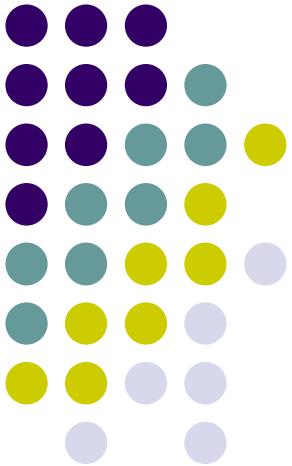
ຄະນະວິທະຍາສາດທຳມະຊາດ
ພາກວິຊາ ວິທະຍາສາດຄອມພິວເຕີ

ເວບໂປຣແກຣມມິ້ງ 2

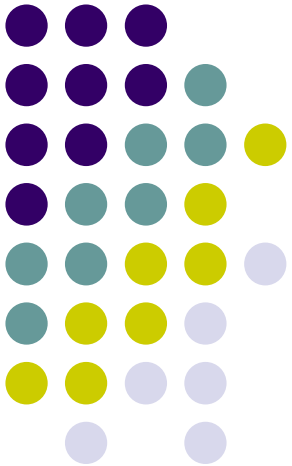
(Web Programming 2)

ສອນໂດຍ: ອຈ. ເພັດ ສອນວິໄລ
ມືຖື: 020 58390300
ອີເມວ: p.sonevilay@nuol.edu.la



ບົດທີ6

ການຕິດຕໍ່ຖານຂໍ້ມູນ
(Accessing the database)



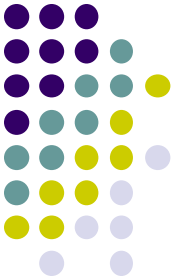
ເນື້ອໃນໂດຍລວມ

- ແນະນຳເບື້ອງຕົ້ນ
- ການເຊື່ອມຕໍ່ຖານຂໍ້ມູນ
- ຖານຂໍ້ມູນ MySQL
- ການຈັດການຂໍ້ມູນ MySQL
- ຖານຂໍ້ມູນ Oracle
- ການຈັດການຂໍ້ມູນ Oracle

ແນະນຳເບື້ອງຕົ້ນ

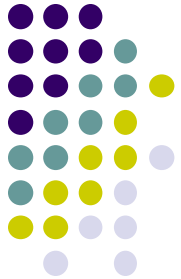
- PHP ສາມາດເຊື່ອມຕໍ່ກັບຖານຂໍ້ມູນ MySQL, **PostGreSQL, SYBASE, IBM-DB2,** Oracle, ຖານຂໍ້ມູນ Microsoft Access, ແລະ SQL Server ໄດ້.

ການເຊື່ອມຕໍ່ຖານຂໍ້ມູນ



- PHP ເຊື່ອມຕໍ່ MySQL ຈະໃຊ້ Function ຊື່ mysql_connect(), mysql_pconnect(), mysqli_connect ຫຼື PDO ກໍ່ໄດ້.
- ສຳລັບຕິດຕໍ່ກັບ Microsoft Access, SQL Server, Oracle ແລະ ອື່ນໆແມ່ນຈະນຳໃຊ້ຊຸດຄຳສັ່ງ PDO.

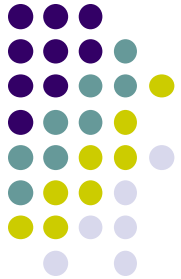
ຖາມຂໍ້ມູນ MySQL



- ການເຊື່ອມຕໍ່ກັບ MySQL
  - ຮູບແບບທີ 1:

```
$conn = mysql_connect( "hostname", " username ", "password" );
if ( !$conn ) {
  die( "Couldn't connect to MySQL" );
}
mysql_select_db("dbname");
```

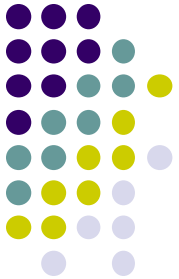
ຖາມຂໍ້ມູນ MySQL



- ການເຊື່ອມຕໍ່ກັບ MySQL
  - ຮູບແບບທີ 2:

```
$ conn = mysqli_connect( "hostname", " username ",
"password",″dbname″ );
if (mysqli_connect_errno()) {
  echo "Failed to connect to MySQL: " . mysqli_connect_error();
}
```

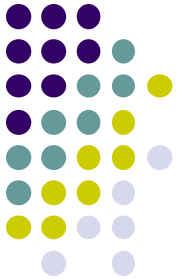
ຖາມຂໍ້ມູນ MySQL



- ການເຊື່ອມຕໍ່ກັບ MySQL
  - ຮູບແບບທີ 3:

```
try
    {
     $PDO =  new PDO(
"mysql:host=".$host.";"."dbname=".$dbname, $user, $pass,
array(PDO::MYSQL_ATTR_INIT_COMMAND=>"SET NAMES utf8"));
    }
    catch(PDOException $e)
    {
        die($e->getMessage());
    }
```

