PHP Fundamental

Berkenalan dengan PHP

PHP

- PHP – PHP: Hypertext Preprocessor
- Rasmus Lerdorf
- Open Source
- Server Side Script
- http://www.php.net

Zend

- Zend (Zeev Suraski, Andi Gutmans)
- http://www.zend.com

Kelebihan PHP

- File Upload
- HTTP Cookie
- Akses Database
- HTTP Authentification
- Regular Expression
- Akses File
- Error Handling
- Membuat file PDF
- Socket Programming

Web Server

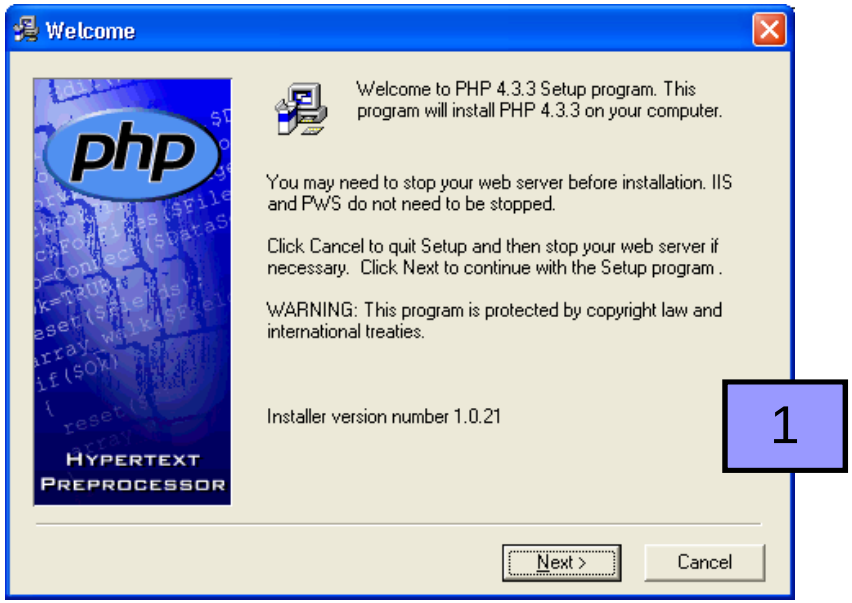
- Apache (http://www.apache.org)
- IIS – Internet Information System
- BadBlue

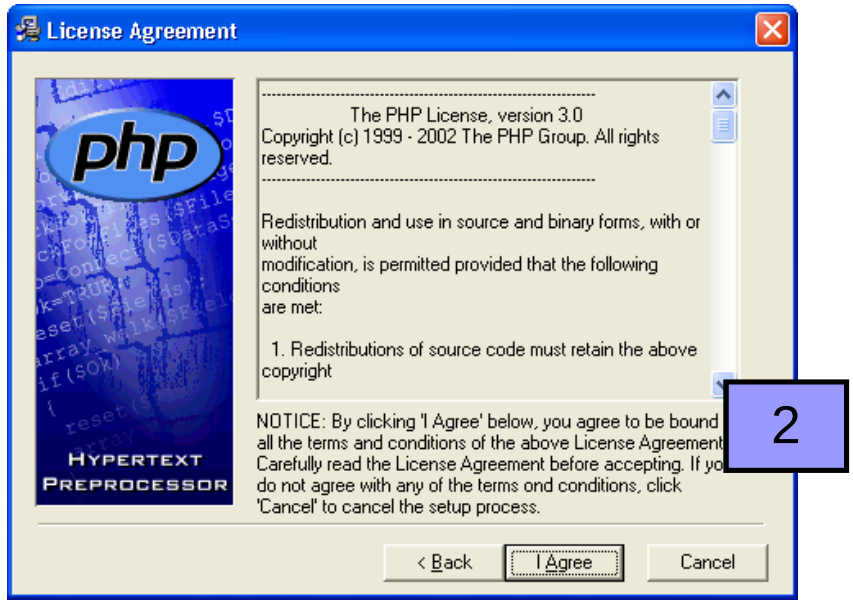
Web Browser

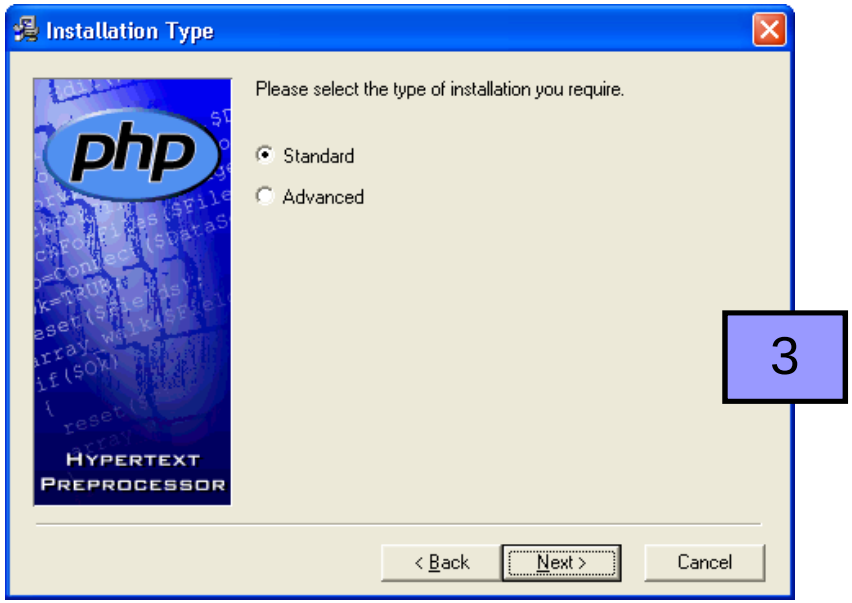
- IE – Internet Explorer
- Mozilla Firefox
- Konqueror
- Safari

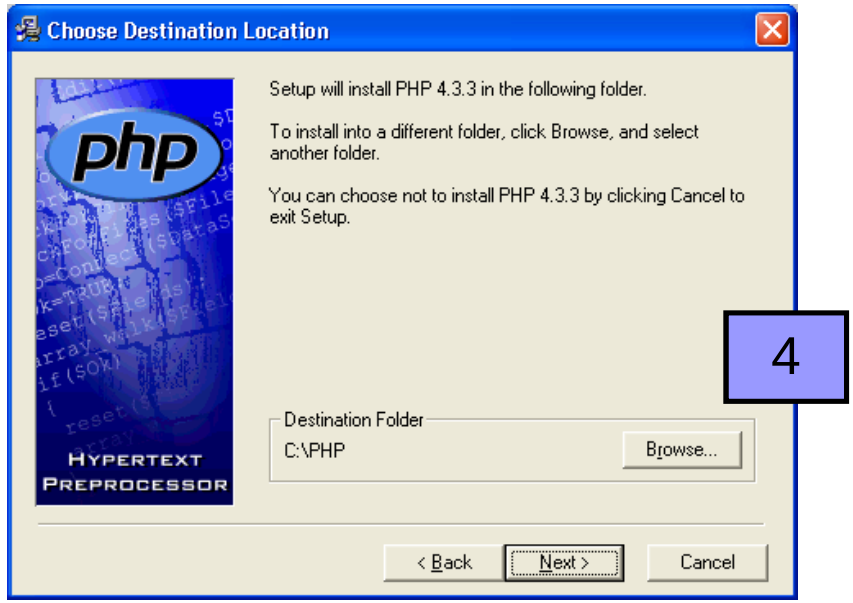
Editor

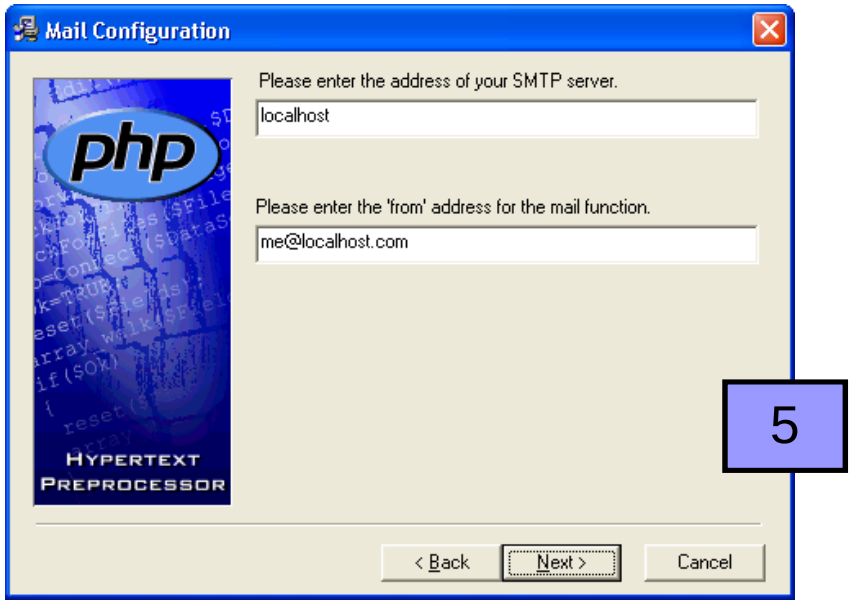
- Macromedia Dreamweaver, Front Page
- Notepad, Editplus, Kate, Kwrite

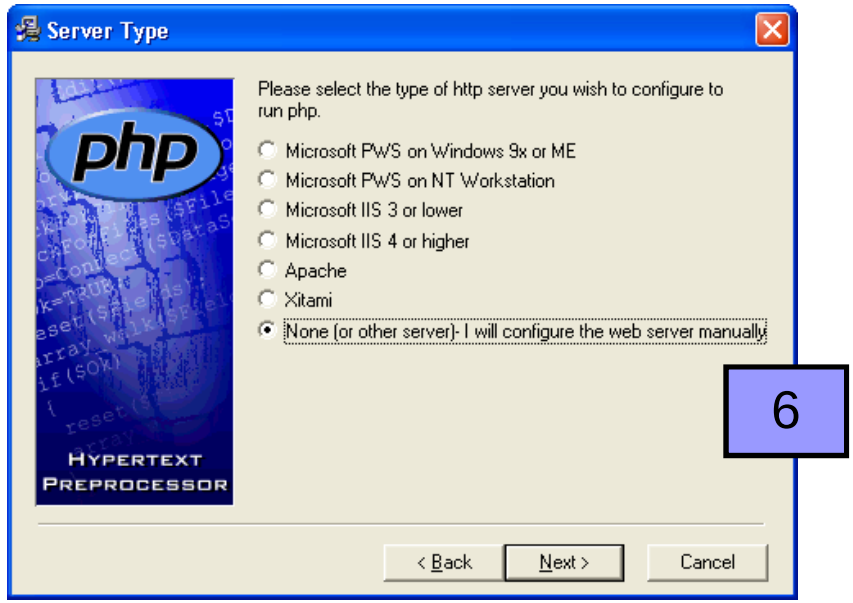

Welcome
Welcome to PHP 4.3.3 Setup program. This program will install PHP 4.3.3 on your computer.
You may need to stop your web server before installation. IIS and PWS do not need to be stopped.
Click Cancel to quit Setup and then stop your web server if necessary. Click Next to continue with the Setup program .
WARNING: This program is protected by copyright law and international treaties.
Installer version number 1.0.21
Next >
Cancel
1

