



Internet Programming

Practical Exercise 2nd Day

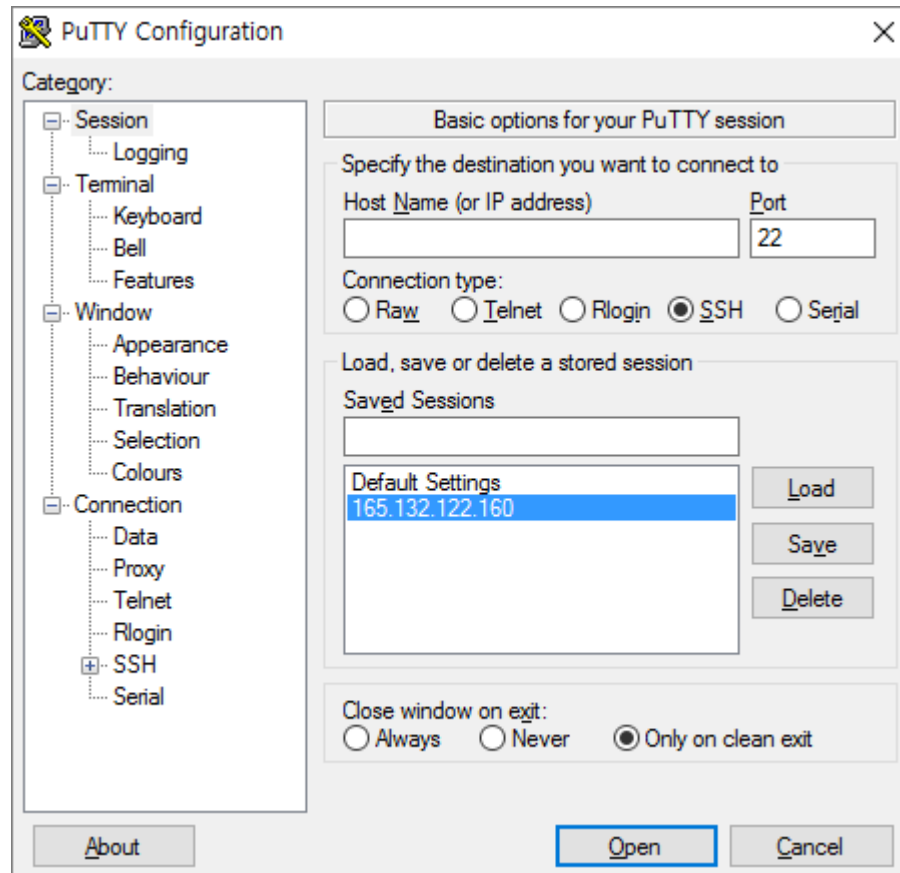
Computer Science
Yonsei University

Introduction

- ❖ 실습 서버에서 MySQL과 PHP를 사용하는 방법을 소개
- ❖ Putty를 이용한 MySQL 접속 및 데이터베이스 사용 소개
- ❖ WinSCP를 이용한 PHP와 MySQL의 연동을 통한 데이터 선택, 삽입, 삭제 방법 소개
- ❖ Basic PHP 소개
- ❖ Cookie & Session 소개
- ❖ Ajax 소개

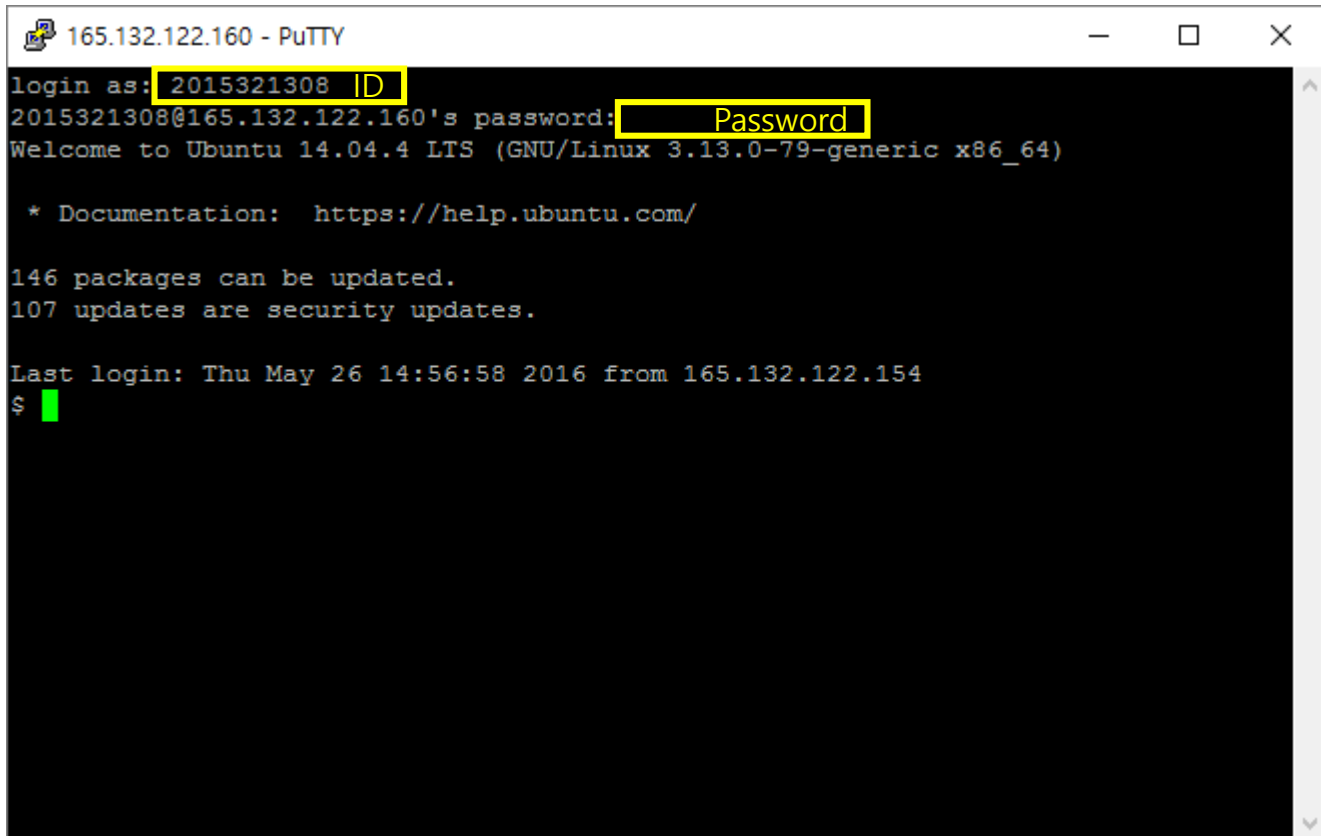
실습 서버에서 MySQL 사용하기

- ❖ Putty를 통한 접속
- ❖ Host Name : 165.132.122.160 (과제1 실습 참고)