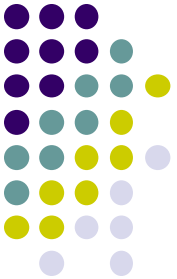
ຖາມຂໍ້ມູນ MySQL



- ການເຊື່ອມຕໍ່ກັບ MySQL
  - ຕົວຢ່າງ 1:

```
<?php
$conn = mysql_connect( "localhost", " root ", "rootpassword" );
if ( !$conn) {
  die( "Couldn't connect to MySQL" );
}
mysql_select_db("myweb2");
mysql_query( "SET NAMES utf8", $conn);

mysql_close($conn);
?>
```

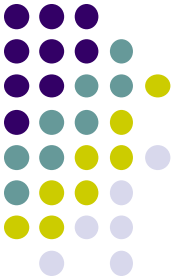
ຖາມຂໍ້ມູນ MySQL



- ການເຊື່ອມຕໍ່ກັບ MySQL
  - ຕົວຢ່າງ 2:

```
<?php
$servername = "localhost";
$username = "username";
$password = "password";
$dbname="dbname";
$conn = mysqli_connect($servername, $username,
$password,$dbname);

if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}
echo "Connected successfully";
?>
```

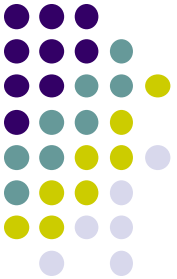
ຖາມຂໍ້ມູນ MySQL



- ການເຊື່ອມຕໍ່ກັບ MySQL
  - ຕົວຢ່າງ 3:

```
<?php
$servername = "localhost";
$username = "username";
$password = "password";
$conn = new mysqli($servername, $username, $password);
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}
echo "Connected successfully";
?>
```

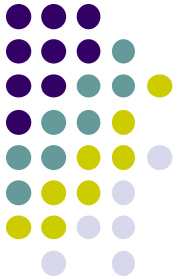
ຖາມຂໍ້ມູນ MySQL



- ການເຊື່ອມຕໍ່ກັບ MySQL
  - ຕົວຢ່າງ 4:

```
<?php
$servername = "localhost";
$username = "username";
$password = "password";
try {
    $conn = new PDO("mysql:host=$servername;dbname=myDB", $username,
$password);
    $conn->setAttribute(PDO::ATTR_ERRMODE, PDO::ERRMODE_EXCEPTION);
    echo "Connected successfully";
    }
catch(PDOException $e)
    {
    echo "Connection failed: " . $e->getMessage();
    }
?>
```

ການຈັດການຂໍ້ມູນ MySQL



- ການຈັດການກັບຂໍ້ມູນຢູ່ໃນຖານຂໍ້ມູນມີຮູບແບບລຸ່ມນີ້

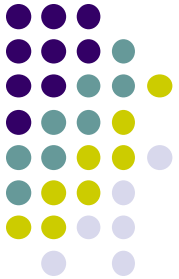
$query=SQL-statement

mysql_query($query, $conn)

- ໝາຍເຫດ:

SQL-statement ໝາຍເຖິງຄຳສັ່ງ SQL, $conn: ຕົວປ່ຽນທີ່ເກັບຄ່າການເຊື່ອມຕໍ່ MySQL

ການຈັດການຂໍ້ມູນ MySQL



- ການສະແດງຂໍ້ມູນໂດຍນຳໃຊ້ ຄຳສັ່ງ
  - mysql_fetch_row(),
  - mysql_fetch_array()
  - ແລະ mysql_fetch_object()
- ໝາຍເຫດ:

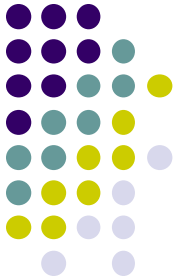
ສຳລັບ MySQLi ຈະເພີ່ມ “i” ຕໍ່ຈາກ mysql ເປັນ mysqli

ການຈັດການຂໍ້ມູນ MySQL

- ຕົວຢ່າງ: ການສະແດງຂໍ້ມູນ, ຖ້າມຂໍ້ມູນຊື່ test ແລະ ຕາຕະລາງຊື່ product

```
CREATE DATABASE IF NOT EXISTS `test`;

CREATE TABLE IF NOT EXISTS `product` (
  `id` int(11) NOT NULL AUTO_INCREMENT,
  `p_name` varchar(50) NOT NULL,
  `price` double NOT NULL,
  `qty` int(11) NOT NULL,
  PRIMARY KEY (`id`)
) ENGINE=InnoDB  DEFAULT CHARSET=utf8 AUTO_INCREMENT=1 ;
```

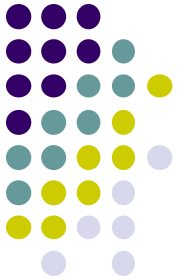
ການຈັດການຂໍ້ມູນ MySQL



- ຕົວຢ່າງ: ນຳຂໍ້ມູນເຂົ້າ

```
-- Dumping data for table `product`
--
INSERT INTO `product` (`id`, `p_name`, `price`, `qty`)
VALUES
 (1, 'pizza', 50000, 2),
(2, ‘Milk', 3000, 20),
(3, ‘Candy', 1000, 80),
(4, 'bakery', 3000, 10);
```