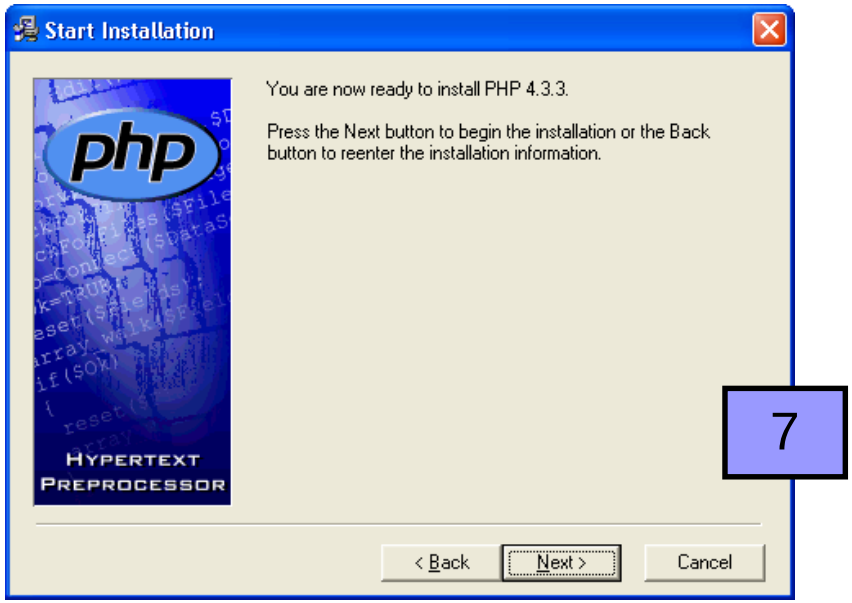

License Agreement
The PHP License, version 3.0
Copyright (c) 1999 - 2002 The PHP Group. All rights reserved.
Redistribution and use in source and binary forms, with or without
modification, is permitted provided that the following conditions
are met:
1. Redistributions of source code must retain the above copyright
NOTICE: By clicking 'I Agree' below, you agree to be bound all the terms and conditions of the above License Agreement
Carefully read the License Agreement before accepting. If yo
do not agree with any of the terms ond conditions, click 'Cancel' to cancel the setup process.
< Back
I Agree
Cancel
2

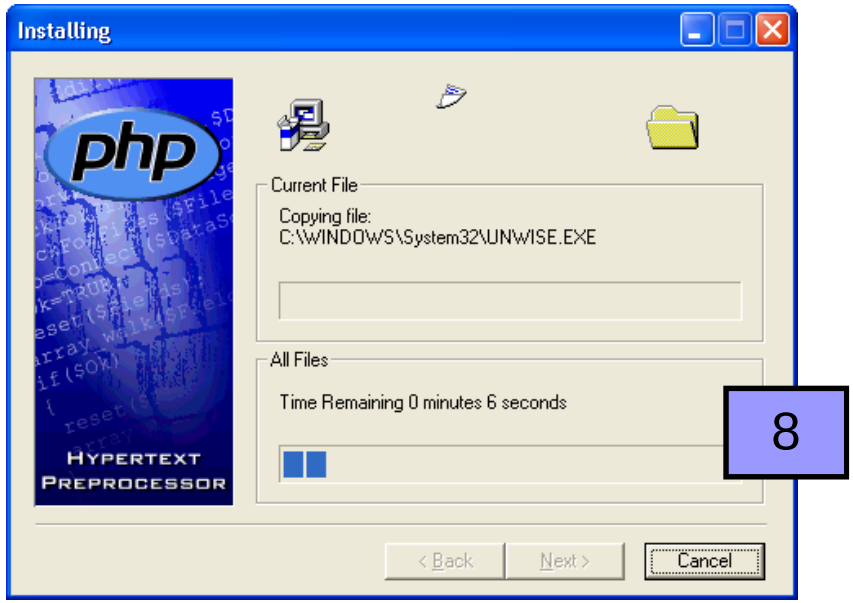

Installation Type
Please select the type of installation you require.
Standard
Advanced
< Back
Next >
Cancel
3


Choose Destination Location
Setup will install PHP 4.3.3 in the following folder.
To install into a different folder, click Browse, and select another folder.
You can choose not to install PHP 4.3.3 by clicking Cancel to exit Setup.
Destination Folder
C:\PHP
Browse...
< Back
Next >
Cancel
4

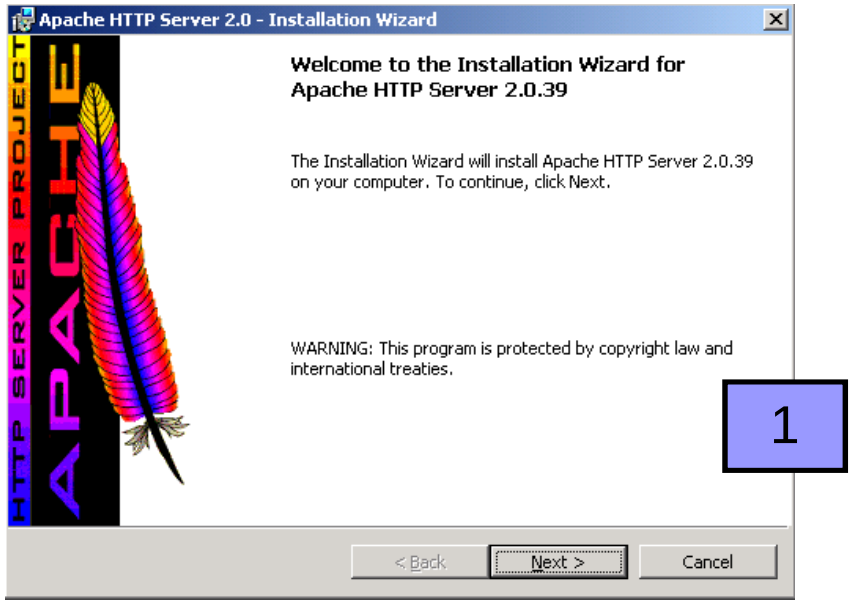

Mail Configuration
Please enter the address of your SMTP server.
localhost
Please enter the 'from' address for the mail function.
me@localhost.com
< Back
Next >
Cancel
5

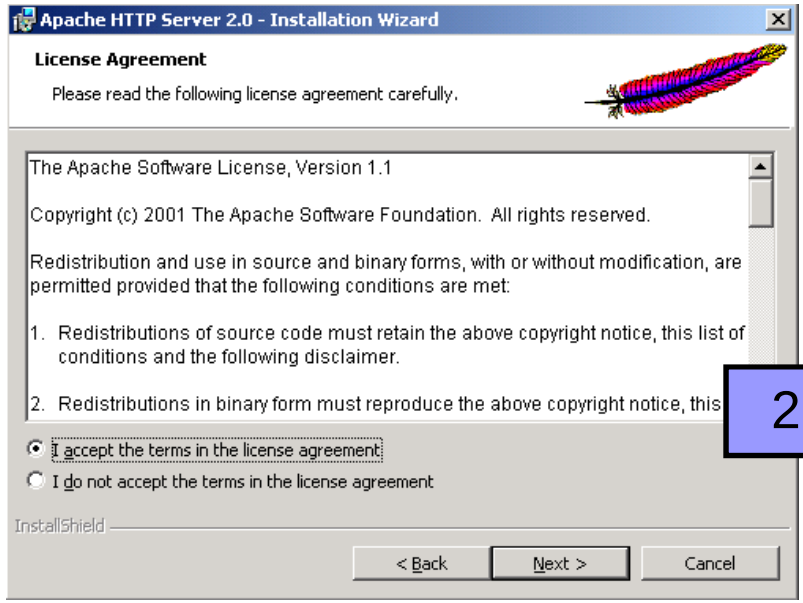

Server Type
Please select the type of http server you wish to configure to run php.
Microsoft PWS on Windows 9x or ME
Microsoft PWS on NT Workstation
Microsoft IIS 3 or lower
Microsoft IIS 4 or higher
Apache
Xitami
None (or other server)- I will configure the web server manually
< Back
Next >
Cancel
6

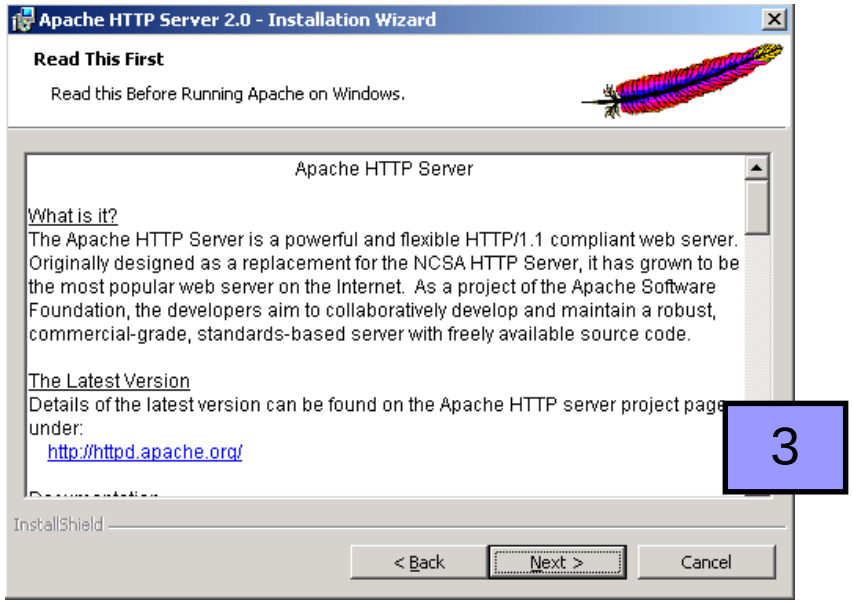

Start Installation
You are now ready to install PHP 4.3.3.
Press the Next button to begin the installation or the Back button to reenter the installation information.
< Back
Next >
Cancel
7

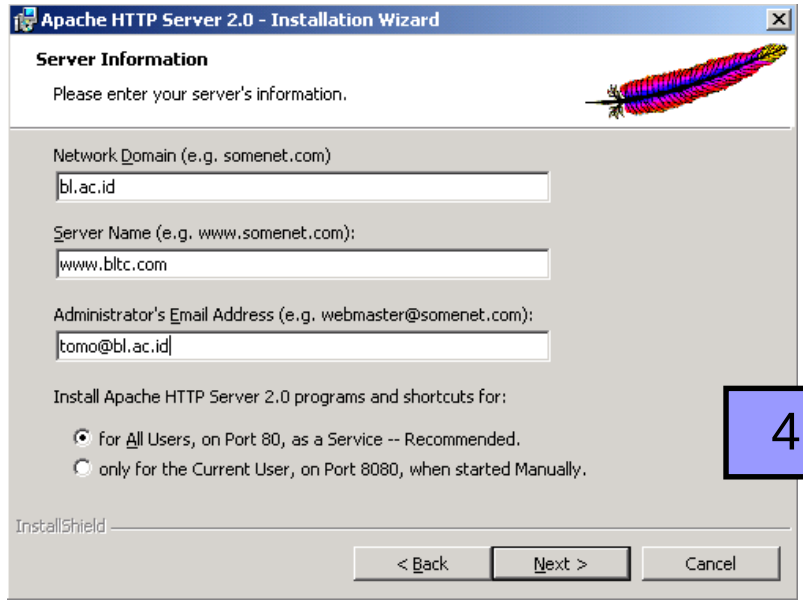

Installing
Current File
Copying file:
C:\WINDOWS\System32\UNWISE.EXE
All Files
Time Remaining 0 minutes 6 seconds
< Back
Next >
Cancel
8

