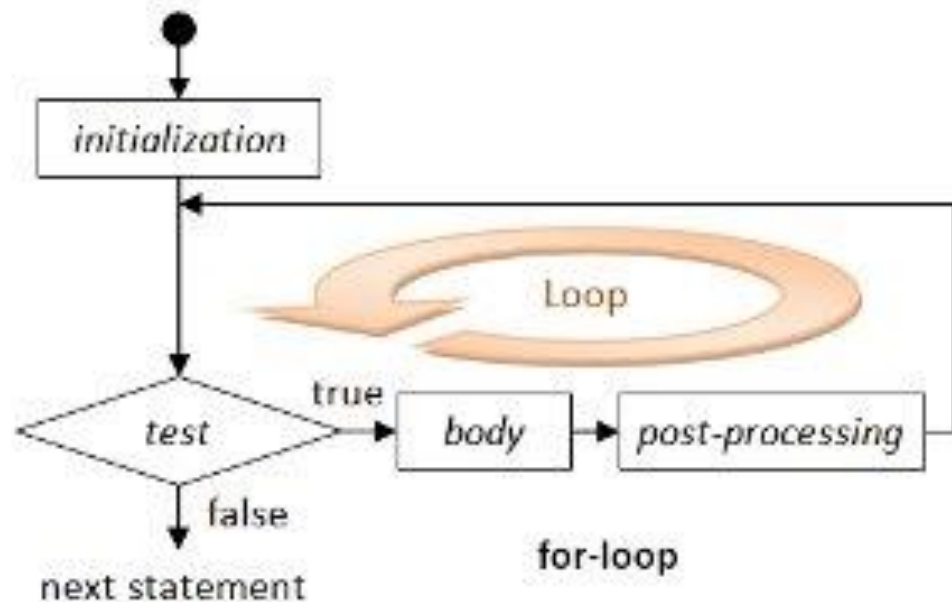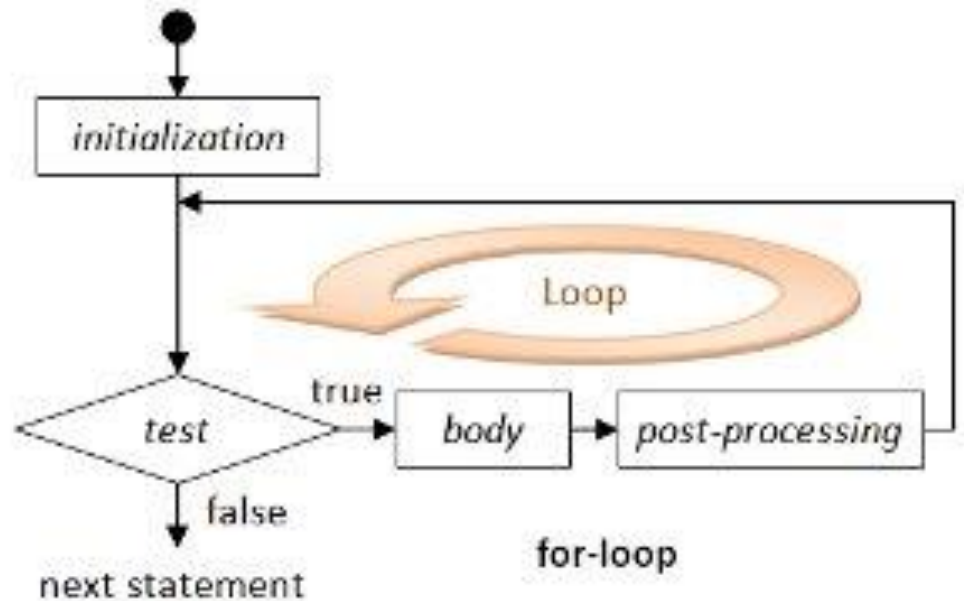
Looping Foreach : Array

- Looping khusus untuk Array

```
foreach (array_expr as $value) {
    statement
}
```

- Looping Array Assosiatif

```
foreach (array_expr as $key => $value) {
    statement
}
```

Looping Foreach : Array

- Looping khusus untuk Array

```php
foreach (array_expr as $value) {
    statement
}
```

```php
<?php
  $links = array("www.apress.com","www.php.net","www.apache.org");
  echo "<b>Online Resources</b>:<br />";
  foreach($links as $link) {
    echo "<a href=\"http://$link\">$link</a><br />";
  }
?>
```

Looping Foreach : Array Assosiatif

```php
<?php
$ar_hari = [1=>'Senin','Selasa','Rabu','Kamis','Jumat','Sabtu','Minggu' ] ;
?>
<select name="hari">
<?php
foreach ( $ar_hari as $k => $v)
{
  echo '<option value=" '.$k. '">'.$v. '</option>';
}
?>
</select>
```

Looping - Break

- Menghentikan secara paksa saat looping

```php
<?php
    $primes = array(2,3,5,7,11,13,17,19,23,29,31,37,41,43,47);
    for($count = 1; $count++; $count < 1000) {
        $randomNumber = rand(1,50);
        if (in_array($randomNumber,$primes)) {
            break;
        } else {
            echo "<p>Non-prime number encountered: $randomNumber</p>";
        }
    }
?>
```

```
Non-prime number encountered: 48
Non-prime number encountered: 42
Prime number encountered: 17
```

