



PROGRAM STUDI
TEKNIK INFORMATIKA
FAKULTAS ILMU KOMPUTER
UNIVERSITAS DIAN NUSWANTORO

MATA KULIAH
KECERDASAN BUATAN

Data Handling

Penangan Data

Form digunakan untuk mendapatkan data dari user

Elemen penting pd Form

- **METHOD**

Method dari sebuah form menentukan bagaimana data inputan form dikirim, method ada dua macam, yaitu GET dan POST yang menentukan bagaimana data inputan dikirim dan diproses oleh PHP.

- **ACTION**

Action dari sebuah form menentukan dimana data inputan dari form diproses, jika action ini dikosongkan, maka dianggap proses form terjadi di halaman yang sama, jadi halaman form dan halaman proses bisa saja dipisah atau dijadikan satu.

- **SUBMIT BUTTON**

Submit button merupakan sebuah tombol (pada umumnya) yang berfungsi sebagai trigger pengiriman data dari form inputan. Jika tombol ini ditekan, maka data form akan dikirimkan (diproses) di halaman yang sudah ditentukan pada atribut action.

Memproses data pada form

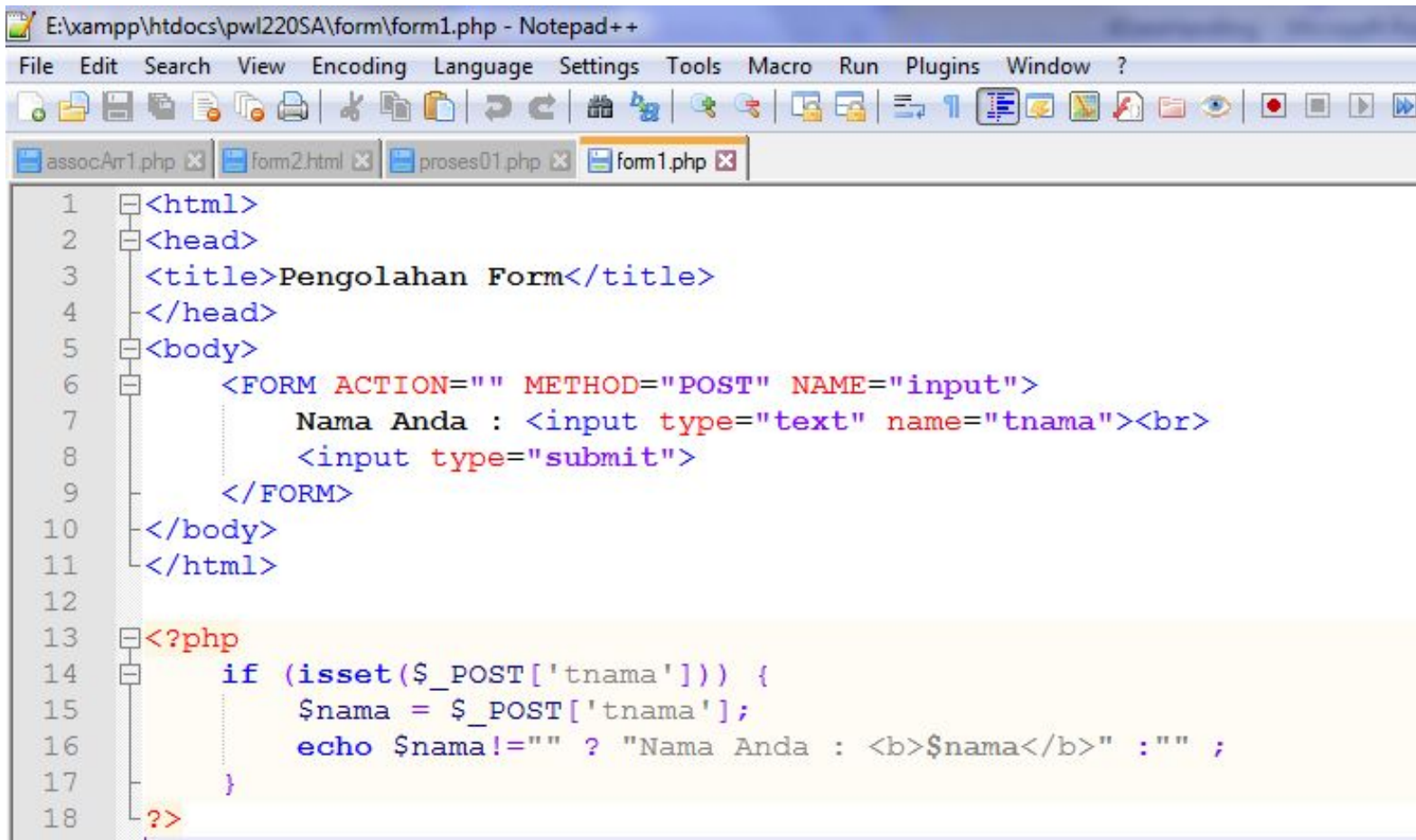
- Form dan proses jadi satu

Proses pengolahan form dilakukan di halaman yang sama dengan form inputannya. Memisahkan antara form dan proses

- Form dan proses terpisah

Proses pengolahan form dilakukan di halaman yang terpisah dengan form inputannya.

form dan proses jadi satu



```
E:\xampp\htdocs\pwl220SA\form\form1.php - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
assocArr1.php x form2.html x proses01.php x form1.php x

1  <html>
2  <head>
3    <title>Pengolahan Form</title>
4  </head>
5  <body>
6    <FORM ACTION="" METHOD="POST" NAME="input">
7      Nama Anda : <input type="text" name="tnama"><br>
8      <input type="submit">
9    </FORM>
10 </body>
11 </html>
12
13 <?php
14     if (isset($_POST['tnama'])) {
15         $nama = $_POST['tnama'];
16         echo $nama!=" " ? "Nama Anda : <b>$nama</b>" : "" ;
17     }
18 <?>
```

form dan proses terpisah

```
E:\xampp\htdocs\pwl220SA\form\form2.html - Notepad++  
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?  
