PHP + MySQL + Web

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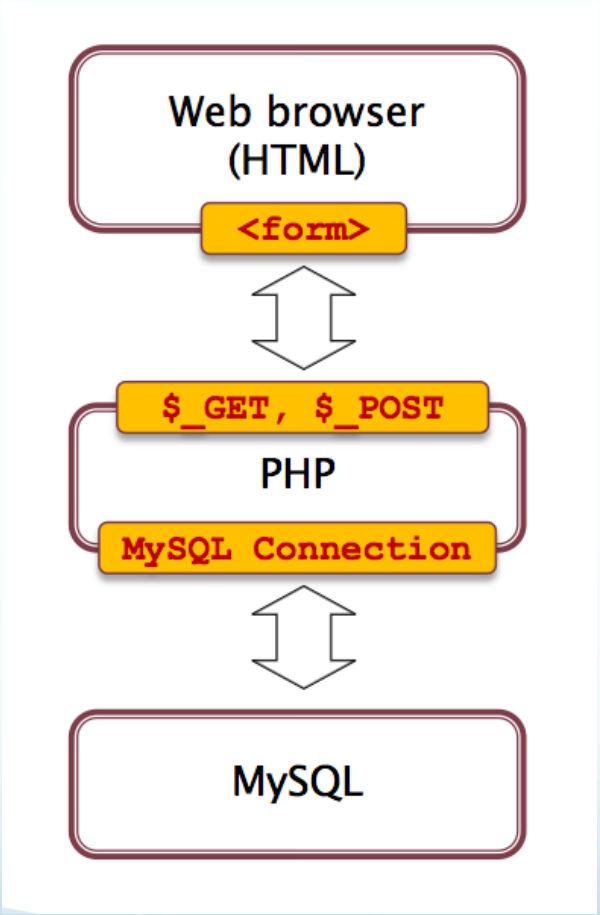
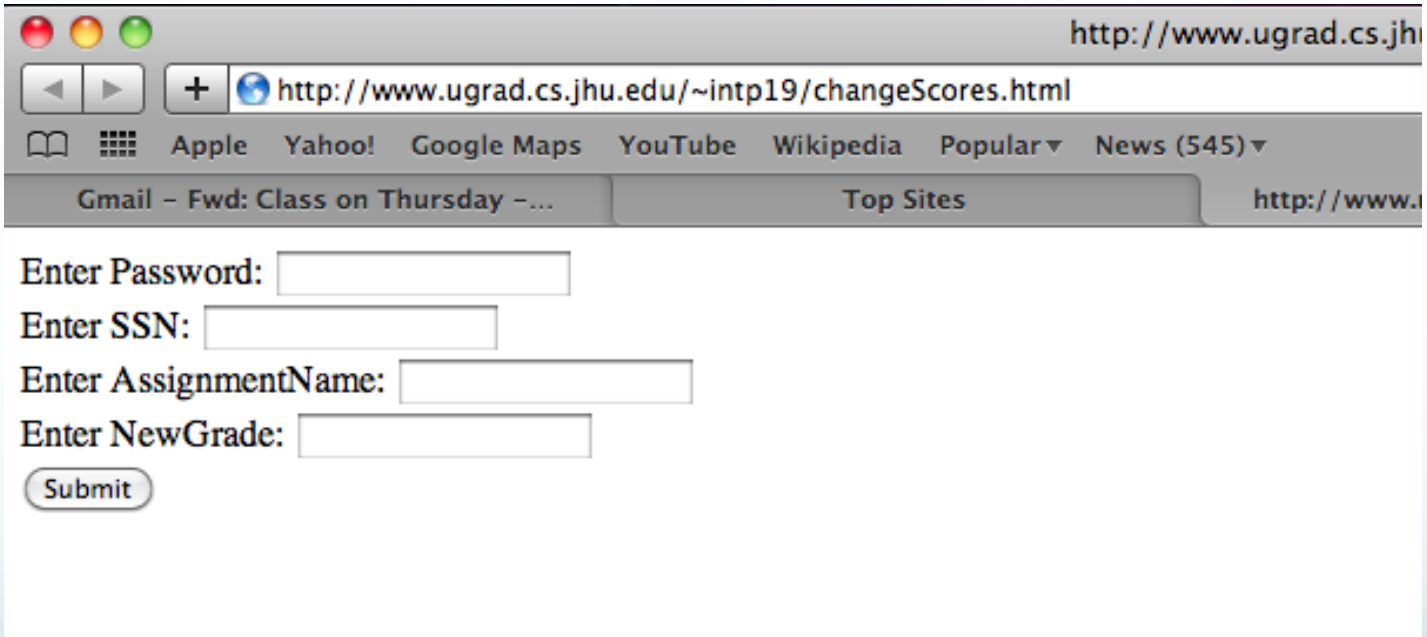
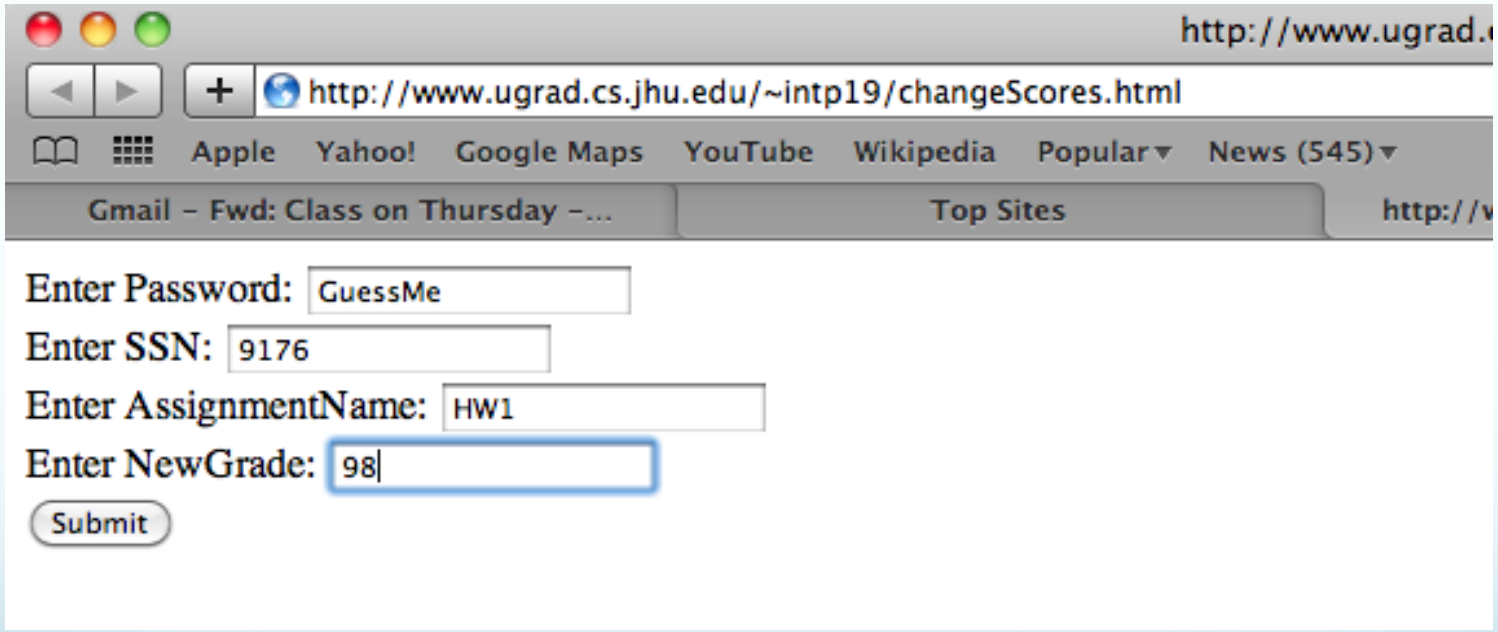


