

BITP1323
Lecture 13
Database Connectivity
PHP and MySQL
Database

Download XAMPP

XAMPP is

- a free and open-source PHP development environment developed by Apache.
- easy to install and consisting of Web server (Apache), database system (MariaDB), and PHP.

Apache distribution containing MySQL and interpreters for script languages (PHP, Perl), which, among other things, provide PHPMyAdmin as a browser administration interface for MariaDB).

Download and installation

step1

To download and install XAMPP, go to <https://www.apachefriends.org/index.html>

step2

On the menu bar click on the **arrow** at the corner right to choose the language, in which the website information will be displayed.

Step3

Under **Download** choose the installation files of your operating system (**Windows**, **Linux**, or **OS X**) and click on.



For Windows systems:

Step4

Click on the **windows** button as shown below to start downloading the installation file.

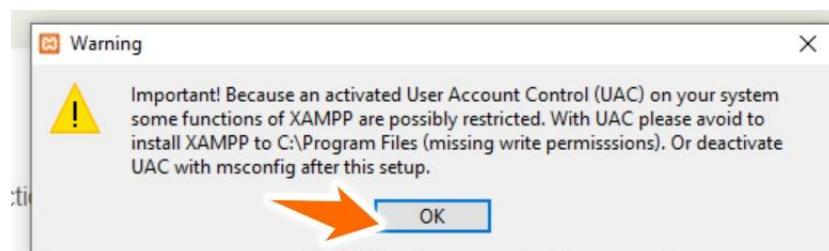


Follow, if necessary the instructions on your browser for the complete download for example Confirm save, keep the file, or similar.

Step5

Start the installation by double-clicking on the **xampp-windows-x64-7.4.8-0-VC15-installer** file in the download folder.

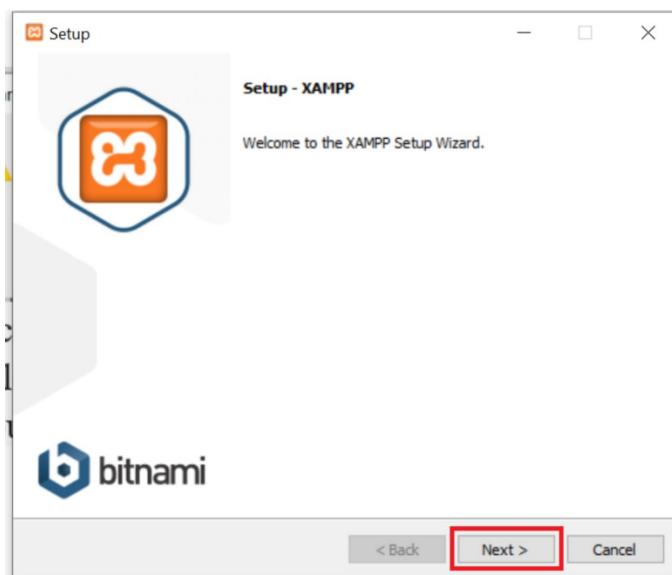
A warning message box can be displayed that Xampp cannot be installed in the program folder as shown below.



This can be ignored because XAMPP is automatically installed under **c:\xampp** and then still works without any problems.

Step6

Click on OK and the XAMPP setup wizard will open.

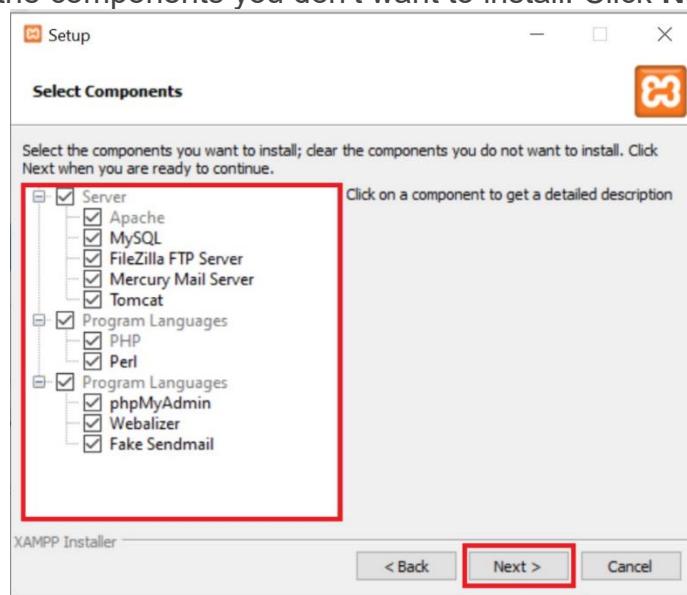


Step7

On the Setup-XAMPP window, click **Next** to proceed as shown above.

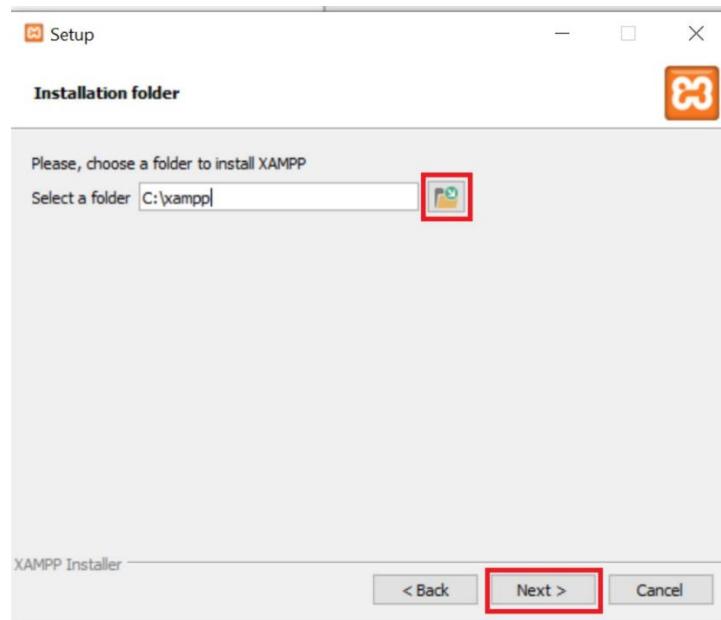
Step8

In the select components window, **check** the components you want to install and **uncheck** all the components you don't want to install. Click **Next** to continue.



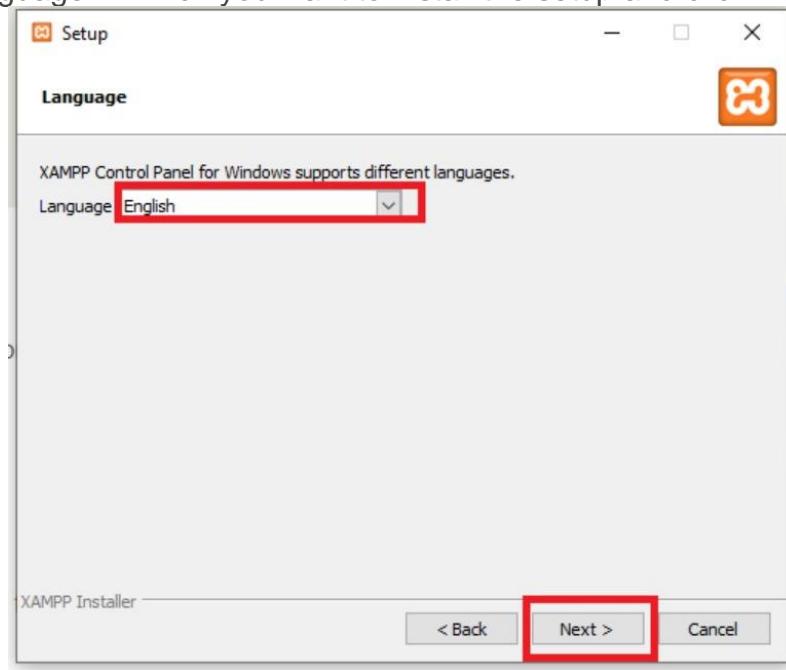
Step9

Select the folder in which you want to install XAMPP. The default location or any location of your choice can be chosen and click **Next** to continue.