assocArr1.php x form2.html x proses01.php x form1.php x  
1 <html>  
2 <head>  
3 <title>Pengolahan Form</title>  
4 </head>  
5 <body>  
6 <FORM ACTION="proses01.php" METHOD="POST" NAME="input">  
7     Nama Anda : <input type="text" name="tnama"><br>  
8     <input type="submit">  
9 </FORM>  
10 </body>  
11 </html>  
12
```

```
E:\xampp\htdocs\pwl220SA\form\proses01.php - Notepad++  
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?  
assocArr1.php x form2.html x proses01.php x form1.php x  
1 <?php  
2     if (isset($_POST['tnama'])) {  
3         $nama = $_POST['tnama'];  
4         echo $nama!=" " ? "Nama Anda : <b>$nama</b>" : "" ;  
5     }  
6 <?>  
7
```


Contoh penanganan Form

```
<html>
<head><title>Pengolahan Form ~ Text</title></head>
<body>
<h2>Registrasi</h1>
<form action="proses02.php" method="post">
Nama Depan : <input type="text" name="namaDpn"><br>
Nama Belakang : <input type="text" name="namaBlk"><br>
E-mail: <input type="text" name="email"><br>
Jenis Member:
<input type="checkbox" name="cPengHobby" value="pengHobby"
checked>PengHoby
<input type="checkbox" name="cPetani" value="petani">Petani
<input type="checkbox" name="cPedagang" value="pedagang" >
Pedagang
<input type="checkbox" name="cSales" value="sales">Sales
<input type="checkbox" name="cPengamat" value="Pengamat"
>Pengamat<br>
```

```
Pendidikan :
<select name="cbPendidikan">
<option value="TdkLulusSD">TdkLulusSD</option>
<option value="SD">SD</option>
<option value="SMP">SMP</option>
<option value="SMA">SMA</option>
<option value="Diploma">Diploma</option>
<option value="Sarjana">Sarjana</option>
<option value="Magister">Magister</option>
<option value="Doktor">Doktor</option>
</select> <br />
Gender : <input type="radio" name="rGender" value="pria"
checked>Pria<br>
         <input type="radio" name="rGender" value="wanita">Wanita<br>
Masukan thd kami:<textarea name="saran" cols="40"
rows="5"></textarea><br>
<input type="submit" >
</form>
</body>
</html>
```