Instalasi Apache

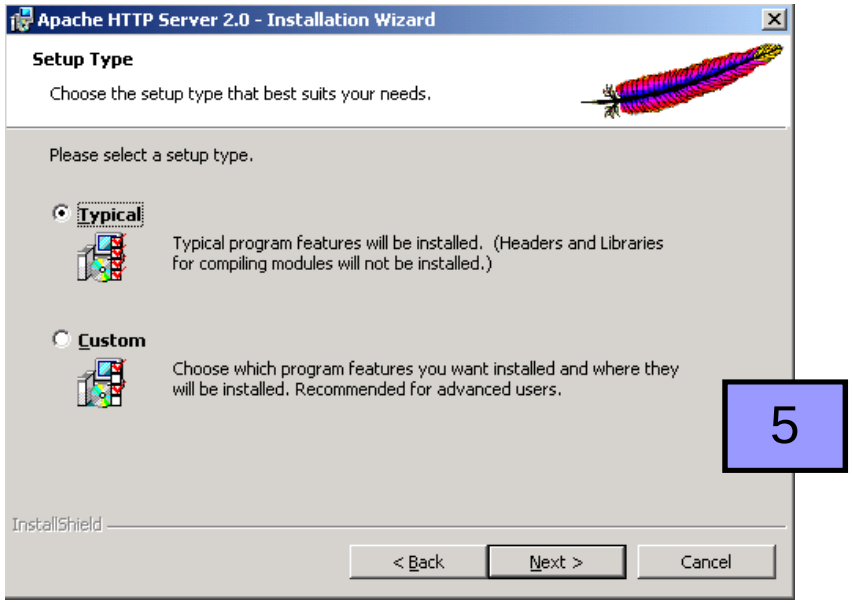




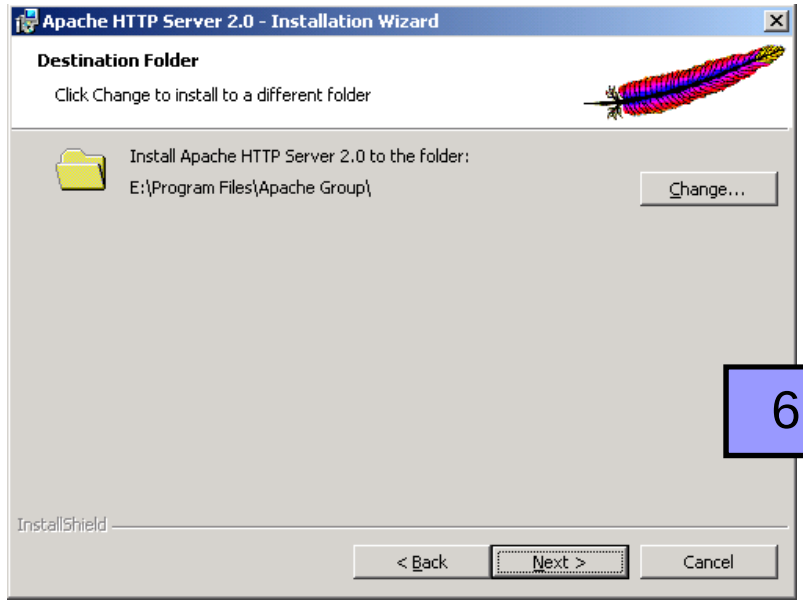




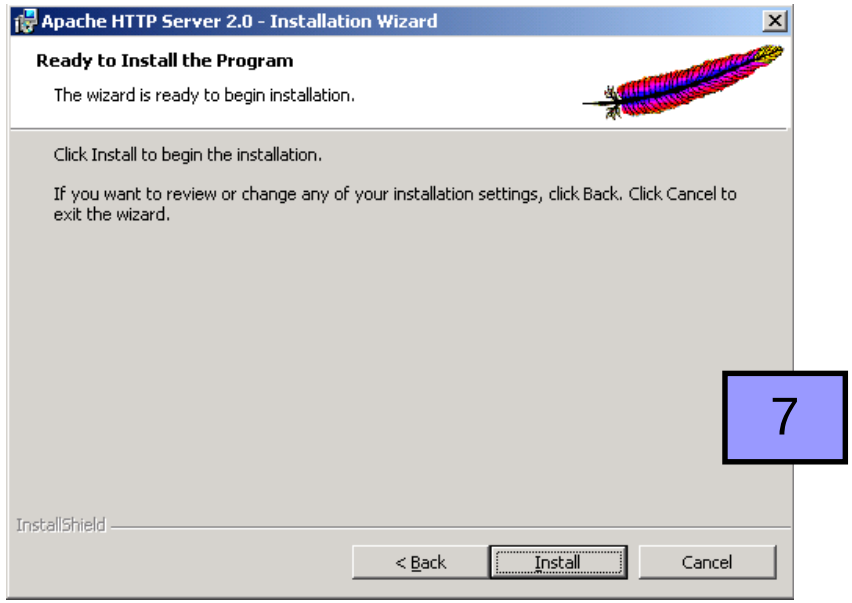
Instalasi Apache



5



6



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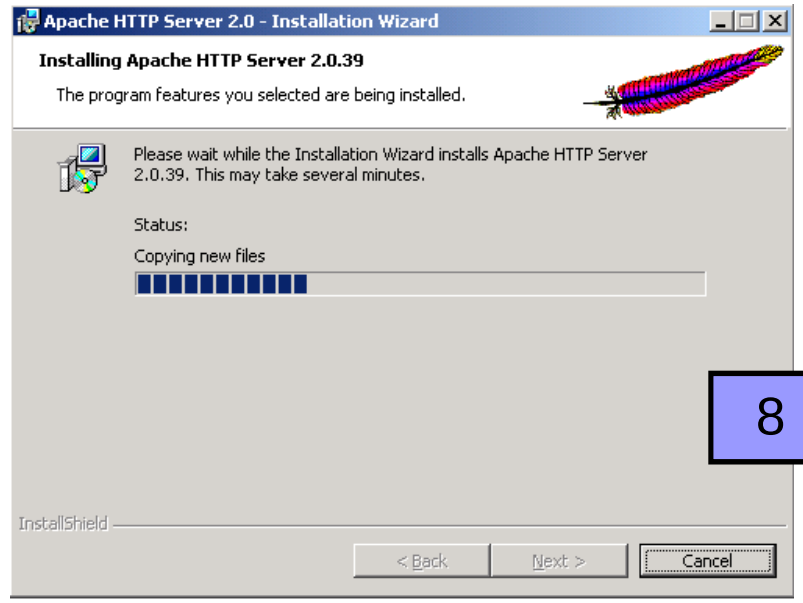
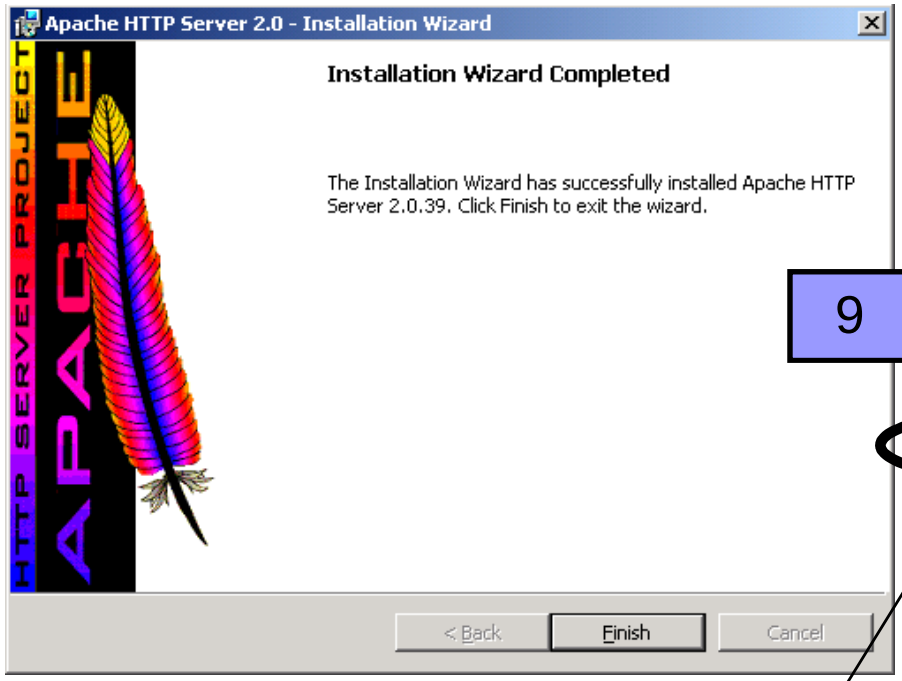
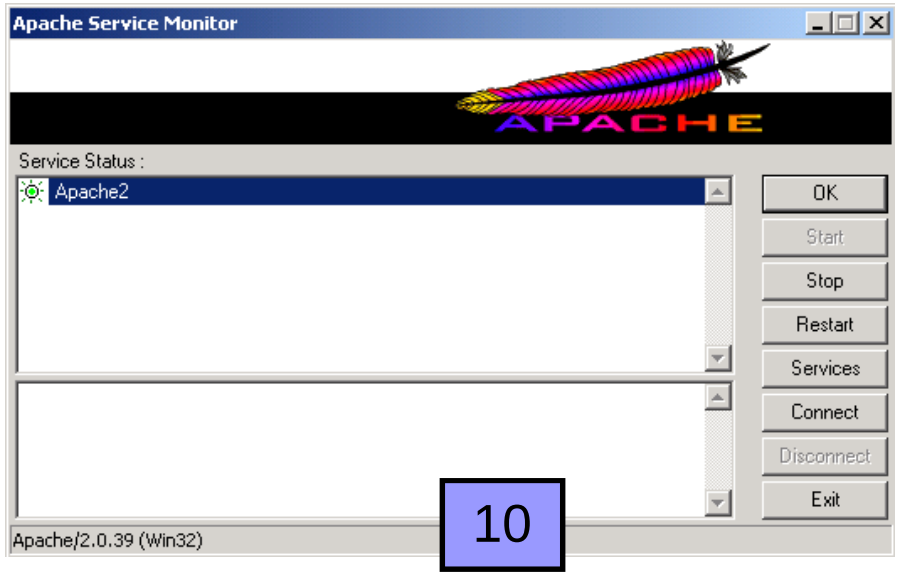