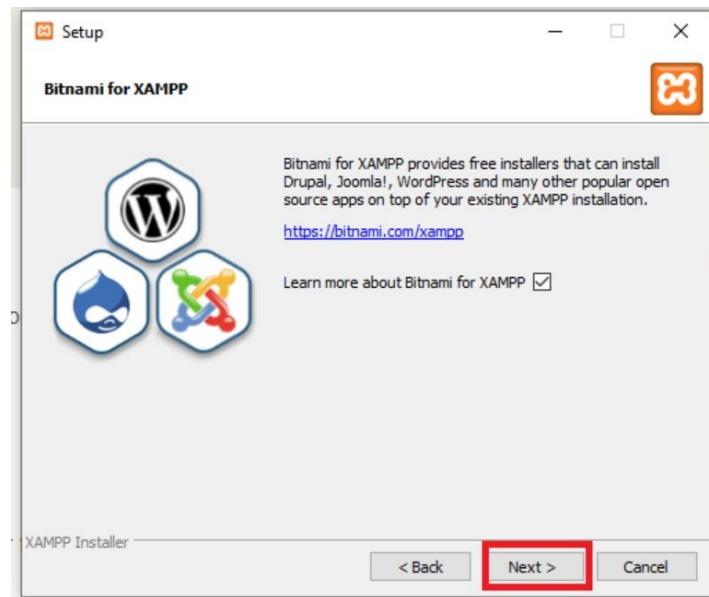
Step10

Select the language in which you want to install the setup and click **Next**.



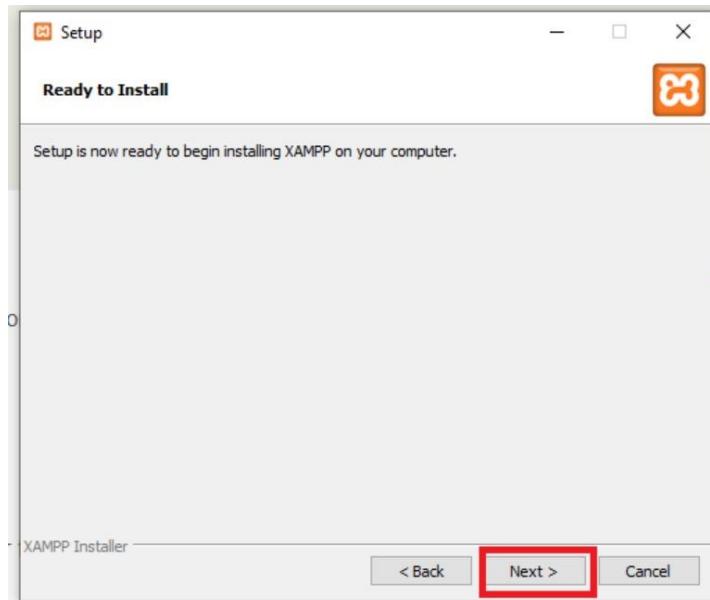
Step11

On the window given information about Bitnami for XAMPP click **Next** to continue. If you want to learn more about Bitnami for XAMPP simply check the box **Learn more about Bitnami for XAMPP**.



Step12

On the Ready to Install window click **Next** to start the installation of XAMPP on your computer.

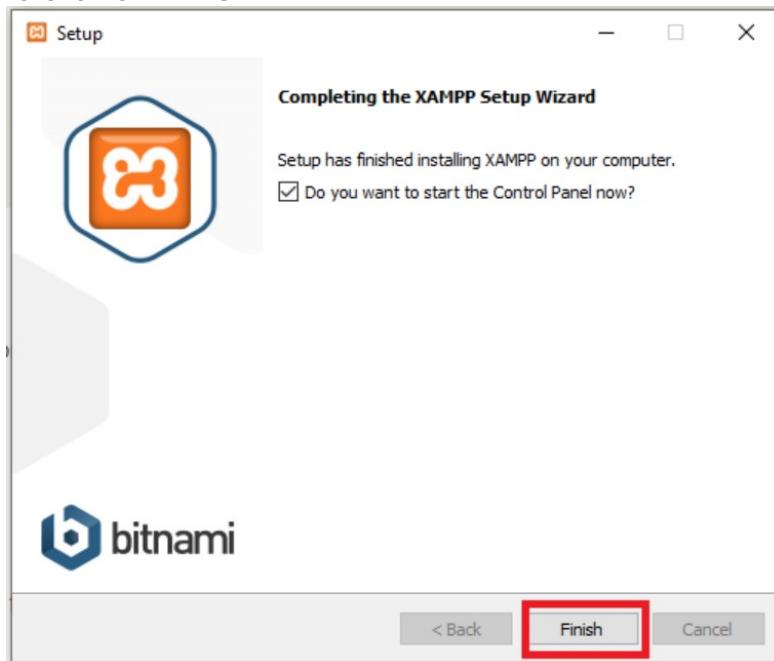


After clicking on **Next** in the previous window, just be patient and wait for the installation to complete. The progress of the installation is shown in the window below.

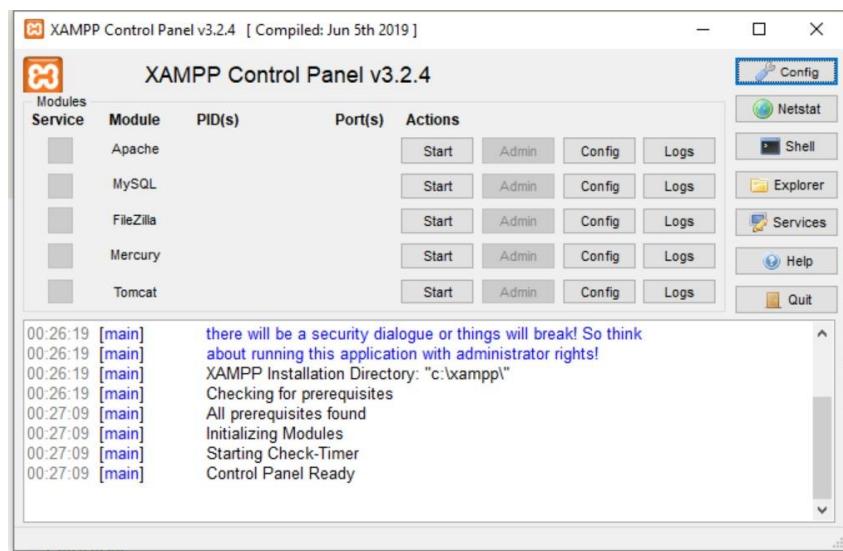


Step13:

On Installation Complete window, Once the installation is completed, if you want to start the control panel now simply check the box **Do you want to start the control panel now?** and click on **Finish**.



The XAMPP Control Panel will start automatically, if not start it from the folder **c:\XAMPP (file xampp-control.exe)**.

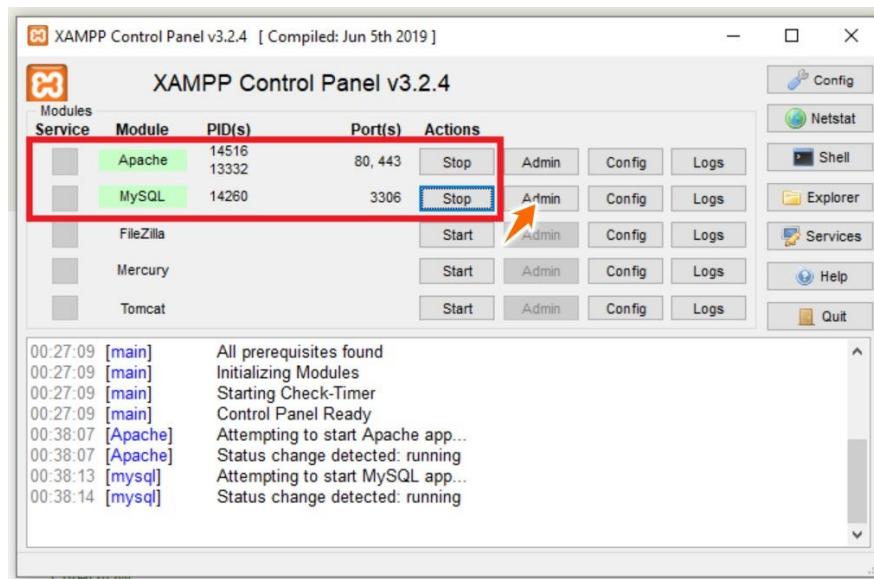


Program start

XAMPP is now installed, we can run it. On the XAMPP Control Panel as shown in the previous window.