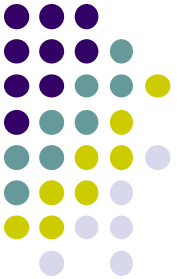
ການຈັດການຂໍ້ມູນ MySQL



- ຕົວຢ່າງ: ໄຟລ conndb.php ເພື່ອເຊື່ອມຕໍ່

```
<?php
$conn = mysqli_connect( "localhost", " root ", “password“,”test”);
if (!$conn) {
   die( "Couldn't connect to MySQL" );
}
mysqli_query("SET NAMES utf8", $conn);

?>
```

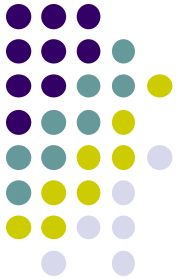
ການຈັດການຂໍ້ມູນ MySQL



- ຕົວຢ່າງ: ໄຟລ viewdata.php ເພື່ອສະແດງຂໍ້ມູນ

```
<?php
include("conndb.php");
$result = mysqli_query($conn,"SELECT * FROM product") or die(mysqli_error());
while ($row = mysqli_fetch_assoc($result)) {
echo $row['id']."". $row['p_name']."". $row['price']."". $row['qty'] . "<br>";
        }
        ?>
```

ການຈັດການຂໍ້ມູນ MySQL



- ຕົວຢ່າງ: ຖ້າຕ້ອງການສະແດງຂໍ້ມູນອອກມາຢູ່ໃນຮູບແບບຂອງຕາຕະລາງ HTML

```
<?php
include(“conndb.php”);
$result=mysqli_query($conn,"select p_name, price, qty from product ");
$i=1;
while($data=mysqli_fetch_row($result)){
?>
<tr>
    <td><?php echo $i; ?></td>
    <td><?php echo $data[0]; ?></td>
    <td><?php echo $data[1]; ?></td>
    <td><?php echo $data[2]; ?></td>

    <td><a href="del.php?pid=<?php echo $data[0];?>">ລຶບ</a></td>
    <td><a href="editform.php?pid=<?php echo $data[0];?>">ແກ້ໄຂ</a></td>
  </tr>
        <?php
                $i++;
            }
?>
</table>
```

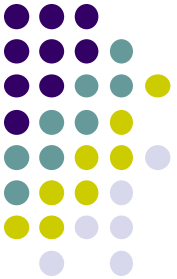
ການຈັດການຂໍ້ມູນ MySQL

- ຕົວຢ່າງ: ຟົມໄດ້ຮັບ

ລະຫັດ	ຊື່ສິນຄ້າ	ລາຄາ	ຈຳນວນ	ລຶບ	ແກ້ໄຂ
1	ແປ້ບຊີ	3000	15	ລຶບ	ແກ້ໄຂ
2	ນ້ຳດື່ມຫົວເສືອ	3000	10	ລຶບ	ແກ້ໄຂ
3	pizza	50000	2	ລຶບ	ແກ້ໄຂ
4	bakery	3000	10	ລຶບ	ແກ້ໄຂ

<u>ໝາຍເຫດ:</u> ໃຫ້ນຳໃຊ້ Table ຈາກ Boostrap ເພື່ອການສະແດງຟົມຂໍ້ມູນໃຫ້ເປັນມາດຕະຖານ

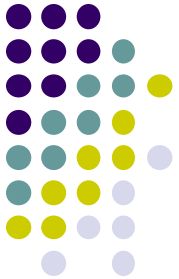
ການຈັດການຂໍ້ມູນ MySQL



- ຕົວຢ່າງ: ການເພີ່ມຂໍ້ມູນ

```
<?php
include(“conndb.php”);
$result=mysqli_query($conn,"INSERT INTO
product(p_name,price,qty) VALUES(‘candy’,’1000’,’50’)")
or die(mysql_error());
}
?>
```