8

Instalasi Apache

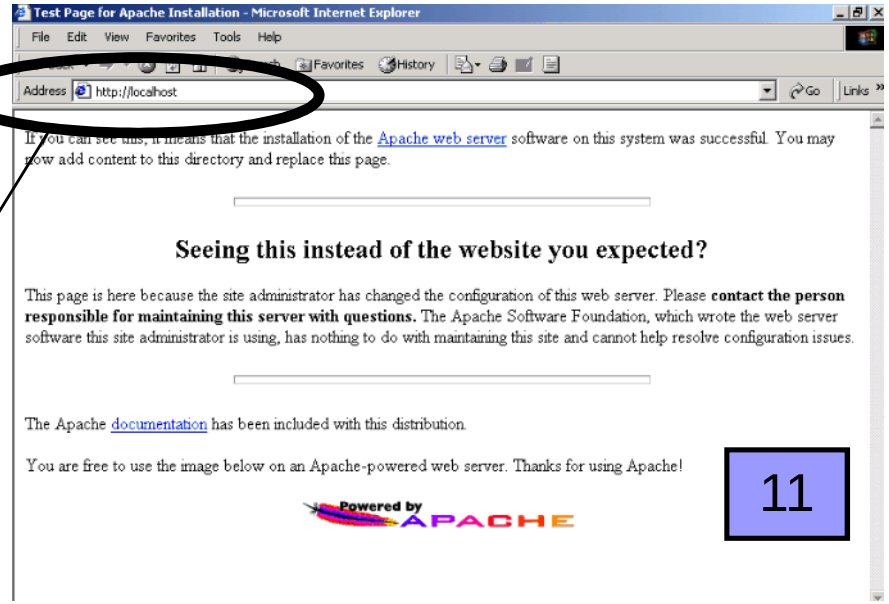


9



10

http://localhost



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Klik:

Start > Programs > Apache HTTP Server 2.0.39 > Configure Apache Server > Edit the httpd.conf

DocumentRoot

```
#
# DocumentRoot: The directory out of which you will serve your
# documents. By default, all requests are taken from this directory, but
# symbolic links and aliases may be used to point to other locations.
#
DocumentRoot “C:/Program Files/Apache Group/Apache2/htdocs"
```

DirectoryIndex

```
DirectoryIndex index.php index.htm index.html index.html.var
```

ScriptAlias

```
ScriptAlias /php4/ ”c:/php/"
Action application/x-httpd-php4 "/php4/php.exe"
AddType application/x-httpd-php4 .php
AddType application/x-httpd-php4 .php3
```

Klik:

Start > Programs > Apache HTTP Server 2.0.39 > Control Apache Server > Restart

Tag PHP

- <?php
  statement_php;
  ?>

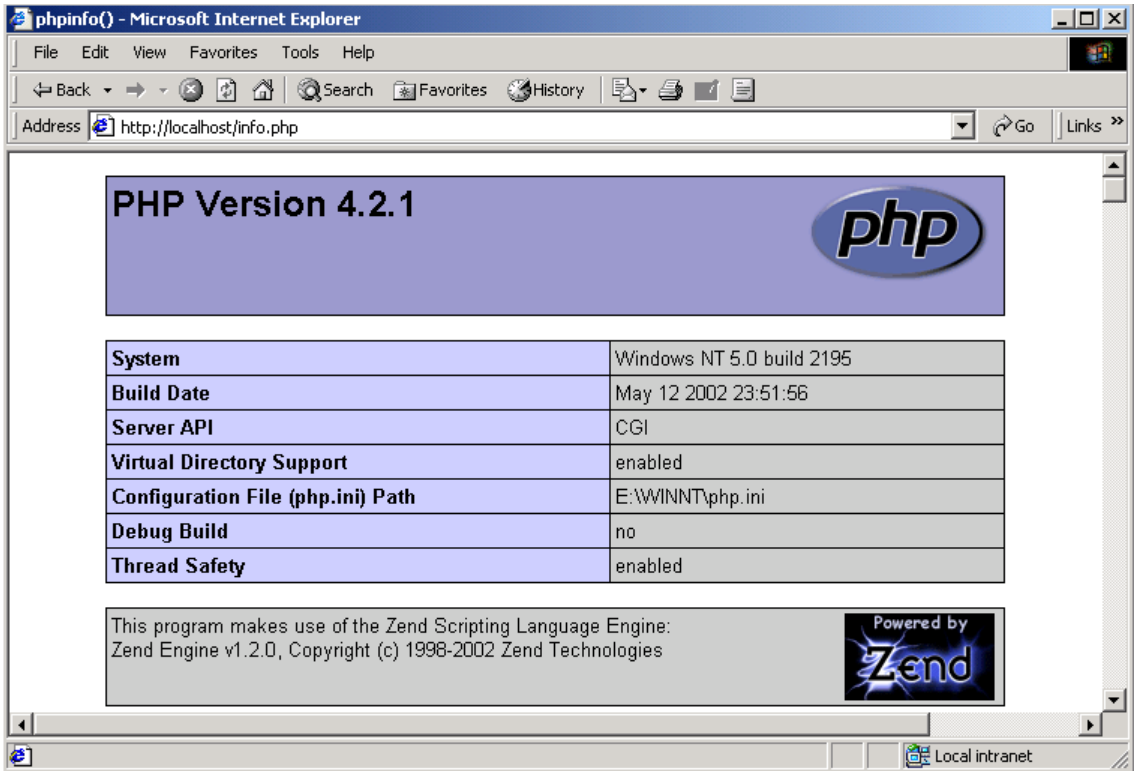
- <?
  statement_php;
  ?>

- <script language="php">
  statement_php;
  </script>

- <%
  statement_php;
  %>

info.php

```
<?php
    phpinfo();
?>
```



Tampilan info.php

Komentar

- # statement_php;
- // statement_php;
- /*
  statement_php;
  */

komentar.php

```
<?php
# echo "Hello";                komentar untuk 1 baris
// echo "Hello";                juga komentar untuk 1 baris

/*  echo "hello";               nah yang ini untuk lebih
    echo "hello juga";          dari 1 baris komentar
*/
?>
```

Variabel

- Digunakan untuk menyimpan informasi
- Diawali oleh tanda $ diikuti oleh nama variabel
- Panjangnya tidak terbatas
- Setelah tanda $, diawali oleh huruf / garis bawah
- Case sensitive
- Tidak boleh ada spasi

variabel.php

```
<?php
    $nama="Rizky Tahara Shita";
    $angka="28";
    echo $nama."$angka";
?>
```

Tipe Data

- Integer
- Float
- String
- Array
- Object

tax.php

```
<?php
 $gaji=1000000;
 $pajak=0.1;
 $thp=$gaji-($gaji*$pajak);
 echo "Gaji sebelum pajak = Rp. $gaji <br>";
 echo "Gaji yang dibawa pulang = Rp. $thp";
?>
```

- Integer (bilangan bulat)

```
<?php
   $a = 1234; # decimal number
   $a = -123; # a negative number
   $a = 0123; # octal number (equivalent to 83 decimal)
   $a = 0x1A; # hexadecimal number (equivalent to 26 decimal)
?>
```

- Float (bilangan pecahan)

```
<?php
   $a = 1.234;
   $a = 1.2e3;
   $a = 7E-10;
?>
```

- String

```
<?php
    $var = "tahara";          #variabel $var bertipe string
    echo "nama saya $var";    #menghasilkan output: nama saya tahara
    echo 'nama saya $var';    #menghasilkan output: nama saya $var
?>
```

- Escaped Characters

Sequences	Arti
\n	Newline (baris baru)
\r	Carriage return
\t	Horizontal tab
\\	Backslash
\$	Tanda dollar
\”	Tanda kutip ganda
\’	Tanda kutip tunggal

```
<?php
    echo 'Hari ini hari jum\'at';
?>
```

- Array

```
<?php
   $a[0]="IndexKe0";                    #$a merupakan array skalar
   $b["ke0"]=7;                         #$b merupakan array assosiatif
   $a[]="IndexKe1";                     #$a[1]="IndexKe1"

   echo "Nilai a[0]=$a[0]<br>
         Nilai b[\"ke0\"]=".$b["ke0"]."<br>
         Nilai a[1]=$a[1]";
   $c[1][0]="Array2Dimensi";            #array 2 dimensi

   echo "Nilai c[1][0]=$c[1][0]";
   $d[0][0][0][0]=0;                    #array 4 dimensi


   #
   #mengisi array dengan menggunakan fungsi array()
   #
   $a["name"]="melon";
   $a["taste"]="sweet";
   echo $a["taste"]." ".$a["name"];
```

- Array (lanjutan)

```
   #hal ini akan sama jika Anda menuliskannya sebagai berikut:
   $a=array(
         "name" => "melon",
         "taste" => "sweet"
   );
   echo $a["taste"]." ".$a["name"];


   #
   #mengisi array multidimensi dengan fungsi array()
   #
   $a=array(
         "melon" => array("taste" => "sweet"),
         "apple" => array("taste" => "not sweet")
   );
   echo $a["apple"]["taste"];#output: not sweet

?>
```

- Object

```
<?php
     class foo
     {
         function do_foo()
         {
             echo "Doing foo.";
         }
     }
     $bar = new foo;
     $bar->do_foo();
?>
```

Konstanta

define(“variabel”, “nilai”);

```
<?php
     define("pi", "3.14");
     $jari_jari=10;
     $luas_ling=pi*$jari_jari*$jari_jari;
     echo "Jari-jari Lingkaran = $jari_jari<br>Luas Lingkaran =$luas_ling";
?>
```

Fungsi isset(), unset(), empty()

- isset(), digunakan untuk memeriksa apakah sebuah variabel sudah dicreate/belum, akan menghasilkan nilai 1 jika benar dan tidak mengembalikan apa-apa jika salah.
- unset(), digunakan untuk menghapus sebuah variabel beserta isinya.
- empty(), digunakan untuk memeriksa sebuah variabel, akan menghasilkan nilai 1 jika variabel tidak ada / variabel=0 atau “” dan tidak mengembalikan apa-apa jika variabel tsb ada.

sets.php

```
<?php
     $x=5;
     $email=“rizky.tahara@gmail.com";
     echo "Isi variabel x= $x <br>";
     unset($x);
     echo "Isi variabel x setelah unset = $x <br>";

     echo "Email = " .empty($email). "<br>";
     echo "Website = " .empty($url);
?>
```

Operator

- Aritmatika
  - Untuk perhitungan matematika
- Bitwise
  - Untuk membandingkan operan sebagai bilangan biner (0 atau 1)
- Pembanding
  - Untuk mengembalikan nilai dalam bentuk true atau false
- Penambahan/Pengurangan terstruktur
  - Untuk penambahan/pengurangan secara teratur
- Logika
  - Untuk melakukan perbandingan logic

- Aritmatika

Operator	Operasi	Contoh
+	Penjumlahan	$a + $b
-	Pengurangan	$a - $b
*	Perkalian	$a * $b
/	Pembagian	$a / $b
%	Modulus (sisa pembagian)	$a % $b

- Bitwise

Operator	Operasi	Contoh
&	And	$a & $b
|	Or	$a | $b
^	XOR	$a ^ $b
~	Not	~$a
<<	Geser bit ke kiri	$a << $b
>>	Geser bit ke kanan	$a >> $b

- Pembanding

Operator	Operasi	Contoh
==	Sama	$a == $b
===	Identik	$a === $b
!=	Tidak sama	$a != $b
!==	Tidak identik	$a !== $b
<	Lebih kecil	$a < $b
>	Lebih besar	$a > $b
<=	Lebih kecil atau sama dengan	$a <= $b
>=	Lebih besar atau sama dengan	$a >= $b

- Penambahan/Pengurangan terstruktur

Operator	Operasi
++$a	Pre Increment
$a++	Post Increment
--$a	Pre Decrement
$a--	Post Decrement

- Logika

Operator	Operasi	Contoh
and &&	Benar, jika keduanya bernilai benar	$a and $b $a && $b
or ||	Benar, jika salah satu bernilai benar	$a or $b $a || $b
xor	Benar, jika salah satu bernilai benar, tapi bernilai salah jika keduanya bernilai benar	$a xor $b
!	Benar jika pernyataan salah	!$a