Proses02.html

```
<?php
//proses textBox
$namaDpn = $_POST['namaDpn'];
$namaBlk = $_POST['namaBlk'];
$email = $_POST['email'];
echo "Nama anggota $namaDpn $namaBlk <br />";
echo "Email : $email <br />";
/ /proses checkBox
$jenis="";
if (isset($_POST['cPengHobby'])){
    $pengHobby = $_POST['cPengHobby'];
    $jenis.=$pengHobby." ";}
if (isset($_POST['cPetani'])){
    $petani = $_POST['cPetani'];
    $jenis.=$petani." ";}
if (isset($_POST['cPedagang'])){
    $pedagang = $_POST['cPedagang'];
    $jenis.=$pedagang." ";}
if (isset($_POST['cSales'])){
    $sales = $_POST['cSales'];
    $jenis.=$sales." ";
```

```
if (isset($_POST['cPengamat'])){
    $pengamat = $_POST['cPengamat'];
    $jenis.=$pengamat." ";
```

```
$jenis=trim($jenis);
echo "jenis mumber: $jenis <br />";
/ /proses combobox
$pendidikan = $_POST['cbPendidikan'];
echo "pendidikan: $pendidikan<br />";
//proses radio
$gender = $_POST['rGender'];
//nl2br : untuk menyisipkan <br /> pd string yg tdp \n
echo nl2br("gender: $gender \n");
$saran = nl2br($_POST['saran']);
echo "saran: $saran";
?>
```

Pengolahan Form - Text

localhost/pw1220SA/form/form3.html

Registrasi

Nama Depan : Maria

Nama Belakang : Ulfa

E-mail : mariaulfa@gmail.com

Jenis Member: ☒ PengHobby ☐ Petani ☒ Pedagang ☒ Sales ☐ Pengamat

Pendidikan : Sarjana

Gender : ☐ Pria ☒ Wanita

Masukan thd kami:

Submit

localhost/pw1220SA/form/proses02.html

Nama anggota Maria Ulfa

Email : mariaulfa@gmail.com

jenis mumber: pengHobby pedagang sales

pendidikan: Sarjana

gender: wanita

saran: Salam Kenal

Tambahkan bootstrap

localhost/pwl220SA/form/fRegistrasi.html

Form Registrasi

Nama Depan

Nama Belakang

Email address

Jenis Member : ☒ PengHobby ☐ Petani ☐ Pedagang ☒ Sales ☐ Pengamat

Pendidikan

☒ Pria ☐ Wanita

Masukan terhadap kami

Submit form

proses Data Registrasi

localhost/pwl220SA/form/prosesReg.php

Member Baru

Maria Amir
mariaulfa@gmail.com

Sarjana

pria

Masukan :
aa bbb cc ddd

pengHobby sales

Method POST dan GET

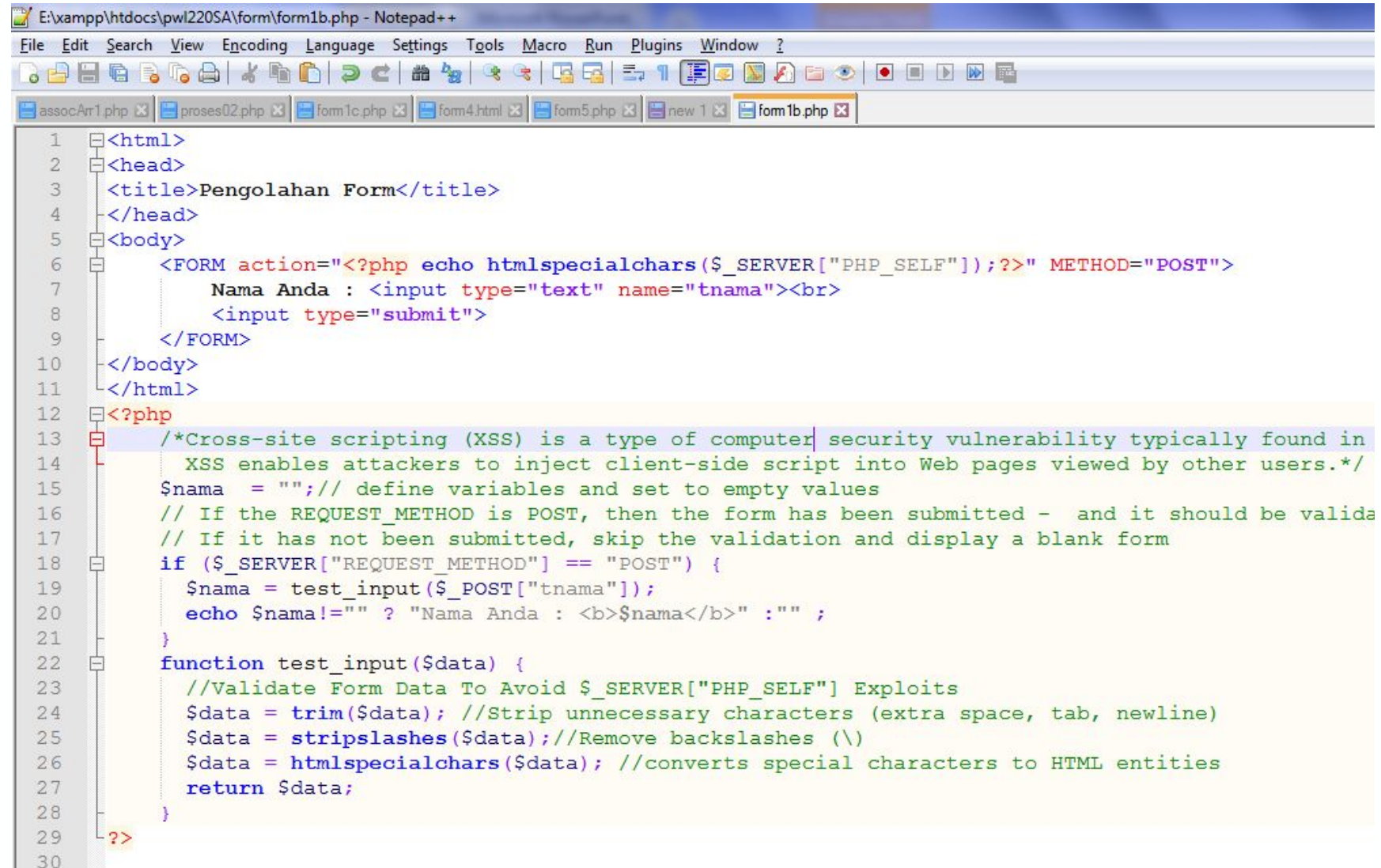
- \$_GET adalah variabel Array yang diteruskan ke skrip saat ini melalui parameter URL
 - Kapan menggunakan GET?
 - Informasi(nama dan nilai variabel) yang dikirim dari Form dengan metode GET dapat dilihat oleh semua orang
 - GET juga memiliki batasan jumlah informasi yang akan dikirim sekitar 2000 karakter.
 - GET dapat digunakan untuk mengirim data yang tidak sensitif.
- \$_POST adalah variabel Array yang diteruskan ke skrip saat ini melalui metode HTTP POST.
 - Kapan menggunakan POST?
 - Informasi yang dikirim dari form dengan metode POST tidak terlihat oleh orang lain
 - informasi yang akan dikirim tidak memiliki batasan jumlah.

Contoh \$_GET

```
E:\xampp\htdocs\pwl220SA\form\form4.html - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
assocArr1.php x form4.html x form1.php x form3.html x prosesTextArea.php x proses02.php x
1 <html>
2 <head>
3 <title>Pengolahan Form</title>
4 </head>
5 <body>
6 <FORM ACTION="proses04.php" METHOD="GET">
7     Nama Anda : <input type="text" name="tnama"><br>
8     <input type="submit">
9 </FORM>
10 </body>
11 </html>
```

```
E:\xampp\htdocs\pwl220SA\form\proses04.php - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
assocArr1.php x form4.html x form1.php x form3.html x prosesTextArea.php x proses02.php x proses04.php x
1 <?php
2     if (isset($_GET['tnama'])) {
3         $nama = $_GET['tnama'];
4         echo $nama!=" " ? "Nama Anda : <b>$nama</b>" :"" ;
5     }
6 ?>
7
```

Validasi Form



```
E:\xampp\htdocs\pwl220SA\form\form1b.php - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
assocAm1.php proses02.php form1c.php form4.html form5.php new 1 form1b.php
1 <html>
2 <head>
3 <title>Pengolahan Form</title>
4 </head>
5 <body>
6 <FORM action="<?php echo htmlspecialchars($_SERVER["PHP_SELF"]);?>" METHOD="POST">
7     Nama Anda : <input type="text" name="tnama"><br>
8     <input type="submit">
9 </FORM>
10 </body>
11 </html>
12 <?php
13 /*Cross-site scripting (XSS) is a type of computer security vulnerability typically found in
14    XSS enables attackers to inject client-side script into Web pages viewed by other users.*/
15 $nama = ""; // define variables and set to empty values
16 // If the REQUEST_METHOD is POST, then the form has been submitted - and it should be validated
17 // If it has not been submitted, skip the validation and display a blank form
18 if ($_SERVER["REQUEST_METHOD"] == "POST") {
19     $nama = test_input($_POST["tnama"]);
20     echo $nama!="" ? "Nama Anda : <b>$nama</b>" : "" ;
21 }
22 function test_input($data) {
23     //Validate Form Data To Avoid $_SERVER["PHP_SELF"] Exploits
24     $data = trim($data); //Strip unnecessary characters (extra space, tab, newline)
25     $data = stripslashes($data); //Remove backslashes (\)
26     $data = htmlspecialchars($data); //converts special characters to HTML entities
27     return $data;
28 }
29 ?>
30
```