ການຈັດການຂໍ້ມູນ MySQL

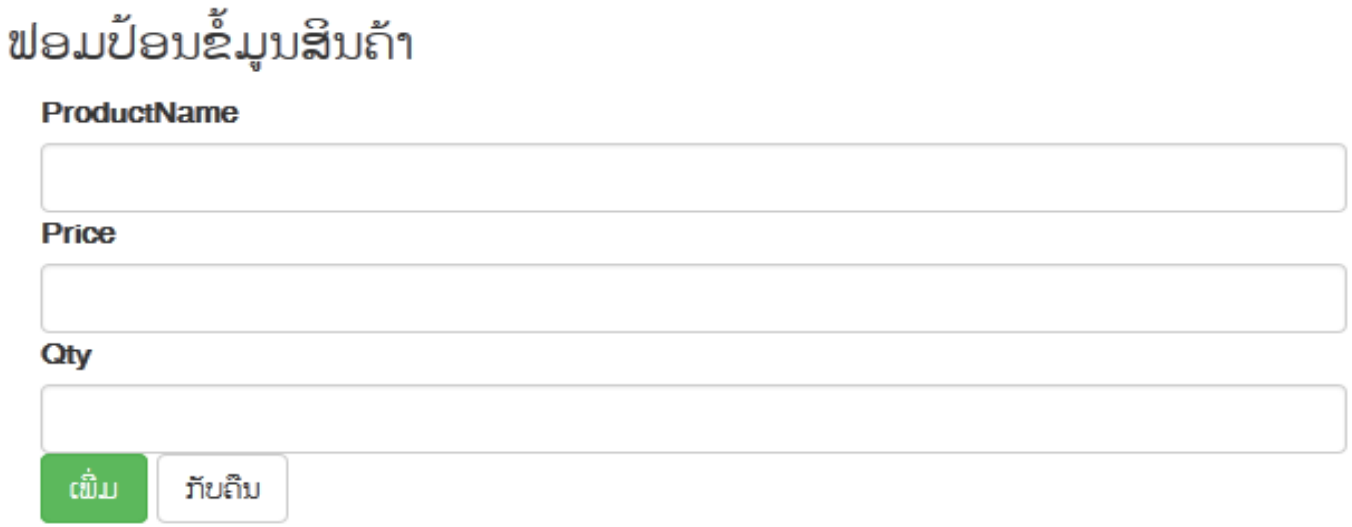


- ຕົວຢ່າງ: ການເພີ່ມຂໍ້ມູນຜ່ານ Form

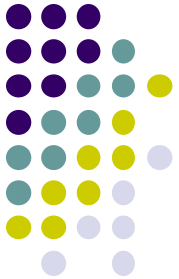
```
<form method="POST" action="add.php">
ProductName
<input type="text" name="txt1">
Price
<input type="text" name="txt2">
Qty
<input type="text" name="txt3">
        <input type="submit" value=”ເພີ່ມ”>
        <a href="product.php">ກັບຄືນ</a>
</form>
```

ການຈັດການຂໍ້ມູນ MySQL

- ຕົວຢ່າງ: ຟອມໄດ້ຮັບ



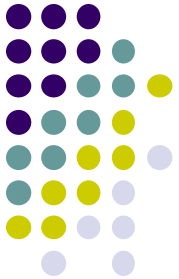
ການຈັດການຂໍ້ມູນ MySQL



- ຕົວຢ່າງ: ສ້າງໄຟຊື່ add.php ເພື່ອປະມວນຜົນຂໍ້ມູນ

```
<?php
include("conndb.php");
$p_name=$_POST["txt1"];
$price=$_POST["txt2"];
$qty=$_POST["txt3"];
mysqli_query($conn,"INSERT INTO product(p_name,price,qty)
values('$p_name','$price','$qty')");
header("location: viewdata.php");
?>
```

ການຈັດການຂໍ້ມູນ MySQL



- ຕົວຢ່າງ: ແກ້ໄຂຂໍ້ມູນໃນຕາຕະລາງຊື່ product

ຈາກໜ້າສະແດງສິນຄ້າ viewdata.php ໃຫ້ແກ້ໄຂຕາຕະລາງດ້ວຍການເພີ່ມ ຈຸດເຊື່ອມໂຍງ ໄປຫາຟອມແກ້ໄຂຂໍ້ມູນ ລຸ່ມນີ້

```
<td>
<a href="editform.php?pid=<?php echo $data[0];?>">ແກ້ໄຂ
</a>
</td>
```

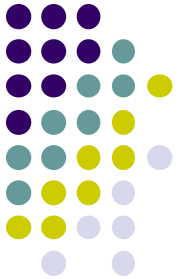
ການຈັດການຂໍ້ມູນ MySQL

- ຕົວຢ່າງ: ແກ້ໄຂຂໍ້ມູນໃນຕາຕະລາງຊື່ product

ລະຫັດ	ຊື່ສິນຄ້າ	ລາຄາ	ຈຳນວນ	ປະເພດ	ລຶບ	ແກ້ໄຂ
1	ແປ້ບຊີ	3000	15	ເຄື່ອງດື່ມ	ລຶບ	ແກ້ໄຂ
2	ນ້ຳດື່ມຫົວເສືອ	3000	10	ເຄື່ອງດື່ມ	ລຶບ	ແກ້ໄຂ
3	pizza	50000	2	ອາຫານ	ລຶບ	ແກ້ໄຂ
4	bakery	3000	10	ອາຫານ	ລຶບ	ແກ້ໄຂ

ໝາຍເຫດ: *<a href="editform.php?pid=<?php echo $data[0];?>">ແກ້ໄຂ ຈະສົ່ງຄ່າ pid ຜ່ານທາງ URL*

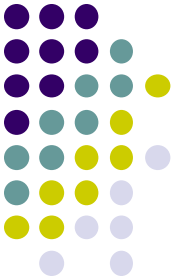
ການຈັດການຂໍ້ມູນ MySQL



- ຕົວຢ່າງ: ຮັບຂໍ້ມູນມາສະແດງຢູ່ໃນຟອມ

```
<?php
$pid=$_GET["pid"];

include("conndb.php");
$result=mysqli_query($conn,"select * from product where id='$pid'");
$data=mysqli_fetch_row($result);
?>
```

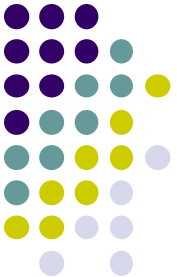
ການຈັດການຂໍ້ມູນ MySQL



ຕົວຢ່າງ:

```
<form action="edit.php" method="post">
<label for="ProductName">ProductName</label>
<input name="txt1" class="form-control" type="text"
value="<?php echo $data[1]; ?>" />
<label for="Price">Price</label>
<input name="txt2" class="form-control" type="text"
value="<?php echo $data[2]; ?>" />
<label for="Qty">Qty</label>
```