Looping - Continue

- Lanjutkan ke looping berikutnya dengan mengabaikan baris dibawahnya (body looping tidak dieksekusi)
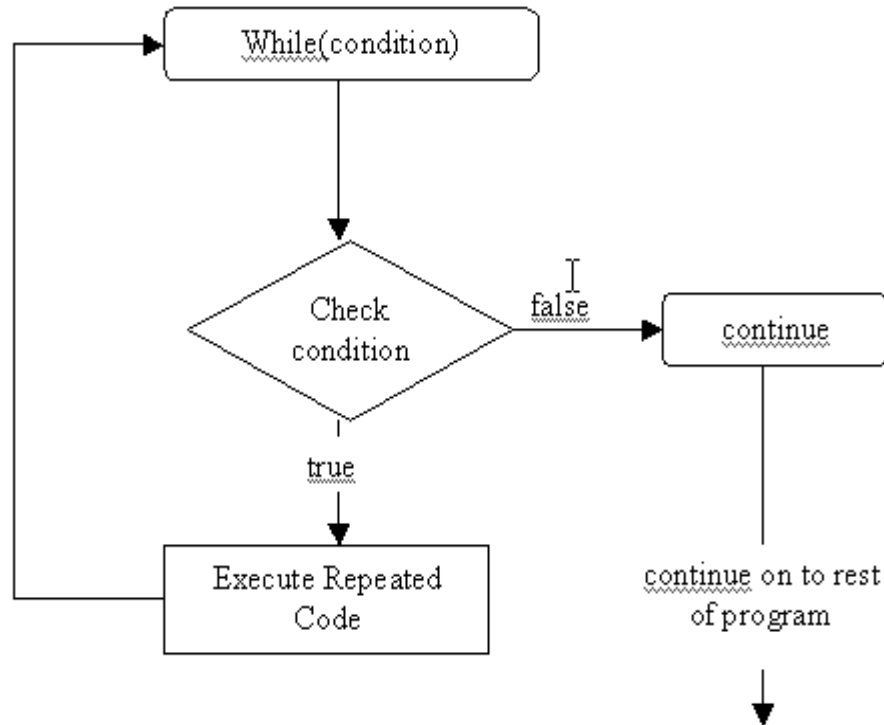
```php
<?php
    $usernames = array("grace","doris","gary","nate","missing","tom");
    for ($x=0; $x < count($usernames); $x++) {
        if ($usernames[$x] == "missing") continue;
        echo "Staff member: $usernames[$x] <br />";
    }
?>
```

Staff member: grace
Staff member: doris
Staff member: gary
Staff member: nate
Staff member: tom

Looping While

Flow Diagram of a while loop

```
// Contoh : cetak bilangan 1 s/d 12, 14 s/d 17
$x = 0;
while ( $x <= 20)
{
    $x++;
    if ( $x == 13 ) continue;
    echo '<br>Bilangan : '.$x;
    if ( $x == 17 ) break;
}

echo '<br>Selesai';
```

Keyword break : digunakan untuk keluar dari looping

Keyword continue : digunakan untuk melanjutkan looping berikutnya dengan mengabaikan baris dibawahnya

Form Validation : Control Logic IF

- Memastikan data yang di isi melalui Form adalah valid !

- Tidak ada data yang kosong/spasi kosong (required field)

- Data sesuai dengan tipe data dan format yang diinginkan
    - Contoh : number – uang , date – tanggal, string - kode

Contoh: PHP Form Validation

PHP Form Validation Example

* required field

Name: [   ] *

E-mail: [   ] *

Website: [   ]

Comment: [   ]

Gender: ◯ Female ◯ Male ◯ Other *

[Submit]

```php
<?php
// define variables and set to empty values
$name = $email = $gender = $comment = $website = "";

if ($_SERVER["REQUEST_METHOD"] == "POST") {
  $name = test_input($_POST["name"]);
  $email = test_input($_POST["email"]);
  $website = test_input($_POST["website"]);
  $comment = test_input($_POST["comment"]);
  $gender = test_input($_POST["gender"]);
}

function test_input($data) {
  $data = trim($data);
  $data = stripslashes($data);
  $data = htmlspecialchars($data);
  return $data;
}
?>
```

https://www.w3schools.com/php/php_form_validation.asp

Contoh: PHP Form Required

```php
<?php
// define variables and set to empty values
$nameErr = $emailErr = $genderErr = $websiteErr = "";
$name = $email = $gender = $comment = $website = "";

if ($_SERVER["REQUEST_METHOD"] == "POST") {
  if (empty($_POST["name"])) {
    $nameErr = "Name is required";
  } else {
    $name = test_input($_POST["name"]);
  }

  if (empty($_POST["email"])) {
    $emailErr = "Email is required";
  } else {
    $email = test_input($_POST["email"]);
  }

  if (empty($_POST["website"])) {
    $website = "";
  } else {
    $website = test_input($_POST["website"]);
  }
```

```php
  if (empty($_POST["comment"])) {
    $comment = "";
  } else {
    $comment = test_input($_POST["comment"]);
  }

  if (empty($_POST["gender"])) {
    $genderErr = "Gender is required";
  } else {
    $gender = test_input($_POST["gender"]);
  }
}
?>
```

https://www.w3schools.com/php/php_form_required.asp