Statement Kendali

- Pengandaian
  - If
  - Switch

- Perulangan
  - Do
  - While
  - For
  - List & Each
  - Foreach

- IF

```
if (expresi) {
    statement_if;
} elseif (expresi) {
    statement_elseif;
} else {
    statement_else;
}
```

```
<?php
$a=3; $b=1;
if($a > $b){
    echo "a lebih besar dari b <br>";
}
?>
```

```
<?php
$a=2; $b=10;
if($a > $b){
    echo "a lebih besar dari b";
}else{
    echo "b lebih besar dari a";
}
?>
```

```
<?php
    $a=1;
    if($a==1){
        echo “satu”;
    }elseif ($a==2){
        echo “dua”;
    }elseif ($a==3){
        echo “tiga”;
    }else {
        echo “> 3”;
    }
?>
```

- SWITCH

```
switch(expresi){
    case kasus1:
        statement_kasus1;
        break;
    case kasus2:
        statement_kasus2;
        break;
    ...
    default:
        statement_default;
        break;
}
```

```
<?php
$a=1;
switch($a){
    case 1:
        echo "satu";
        break;
    case 2:
        echo "dua";
        break;
    case 3:
        echo "tiga";
        break;
    default:
        echo "> 3";
        break;
}
?>
```

- DO

```
do{
    statement_do;
    ...
}while(expresi);
```

```
<?php
    $i=1;
    do{
          echo "$i<br>";
          $i++;
    } while($i<=10);
?>
```

```
<?php
    $i=1;
    do{
          echo "$i<br>";
          $i++;
    } while($i<1);
?>
```

- WHILE

```
while (expresi) {
    statement_while;
    ...
}
```

```
<?php
    $i=1;
    while($i<=10){
          echo "$i<br>";
          $i++;
    }
?>
```

```
<?php
    $i=1;
    while($i<1){
          echo "$i<br>";
          $i++;
    }
?>
```

- FOR

```
for (nilai_awal, nilai_akhir, perhitungan_aritmatik) {
    statement_for;
    ...
}
```

```
<?php
    for($i=1; $i<=10; $i++){
          echo $i."<br>";
    }
?>
```

- LIST & EACH

list([index_value] [, element_contents]) = each(arrayname));

```
<?php
 $fak=array("FTI","FE","FISIP",
    "FT","ASTRI");

 while(list($index,$isi)=each($fak)){
   echo "$index $isi<br>";
 }
?>
```

```
<?php
 $fak=array("FTI","FE","FISIP",
    "FT","ASTRI");

 while(list($index)=each($fak)){
   echo "$index<br>";
 }
?>
```

```
<?php
 $fak=array("FTI","FE","FISIP",
    "FT","ASTRI");

 while(list(,$isi)=each($fak)){
   echo "$isi<br>";
 }
?>
```

- FOREACH

```
foreach ($arrayname as [$index =>] $arrayitem) {
    statement_foreach;
}
```

```php
<?php
 $fak=array("FTI","FE","FISIP","FT","ASTRI");

 foreach($fak as $namafakultas){
  echo "$namafakultas<br>";
 }


 $fak=array("FTI"=>"Fakultas Teknologi Informasi","FE"=>"Fakultas Ekonomi",
           "FISIP"=>"Fakultas Ilmu Sosial dan Ilmu Politik",
       "FT"=>"Fakultas Teknik","ASTRI"=>"Akademi Sekretari");
 foreach($fak as $index => $namafakultas){
  echo "$index $namafakultas<br>";
 }
?>
```

Penyisipan File

- require(file_name)
- require_once(file_name)
- include(file_name)

```php
<?php
 //inc1.php
 $x=10;
?>
```

```php
<?php
 //inc2.php
 include "inc1.php";
 $y=$x+5;
 echo $y;
?>
```

```php
<?php
 require "inc3.php";
 $y=$xx+5;
 echo $y;
?>
```

```php
<?php
 include "inc3.php";
 $y=$xx+5;
 echo $y;
?>
```

Include akan mengasilkan Warning, sedangkan require akan menghasilkan Fatal Error

Function

```
function nm_fungsi (parameter1, parameter2, ...){
    statement_fungsi;
    ...
    return $nilai_return;
}
```

Jenis Fungsi pada PHP

- Function passing by value
- Function passing by reference
- Function passing by default

- Function passing by value

```
function nm_fungsi (parameter1, parameter2, ...){
    statement_fungsi;
    ...
    return $nilai_return;
}
```

fvalue.php

```
<?php
    function hitung($harga){
          return $harga=$harga-(0.1*$harga);
    }
    $harga=5000;
    echo (hitung($harga));
    echo "<br>";
    echo $harga;
?>
```

- Function passing by reference

```
function nm_fungsi (&parameter1, &parameter2, ...){
    statement_fungsi;
    ...
    return $nilai_return;
}
```

fref.php

```
<?php
     function hitung(&$harga){
          return $harga=$harga-(0.1*$harga);
     }
     $harga=5000;
     echo (hitung($harga));
     echo "<br>";
     echo $harga;
?>
```

- Function passing by default

```
function nm_fungsi (parameter1=nilai1, parameter2=nilai2, ...){
    statement_fungsi;
    ...
    return $nilai_return;
}
```

fdef.php

```
<?php
     function hitung($harga=1000){
          return $harga=$harga-(0.1*$harga);
     }
     echo (hitung());
     echo "<br>";
     echo (hitung(3000));
?>
```

HTML & PHP

PHP SuperGlobals Variables

- $GLOBALS
- $_SERVER
- $_GET
- $_POST
- $_COOKIE
- $_FILES
- $_ENV
- $_REQUEST
- $_SESSION

- $_REQUEST

$_REQUEST[‘nm_variabel’];

request1.php

```
<?php
    if(isset($_REQUEST['btnkirim'])){
           switch($_REQUEST['txtangka']){
                    case "1": echo "satu"; break;
                    case "2": echo "dua"; break;
                    default: echo "angka"; break;
           }
    }
?>

<html>
<head></head>
<body>
    <form name="myform" method="post">
          Angka: <input type="text" name="txtangka"><br>
          <input type="submit" name="btnkirim" value="Kirim">
    </form>
</body>
</html>
```

request2a.php

```
<html>
<head></head>
<body>
    <form name="myform" method="post" action="request2b.php">
          Angka: <input type="text" name="txtangka"><br>
          <input type="submit" name="btnkirim" value="Kirim">
    </form>
</body>
</html>
```

request2b.php

```
<?php
    if(isset($_REQUEST['btnkirim'])){
          switch($_REQUEST['txtangka']){
                case "1": echo "satu"; break;
                case "2": echo "dua"; break;
                default: echo "angka"; break;
          }
    }
?>
```

tebak.htm

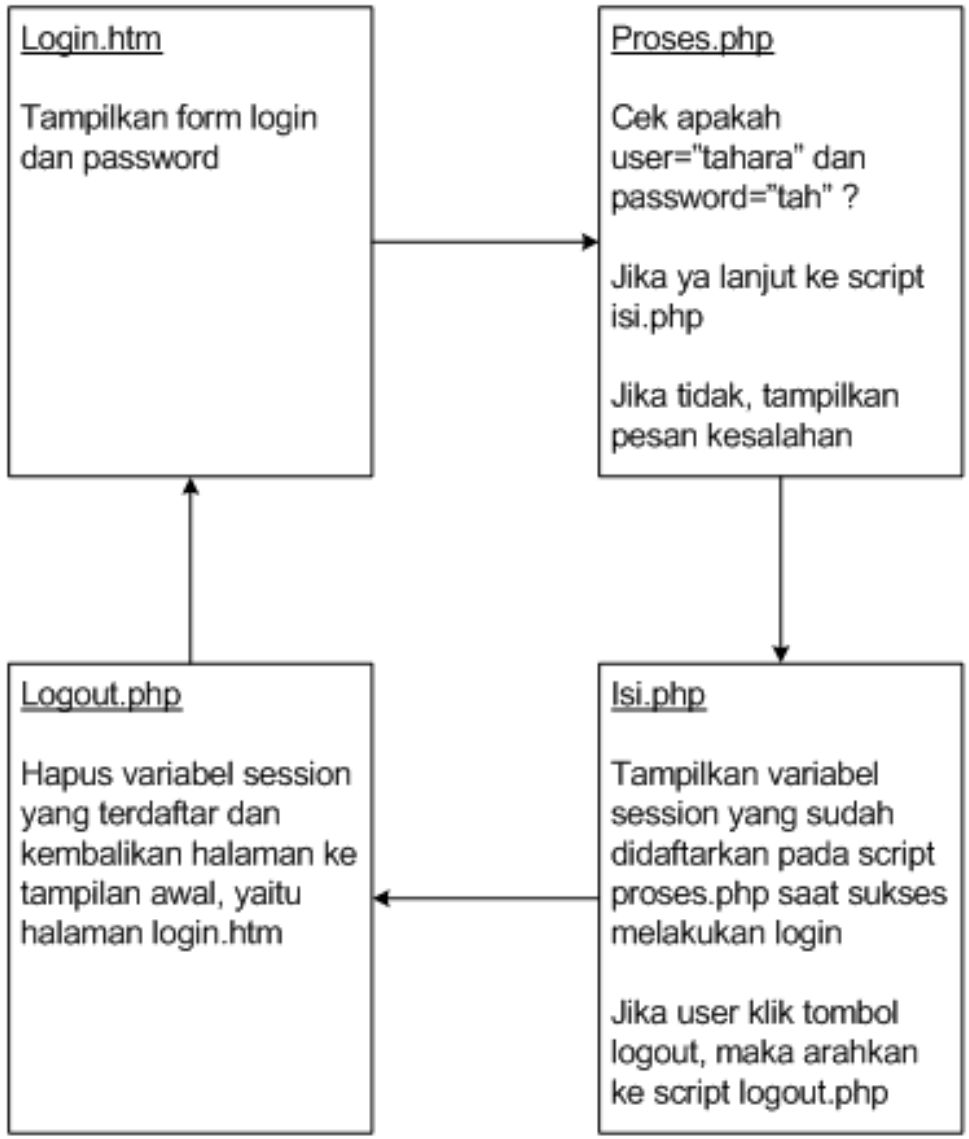
```
<html>
 <head>
  <title>Tebak Angka</title>
 </head>
 <body>
  <form method="post" action="tebak.php">
   Tebak angka yang ada di pikiran saya sekarang (1-20) :
   <input type="text" name="angka"><br>
   <input type="submit">
  </form>
 </body>
</html>
```

tebak.php

```
<?
   $acak=rand(1,20);
   if($_REQUEST['angka'] > $acak){
     echo "Tebakan anda terlalu tinggi, yang ada dipikiran saya $acak";
   }
   if($_REQUEST['angka'] < $acak){
     echo "Tebakan anda terlalu rendah, yang ada dipikiran saya $acak";
   }
   if($_REQUEST['angka'] == $acak){
     echo "Tebakan anda benar, yang ada dipikiran saya $acak";
   }
?>
```