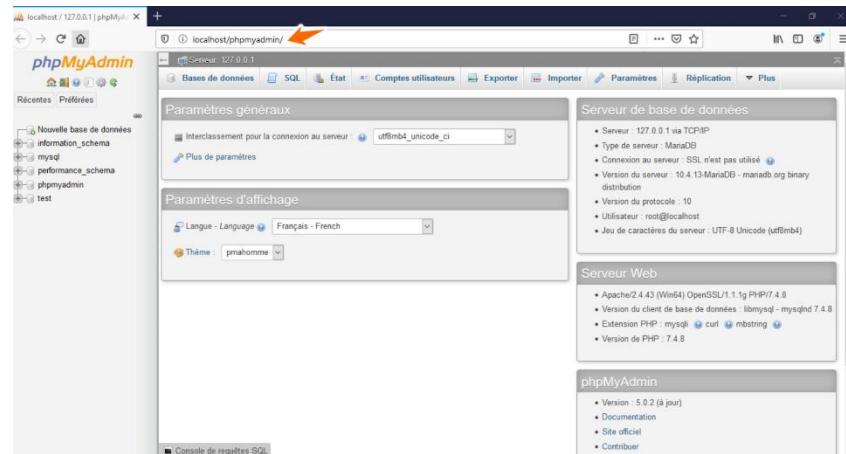
- On module Apache, click on the **Start** button
- On module MySQL, click on the **Start** button

Once the modules are started, their status will turn to green.



As shown in the previous window, Apache will start running by default on **port 80443** and MySQL on **port 3306**.

Once MySQL is started click on **Admin** button to start phpMyAdmin in the web browser or call **localhost \ phpmyadmin** in the web browser.



Once that XAMPP is correctly installed and phpMyAdmin is properly started, We can now start creating our first database.

We have just learned how to install XAMPP Step by Step on Windows machine. If you need to know how to create a database in MySQL with phpMyAdmin let's go to another step.

Create a Database in MySQL With Phpmyadmin

This step will show you how to create a database in MySQL using the two most straightforward methods, which are the following:

- Using phpMyAdmin Gui
- Using SQL queries (DDL: Data Definition Language)

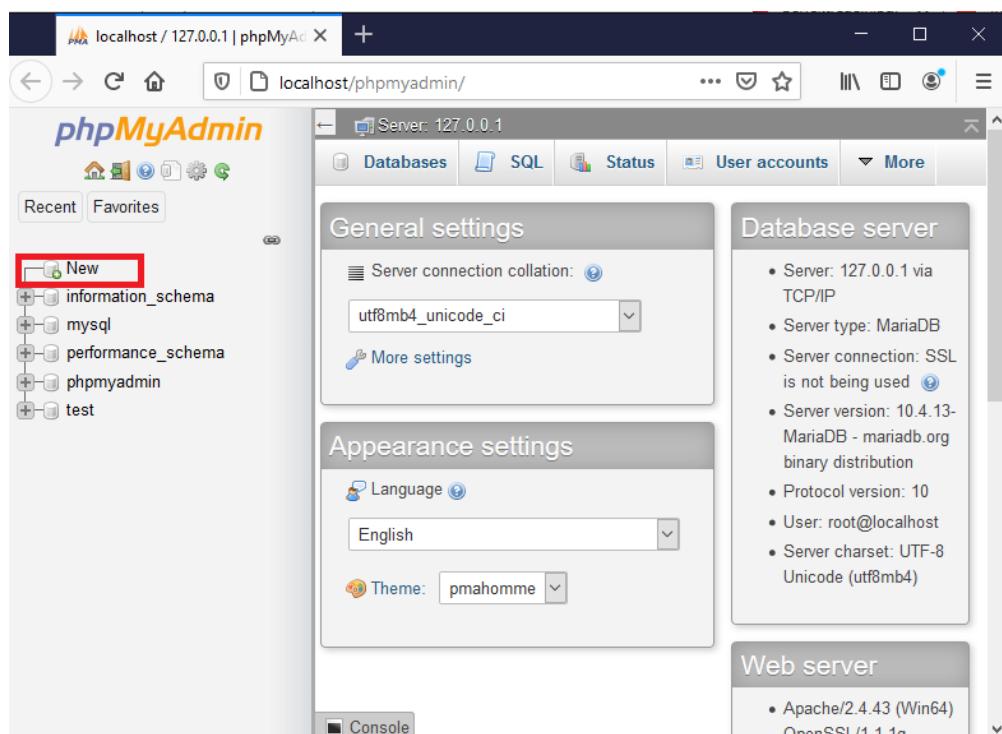
How to Create a Database in MySQL Using PhpMyAdmin Gui

Step 1

Open the phpMyAdmin tool by type **localhost \ phpmyadmin** in the web browser.

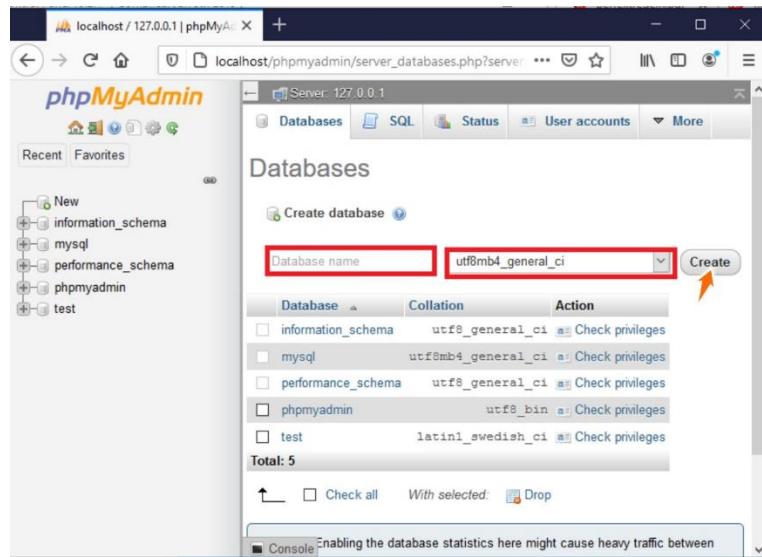
Step 2

Click on **New** on the left sidebar, to create a new database, on the phpMyAdmin window.



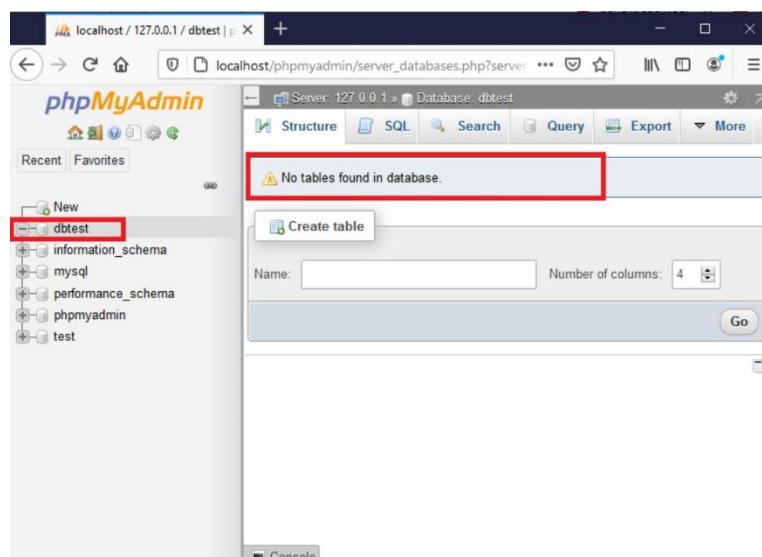
Step 3

Under **Database name** enter your database name and select the collation you want to use for your database. For this example, **utf8mb4_general_ci** is used.