The Goal

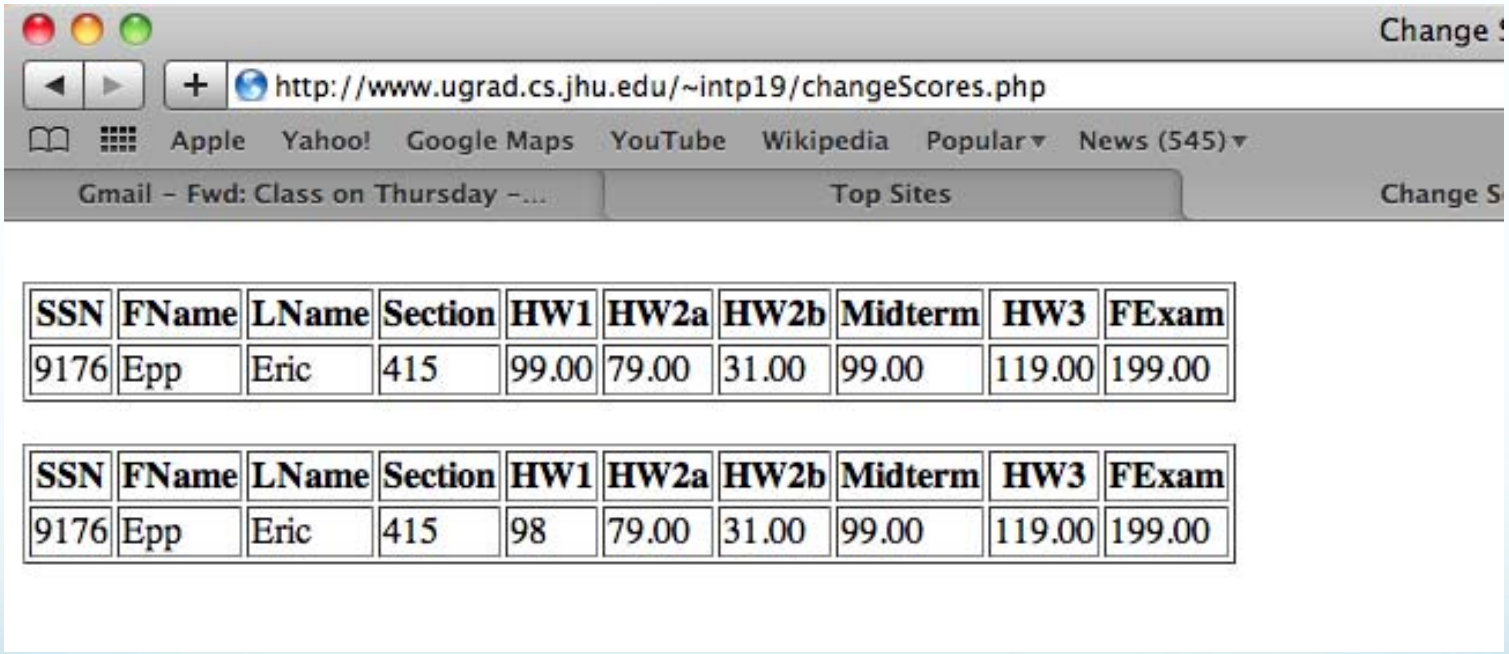
- Web Interface that can access the database