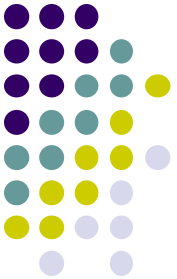
ການຈັດການຂໍ້ມູນ MySQL



ຕົວຢ່າງ:

```
<input name="txt3" class="form-control" type="number" value="<?php echo $data[3]; ?>" />

<button type="submit" class="btn btn-success">ແກ້ໄຂ </button>
<a href="viewdata.php" class="btn btn-default">ກັບຄືນ</a>
<input name="pid" type="hidden" value="<?php echo $data[0]; ?>" />
</form>
```

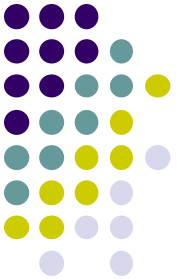
ການຈັດການຂໍ້ມູນ MySQL



- ຕົວຢ່າງ:

```
<?php
include("conndb.php");
$pid=$_POST["pid"];
$name=$_POST[“txt1”];
mysqli_query($conn,“UPDATE product SET p_name=‘$name’ where id='$pid'");
header("location: viewdata.php");
?>
```

ການຈັດການຂໍ້ມູນ MySQL



- ຕົວຢ່າງ: ລຶບຂໍ້ມູນໃນຕາຕະລາງຊື່ product

ຈາກໜ້າສະແດງສິນຄ້າ viewdata.php ໃຫ້ແກ້ໄຂຕາຕະລາງດ້ວຍການເພີ່ມ ຈຸດເຊື່ອມໂຍງ ໄປຫາໄຟລລຶບຂໍ້ມູນ ລຸ່ມນີ້

```
<td>
<a href="del.php?pid=<?php echo $data[0];?>">ລຶບ</a>
</td>
```

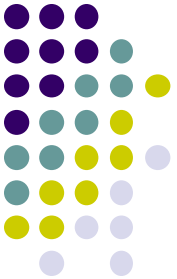
ການຈັດການຂໍ້ມູນ MySQL

- ຕົວຢ່າງ: ແກ້ໄຂຂໍ້ມູນໃນຕາຕະລາງຊື່ product

ລະຫັດ	ຊື່ສິນຄ້າ	ລາຄາ	ຈຳນວນ	ລຶບ	ແກ້ໄຂ
1	ແປ້ບຊີ	3000	15	ລຶບ	ແກ້ໄຂ
2	ນ້ຳດື່ມຫົວເສືອ	3000	10	ລຶບ	ແກ້ໄຂ
3	pizza	50000	2	ລຶບ	ແກ້ໄຂ
4	bakery	3000	10	ລຶບ	ແກ້ໄຂ

ໝາຍເຫດ: *<a href="del.php?pid=<?php echo $data[0];?>">ລຶບ ຈະສົ່ງຄ່າ pid ຜ່ານທາງ URL*

ການຈັດການຂໍ້ມູນ MySQL



- ຕົວຢ່າງ: ສ້າງໄຟລ del.php

```
<?php
include("conndb.php");
$pid=$_GET["pid"];
mysqli_query($conn,"delete from product where id='$pid'");
header("location: viewdata.php");
?>
```

ການເຊື່ອມຕໍ່ຖານຂໍ້ມູນ Oracle

- PHP ນຳໃຊ້ຄຳສັ່ງ PDO ແລະ OCI8 ໃນການເຊື່ອມຕໍ່Oracle Database 11g
  - OCI8 ຕ້ອງໄດ້ເປີດນຳໃຊ້ OCI8 extension ຢູ່ໃນໄຟລ php.ini ດັ່ງນີ້:

```
874  ;extension=php_oci8.dll      ; Use with Oracle 10gR2 Instant Client
875  extension=php_oci8.dll
876  ;extension=php_oci8_11g.dll  ; Use with Oracle 11gR2 Instant Client
877  extension=php_oci8_11g.dll
878
879  ;extension=php_openssl.dll
880  ;extension=php_pdo_firebird.dll
881  extension=php_pdo_mysql.dll
882  extension=php_pdo_oci.dll
```

ການເຊື່ອມຕໍ່ຖານຂໍ້ມູນ Oracle

- ກວດສອບ

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

oci8

OCI8 Support	enabled
Version	1.4.10
Revision	$Id: b0984d94e17f7c099470cd0a9404259f2a59da04 $
Active Persistent Connections	0
Active Connections	0
Oracle Run-time Client Library Version	11.2.0.4.0
Oracle Instant Client Version	10.2