contoh Cross-site scripting (XSS)

```
<html>
<head><title>Pengolahan Form</title></head>
<body>
<FORM action="<?php echo $_SERVER['PHP_SELF']; ?>" METHOD="POST">
    Nama Anda : <input type="text" name="tnama"><br>
    <input type="submit">
</FORM>
</body>
</html>
```

```
<?php
//contoh serangan Cross-site scripting (XSS)
//http://localhost/pwl220SA/form/form1c.php/%22%3E%3Cscript%3Ealert('hacked')%3C/script%3E
//di terjemahkan 'http://localhost/pwl220SA/form/form1c.php/<script>alert('hacked')</script>'
if (isset($_POST['tnama'])) {
    $nama = $_POST['tnama'];
    echo $nama!="" ? "Nama Anda : <b>$nama</b>" :"" ;
}
?>
```


Pengiriman data antar halaman web

- **Stateless http** merupakan protokol koneksi antar client dan server yang akan putus secara otomatis setiap kali terjadi transaksi(request-response).
- Http bersifat **stateless** yang berarti satu request saling independent thd request lainnya, tidak ada state(variabel/data) yang dipertahankan, sehingga membuat antara suatu halaman web satu dengan yang lainnya tidak saling mengenal variabel/data.
- Cara utk mengatasi stateless http adalah dengan :
 - message passing via url/form
 - cookie
 - session

message passing via form

```
E:\xampp\htdocs\pwl220SA\form\login.html - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
assocArr1.php fRegistrasi.html prosesReg.php new 1 flogin.html proses_login.php
1 <!DOCTYPE html>
2 <html>
3 <body>
4 <form method="post" action="proses_login.php">
5 <div><div>User</div><div><input type="text" name="tuser"></div></div>
6 <div><div>Password</div><div><input type="password" name="tpass"></div></div>
7 <div><button type="submit">login</button></div>
8 </form>
9 </body>
10 </html>
11
```

```
E:\xampp\htdocs\pwl220SA\form\proses_login.php - Notepad++
File Edit Search View Encoding Language Settings To
assocArr1.php fRegistrasi.html prosesReg.php
1 <?php
2 $user=$_POST["tuser"];
3 $pass=$_POST["tpass"];
4 echo "user:$user";
5 ?>
```

w3school - Google Search x localhost/pwl220SA/form/flogin.html x

localhost/pwl220SA/form/flogin.html

User
Agus

Password
...

login

w3school - Google x localhost/pwl220SA x +

localhost/pwl220SA/form/proses_login.php

user:Agus

message passing via URL

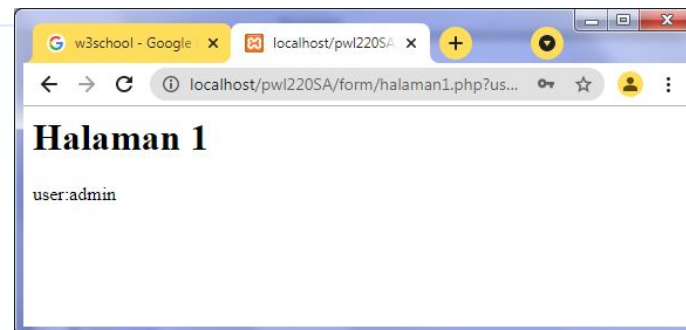
```
E:\xampp\htdocs\pwl220SA\form\login2.php - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
assocArr1.php Registrasi.html prosesReg.php new 1 flogin.html proses_login.php flogin2.php halaman1.php
1 <!DOCTYPE html>
2 <html>
3 <body>
4 <form method="post" action="<?php echo $_SERVER['PHP_SELF']; ?>">
5 <div><div>User</div><div><input type="text" name="tuser"></div></div>
6 <div><div>Password</div><div><input type="password" name="tpass"></div></div>
7 <div><button type="submit">login</button></div>
8 </form>
9 <?php
10 if (isset($_POST["tuser"])){
11     $user=$_POST["tuser"];
12     $pass=$_POST["tpass"];
13     if ($user=="admin" && $pass=="123"){
14         header("location:halaman1.php?username=$user");
15     }else {
16         if ($user!="")
17             echo "<div>User tidak valid... </div>";
18     }
19 }
20 ?>
21 </body>
22 </html>
```

```
E:\xampp\htdocs\pwl220SA\form\halaman1.php - Notepad++
File Edit Search View Encoding Language Settings Tools Ma
halaman1.php
1 <?php
2     $user=$_GET["username"];
3     echo "<h1>Halaman 1</h1>";
4     echo "user:$user";
5 ?>
```