실습 서버에서 MySQL 사용하기

- ❖ 부여 받은 ID(**u학번**)로 putty 로그인
- ❖ 접속 성공 시 다음과 같은 화면이 출력
- ❖ 패스워드의 경우 1차 과제에서 본인이 변경한 패스워드 사용



```
165.132.122.160 - PuTTY
login as: 2015321308 ID
2015321308@165.132.122.160's password: Password
Welcome to Ubuntu 14.04.4 LTS (GNU/Linux 3.13.0-79-generic x86_64)

* Documentation:  https://help.ubuntu.com/

146 packages can be updated.
107 updates are security updates.

Last login: Thu May 26 14:56:58 2016 from 165.132.122.154
$
```

실습 서버에서 MySQL 사용하기

- ❖ MySQL 접속하기
- ❖ ID : u학번 (ex: u2000111001)
- ❖ 비밀번호 : 학번
- ❖ 명령어 (mysql -u ID -p) 입력 후 패스워드 입력
- ❖ 접속 성공 시 다음과 같은 화면이 출력

ID

```
$ mysql -u u2015321308 -p 명령어 입력
Enter password: 패스워드 입력
welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 96
Server version: 5.5.47-0ubuntu0.14.04.1 (Ubuntu)

Copyright (c) 2000, 2015, Oracle and/or its affiliates. All rights reserved.

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

실습 서버에서 MySQL 사용하기

- ❖ 데이터 베이스 선택 : `use databases명;`
- ❖ 데이터 베이스 이름은 **d학번** 으로 구성
- ❖ 부여된 데이터 베이스를 사용할 수 있게 됨

```
$ mysql -u u2142999001 -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 101
Server version: 5.5.47-0ubuntu0.14.04.1 (Ubuntu)

Copyright (c) 2000, 2015, Oracle and/or its affiliates. All rights reserved.

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use d2142999001;   사용할 데이터베이스 선택
Database changed         데이터베이스 선택 완료
mysql>
```

실습 서버에서 MySQL 사용하기

- ❖ 테이블 생성 및 생성된 테이블 확인하기
- ❖ 테이블 생성 : `create table table명(column명 type, ...);`
- ❖ 생성된 테이블 확인 : `show tables;`
- ❖ 테이블 삭제 : `drop table table명;`

```
mysql> create table class(  
    -> ID int(10),  
    -> name varchar(10),  
    -> score int(3),  
    -> grade varchar(2));  
Query OK, 0 rows affected (0.09 sec)
```

테이블 명

테이블 생성

```
mysql> show tables;  
+-----+  
| Tables_in_d2142999001 |  
+-----+  
| class                  |  
+-----+  
1 row in set (0.00 sec)
```

생성된 테이블 확인

실습 서버에서 MySQL 사용하기

- ❖ 테이블에 데이터 삽입, 확인 및 삭제 하기
- ❖ 데이터 삽입 : `insert into table명(column1, ...) values(values1, ...);`
- ❖ 데이터 확인 : `select attribute from table명 where condition;`
- ❖ 데이터 삭제 : `delete from table명 where condition;`

```
mysql> insert into class(ID, name, score, grade) values(2011147061, 'LEE', 68, 'B0');
Query OK, 1 row affected (0.03 sec)
```

```
mysql> select * from class;
```

ID	name	score	grade
2011147061	LEE	68	B0

```
1 row in set (0.00 sec)
```

```
mysql> delete from class where ID = 2011147061;
Query OK, 1 row affected (0.03 sec)
```

```
mysql> select * from class;
Empty set (0.00 sec)
```

```
mysql> █
```

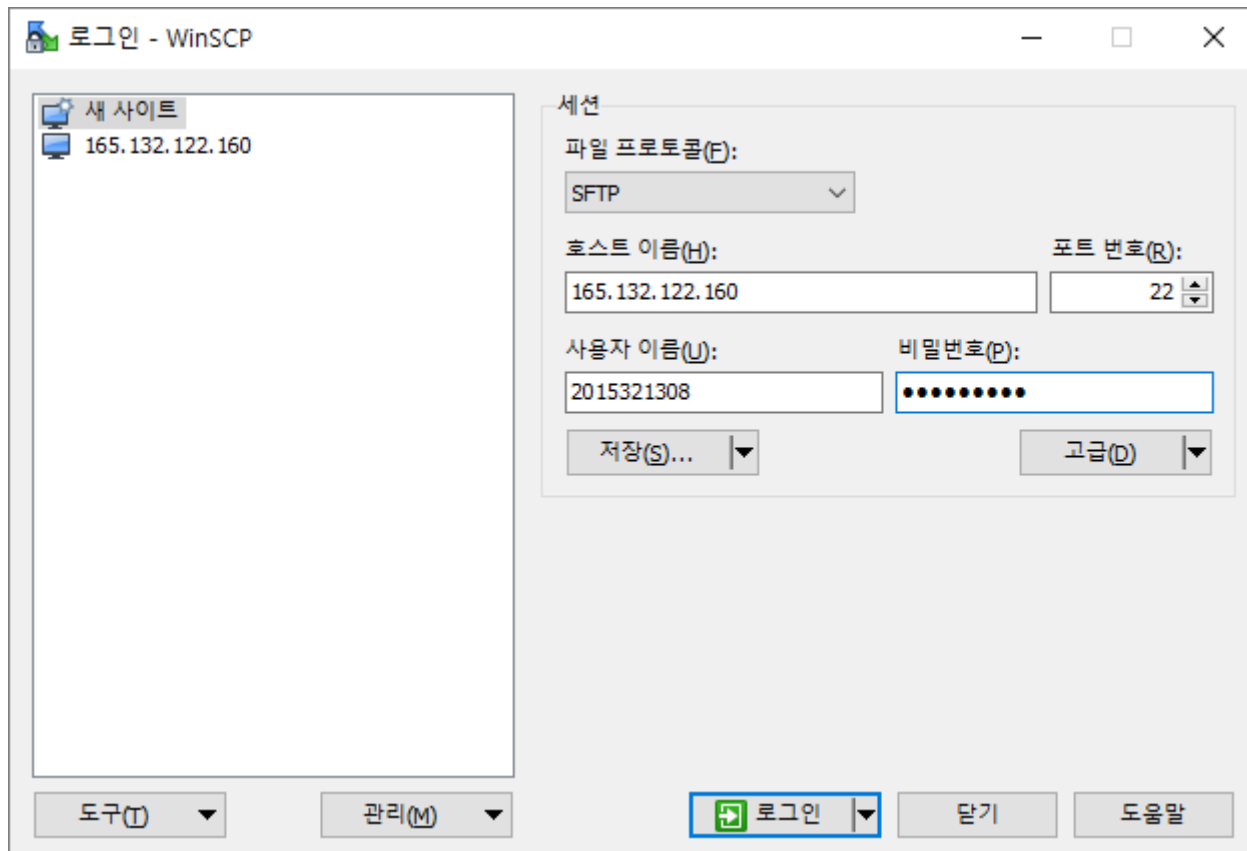
```
mysql> select ID from class where score > 80;
```

ID
2011147056
2011147010