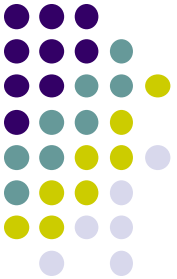
PDO

PDO support	**enabled**
PDO drivers	mysql, oci, sqlite

PDO_OCI

PDO Driver for OCI 8 and later	**enabled**

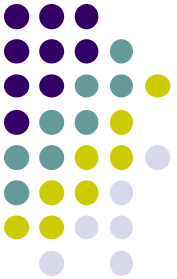
ການເຊື່ອມຕໍ່ຖານຂໍ້ມູນ Oracle



ຕົວຢ່າງ 1: ການເຊື່ອມຕໍ່ດ້ວຍ PDO

```
<?php

try {
    $conn = new PDO("oci:dbname=localhost/XE", "system", "qwerty");
    $conn->setAttribute(PDO::ATTR_ERRMODE,
PDO::ERRMODE_EXCEPTION);
    echo 'Connected to database';
} catch(PDOException $e) {
    echo 'ERROR: ' . $e->getMessage();
}

?>
```

ການເຊື່ອມຕໍ່ຖານຂໍ້ມູນ Oracle

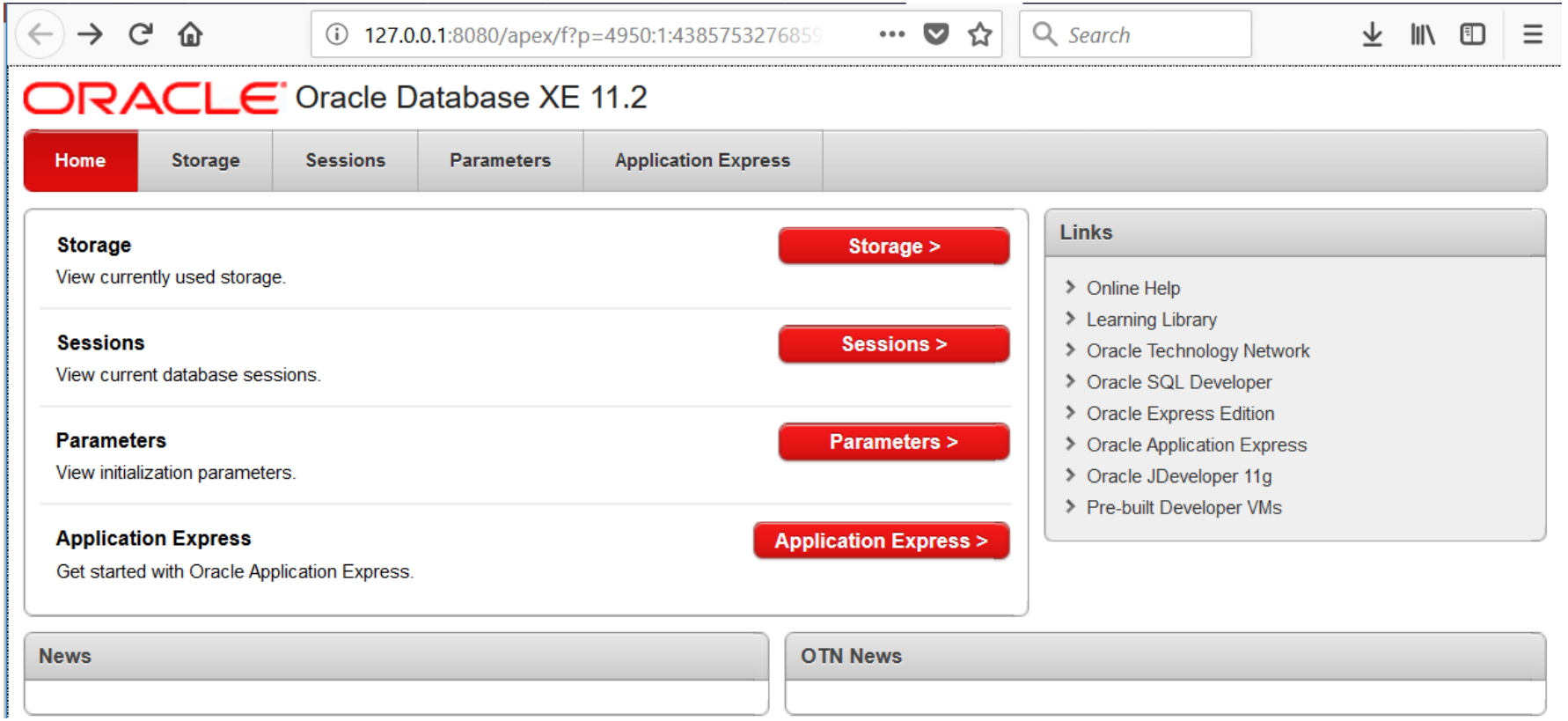


ຕົວຢ່າງ 2: ການເຊື່ອມຕໍ່ດ້ວຍ OCI

```
<?php
$conn = oci_connect("system", "qwerty","localhost/XE");
if (!$conn) {
   $m = oci_error();
   echo $m['message'], "\n";
   exit;
}
else {
   print "Connected to Oracle!";
}
oci_close($conn);
?>
```