w3school - Google x localhost/pwl220SA x

localhost/pwl220SA/form/login2.php

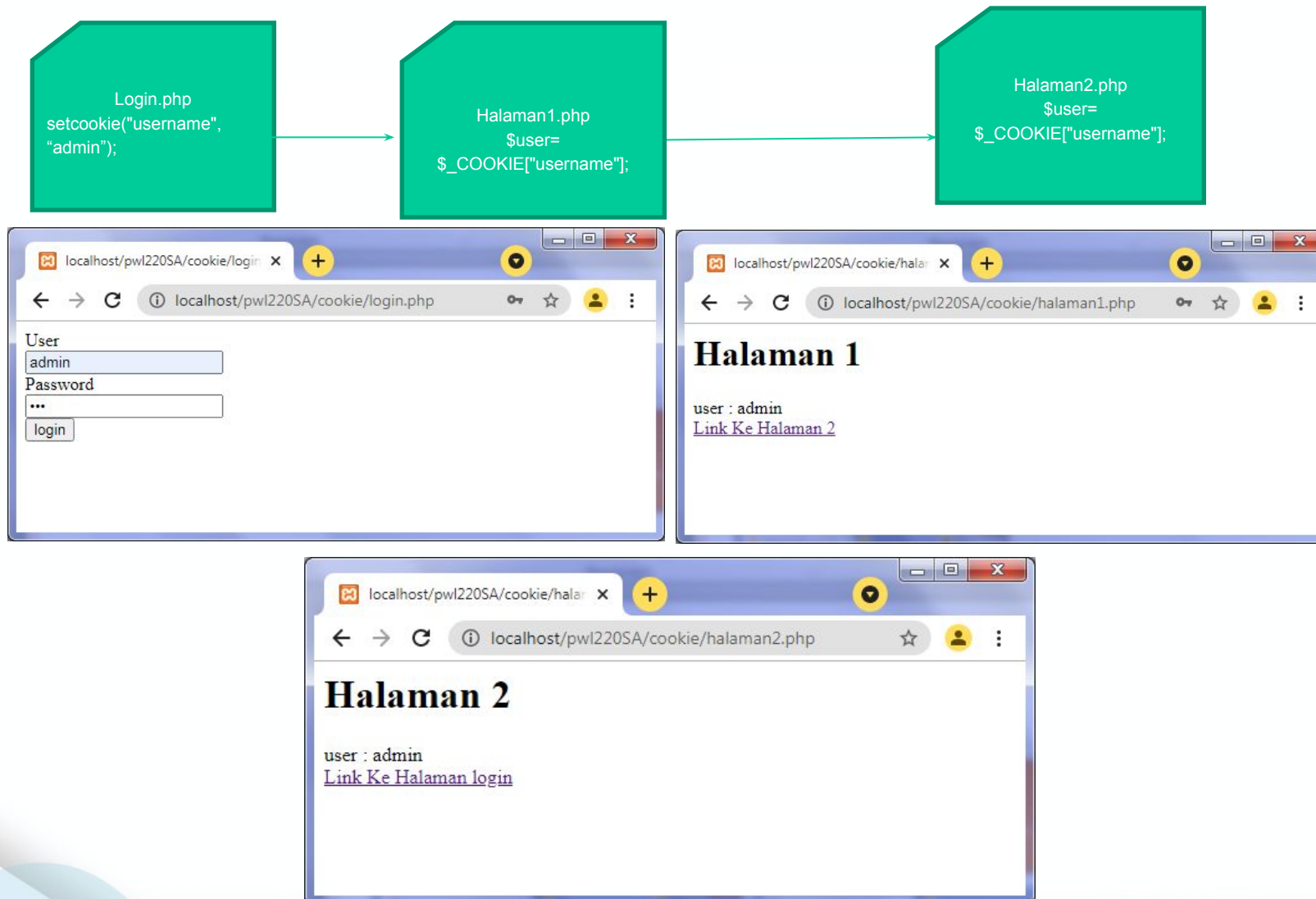
User
admin
Password
...
login



Cookie

- Cookies atau HTTP cookies, web cookies, atau browser cookies adalah data atau informasi yang diciptakan oleh suatu website untuk disimpan di web browser, ketika user sedang menjelajahi website tersebut.
- Ukuran cookie kurang dari 100 bytes, suatu server hanya bisa menyimpan kurang lebih 20 cookies saja pada browser user, dimana masing-masing cookies berukuran hanya sebesar 4 KB.

Contoh penggunaan cookies:




```
E:\xampp\htdocs\pwl2205A\cookie\login.php - Notepad++

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

logina.php x halaman1a.php x halaman2a.php x new 1 x halaman1.php x login.php x halaman2.php x

1 <!DOCTYPE html>
2 <html>
3 <body>
4 <form method="post" action="<?php echo $_SERVER['PHP_SELF']; ?>">
5 <div><div>User</div><div><input type="text" name="tuser"></div></div>
6 <div><div>Password</div><div><input type="password" name="tpass"></div></div>
7 <div><button type="submit">login</button></div>
8 </form>
9 <?php
10 if (isset($_POST["tuser"])){
11     $user=$_POST["tuser"];