Step 4

Click **Create** as shown in the previous image to create your database. The database is now available on phpMyAdmin GUI with the name **dbTest** and it is empty as shown in the image below.



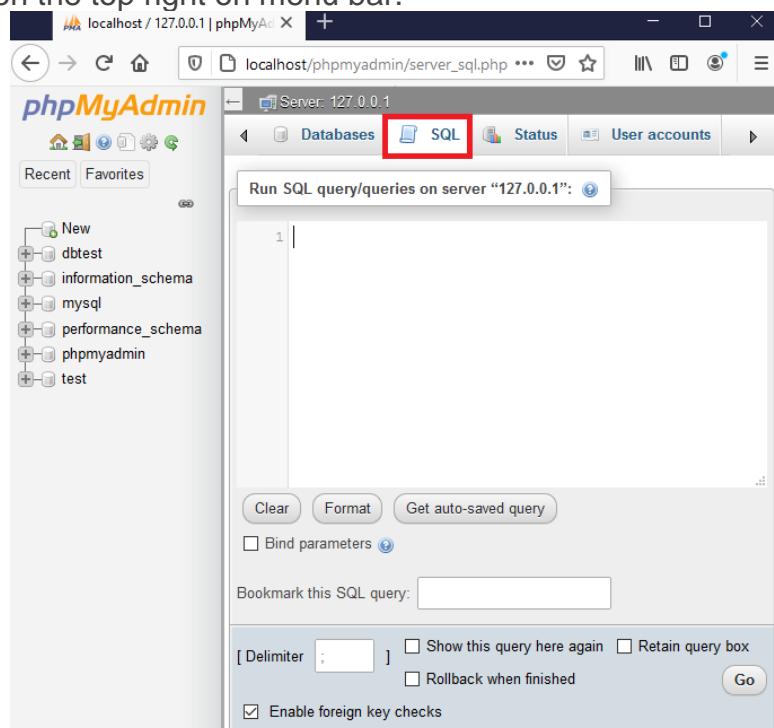
How to Create a Database in MySQL Using SQL queries on PhpMyAdmin

Step 1

Open the phpMyAdmin tool by type **localhost \ phpmyadmin** in the web browser.

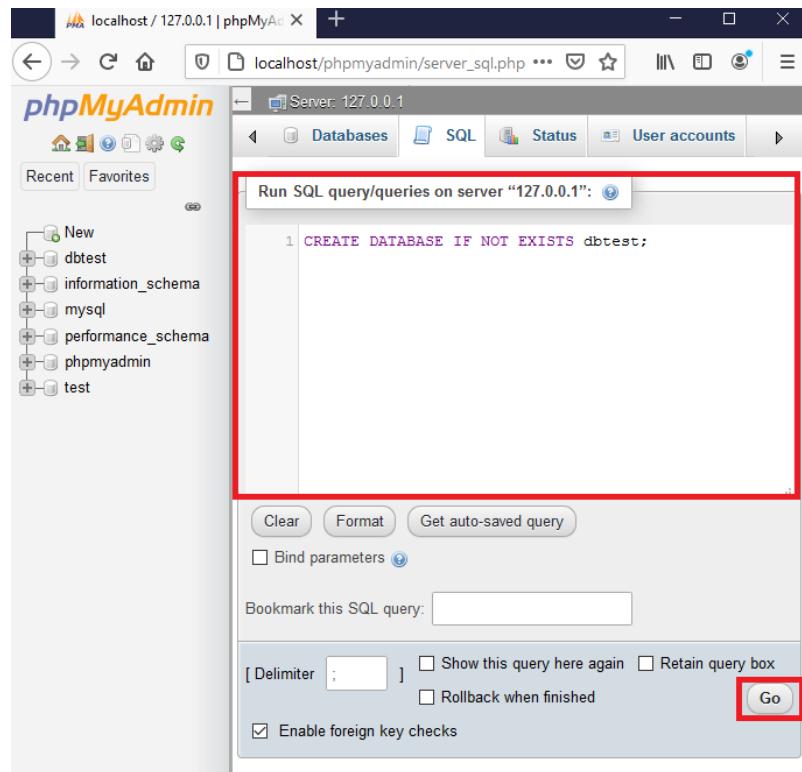
Step 2

Click on **SQL** on the top right on menu bar.



Step 3

Enter the SQL query to create your database in MySQL. The following syntax will be used: **CREATE DATABASE IF NOT EXISTS database_name**.



For this example, under “database_name” we will give the name **dbtest**.

Step 4

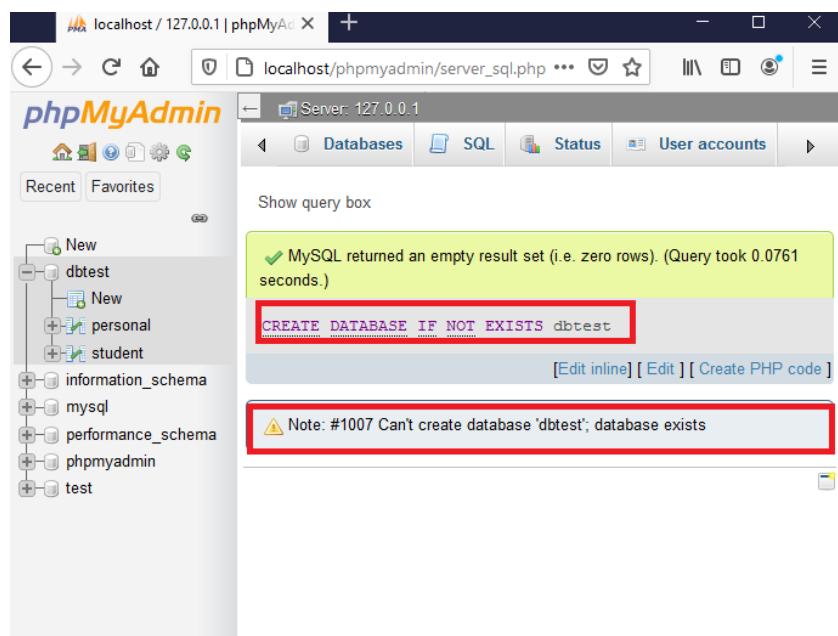
Click **Go** to create your database.

This is the simplest method to create a database in MySQL.

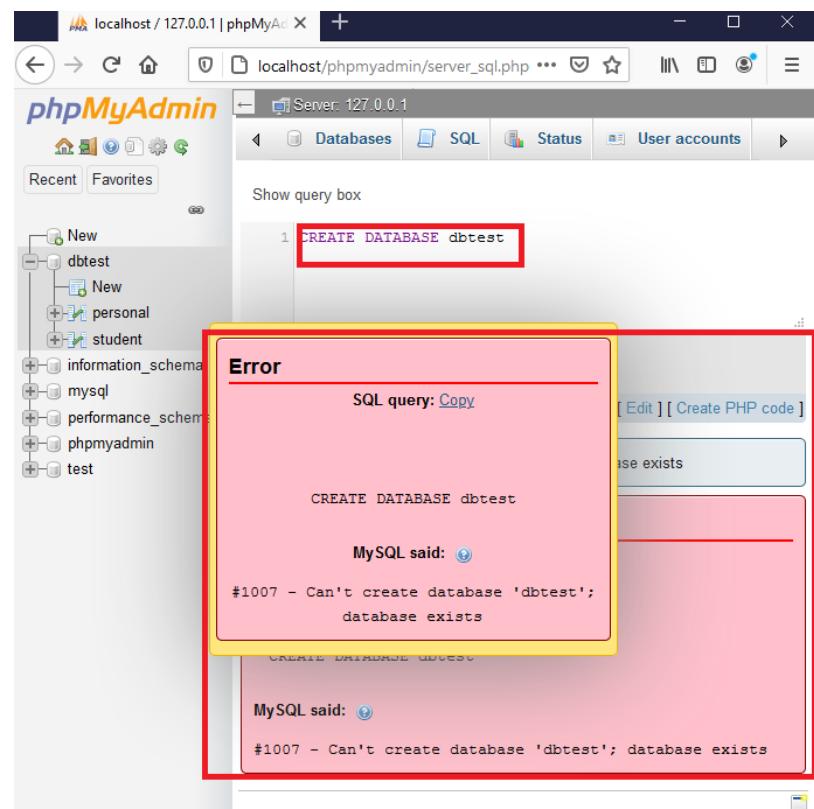
Before creating a database, we can check if the database already exists. The **IF NOT EXISTS** query is used for that and it is optional.