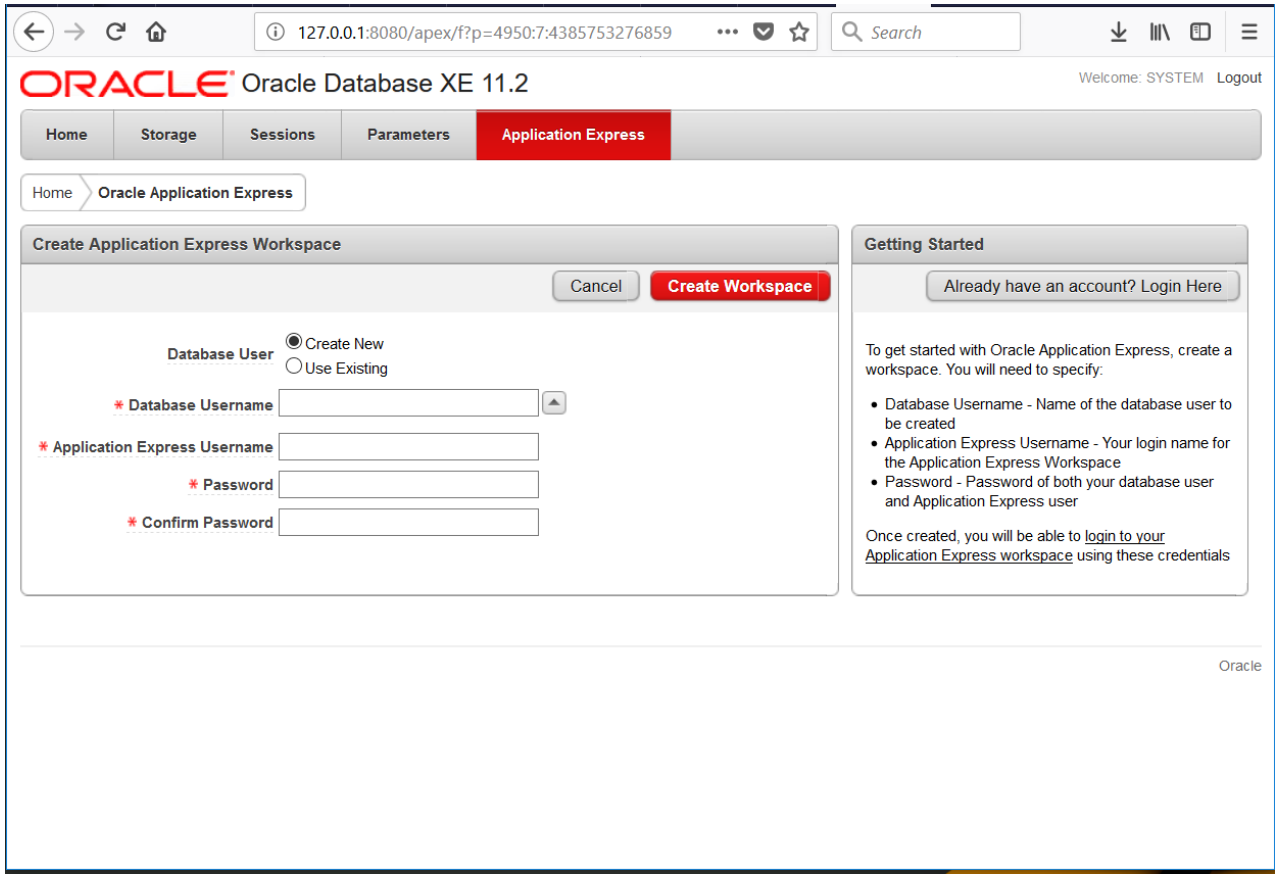
ການຈັດການຂໍ້ມູນ Oracle

- ເຂົ້າສູ່ Oracle ດ້ວຍ Web browser



ການຈັດການຂໍ້ມູນ Oracle

- ເຂົ້າສູ່ Oracle ດ້ວຍ Web browser



ภาษาจัดการข้อมูล Oracle

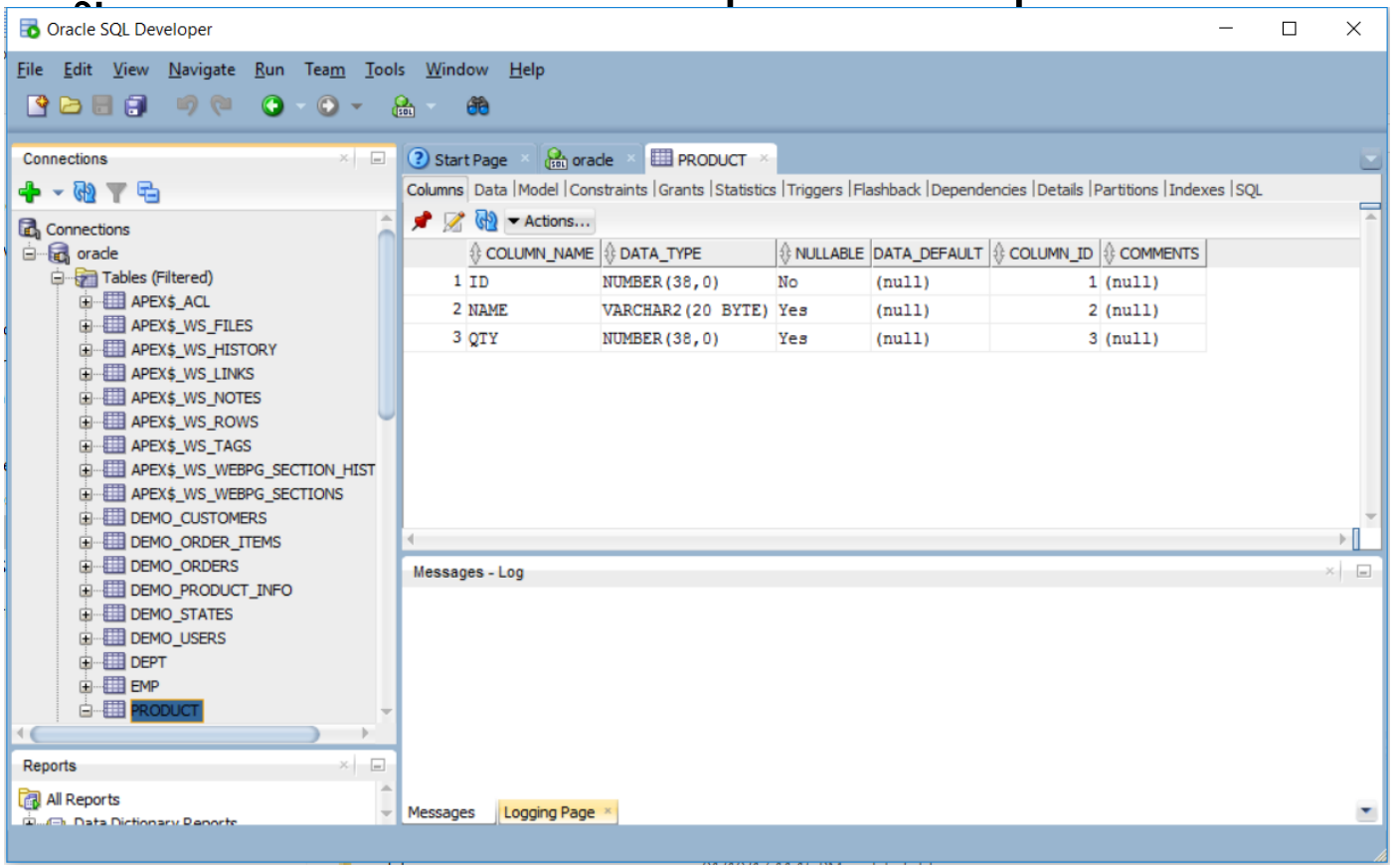
- เข้าสู่ Oracle ด้วย sqlplus

sqlplus / as sysdba

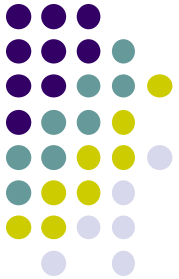
```
Command Prompt - sqlplus  test
C:\Users\financial>sqlplus test

SQL*Plus: Release 11.2.0.2.0 Production on Tue Dec 5 09:11:29 2017

Copyright (c) 1982, 2014, Oracle.  All rights reserved.

Enter password:
ERROR:
ORA-28002: the password will expire within 7 days



Connected to:
Oracle Database 11g Express Edition Release 11.2.0.2.0 - 64bit Production

SQL> select * from product;

        ID NAME                          QTY
---------- -------------------- ----------
         1 PEPSI                         2
         2 MILK                         33
         3 CANDY                        10

SQL>
```

ການຈັດການຂໍ້ມູນ Oracle

- ເຂົ້າສູ່ Oracle ດ້ວຍ sqldeveloper