- $_SESSION

$_SESSION[‘nm_variabel’];
session_start();
session_destroy();



login.htm

```
<html>
<head></head>
<body>
    <form name="myform" method="post" action="proses.php">
          Login: <input type="text" name="txtlogin"><br>
          Password: <input type="password" name="txtpass"><br>
          <input type="submit" name="btnlogin" value="Login">
    </form>
</body>
</html>
```

proses.php

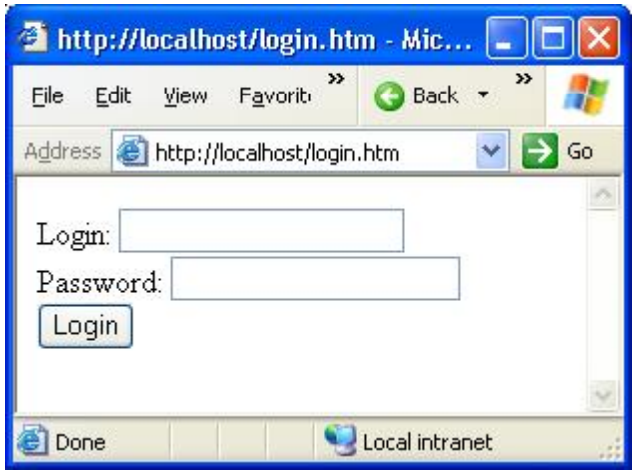
```
<?php
    session_start();
    if(isset($_REQUEST['btnlogin'])){
          if($_REQUEST['txtlogin']=="tahara" &&
                    $_REQUEST['txtpass']=="tah"){
                    $_SESSION['sesnama']=$_REQUEST['txtlogin'];
                    $_SESSION['password']=$_REQUEST['txtpass'];
                    header("Location: isi.php");
          }else{
                    die("Anda tidak punya Hak Akses !");
          }
    }
?>
```

isi.php

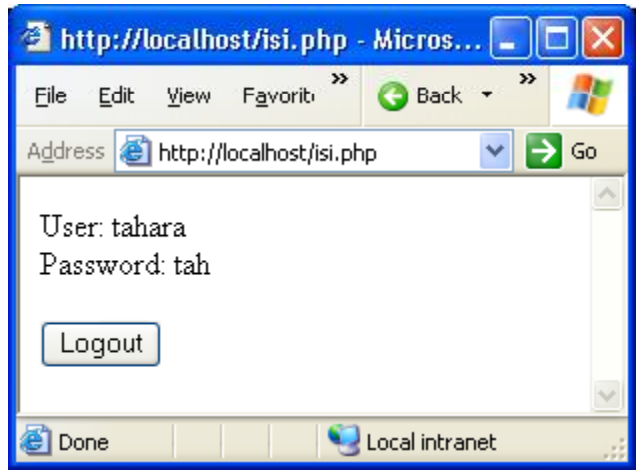
```
<?php
session_start();
if(!isset($_SESSION['sesnama']) || (isset($_SESSION['sesnama'])
    && $_SESSION['sesnama']!="tahara"))
header("Location: logout.php");
?>
<html>
<head></head>
<body>
    <form name="myform" method="post" action="logout.php">
          User: <?php echo $_SESSION['sesnama']; ?> <br>
          Password: <?php echo $_SESSION['password']; ?> <br><br>
          <input type="submit" name="btnlogout" value="Logout">
    </form>
</body>
</html>
```

logout.php

```
<?php
    session_start();
    session_destroy();
    header("Location: login.htm");
?>
```



Tampilan login.htm



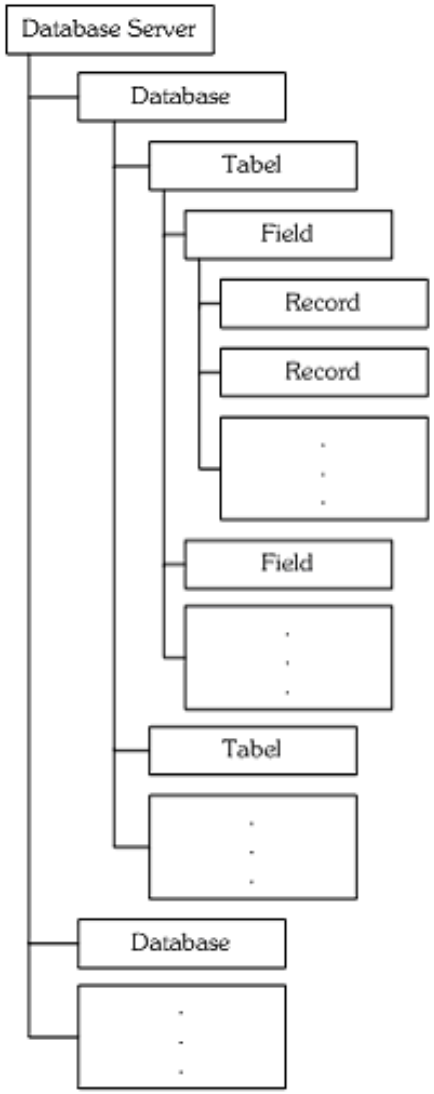
Tampilan isi.php

MySQL Database Server

MySQL

- MySQL Database Server
- Menyimpan data
- Open Source
- http://www.mysql.com

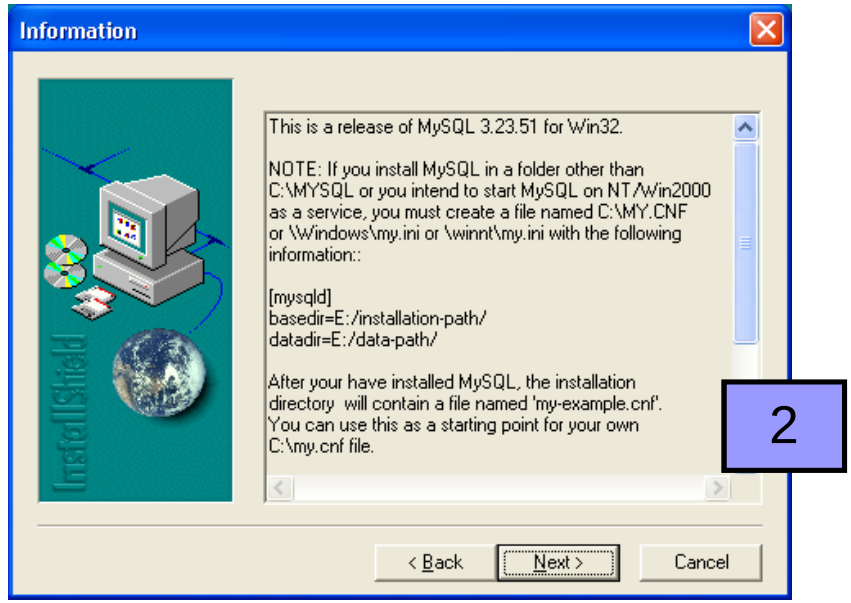
DBMS (Database Management Systems)

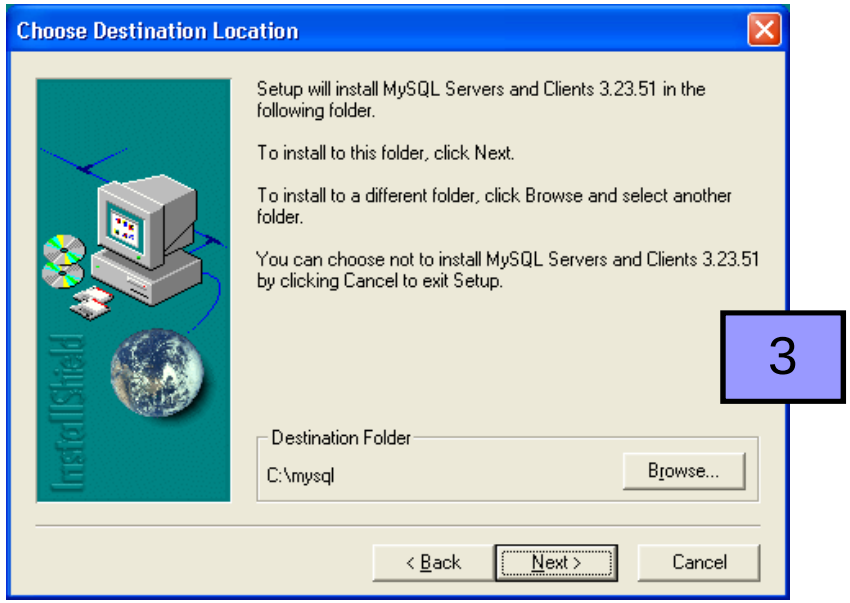


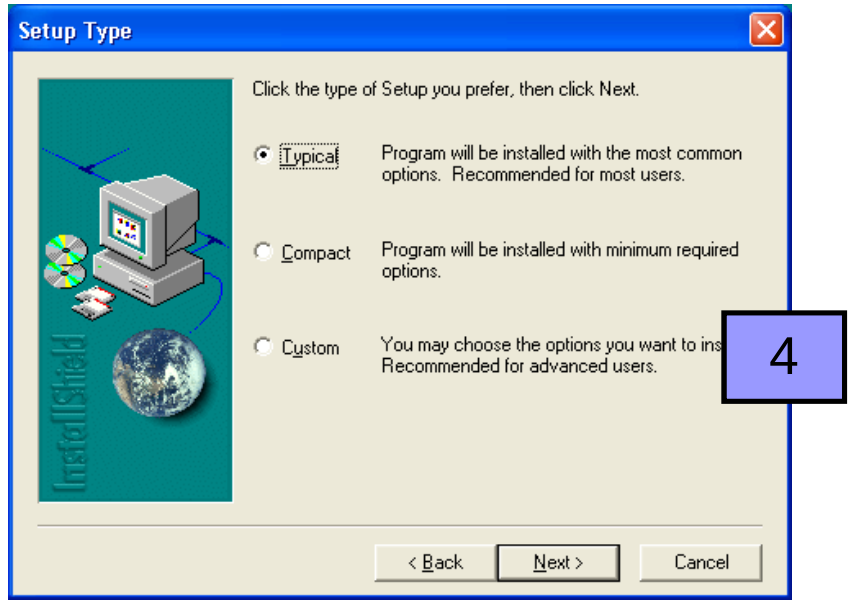

```
Open file
While not(EOF)
Do
    Lock record
    Read record
    If expression=value
          Write record
    Unlock record
End
Close file
```

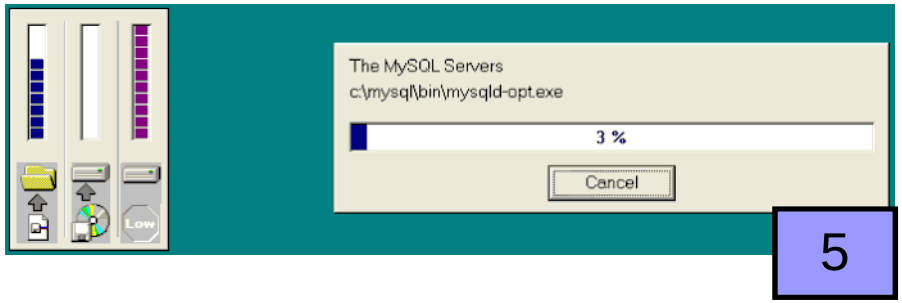
```
Update nama-tabel
Set nama-kolom=nilai-baru
Where nama-kolom=nilai
```

Welcome
Welcome to the MySQL Servers and Clients 3.23.51 Setup program. This program will install MySQL Servers and Clients 3.23.51 on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or a portion of it, may result in severe civil and criminal penalties, will be prosecuted to the maximum extent possible under law
Next >
Cancel
InstallShield
1