It checks first whether the database already exists. If so, an error message(Warning message) is returned, else the database will be created.

An example to show how **IF NOT EXISTS** works, we will try to create the database **dbtest** again, although it already exists. A warning message will be returned as shown in the image below.



Without **IF NOT EXISTS** query, the following error message will be returned as shown in the image below.



After we create a database, the next step will show you how to create a table in the database.

Create a Table in MySQL With Phpmyadmin

One of the easiest ways to create a table is through phpMyAdmin. Tables play a vital role in the storage of information (dynamic content). On XAMPP MySQL store the information in the tables. You can easily add tables to MySQL using the intuitive phpMyAdmin user interface

Step1:

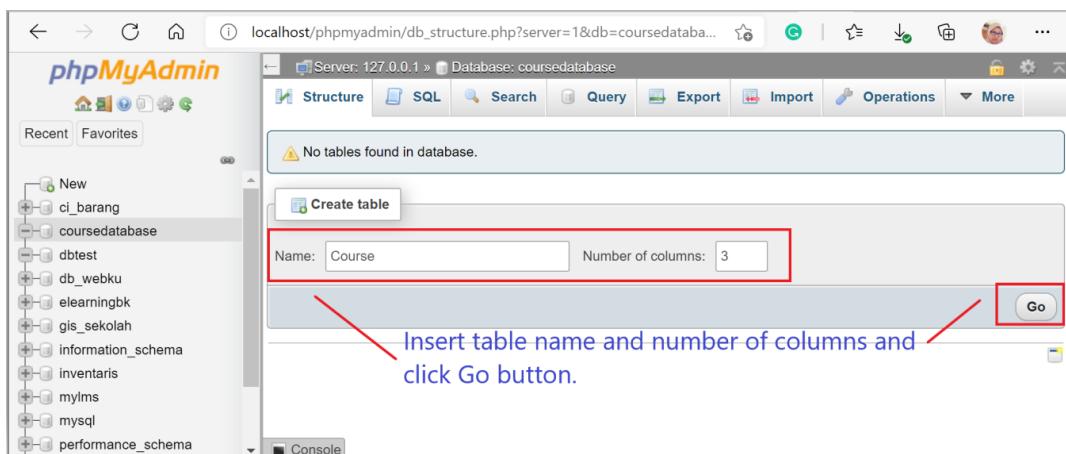
Assume that you want to create a table in a new database named **coursedatabase**. You can use or follow the previous step how to create a database. After successful, open the phpMyAdmin tool by type **localhost \ phpmyadmin** in the web browser.

Step 2:

On the left hand side you will see "phpMyAdmin" logo, some small icons, and below them you will see your database name. Click on your database name. Now on the right hand side any tables you may have in your database will be displayed.

Step 3:

In order to create new table in the database, first, add the table name and the total number of fields and hit the 'Go' button.



Step 4:

This way you will be launched to a step-by-step wizard where you need to fill up the required fields. First off, name all the fields and select the relevant type for every field. However, in order to choose the type, use 'Type' drop-down menu and fill a value for the length of each field. Next, assign 'Attribute' to each field. From the 'Null' drop-down menu select the null option and define whether the specified field is a primary key or not. And finally, select the table type and collation method and click the 'Save' button to finish the table creation process.

CREATE DATABASE TABLE

The screenshot shows the phpMyAdmin interface. On the left, the database tree shows several databases, with **coursedatabase** highlighted and selected. In the center, the **Structure** tab is active, showing the schema of the **Course** table. The **SQL** tab is also visible. On the right, a red box highlights the **SQL** tab with the instruction "2. Click SQL menu". Below it, another red box highlights the SQL query area containing the **CREATE TABLE** statement, with the instruction "3. Enter SQL CREATE TABLE statement to create Course table. Then, click Go button".

localhost / 127.0.0.1 / col X

localhost/phpmyadmin

phpMyAdmin

Recent Favorites

New

apajanuari

apajanuaridua

apajanuaritiga

coursedatabase

1. Click the created database

localhost/phpmyadmin/db_sql.php?db=coursedatabase&token=743100dff21e8bacf8ec2e31

phpMyAdmin

Server: 127.0.0.1 » Database: coursedatabase

Structure SQL Search Query Export

Run SQL query/queries on database coursedatabase:

```
1 CREATE TABLE Course
2 (
3     CourseID      VARCHAR(10),
4     CourseName    VARCHAR(100) NOT NULL UNIQUE,
5     CourseDescription  VARCHAR(150),
6
7     PRIMARY KEY(CourseID)
8 );
9
```

Clear Format Get auto-saved query

2. Click SQL menu

3. Enter SQL CREATE TABLE statement to create Course table. Then, click Go button

CREATE DATABASE TABLE (cont..)

The screenshot shows the phpMyAdmin interface for a database named 'coursedatabase'. The 'course' table is selected. A red box highlights the 'course' table in the left sidebar. A red arrow points from this box to the text '1. The course table is created'. Another red box highlights the 'Structure' tab in the top menu bar. A red arrow points from this box to the text '2. Click Structure menu to see the created columns or click SQL menu and type DESCRIBE course;'. The table structure is displayed with three columns: CourseID, CourseName, and CourseDescription.

localhost / 127.0.0.1 / coursedatabase

localhost/phpmyadmin/tbl_structure.php?db=coursedatabase&table=course&token=d8435fea835291be4409cd830f0cb921

phpMyAdmin

Server: 127.0.0.1 » Database: coursedatabase » Table: course

Browse Structure SQL Search Insert Export Privileges Operations Tracking Triggers

Table structure Relation view

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	CourseID	varchar(10)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values Add to central columns
2	CourseName	varchar(100)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values Add to central columns
3	CourseDescription	varchar(150)			Yes	NULL		Change Drop Primary Unique Index Spatial Fulltext Distinct values Add to central columns

New apajanuarai apajanuarida apajanuaritiga coursedatabase New course

Check all With selected: Browse Change Drop Primary Unique Index Add to central columns Remove from central columns

1. The **course** table is created

2. Click **Structure** menu to see the created columns or click **SQL** menu and type **DESCRIBE course;**

INSERT DATA THROUGH phpMyAdmin

The screenshot shows the phpMyAdmin interface for the 'course' table in the 'coursedatabase' database. The 'Insert' tab is selected. The table has three columns: 'CourseID', 'CourseName', and 'CourseDescription'. The 'CourseID' field contains 'BITP1323', 'CourseName' contains 'Database', and 'CourseDescription' contains 'This course will introduce student to the fundamental concepts of database'. A red box highlights the 'Insert' button in the top menu bar, and another red box highlights the 'CourseDescription' input field.

1. Click **Insert** menu

2. Insert all the required data and then click **Go** button. Note: CourseDescription is an optional column

INSERT DATA THROUGH phpMyAdmin(cont..)

The screenshot shows the phpMyAdmin interface for a database named 'coursedatabase'. The left sidebar lists databases and tables, with the 'course' table highlighted by a red box and an arrow pointing to it from the instruction '1. Click course table'. The main panel displays the 'course' table structure with three columns: CourseID, CourseName, and CourseDescription. A single row is shown, with its entire content highlighted by a red box and an arrow pointing to it from the instruction '2. You can see the inserted data'. The row data is: CourseID: BITP1323, CourseName: Database, CourseDescription: This course will introduce student to the fundamen...