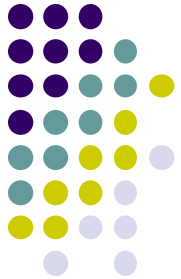
ການຈັດການຂໍ້ມູນ Oracle



- ຕົວຢ່າງ 1: ສະແດງຂໍ້ມູນ ນຳໃຊ້ OCI8

```
<?php

// Create connection to Oracle
$conn = oci_connect("test", "qwerty", "localhost/XE");

$query = 'select * from product';
$stid = oci_parse($conn, $query);
$r = oci_execute($stid);
```

ການຈັດການຂໍ້ມູນ Oracle



- ຕົວຢ່າງ 1: ສະແດງຂໍ້ມູນ ນຳໃຊ້ OCI8

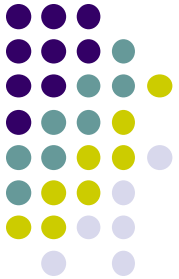
```
// Fetch each row in an associative array
print '<table border="1">';
while ($row = oci_fetch_array($stid,
OCI_RETURN_NULLS+OCI_ASSOC)) {
   print '<tr>';
   foreach ($row as $item) {
       print '<td>'.($item !== null ? htmlentities($item, ENT_QUOTES) :
' ').'</td>';
   }
   print '</tr>';
}
print '</table>';

?>
```

ຂໍ້ມູນອ້າງອີງ

[1] http://getbootstrap.com/docs/3.3/getting-started/

[2]https://www.w3schools.com/bootstrap/bootstrap_get_started.asp

[3] https://www.tutorialrepublic.com/twitter-bootstrap-tutorial/bootstrap-fixed-layout.php



ຖາມ ແລະ ຕອບ

ຂອບໃຈ