12     $pass=$_POST["tpass"];
13     if ($user=="admin" && $pass=="123"){
14         setcookie("username",$user);
15         header("location:halaman1.php");
16     }else {
17         if ($user!="")
18             echo "<div>User tidak valid... </div>";
19     }
20 }
21 ?>
22 </body>
23 </html>
24

PHP Hypertext Preprocessor length : 619 lines : 24 Ln: 24 Col: 1 Pos: 620
```

```
E:\xampp\htdocs\pwl2205A\cookie\halaman1.php - Notepad++

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

logina.php x halaman1a.php x halaman2a.php x new 1 x halaman1.php x

1 <?php
2 $user=$_COOKIE["username"];
3 echo "<h1>Halaman 1</h1>";
4 echo "<div>user : $user</div>";
5 echo "<div><a href='halaman2.php'>
6     Link Ke Halaman 2</a> </div>";
7 ?>
```

```
E:\xampp\htdocs\pwl2205A\cookie\halaman2.php - Notepad++

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

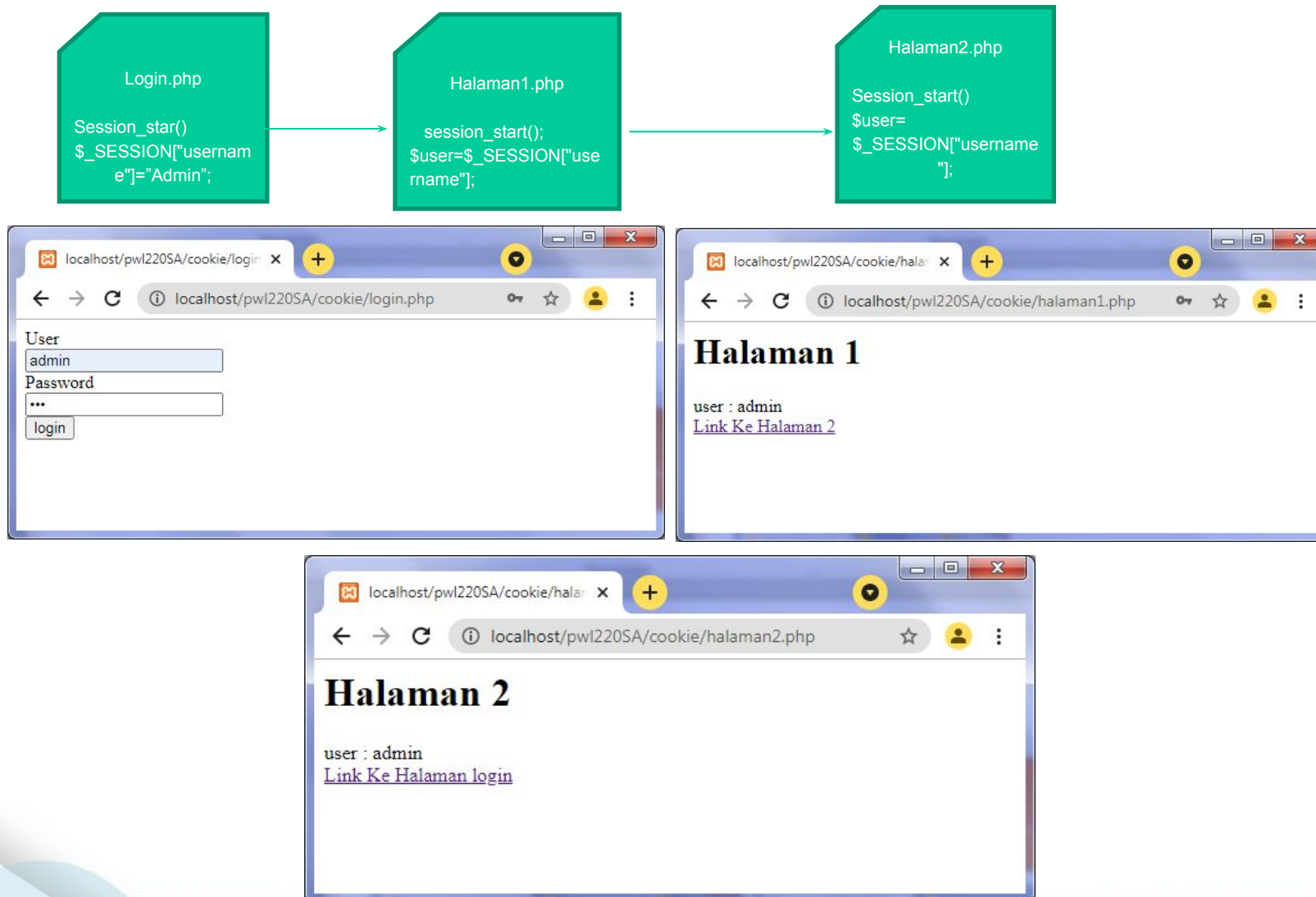
logina.php x halaman1a.php x halaman2a.php x new 1 x halaman1.php x login.php x

1 <?php
2 $user=$_COOKIE["username"];
3 echo "<h1>Halaman 2</h1>";
4 echo "<div>user : $user</div>";
5 echo "<div><a href='login.php'>
6     Link Ke Halaman login</a> </div>";
7 ?>
```