```
2 rows in set (0.00 sec)
```


PHP와 MySQL 연동하기 in PHP

- ❖ WinSCP를 이용한 접속
- ❖ 호스트 이름 : 165.123.122.160
- ❖ 사용자 이름 : u학번
- ❖ 패스워드의 경우 본인이 1차 과제에서 변경한 패스워드 사용



PHP와 MySQL 연동하기 in PHP

- ❖ **public_html** 폴더 내에 본인이 만든 웹 페이지 파일 (php, html, css, ... 등) 을 삽입
- ❖ <http://165.132.122.160/~ID>로 확인

Yoon - 2015321308@165.132.122.160 - WinSCP

로컬(L) 선택(M) 파일(F) 명령(C) 세션(S) 옵션(O) 원격(R) 도움말(H)

동기화 전송 대기열 목록 전송 설정 기본

2015321308@165.132.122.160 새로운 세션

C: 로컬 디스크 /home/2015321308/public_html

이름	크기	유형	수정한 날짜
..		상위 디렉터리	2016-05-24 오전 9:22...
.android		파일 폴더	2016-02-12 오후 3:36...
.AndroidStudio1.5		파일 폴더	2016-01-07 오전 9:21...
.dbus-keyrings		파일 폴더	2015-12-21 오후 4:19...
.eclipse		파일 폴더	2015-12-17 오후 3:32...
.gem		파일 폴더	2015-01-19 오후 2:55...
.gps		파일 폴더	2015-12-23 오전 11:5...
.gradle		파일 폴더	2016-02-05 오전 10:4...
.idlerc		파일 폴더	2016-04-25 오후 4:22...
.jssc		파일 폴더	2015-05-25 오후 3:26...
.m2		파일 폴더	2016-02-15 오후 1:53...
.oracle_jre_usage		파일 폴더	2016-04-25 오전 9:42...
.Protege		파일 폴더	2015-11-03 오후 3:38...
.scalaide		파일 폴더	2015-12-21 오전 10:3...
.ssh		파일 폴더	2016-02-15 오후 2:17...
.VirtualBox		파일 폴더	2015-06-22 오후 12:2...
.Aptana Rubles		파일 폴더	2015-02-12 오전 10:1...
.autoeval		파일 폴더	2016-04-25 오후 5:19...
Contacts		파일 폴더	2016-05-12 오전 1:42...
Desktop		시스템 폴더	2016-05-26 오전 9:28...
Documents		시스템 폴더	2016-05-15 오후 7:50...
Downloads		시스템 폴더	2016-05-24 오후 2:30...
Favorites		파일 폴더	2016-05-26 오후 12:3...

이름	크기	수정한 날짜	권한	소유자
..		2016-05-27 오후 2:50...	rw-r--r--	20153...
index.php	1 KB	2016-05-27 오후 4:20...	rw-rw-r--	20153...

0 B / 459 B (0 / 37) 18 숨김 136 B / 136 B (1 / 1) 1 숨김

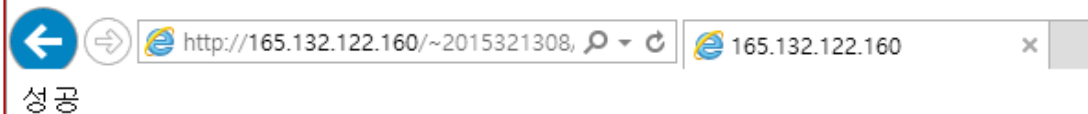
SFTP-3 0:17:49

PHP와 MySQL 연동하기 in PHP

❖ 데이터베이스 연동 :

mysqli_connect(host, username, password, dbname);

```
<?php  
  
$db = mysqli_connect("localhost","u2142999001","2142999001","d2142999001");  
if($db){  
    echo "성공";  
}else{  
    echo "실패";  
}  
?>
```



MySQL in PHP

❖ PHP를 통해 MySQL에 질의하기

➤ `mysqli_query(연결객체, "질의");`

➤ Query Syntax

❖ `CREATE TABLE table_name (column명 type, ...);`

```
1  <?php
2
3
4  $db = mysqli_connect("localhost","u2142999001","2142999001","d2142999001");
5
6  $test_query = mysqli_query($db, "create table person(NAME char(10), AGE int(3))");
7
8  mysqli_close($db);
9
10 ?>
11
```

```
mysql> show tables;
+-----+
| Tables_in_d2142999001 |
+-----+
| class                  |
+-----+
1 row in set (0.00 sec)

mysql> █
```



```
mysql> show tables;
+-----+
| Tables_in_d2142999001 |
+-----+
| class                  |
| person                 |
+-----+
2 rows in set (0.01 sec)

mysql> █
```

MySQL in PHP

❖ PHP를 통해 MySQL에 질의하기

➤ `mysqli_query(연결객체, "질의");`

➤ Query Syntax

❖ SELECT : 테이블로 부터 원하는 데이터를 가져옴

➤ `SELECT column_name(s) FROM table_name WHERE condition(s)`

❖ INSERT INTO : 테이블에 데이터를 삽입

➤ `INSERT INTO table_name(column1, ...) VALUES(values1, ...)`

❖ DELETE : 테이블내의 데이터를 삭제

➤ `DELETE FROM table_name WHERE condition(s)`

```
<?php
```

```
$db = mysqli_connect("localhost","u2142999001","2142999001","d2142999001");
```

```
$test_query = mysqli_query($db, "select * from class");
```

```
while($row = mysqli_fetch_array($test)){  
    echo $row['ID'], $row['name'] , $row['score'], $row['grade'];  
}
```

```
?>
```

MySQL in PHP

❖ insert into 예제

```
<?php

$db = mysqli_connect("localhost","u2142999001","2142999001","d2142999001");

$query = mysqli_query($db, "insert into class(ID,name,score,grade) values('2011147010',
    'CHUN', '85', 'A-')");

mysqli_close($db);