- To update the database from the Web Interface.



- Output Screen



SSN	FName	LName	Section	HW1	HW2a	HW2b	Midterm	HW3	FExam
9176	Epp	Eric	415	99.00	79.00	31.00	99.00	119.00	199.00

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PHP + MySQL

- How to Connect DBASE MySQL server from UGRAD machine

```
$dbhost = 'dbase.cs.jhu.edu:3306';
$dbuser = 'your_mysql_id';
$dbpass = 'your_mysql_password';
$conn = mysql_connect($dbhost, $dbuser, $dbpass);
if (!$conn) {
        die ('Error connecting to mysql');
}
```

HTML Sample code

```
<html>

<body>

<form action="update.php" method="post">

Enter Password: <input type="text" name="password"><br>

Enter SSN: <input type="text" name="ssn"><br>

Enter New Grade: <input type="text" name="newgrade"><br>

<input type="submit">

</html>

</body>
```

PHP Sample code

- Reading data from the text box.

```
<?php

include 'conf.php’;

include 'open.php’;

$password = $_POST["password"];

$ssn = $_POST["ssn"];

$newgrade = $_POST["newgrade"];
```

- To use stored procedure in MySQL with PHP

```
if ($mysqli->multi_query("CALL UpdateMidterm
    ('".$password."','".$ssn."','".$newgrade."');")) {
        do {
            if ($result = $mysqli->store_result()) {
.
.
```

- Check list

All your source codes should be located in the ~/public_html folder

- If there isn't create one as follows.

  >mkdir public_html

  >chmod 705 public_html

- You have to change the permission of a file if you w ant to access it via web-browser. (IMPORTANT STEP) **>chmod 704 demo1.php**

SQL Stored Procedures

What are Stored Procedures?

- A Stored Procedure is a pre-written SQL statement that is saved in the database.
- The Stored Procedure can then be executed many times without having to rewriting the SQL statement.
- Stored Procedures can take external variables and return results either in scalar variables or in selected rows.

Stored Procedure Example

- CREATE a stored procedure:

```
delimiter //

DROP PROCEDURE IF EXISTS strLen //

CREATE PROCEDURE strLen(IN myStr VARCHAR(20), OUT charCount INT)

BEGIN

        SET charCount = LENGTH(myStr);

END;

//
```

Stored Procedure Example

- Stored procedures are created by specifying a function name i.e. strLen()
- Variables can be passed to it using the IN keyword and returned using the OUT keyword. The type must be specified.
- BEGIN and END keywords are used to specify the body of the procedure.

Stored Procedure Example

- Using a stored procedure:

```
delimiter ;

call strLen(`testString`);
+-------------+
| charCount |
+-------------+
|        10       |
+-------------+
```

Stored Procedure Example

- Returning error messages in a stored procedure:

```
delimiter //

DROP PROCEDURE IF EXISTS findFromSSN //

CREATE PROCEDURE findFromSSN(IN ssnin INT)
BEGIN

        IF EXISTS ( SELECT SSN FROM People WHERE SSN=ssnin) THEN
                SELECT * FROM People WHERE SSN = ssnin;
        ELSE
                SELECT `Sorry; This SSN was not found` AS `Error Message`;
        END IF;

END;
//
```

SQL Views

What are SQL Views?

- A SQL View can be though of as a virtual table or a stored query.
- It does not physically exist in the database but it can be accessed like a table.
- Unlike a real table, Views can’t store data.
- Views can be used to reduce repeated queries.

SQL View Example

- CREATE a SQL View:

```
delimiter //

CREATE OR REPLACE VIEW myScores AS

Select HW1,HW2a, HW2b,Midterm,HW3,FExam

FROM rawscores

WHERE FName = `Tian`;

//
```

SQL View Example

- Using a SQL View:

```
delimiter ;

Select * from myScores;

+------+-------+--------+----------+-------+---------+
| HW1 | HW2a | HW2b | Midterm | HW3 | Fexam |
+------+-------+--------+----------+-------+---------+
|  88  |  75   |   80   |    85    |  91   |   89    |
+------+-------+--------+----------+-------+---------+
```

Questions????