1. Click course table

2. You can see the inserted data

CourseID	CourseName	CourseDescription
BITP1323	Database	This course will introduce student to the fundamen...

INSERT DATA THROUGH phpMyAdmin(cont..)

The screenshot shows the phpMyAdmin interface for the 'coursedatabase' database. The 'course' table is selected. A red box highlights the 'course' table in the left sidebar. A red arrow points from this box to a red box containing the instruction '1. Click course table'. Another red box highlights the 'SQL' tab in the top menu bar. A red arrow points from this box to a red box containing the instruction '2. Click SQL menu'. In the central query editor, a red box highlights the SQL code: `1. INSERT INTO COURSE (CourseID,CourseName,CourseDescription)
2. VALUES ('BITP2313','Database Design','Database design is fun...');`. A red arrow points from this box to a red box containing the instruction '3. Enter SQL Insert statement to insert new data'. On the right, the results pane shows the 'course' table with a new row: CourseID: BITP2313, CourseName: Database Design, CourseDescription: Database design is fun...'. A red box highlights this row. A red arrow points from this box to a red box containing the instruction '4. Check course table. You can see the inserted data'.

1. Click course table

2. Click SQL menu

3. Enter SQL Insert statement to insert new data

4. Check course table.
You can see the inserted data

UPDATE DATA THROUGH phpMyAdmin

The screenshot shows the phpMyAdmin interface for a database named 'coursedatabase'. On the left, the database structure is listed. The 'course' table is selected and highlighted with a red box. Below the table, there is a list of rows. The first row has its 'Edit' link highlighted with a red box. The table has columns: CourseID, CourseName, and CourseDescription.

CourseID	CourseName	CourseDescription
BITP1323	Database	This course will introduce student to the fundamen...
BITP2313	Database Design	Database design is fun...

1. Click **course** table

2. Click **Edit** link

The screenshot shows the update form for the 'course' table. The 'CourseDescription' field is highlighted with a red box and contains the value 'Database - ERD & SQL'. A red arrow points from this field to a callout box labeled '3. Edit data'. At the bottom right of the update form, there is a 'Go' button. Below the update form, the table is shown again with the updated data. The 'CourseDescription' field for the first row now contains 'Database - ERD & SQL', indicated by a red box and a red arrow pointing to a callout box labeled '4. You can see the updated data'.

CourseID	CourseName	CourseDescription
BITP1323	Database	Database - ERD & SQL
BITP2313	Database Design	Database design is fun...

3. Edit data

4. You can see the updated data

UPDATE DATA THROUGH phpMyAdmin(cont..)

The screenshot shows the phpMyAdmin interface with the following steps highlighted:

1. Click **course** table
2. Click SQL menu
3. Enter **SQL UPDATE statement** to edit existing data. Eg: Set course description of BITP1323 to **null**. Then, click **Go** button
4. Check **course** table. You can see the course description of BITP1323 is null

Detailed description: The image shows the phpMyAdmin interface. On the left, there's a tree view of databases and tables. A red box highlights the 'course' table under the 'coursedatabase'. An arrow points from this box to another red box labeled '1. Click course table'. In the center, the SQL query window shows an UPDATE statement: `1 UPDATE COURSE
2 SET CourseDescription = ''
3 WHERE CourseID = 'BITP1323';`. A red box highlights this query, and an arrow points from it to a red box labeled '3. Enter SQL UPDATE statement to edit existing data. Eg: Set course description of BITP1323 to null. Then, click Go button'. Above the query window, the SQL tab is selected. A red box highlights the 'SQL' tab, and an arrow points from it to a red box labeled '2. Click SQL menu'. On the right, the results of the update are shown in the course table. The 'CourseDescription' column for the row where 'CourseID' is 'BITP1323' is empty, indicated by a red box. A red box highlights this row, and an arrow points from it to a red box labeled '4. Check course table. You can see the course description of BITP1323 is null'.

DELETE DATA THROUGH phpMyAdmin

1. Click course table

2. Click Delete link

phpMyAdmin

Server: 127.0.0.1 » Database: coursedatabase » Table: course

Browse Structure SQL Search Insert Export

Showing rows 0 - 1 (2 total, Query took 0.0000 seconds.)

SELECT * FROM `course`

Show all Number of rows: 25 Filter rows: Search this table

Sort by key: None

+ Options CourseID CourseName CourseDescription

	CourseID	CourseName	CourseDescription
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	BITP1323	Database	
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input checked="" type="checkbox"/> Delete	BITP2313	Database Design	Database design is fun...

Check all With selected: Edit Copy Delete Export

3. Click OK button

4. The selected data is deleted

Confirm

Do you really want to execute "DELETE FROM `course` WHERE `course`.`CourseID` = 'BITP2313'"?

OK Cancel

+ Options CourseID CourseName CourseDescription

	CourseID	CourseName	CourseDescription
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	BITP1323	Database	

Check all With selected: Edit Copy Delete Export

DELETE DATA THROUGH phpMyAdmin(cont..)

1. Click course table

2. Click SQL menu

3. Enter SQL DELETE statement to remove existing data. Eg: BITP1323. Then, click Go button

4. Check course table. You can see BITP1323 is deleted

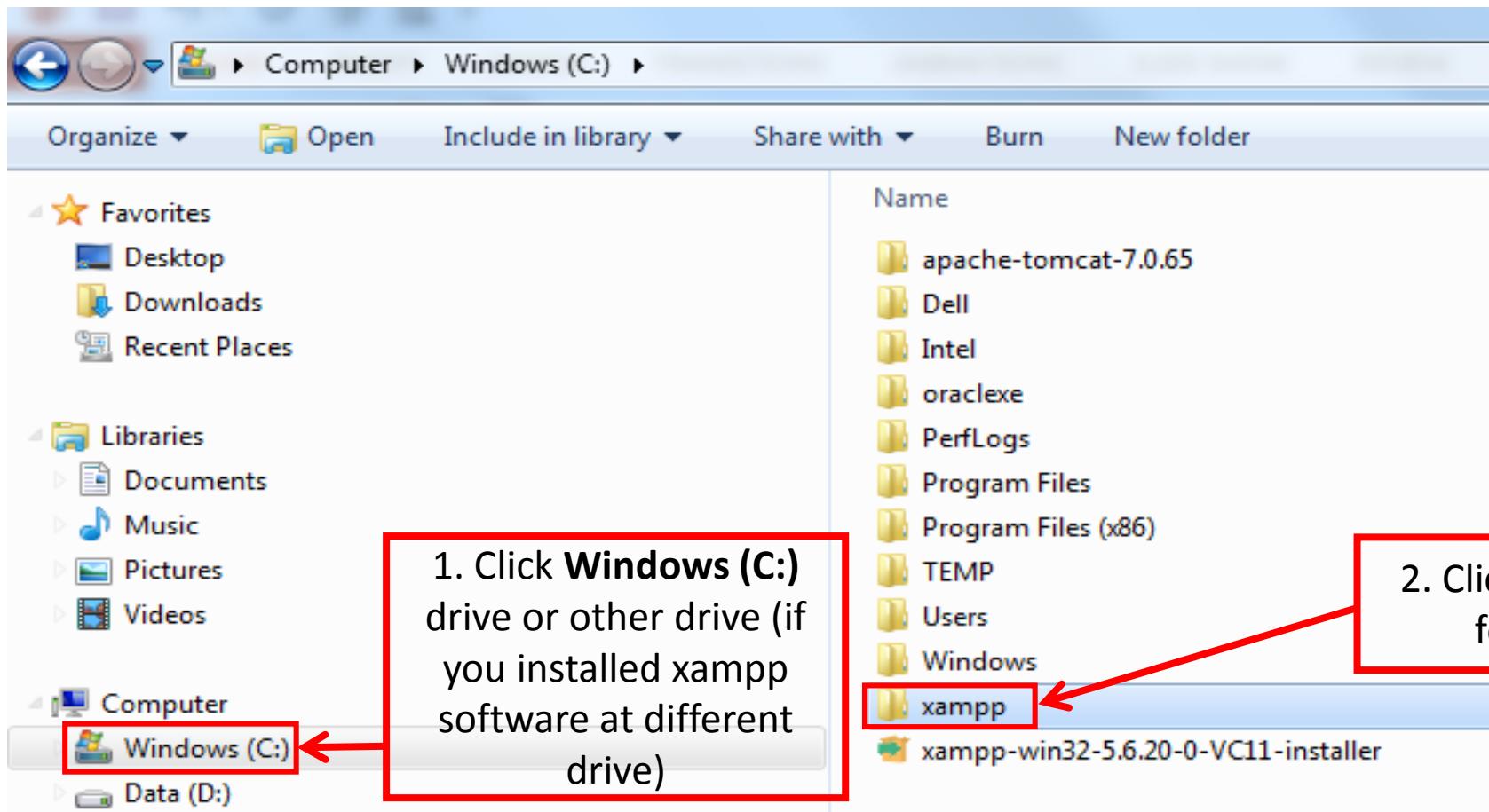
The screenshots show the following sequence:

- Screenshot 1:** The left sidebar shows the database structure. A red box highlights the "course" table under the "coursedatabase" database.
- Screenshot 2:** The main interface shows the "SQL" tab selected. A red box highlights the "SQL" tab in the top navigation bar. Below it, the SQL query editor contains:

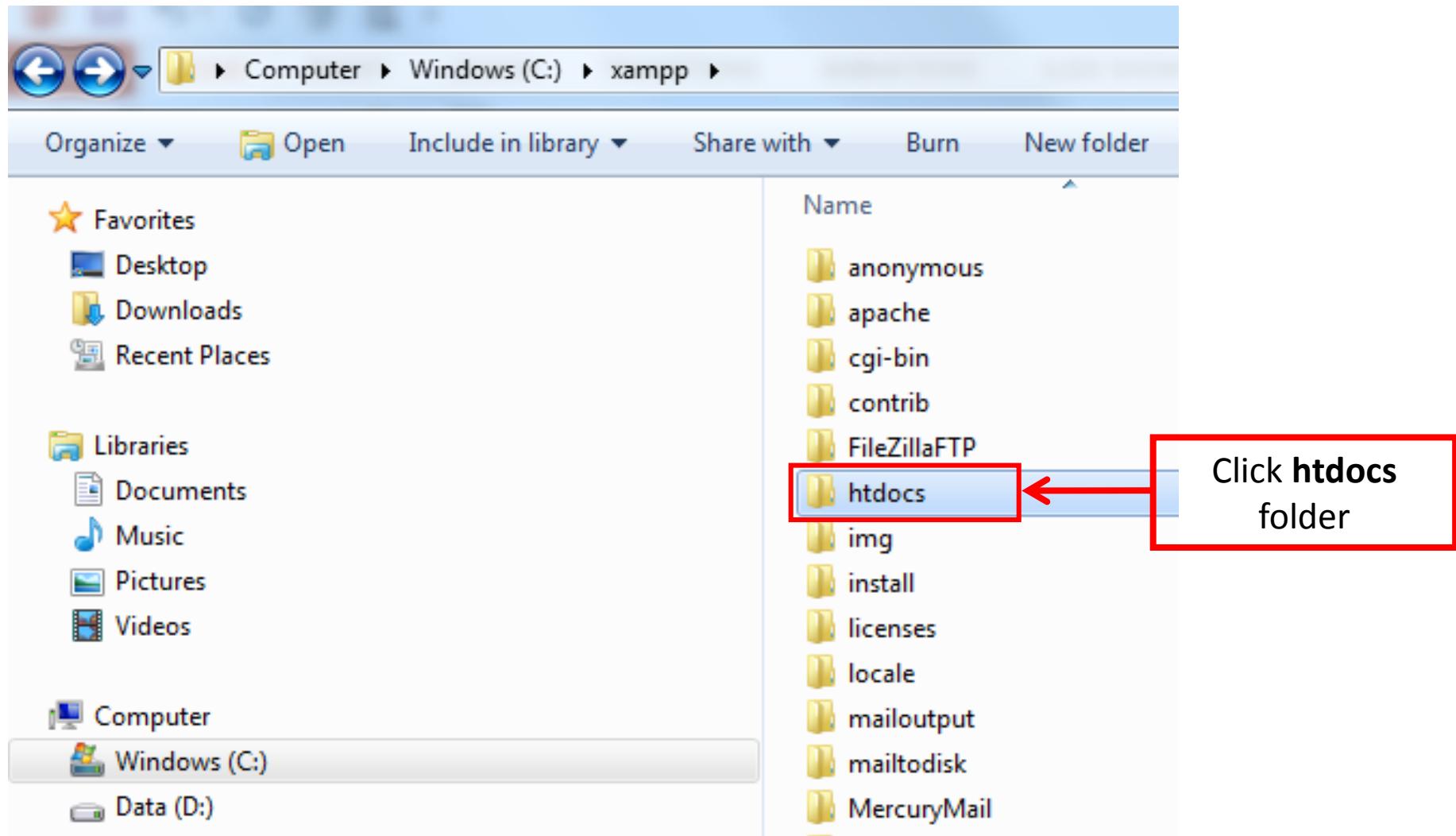
```
1 DELETE FROM course
2 WHERE CourseID = 'BITP1323';
```

A red box highlights the second line of the query.
- Screenshot 3:** The results of the query execution. A green message box says "MySQL returned an empty result set (i.e.)." Below it, the query results table shows the result of the SELECT * FROM `course` query.

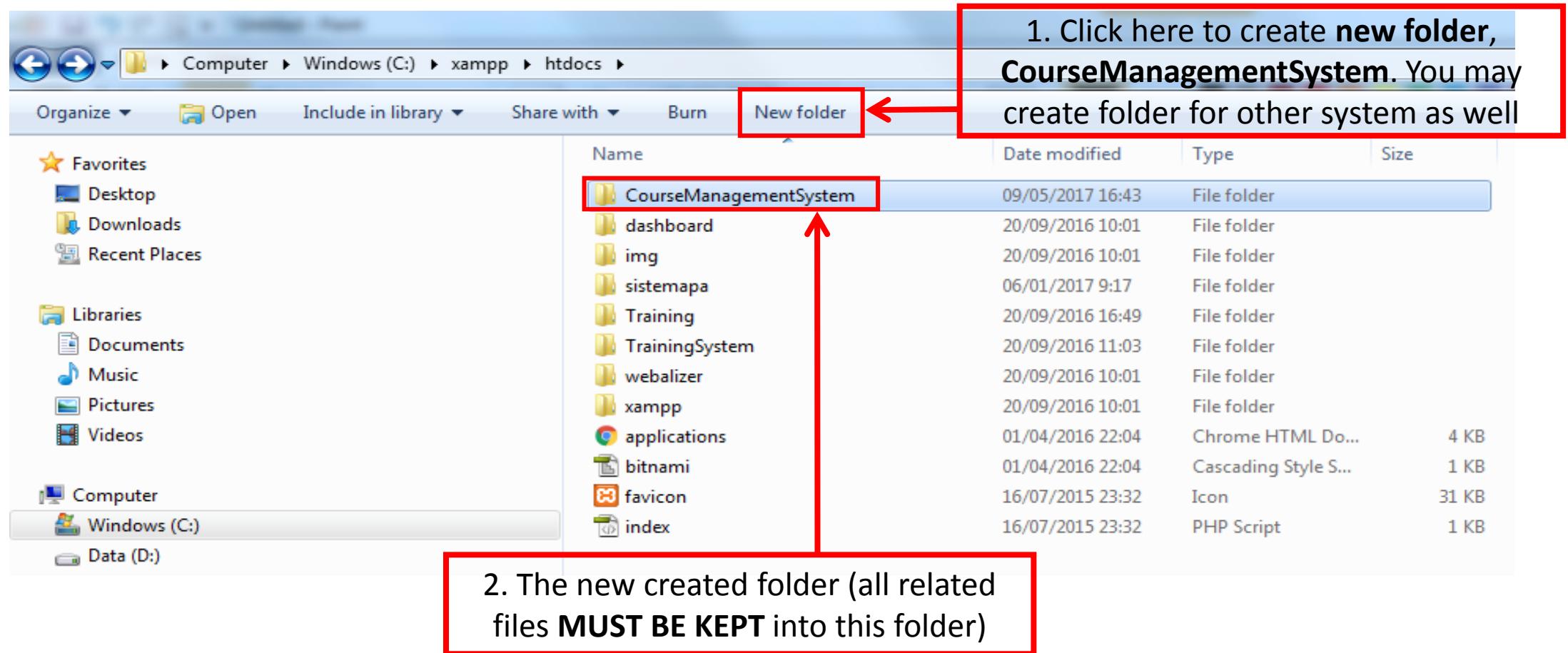
CHECK XAMPP FOLDER



CHECK XAMPP FOLDER (cont..)