?>
```

```
mysql> select * from class;
+-----+-----+-----+-----+
| ID          | name | score | grade |
+-----+-----+-----+-----+
| 2011147061  | LEE  | 68    | B0    |
| 2011147044  | HAN  | 77    | A-    |
| 2011147056  | Yoon | 99    | A+    |
| 2011147001  | KIM  | 48    | C+    |
| 2011147011  | OH   | 69    | B+    |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```



```
mysql> select * from class;
+-----+-----+-----+-----+
| ID          | name | score | grade |
+-----+-----+-----+-----+
| 2011147061  | LEE  | 68    | B0    |
| 2011147044  | HAN  | 77    | A-    |
| 2011147056  | Yoon | 99    | A+    |
| 2011147001  | KIM  | 48    | C+    |
| 2011147011  | OH   | 69    | B+    |
| 2011147010  | CHUN | 85    | A-    |
+-----+-----+-----+-----+
6 rows in set (0.01 sec)
```

MySQL in PHP

❖ delete/where 예제

```
1  <?php
2
3
4  $db = mysqli_connect("localhost","u2142999001","2142999001","d2142999001");
5
6  $test_query = mysqli_query($db, "delete from class where ID = 2011147001");
7
8  mysqli_close($db);
9
10 ?>
```

```
mysql> select * from class;
+-----+-----+-----+-----+
| ID          | name | score | grade |
+-----+-----+-----+-----+
| 2011147061  | LEE  | 68    | B0     |
| 2011147044  | HAN  | 77    | A-     |
| 2011147056  | Yoon | 99    | A+     |
| 2011147001  | KIM  | 48    | C+     |
| 2011147011  | OH   | 69    | B+     |
| 2011147010  | CHUN | 85    | A-     |
+-----+-----+-----+-----+
6 rows in set (0.01 sec)
```



```
mysql> select * from class;
+-----+-----+-----+-----+
| ID          | name | score | grade |
+-----+-----+-----+-----+
| 2011147061  | LEE  | 68    | B0     |
| 2011147044  | HAN  | 77    | A-     |
| 2011147056  | Yoon | 99    | A+     |
| 2011147011  | OH   | 69    | B+     |
| 2011147010  | CHUN | 85    | A-     |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

MySQL in PHP

❖ PHP를 통해 MySQL에 질의하기

➤ `mysqli_query(연결객체, "질의");`

➤ Query Syntax

❖ UPDATE : 테이블내의 데이터를 업데이트

➤ UPDATE table_name
SET column1=value2, column2 = value2, ...
WHERE condition

```
1  <?php
2
3
4  $db = mysqli_connect("localhost","u2142999001","2142999001","d2142999001");
5
6  $test_query = mysqli_query($db, "update class set grade = 'A+' where score > 80");
7
8  mysqli_close($db);
9
10 ?>
```

```
mysql> select * from class;
+-----+-----+-----+-----+
| ID      | name | score | grade |
+-----+-----+-----+-----+
| 2011147061 | LEE  | 68    | B0     |
| 2011147044 | HAN  | 77    | A-     |
| 2011147056 | Yoon | 99    | A+     |
| 2011147011 | OH   | 69    | B+     |
| 2011147010 | CHUN | 85    | A-     |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```



```
mysql> select * from class;
+-----+-----+-----+-----+
| ID      | name | score | grade |
+-----+-----+-----+-----+
| 2011147061 | LEE  | 68    | B0     |
| 2011147044 | HAN  | 77    | A-     |
| 2011147056 | Yoon | 99    | A+     |
| 2011147011 | OH   | 69    | B+     |
| 2011147010 | CHUN | 85    | A+     |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```


Basic PHP function

❖ Basic application

- Scripting delimiters
 - `<?php ?>`
 - Must enclose all script code
- Variables preceded by \$ symbol
- End statements with semicolon
- Comments
 - `//` for single line
 - `/* */` for multiline

Basic PHP function

❖ Basic application

```
<?php
    $name = "Yonsei";
?>
```

```
<html xmlns = "http://www.w3.org/1999/xhtml">
  <head>
    <title>A simple PHP document</title>
  </head>

  <body style = "font-size: 2em">
    <p>
      <strong>
        Welcome to PHP, <?php print("$name"); ?>
      </strong>
    </p>
  </body>
</html>
```

Basic PHP function

❖ echo

- PHP 문서 안에서 HTML 태그를 실행 시킬 수 있도록 도와줌
- PHP + HTML

```
1  <?php
2
3      echo "<HTML><HEAD><TITLE>PHP 안에 HTML</TITLE></HEAD>
4      <BODY>지금 시간은 <b>";
5      echo date("Y-m-d H:i:s");
6      echo "</b> 입니다.</BODY></HTML>";
7
8  ?>
9
```



지금 시간은 2016-05-30 09:25:13 입니다.

Basic PHP function

❖ 외부 파일을 포함하기 위한 함수

➤ include(), require()

- ✓ 함수가 실행 될 때 마다 매개변수로 입력한 파일을 포함
- ✓ 2회 이상 포함 시 같은 함수가 또 포함된 것으로 인식해서 에러 발생

➤ include_once(), require_once()

- ✓ 외부 파일을 한번만 포함시킴

❖ 지정된 파일이 없는 경우

- Include(), include_once() : warning
- require(), require_once() : fatal error

	여러번 포함	한 번만 포함
warning	include()	include_once()
fatal error	require()	require_once()

Basic PHP function

❖include() Example

/sum.php

```
<?php
    include "sub.php";
    $sum = $num1 + $num2;
    echo "SUM : " . $sum;
?>
```

/sub.php

```
<?php
    $num1 = 1;
    $num2 = 2;
?>
```



SUM : 3

/sum.php

HTML in PHP

❖ Form Processing

```
<html>
  <head>
    <title>Form</title>
  </head>
  <body>
    <form method = "post" action = "form.php">
      <input type = "text" name = "name" /><br/>
      A<input type = "radio" name = "grade" value="A" checked="checked" />
      B<input type = "radio" name = "grade" value="B" />
      C<input type = "radio" name = "grade" value="C" />
      D<input type = "radio" name = "grade" value="D" />
      F<input type = "radio" name = "grade" value="F" /><br/>
      <input type = "submit" value = "Register" />
    </form>
  </body>
</html>
```

A ☒ B ☐ C ☐ D ☐ F ☐

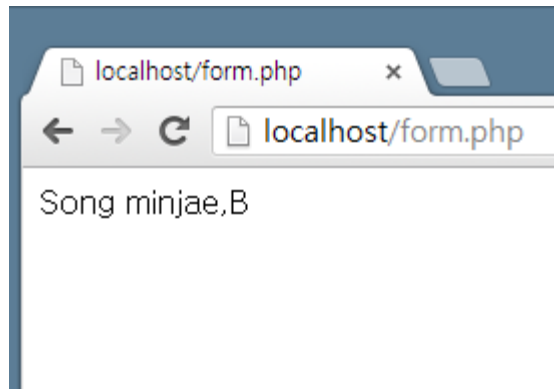
HTML in PHP

❖ Form.php

- HTML 내의 변수 name, grade의 정보가 PHP로 submit 되면서 그 정보를 출력