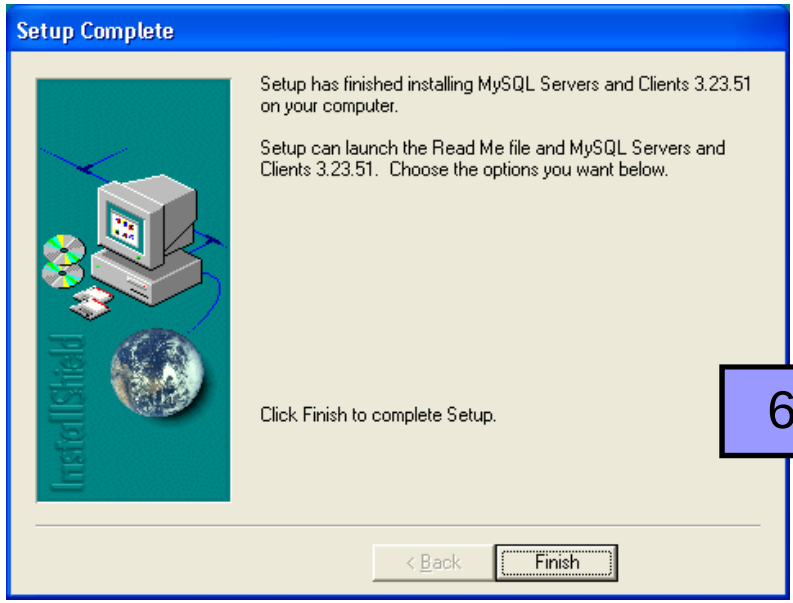

Information
This is a release of MySQL 3.23.51 for Win32.
NOTE: If you install MySQL in a folder other than C:\MYSQL or you intend to start MySQL on NT/Win2000 as a service, you must create a file named C:\MY.CNF or \Windows\my.ini or \winnt\my.ini with the following information::
[mysqld]
basedir=E:/installation-path/
datadir=E:/data-path/
After your have installed MySQL, the installation directory will contain a file named 'my-example.cnf'. You can use this as a starting point for your own C:\my.cnf file.
< Back
Next >
Cancel
InstallShield
2


Choose Destination Location
Setup will install MySQL Servers and Clients 3.23.51 in the following folder.
To install to this folder, click Next.
To install to a different folder, click Browse and select another folder.
You can choose not to install MySQL Servers and Clients 3.23.51 by clicking Cancel to exit Setup.
Destination Folder
C:\mysql
Browse...
< Back
Next >
Cancel
InstallShield
3

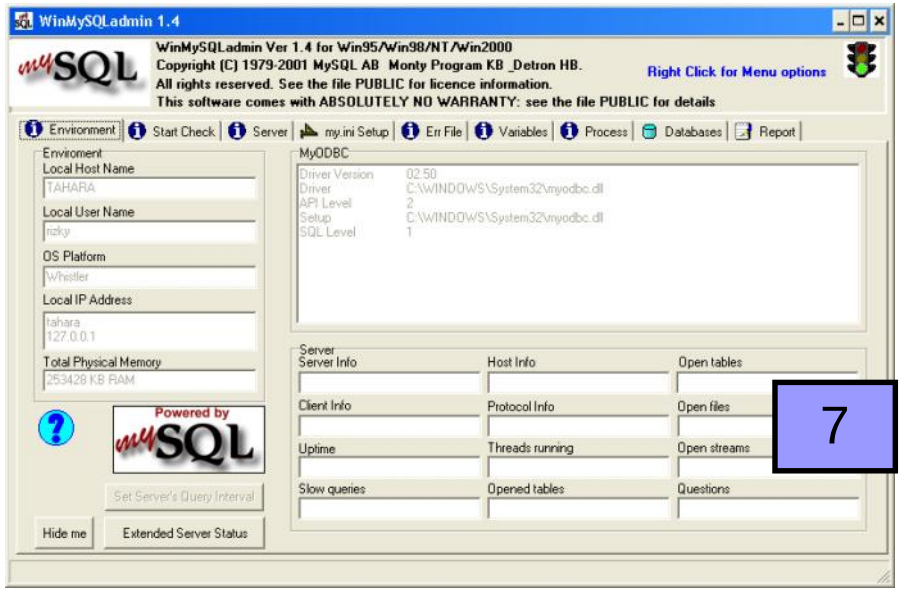

Setup Type
Click the type of Setup you prefer, then click Next.
Typical
Program will be installed with the most common options. Recommended for most users.
Compact
Program will be installed with minimum required options.
Custom
You may choose the options you want to ins
Recommended for advanced users.
< Back
Next >
Cancel
InstallShield
4


The MySQL Servers
c:\mysql\bin\mysqld-opt.exe
3 %
Cancel

5


Setup Complete
Setup has finished installing MySQL Servers and Clients 3.23.51 on your computer.
Setup can launch the Read Me file and MySQL Servers and Clients 3.23.51. Choose the options you want below.
Click Finish to complete Setup.
< Back
Finish
InstallShield

6


WinMySQLadmin 1.4
WinMySQLadmin Ver 1.4 for Win95/Win98/NT/Win2000
Copyright (C) 1979-2001 MySQL AB Monty Program KB _Detron HB.
All rights reserved. See the file PUBLIC for licence information.
This software comes with ABSOLUTELY NO WARRANTY: see the file PUBLIC for details
Right Click for Menu options
Environment
Start Check
Server
my.ini Setup
Err File
Variables
Process
Databases
Report
Local Host Name
Local User Name
OS Platform
Local IP Address
Total Physical Memory
MyODBC
Server Info
Host Info
Open tables
Client Info
Protocol Info
Open files
Uptime
Threads running
Open streams
Slow queries
Opened tables
Questions
Powered by
Set Server's Query Interval
Hide me
Extended Server Status

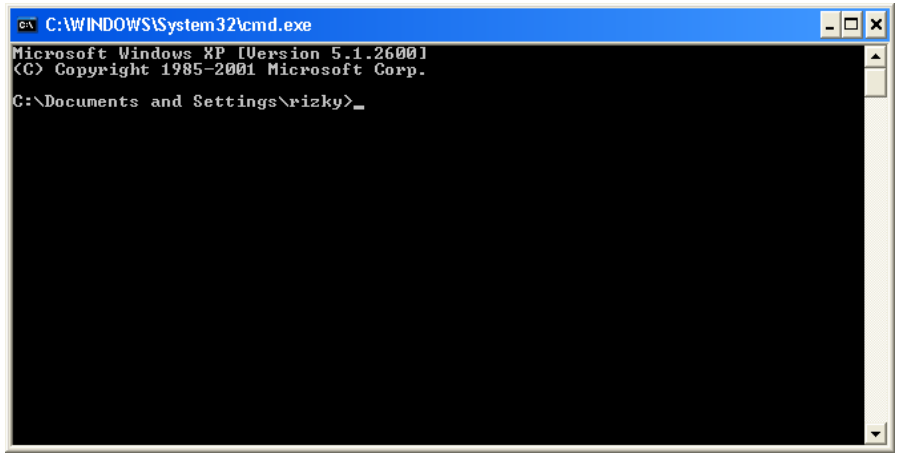
7

WinMySQLadmin Quick Setup
by
T.c.X
DataKonsultAB
Create the my.ini file with default values and the user below. Recommended to novice user.
User name
Password
WinMySQLadmin Ver 1.4
Cancel
OK

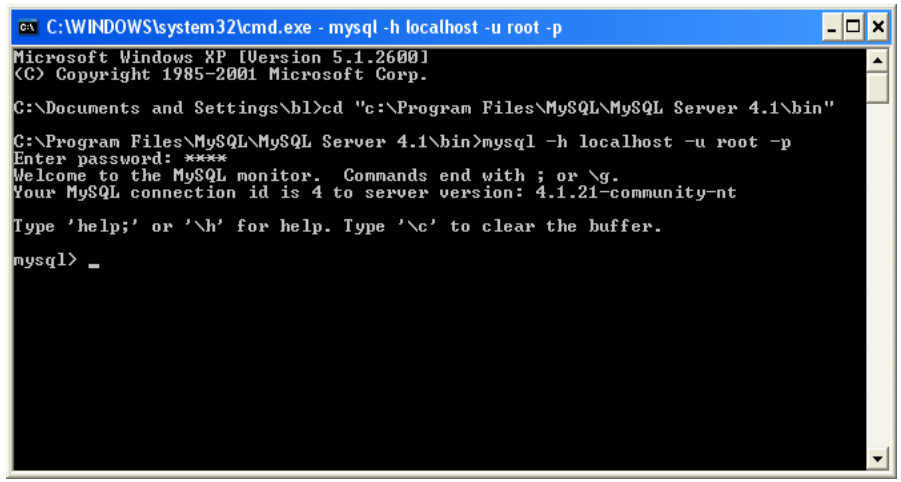
8

Menjalankan MySQL

- Klik Start > Run
- Ketik cmd
- Tekan Enter



- Ketik:
  - cd \
  - cd c:\mysql\bin
  - mysql –h localhost –u root –p



Tipe Data MySQL

Numerik

TYPE	JANGKAUAN/FORMAT
INT	-2^{31} s/d $2^{31}-1$ atau 0 s/d $2^{32}-1$
TINYINT	-2^{7} s/d $2^{7}-1$ atau 0 s/d $2^{8}-1$
SMALLINT	-2^{15} s/d $2^{15}-1$ atau 0 s/d $2^{8}-1$
MEDIUMINT	-2^{23} s/d $2^{23}-1$ atau 0 s/d $2^{24}-1$
BIGINT	-2^{63} s/d $2^{63}-1$ atau 0 s/d $2^{64}-1$
FLOAT	Minimum Non Zero $+-1.176x10^{38}$
	Maximum Non Zero $+-3.403x10^{+38}$
DOUBLE	Minimum Non Zero $+-2.225x10^{308}$
	Maximum Non Zero $+-1.798x10^{+308}$
DECIMAL	Sama dengan double

Date/Time

TYPE	JANGKAUAN/FORMAT
DATE	YYYY-MM-DD 1000-01-01 s/d 9999-12-31
DATETIME	YYYY-MM-DD hh:mm:ss 1000-01-01 00:00:00
	s/d 9999-12-31 23:59:59
TIMESTAMP	YYYYMMDDhhmmss 19700101000000 s/d 2037
TIME	hh:mm:ss -838:59:59 s/d 838:59:59
YEAR	YYYY 1900 s/d 2155

String

TYPE	JANGKAUAN/FORMAT
CHAR	0-255 Karakter
VARCHAR	0-255 Karakter
BLOB	binary 0-65535 bytes
TINYBLOB	binary 0-255 bytes
MEDIUMBLOB	binary 0-16777215 bytes
LONGBLOB	binary 0-4294967295 bytes
TEXT	0-65535 bytes
TINYTEXT	0-255 bytes
MEDIUMTEXT	0-16777215 bytes
LONGTEXT	0-4294967295 bytes
ENUM	1 dari set list
SET	>=0 dari set list

Perintah – perintah Query MySQL

- show databases; #menampilkan database yg sudah ada
- use nm_dbase; #mengaktifkan database nm_dbase
- show tables; #menampilkan tabel dari database
- desc nm_tabel; #menampilkan struktur tabel
- flush privileges; #me-refresh options MySQL
- exit; #keluar dari konsole MySQL

SQL (Structured Query Language)

- DDL (Data Definition Language)
  - Untuk mengatur hubungan database dan struktur tabel
- DML (Data Manipulation Language)
  - Untuk mendapatkan data/record dari tabel – tabel yang ada.