Session

- Session membuat halaman web dapat menyimpan suatu variabel nilai pada server.
- Perintah-perintah pada session: Session_start,
 - \$_SESSION["username"],
 - unset(\$_SESSION["username"]),
 - session_destroy()

Contoh penggunaan session



```
E:\xampp\htdocs\pw1220SA\session\login.php - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
new 1 login.php halaman1.php halaman2.php
1 <!DOCTYPE html>
2 <html>
3 <body>
4 <form method="post" action="<?php echo $_SERVER['PHP_SELF']; ?>">
5 <div><div>User</div><div><input type="text" name="tuser"></div></div>
6 <div>
7 <div>Password</div><div><input type="password" name="tpass"></div>
8 </div>
9 <div><button type="submit">login</button></div>
10 </form>
11 <?php
12 session_start();
13 if (isset($_POST["tuser"])){
14     $user=$_POST["tuser"];
15     $pass=$_POST["tpass"];
16     if ($user=="admin" && $pass=="123"){
17         setcookie("username",$user);
18         header("location:halaman1.php");
19     }else {
20         if ($user!="")
21             echo "<div>User tidak valid... </div>";
22     }
23 }
24 ?>
25 </body>
26 </html>
27
```

```
E:\xampp\htdocs\pw1220SA\session\halaman1.php - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
new 1 login.php halaman1.php halaman2.php
1 <?php
2 session_start();
3 $user=$_COOKIE["username"];
4 echo "<h1>Halaman 1</h1>";
5 echo "<div>user : $user</div>";
6 echo "<div><a href='halaman2.php'>
7     Link Ke Halaman 2</a> </div>";
8 ?>
```

```
E:\xampp\htdocs\pw1220SA\session\halaman2.php - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
new 1 login.php halaman1.php halaman2.php
1 <?php
2 session_start();
3 $user=$_COOKIE["username"];
4 echo "<h1>Halaman 2</h1>";
5 echo "<div>user : $user</div>";
6 echo "<div><a href='login.php'>
7     Link Ke Halaman login</a> </div>";
8 ?>
9
```

lengt Ln: 9 Col: 1 Pos: 212 Windows (CR LF) UTF-8 INS