```
<?
    $name = $_POST['name'];
    $grade = $_POST['grade'];

    echo $name.", ".$grade."<br/>";
?>
```



Session & Cookie

❖ Session

- To maintain present position(such as Login status), set up session at a certain point in time, and turn down at end time

❖ Cookie

- Little size data that saved into clients' hard disk

```
Set-Cookie: NAME=VALUE; [expires=DATE;] [path=PATH;]  
[domain=DOMAIN_NAME;] [secure]
```

- expires : cookie's valid period
- path : cookie's valid site

Session & Cookie

❖ Basic of Session management

▪ Session ID

- Unique random number for identifying session
- Two way to save session ID (cookie , pass by URL)

▪ Session Variable

- Information that wants to pass down another page
- Save at super global variable `$_SESSION`

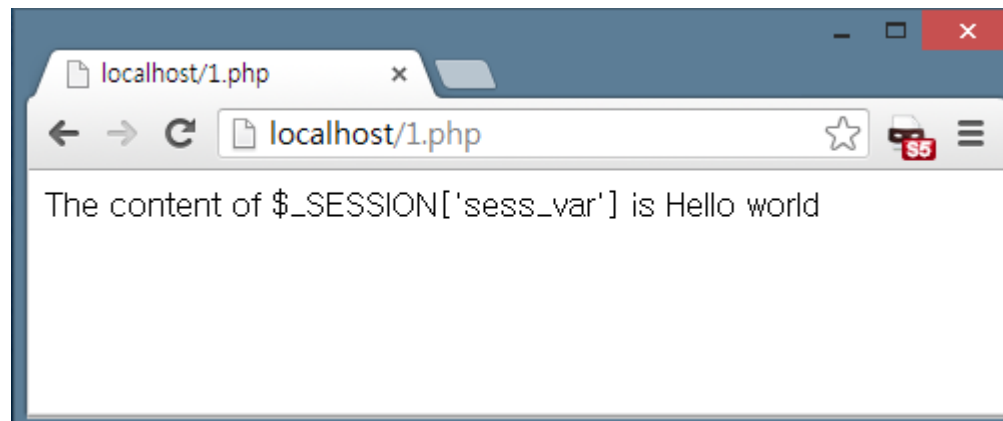
Session & Cookie

❖ Simple Session Example 1

```
<?
    session_start();

    $_SESSION['sess_var'] = "Hello world";

    echo 'The content of $_SESSION['sess_var'] is '
    . $_SESSION['sess_var'] . '<br/>';
?>
```



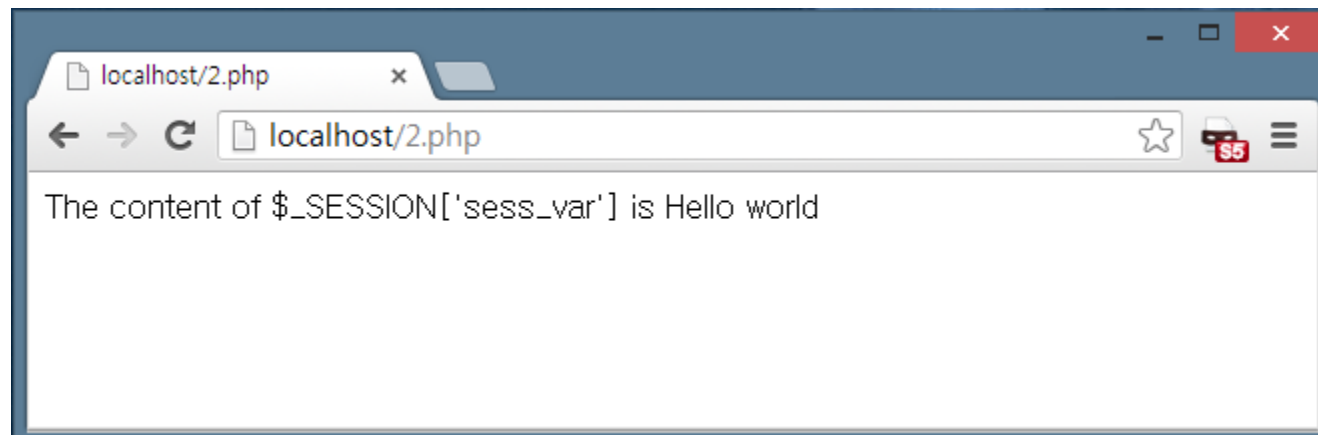
Session & Cookie

❖ Simple Session Example 2

```
<?
    session_start();

    echo 'The content of $_SESSION[\'sess_var\'] is '
        .$_SESSION['sess_var'].'<br/>';

    unset($_SESSION['sess_var']);
?>
```



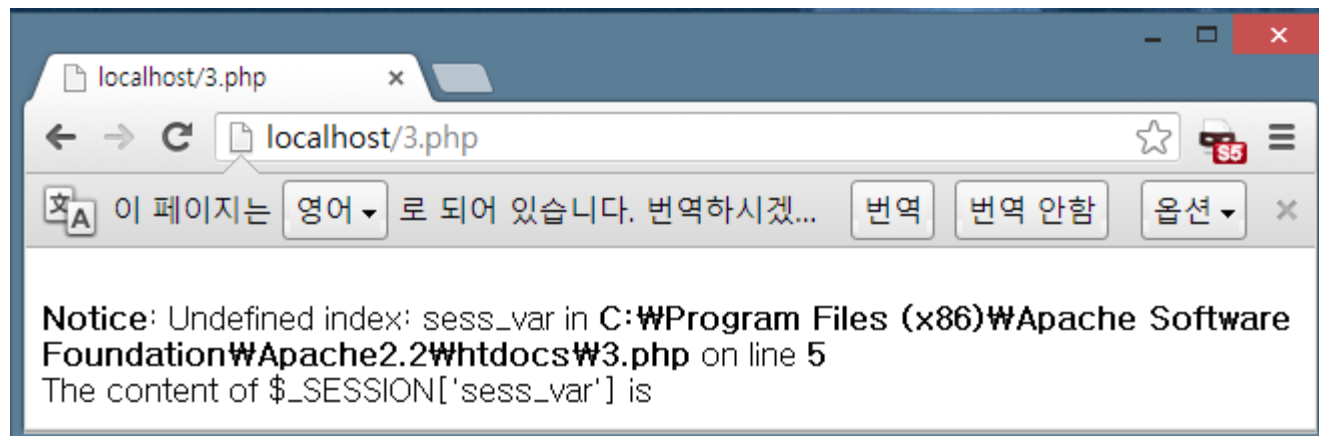
Session & Cookie

❖ Simple Session Example 3