- DDL (Data Definition Language)
  - CREATE

CREATE DATABASE [IF NOT EXISTS] db_name

CREATE [TEMPORARY] TABLE [IF NOT EXISTS] tbl_name
[(create_definition,...)]
[table_options] [select_statement]

```
mysql>create database perpus;
```

```
mysql>show databases;
+----------+
| Database |
+----------+
| mysql    |
| perpus   |
| test     |
+----------+
3 rows in set (0.02 sec)
```

```
mysql>use perpus;
```

```
mysql> CREATE TABLE `anggota` (
  `no_ang` tinyint(3) unsigned NOT NULL,
  `nm_ang` varchar(50),
  PRIMARY KEY  (`no_ang`)
) TYPE=MyISAM;

mysql> CREATE TABLE `buku` (
  `kd_bk` tinyint(3) unsigned NOT NULL,
  `nm_bl` varchar(50),
  PRIMARY KEY  (`kd_bk`)
) TYPE=MyISAM;

mysql> CREATE TABLE `trans` (
  `no_ang` tinyint(3) unsigned NOT NULL default '0',
  `kd_bk` tinyint(3) unsigned NOT NULL default '0',
  `tgl_trans` date default NULL,
  PRIMARY KEY  (`no_ang`,`kd_bk`)
) TYPE=MyISAM;
```

```
mysql>show tables;
+------------------+
| Tables_in_perpus |
+------------------+
| anggota          |
| buku             |
| trans            |
+------------------+
3 rows in set (0.00 sec)
```

- DDL (Data Definition Language)
  - DROP

DROP DATABASE [IF EXISTS] db_name

DROP TABLE [IF EXISTS] tbl_name [, tbl_name,...]

```
mysql>drop table `trans`;
mysql>drop database perpus;
```

```
mysql>show databases;
+----------+
| Database |
+----------+
| mysql    |
| test     |
+----------+
3 rows in set (0.02 sec)
```

- DDL (Data Definition Language)
  - ALTER

ALTER [IGNORE] TABLE tbl_name alter_spec [, alter_spec ...]

Parameter alter_spec dapat berisi:

- ADD
- MODIFY
- CHANGE
- DROP

```
mysql>ALTER TABLE `buku` CHANGE `nm_bl` `nm_bk` VARCHAR(50);
```

```
mysql>desc buku;
+-------+---------------------+------+-----+---------+-------+
| Field | Type                | Null | Key | Default | Extra |
+-------+---------------------+------+-----+---------+-------+
| kd_bk | tinyint(3) unsigned |      | PRI | 0       |       |
| nm_bk | varchar(50)         | YES  |     | NULL    |       |
+-------+---------------------+------+-----+---------+-------+
2 rows in set (0.01 sec)
```

- DML (Data Manipulation Language)
  - INSERT

INSERT [INTO] tbl_name [(col_name,...)]
VALUES (expression,...),(...),...

```
mysql>INSERT INTO `anggota` (`no_ang`, `nm_ang`) VALUES("1", "rizky");
mysql>INSERT INTO `anggota` (`no_ang`, `nm_ang`) VALUES("2", "tahara");
mysql>INSERT INTO `anggota` (`no_ang`, `nm_ang`) VALUES("3", "shita");

mysql>INSERT INTO `buku` (`kd_bk`, `nm_bk`) VALUES("11", "php");
mysql>INSERT INTO `buku` (`kd_bk`, `nm_bk`) VALUES("22", "mysql");
mysql>INSERT INTO `buku` (`kd_bk`, `nm_bk`) VALUES("33", "phpadodb");

mysql>INSERT INTO `trans` (`no_ang`, `kd_bk`, `tgl_trans`) VALUES("1", "11", "2003-08-
    01");
mysql>INSERT INTO `trans` (`no_ang`, `kd_bk`, `tgl_trans`) VALUES("3", "22", "2003-08-
    02");
```

- DML (Data Manipulation Language)
  - SELECT

```
SELECT [STRAIGHT_JOIN] [SQL_SMALL_RESULT] [SQL_BIG_RESULT] [SQL_BUFFER_RESULT]
    [HIGH_PRIORITY]
    [DISTINCT | DISTINCTROW | ALL]
  select_expression,...
  [INTO {OUTFILE | DUMPFILE} 'file_name' export_options]
  [FROM table_references
    [WHERE where_definition]
    [GROUP BY {unsigned_integer | col_name | formula} [ASC | DESC], ...]
    [HAVING where_definition]
    [ORDER BY {unsigned_integer | col_name | formula} [ASC | DESC] ,...]
    [LIMIT [offset,] rows]
    [PROCEDURE procedure_name]
    [FOR UPDATE | LOCK IN SHARE MODE]]
```

```
mysql> SELECT * FROM anggota;
+--------+--------+
| no_ang | nm_ang |
+--------+--------+
|      1 | rizky  |
|      2 | tahara |
|      3 | shita  |
+--------+--------+
3 rows in set (0.01 sec)
```

```
mysql> SELECT * FROM anggota WHERE no_ang="1";
+--------+--------+
| no_ang | nm_ang |
+--------+--------+
|      1 | rizky  |
+--------+--------+
1 row in set (0.02 sec)
```

```
mysql> SELECT tgl_trans, nm_bk
    -> FROM buku, trans
    -> WHERE buku.kd_bk=trans.kd_bk and buku.kd_bk="22";
+------------+-------+
| tgl_trans  | nm_bk |
+------------+-------+
| 2003-08-02 | mysql |
+------------+-------+
1 row in set (0.04 sec)
```

- DML (Data Manipulation Language)
  - UPDATE

UPDATE [LOW_PRIORITY] [IGNORE] tbl_name
SET col_name1=expr1, [col_name2=expr2, ...]
[WHERE where_definition]
[LIMIT #]

```
mysql>UPDATE anggota SET nm_ang= 'rizkys' WHERE no_ang=1;
```

```
mysql>SELECT * FROM anggota;
+--------+--------+
| no_ang | nm_ang |
+--------+--------+
|      1 | rizkys |
|      2 | tahara |
|      3 | shita  |
+--------+--------+
3 rows in set (0.00 sec)
```

- DML (Data Manipulation Language)
  - DELETE

DELETE [LOW_PRIORITY]
FROM tbl_name
[WHERE where_definition]
[LIMIT rows]

```
mysql> DELETE FROM anggota WHERE no_ang=2;
```

```
mysql> SELECT * FROM anggota;
+--------+--------+
| no_ang | nm_ang |
+--------+--------+
|      1 | rizkys |
|      3 | shita  |
+--------+--------+
2 rows in set (0.00 sec)
```

```
mysql> DELETE FROM anggota
```

HTML, PHP & MySQL

Konektivitas HTML, PHP dan MySQL

- Fungsi - fungsi koneksi PHP dan MySQL:
  - mysql_connect();
    Melakukan koneksi dengan MySQL
  - mysql_close();
    Menutup koneksi dengan MySQL
  - mysql_select_db();
    Memilih database
  - mysql_query();
    Menjalankan perintah query SQL
  - mysql_num_rows();
    Mendapatkan jumlah baris hasil perintah query SQL
  - mysql_fetch_row();
    Mengambil hasil query dalam bentuk index field
  - mysql_fetch_array();
    Mengambil hasil query dalam bentuk array nama field

Menampilkan data

view.php

```
<html>
 <head>
  <title>Menampilkan Data</title>
 </head>
<body>
<?php
 $db = mysql_connect("localhost", "tah", "tah_pass");
 mysql_select_db("perpus");
 $result = mysql_query("SELECT * FROM anggota");
 echo "<table border='1'>";
 echo "<tr><td>No.Anggota</td><td>Nama Anggota</td></tr>";
 while($baris=mysql_fetch_row($result)){
   echo "<tr><td>$baris[0]</td><td>$baris[1]</td></tr>";
 }
 echo "</table>";
?>
</body>
</html>
```

Meng-input data

input_data.htm

```
<html>
 <head>
  <title>Input Data</title>
 </head>
<body>
<form method="post" action="input.php">
    No.Anggota:<input type="Text" name="vno_angg"><br>
    Nama:<input type="Text" name="vnm_angg"><br>
    <input type="Submit" name="btninput" value="Enter information">
</form>
</body>
</html>
```

Meng-input data

input.php

```
<?php
if(isset($_REQUEST['btninput']) && $_REQUEST['btninput']=="Enter information"){
$id=mysql_connect("localhost","tah","tah_pass");
mysql_select_db("perpus");
$vno_angg=$_REQUEST['vno_angg'];
$vnm_angg=$_REQUEST['vnm_angg'];
$query="insert into anggota values ('$vno_angg', '$vnm_angg')";
$result=mysql_query($query);
    if($result)
          echo "Data anda sudah masuk kedalam database";
    else
          echo "Data anda tidak dapat masuk kedalam database";
}
?>
```

Meng-update data

edit.php

```
<html>
 <head>
  <title>Edit Data</title>
 </head>
<body>
<?php
 $db = mysql_connect("localhost", "tah", "tah_pass");
 mysql_select_db("perpus");
 $result = mysql_query("SELECT * FROM anggota");
 echo "<table border='1'>";
 echo "<tr><td>No.Anggota</td><td>Nama Anggota</td></tr>";
 while($baris=mysql_fetch_row($result)){
   echo "<tr><td>$baris[0]</td><td>$baris[1]</td>
         <td><a href='ubah.php?var=$baris[0]'>Edit</a> |
         <a href='hapus.php?var=$baris[0]'>Hapus</a>
         </tr>";
 }
 echo "</table>";
?>
</body>
</html>
```

Meng-update data

ubah.php

```
<?php
 $id=mysql_connect("localhost","tah","tah_pass");
 mysql_select_db("perpus");
 $var=$_REQUEST['var'];
 $query="select * from anggota where no_ang='$var'";
 $result=mysql_query($query);
 while($baris=mysql_fetch_row($result)){
   echo "<form method='post' action='update.php'>";
   echo "No.Anggota : <input readonly type='text' name='vno_ang' value='$baris[0]'>
    <br>";
   echo "Nama Anggota: <input type='text' name='vnm_ang' value='$baris[1]'><br>";
   echo "<input type='submit' value='Simpan'> <input type='reset' value='Batal'>";
   echo "</form>";
 }
?>
```

Meng-update data

update.php

```
<?php
 $id=mysql_connect("localhost","tah","tah_pass");
 mysql_select_db("perpus");
 $vno_ang=$_REQUEST['vno_ang'];
 $vnm_ang=$_REQUEST['vnm_ang'];
 $query="update anggota set no_ang='$vno_ang', nm_ang='$vnm_ang'
         where no_ang='$vno_ang'";
 $result=mysql_query($query);
 if($result)
   echo "Data sudah diupdate";
 else
   echo "Data tidak dapat diupdate";

 echo "<br><a href='edit.php'>Halaman Edit</a>";
?>
```

Meng-update data

hapus.php

```
<?php
 $id=mysql_connect("localhost","tah","tah_pass");
 mysql_select_db("perpus");
 $var=$_REQUEST['var'];
 $query="delete from anggota where no_ang='$var'";
 $result=mysql_query($query);
 if($result)
   echo "Data sudah dihapus";
 else
   echo "Data tidak dapat dihapus";

 echo "<br><a href='edit.php'>Halaman Edit</a>";
?>
```