```
<?
    session_start();

    echo 'The content of $_SESSION['sess_var'] is '
        .$_SESSION['sess_var'].'<br/>';

    session_destroy();
?>
```



Session & Cookie

❖ Login Example

- login.php

- ID와 PASSWORD를 확인 → 일치 → 세션에 할당
- form을 통해 function.php에 로그인 정보를 넘김

```
<? session_start() ?>
<html>
  <head>
    <title>login</title>
  </head>
  <body>
    <form method = "post" action = "function.php">
      <input type = "text" name = "id" /><br/>
      <input type = "password" name = "password" /><br/>
      <input type = "submit" value = "Register" />
    </form>
    <?
    if($_SESSION['userID'] != "")
    {
      echo "Login with ".$_SESSION['userID']."<br/>";
    }
    ?>
  </body>
</html>
```

Session & Cookie

❖ Login Example

- function.php

- login.php로 부터 받은 로그인 정보를 대조
- 정보가 일치 하면 ID에 대한 세션 할당

❖ 과제2에서는 MySQL과 연동을 통한 로그인 정보 대조가 필요

```
<?
    $my_id = "2012147000";
    $my_pass = "abc123";

    $id = $_POST['id'];
    $pass = $_POST['password'];

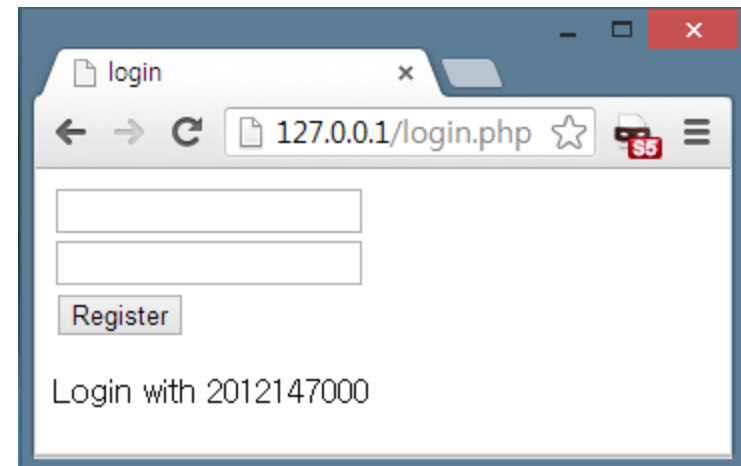
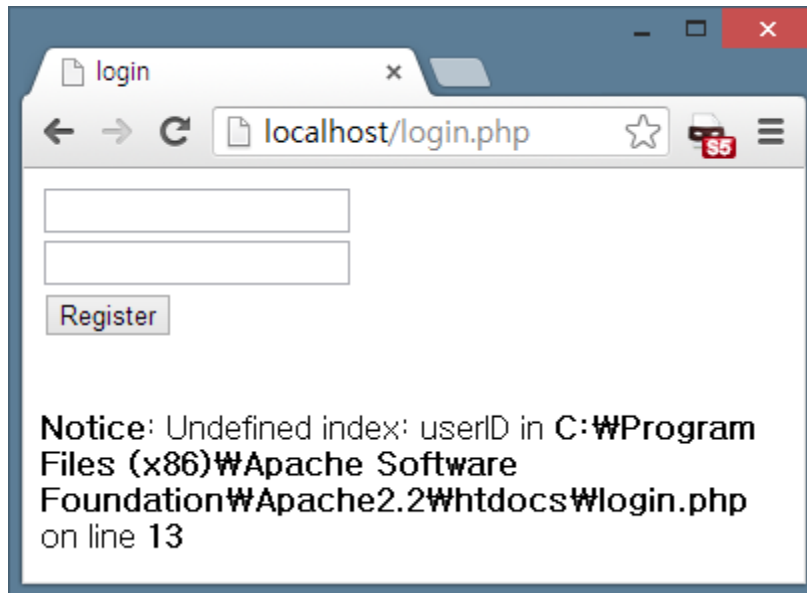
    if(strcmp($my_id,$id)==0)
    {
        if(strcmp($my_pass,$pass) ==0)
        {
            session_start();
            $_SESSION['userID'] = $id;

            <script>
                location.href = "login.php";
            </script>

        }
        else
            echo "wrong password<br/>";
    }
    else
        echo "wrong id<br/>";
?>
```

Session & Cookie

❖ Login Example



- 로그인 정보 불일치 시 세션 할당이 안됨 (그림1)
- 로그인 정보 일치 시 세션 할당 및 로그인 성공 (그림2)

Session & Cookie

❖ Cookie management

- Original form

- ❖ `bool setcookie (string $name , string $value , int $expire = 0 , string $path , string $domain , bool $secure = false)`

- Super global variable `$_COOKIE`

- Repository array of cookie variables

```
<?
    setcookie("password", "abc123");
    echo $_COOKIE['password'];
?>
```


AJAX (Asynchronous JavaScript and XML)

❖ AJAX

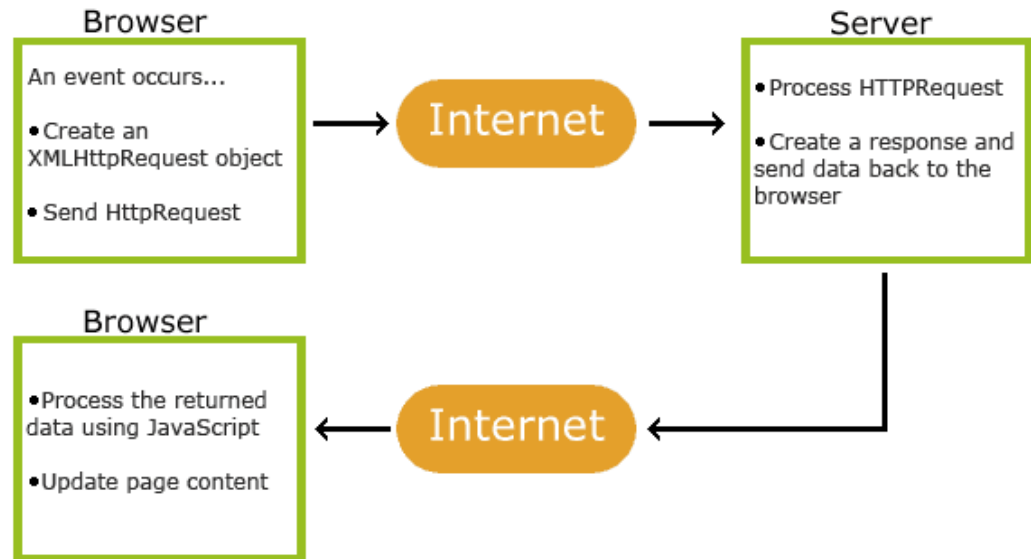
- AJAX is not a new programming language, but a new way to use existing standards.
- AJAX is a technique for creating fast and dynamic web pages.
- AJAX is the art of exchanging data with a server, and updating parts of a web page - without reloading the whole page.
- Examples of applications using AJAX: Google Maps, Gmail, Youtube, and Facebook tabs.

- 페이지 일부분을 업데이트 하기 위한 정보를 서버에 요청할 수 있다.
- 서버로부터 받은 데이터로 작업을 한다.

AJAX (Asynchronous JavaScript and XML)

❖ AJAX

- How AJAX Works :



- AJAX is based on internet standards, and uses a combination of:
 - XMLHttpRequest object (to exchange data asynchronously with a server)
 - JavaScript/DOM (to display/interact with the information)
 - CSS (to style the data)
 - XML (often used as the format for transferring data)

AJAX (Asynchronous JavaScript and XML)

❖ AJAX EXAMPLE

/ajax.php

```
<!DOCTYPE html>
<html>
  <head>
    <script>
      function loadXMLDoc(){
        var xmlhttp;
        if (window.XMLHttpRequest) { // code for IE7+, Firefox, Chrome, Opera, Safari
          xmlhttp=new XMLHttpRequest();
        }
        else { // code for IE6, IE5
          xmlhttp=new ActiveXObject("Microsoft.XMLHTTP");
        }
        xmlhttp.onreadystatechange=function(){
          if (xmlhttp.readyState==4 && xmlhttp.status==200){
            document.getElementById("myDiv").innerHTML=xmlhttp.responseText;
          }
        }
        xmlhttp.open("GET","ajax_info.php",true);
        xmlhttp.send();
      }
    </script>
  </head>
  <body>
    <div id="myDiv"><h2>Let AJAX change this text</h2></div>
    <button type="button" onclick="loadXMLDoc()">Change Content</button>
  </body>
</html>
```

HTTP request 만들기

AJAX (Asynchronous JavaScript and XML)

❖AJAX EXAMPLE

/ajax_info.php

```
<?php
    echo 'AJAX is not a new programming language.<br/>
        AJAX is a technique for creating fast and dynamic web pages.';
?>
```

❖Result

Let AJAX change this text

Change Content



AJAX is not a new programming language.
AJAX is a technique for creating fast and dynamic web pages.

Change Content

/ajax.php

/ajax_info.php

- Content의 부분적인 내용만 변경됨
- https://developer.mozilla.org/ko/docs/AJAX/Getting_Started 참고

Advanced Practice

Making a board

Making a board

❖To make a board, we need as follows:

[Sign Up Form]	
ID	<input type="text"/>
Password	<input type="password"/>
Password Confirm	<input type="password"/>
Name	<input type="text"/>
Sex	<input checked="" type="radio"/> male <input type="radio"/> female
<input type="button" value="SUBMIT"/> <input type="button" value="RESET"/>	

[Sign up Form]

[Login]	
ID	<input type="text"/>
PW	<input type="password"/>
<input type="button" value="LOGIN"/> Sign Up	

[Login Form]

Welcome! admin [Logout]	
[Write Form]	
ID	admin
Title	<input type="text"/>
Content	<div></div>
<input type="button" value="SUBMIT"/> <input type="button" value="RESET"/>	

[Write Form]

Welcome! admin [Logout]		
No.	Title	ID
1	Hello!	admin
2	test2	admin
3	test3333	icl
Write		

[List Form]

Welcome! admin [Logout]		
No.	Title	ID
3	test3333	icl
Content	3333333333333333test	
Write Reply	<input type="text"/>	<input type="button" value="Confirm"/>
Reply	icl : check icl : goood	
Go to list		

[View Form]

Making a board

❖DB Connect (db_connect.php / db_disconnect.php)

```
<?php
$host = "localhost";
$user = "root";
$password = "abc123";
$db_name = "bbs";

$con = mysql_connect($host, $user, $password) or die("MySQL Server Connection Error!");
mysql_select_db("bbs", $con) or die("DB Connection Error!");
?>
```

```
<?php
mysql_close($con);
?>
```

❖Session (session.php / session_destroy.php)

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

```
<?php
session_start();
session_destroy();

?>
<script>
    alert('Successfully logout!');
    location.href = 'login.php';
</script>
<?
?>
```


Making a board

❖ Sign Up Form (signup.html / signup.php)

```
<?php
// [DB Connection]
include "db_connect.php";

// [DB Connection Check]
echo $con . "<br/>";

// [Insert into table]
$signup = "user_table";
$insertion = mysql_query("INSERT INTO " . $signup . "
VALUES('',
'$_POST[id]',
'$_POST[name]',
'$_POST[password1]',
'$_POST[sex]')");

if($insertion){ // [Insert Check]
    ?>
    <script>
        alert('Successful Insertion!');
        location.href = 'login.php';
    </script>
    <?
}
else{
    echo "Error : " . mysql_error($con) . "<br/>";
}

// [DB Disconnection]
include "db_disconnect.php";
?>
```

Making a board

❖ Login Form (login.php / login_check.php)

```
<?php
include "session.php";

if(!isset($_SESSION[ses_id])){ // no values
    echo '
    <html>
        <head>
            <title>:: Login ::</title>

            <style type="text/css">
                table {
                    border-collapse: collapse;
                    margin: 0px auto;
                }
                table td {
                    padding: 5px;
                }
            </style>
        </head>
        <body>
            <form method="post" action="login_check.php">
                <table border=1>
                    <tr>
                        <td colspan="2">[Login]</td>
                    </tr>
                    <tr>
                        <td>ID</td>
                        <td><input type="text" name="login_id"/><br/></td>
                    </tr>
                    <tr>
                        <td>PW</td>
                        <td><input type="password" name="login_pw"/><br/>
                    </tr>
                    <tr>
                        <td colspan="2"><input type="submit" value="LOGIN"/>
                        <a href="signup.html">Sign Up</a>
                    </tr>
                </table>
            </form>
```

Making a board

❖ Login Form (login.php / login_check.php)

```
<?php
include "session.php";
include "db_connect.php";

// Select Query
$result = mysql_query("select *
                        from user_table
                        where ID = '" . $_POST[login_id] . "' and Password = '" . $_POST[login_pw] . "'");

// Input Check
echo "Login ID : " . $_POST[login_id] . "<br/>";
echo "Login Password : " . $_POST[login_pw] . "<br/>";
echo $result . "<br/>";

// Query Check
$row = mysql_fetch_array($result);
echo "DB ID : " . $row[ID] . "<br/>";
echo "DB Password : " . $row[Password] . "<br/>";

// Login Check
if(strcmp($row[ID], $_POST[login_id]) == 0 && $_POST[login_id] != ""){
    if(strcmp($row[Password], $_POST[login_pw]) == 0 && $_POST[login_id] != ""){
        $_SESSION[ses_id] = $_POST[login_id];
        echo isset($_SESSION[ses_id]);
        $_SESSION[ses_pw] = $_POST[login_pw];
        $ses_id = $row[ID];
        $ses_pw = $row[Password];
        ?>
        <script>
            alert('Successfully login!');
            location.href = 'login.php';
        </script>
    }
}
```

Making a board

❖ Write Form (write.php / write_check.php)

```
<body>
  <div>
    <form method="post" action="write_check.php">
      <table border="1px">
        <tr>
          <td colspan="2">Welcome! <strong>' . $_SESSION[ses_id] . '</strong>
          <a href="session_destroy.php">[Logout]</a><br/> </td>
        <tr>
          <td colspan="2">[Write Form]</td>
        </tr>
        <tr>
          <td>ID</td>
          <td><strong>' . $_SESSION[ses_id] . '</strong></td>
        </tr>
        <tr>
          <td>Title</td>
          <td><input type="text" name="bbs_title" size="100" maxlength="100"></td>
        </tr>
        <tr>
          <td>Content</td>
          <td><textarea type="text" name="bbs_content" cols="90" rows="20" style="overflow-y:scroll"></textarea>
        </tr>
        <tr>
          <td colspan="2"><input type="submit" value="SUBMIT"> <input type="reset" value="RESET"></td>
        </tr>
      </table>
    </form>
  </div>
</body>
```

Making a board

❖ Write Form (write.php / write_check.php)

```
<?php
include "session.php";
include "db_connect.php";

// [Insert into table]
$bbs = "bbs";
$insertion = mysql_query("INSERT INTO " . $bbs . "
                        VALUES('',
                                '$_POST[bbs_title]',
                                '$_POST[bbs_content]',
                                '$_SESSION[ses_id]')");

if($insertion){ // [Insert Check]
    ?>
    <script>
    alert('Successful Insertion!');
    location.href = 'bbs.php';
    </script>
    <?
}
else{
    echo "Error : " . mysql_error($con) . "<br/>";
}

include "db_disconnect.php";
?>
```

Making a board

❖ List Form (bbs.php)

```
$bbs = "bbs";
$result = mysql_query("select *
                        from " . $bbs);

echo '
    <tr>
        <th>No.</th>
        <th>Title</th>
        <th>ID</th>
    </tr>
';

while($row = mysql_fetch_array($result)){
    echo '<tr>';
    echo '<td width="30px" align="center">' . $row[Idx] . '</td>';
    echo '<td width="300px"><a href="view.php?Idx=' . $row[Idx] . '">' . $row[Title] . '</a></td>';
    echo '<td width="80px" align="center">' . $row[ID] . '</td>';
    echo '</tr>';
}
```

Making a board

❖ View Form (view.php / reply.php)

```
<?php
include "session.php";
include "db_connect.php";

$bbs = "bbs";
$result = mysql_query("select * from " . $bbs . " where Idx = " . $_GET[Idx]);
$row = mysql_fetch_array($result);

echo '
<html>
  <head>
    <title>:: View ::</title>
    <meta charset="utf-8">
    <style type="text/css">
      table {
        border-collapse: collapse;
        margin: 0px auto;
      }
      table td {
        padding: 5px;
      }
    </style>
  </head>
  <body>
    <table border="1">
      <tr>
        <td colspan="3">Welcome! <strong>' . $_SESSION[ses_id] . '</strong>
        <a href="session_destroy.php">[Logout]</a><br/> </td>
      </tr>
      <tr>
        <th>No.</th>
        <th>Title</th>
        <th>ID</th>
      </tr>
    </table>
  </body>
</html>
';
```

Making a board

❖View Form (view.php / reply.php)

```
<tr>
  <td width="70px" align="center">' . $row[Idx] . '</td>
  <td width="450px" align="center">' . $row[Title] . '</td>
  <td width="50px">' . $row[ID] . '</td>
</tr>
<tr>
  <th height="300px">Content</th>
  <td colspan="2" width="500px" valign="top">' . $row[Content] . '</td>
</tr>
<tr>
  <th>Write<br/>Reply</th>
  <td><form><input type="text" size="69" id="type_comment"></td>
  <td><input type="button" value="Confirm" onClick="javascript:showComment(' . $row[Idx] . ', type_co
</tr>
<tr>
  <th>Reply</th>
  <td colspan="2"><div id="comment">
```


Making a board

❖ View Form (view.php / reply.php)

```
<?php
include "session.php";
include "db_connect.php";
//echo "[" . $_GET[Idx] . "] <strong>" . $_SESSION[ses_id] . "</strong> : " . $_GET[comment];

// insert new reply
mysql_query("insert into bbs_reply values('', '$_GET[Idx]', '$_SESSION[ses_id]', '$_GET[comment]')");

// printing saved replies (including new reply) again
$result_comment = mysql_query("select * from bbs_reply where bbs_Idx='$_GET[Idx]'");
while($row_comment = mysql_fetch_array($result_comment)){
    echo $row_comment[ID] . ' : ' . $row_comment[Comment] . "<br/>";
}

include "db_disconnect.php";
?>
```

Making a board

❖SQL for DB Schema Example

```
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| bbs |
| mysql |
| phpmyadmin |
| wordpress |
+-----+
```

```
mysql> show tables;
+-----+
| Tables_in_bbs |
+-----+
| bbs |
| bbs_reply |
| user_table |
+-----+
```

```
mysql> desc user_table;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Idx | int(11) | NO | PRI | NULL | auto_increment |
| ID | varchar(20) | NO | | NULL | |
| Name | varchar(20) | NO | | NULL | |
| Password | varchar(20) | NO | | NULL | |
| Sex | varchar(6) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
```

```
mysql> desc bbs;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Idx | int(11) | NO | PRI | NULL | auto_increment |
| Title | varchar(100) | NO | | NULL | |
| Content | varchar(2000) | NO | | NULL | |
| ID | varchar(20) | NO | | NULL | |
+-----+-----+-----+-----+-----+-----+
```

```
mysql> desc bbs_reply;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Idx | int(11) | NO | PRI | NULL | auto_increment |
| bbs_idx | int(11) | NO | | NULL | |
| ID | varchar(20) | NO | | NULL | |
| Comment | varchar(200) | NO | | NULL | |
+-----+-----+-----+-----+-----+-----+
```

Q & A