CREATE NEW XAMPP FOLDER (cont..)



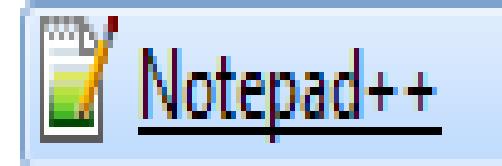
SOFTWARE TO CREATE PHP INTERFACES



1. May use **Adobe Dreamweaver**. Need to install the software. Note: **This powerpoint slides use this software**



2. May use **Notepad ++**. Need to install the software

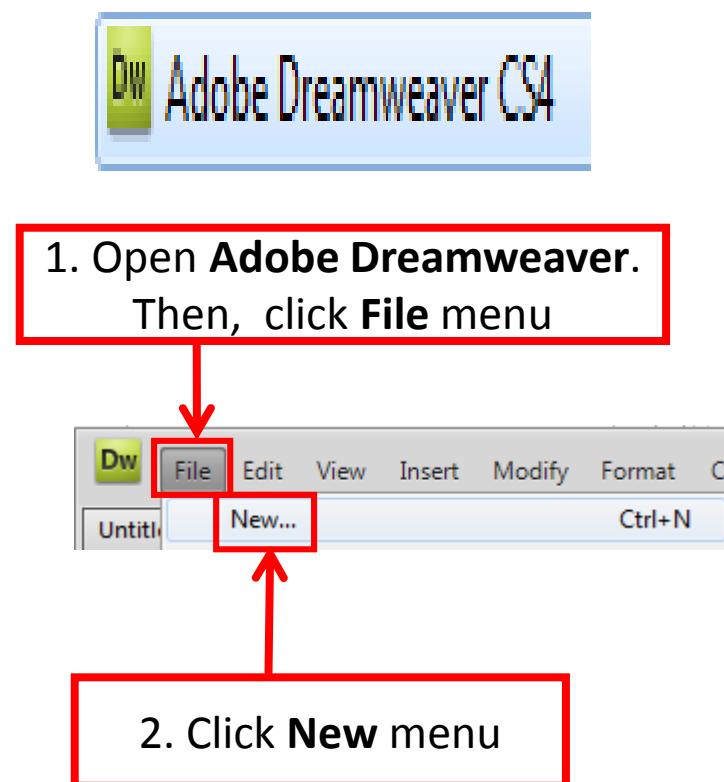


3. May use **Notepad**. Already installed

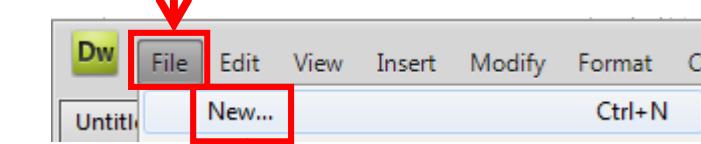


4. May use other interface design tools

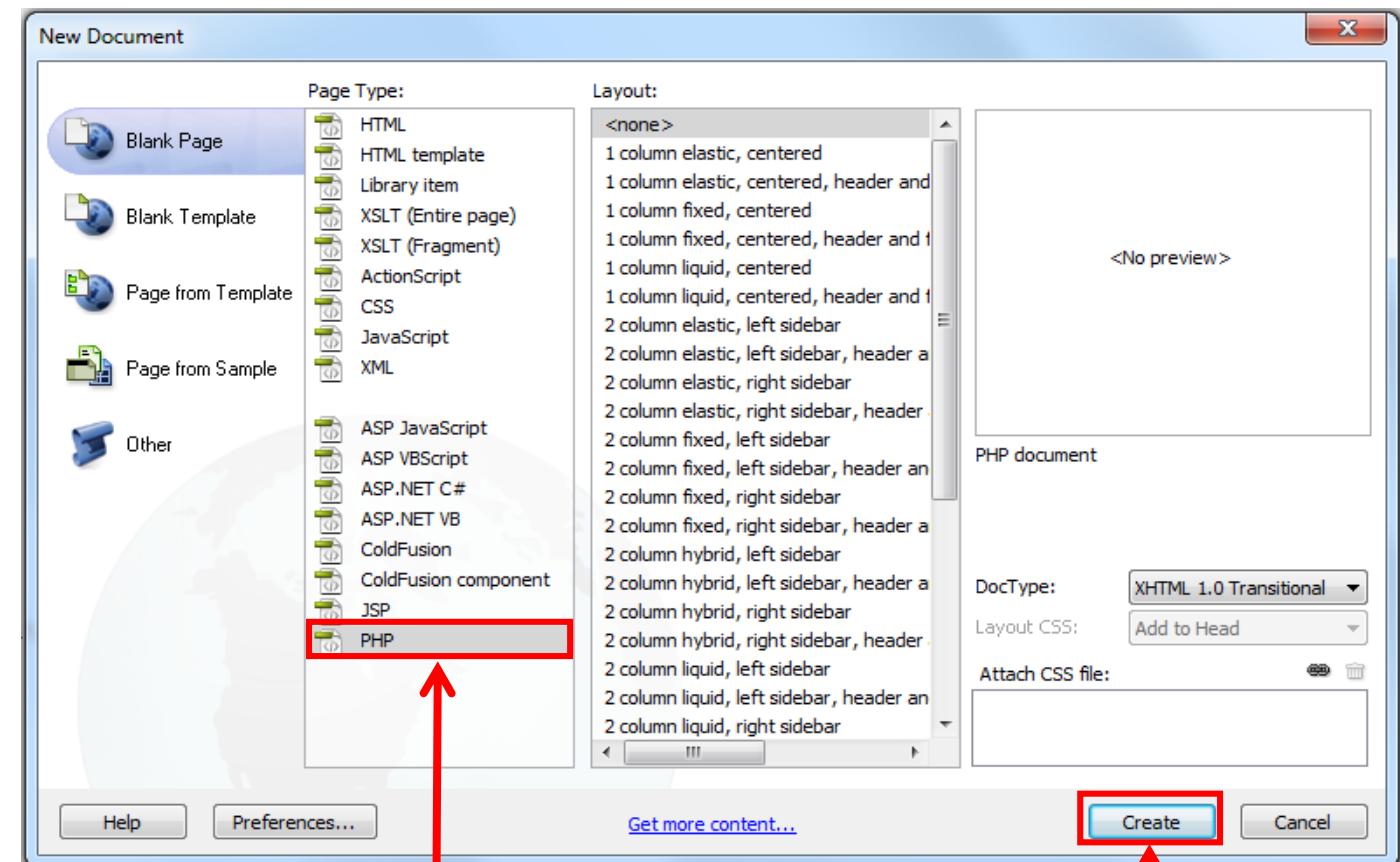
INSERT DATA THROUGH PHP INTERFACE (cont..)



1. Open Adobe Dreamweaver.
Then, click **File** menu



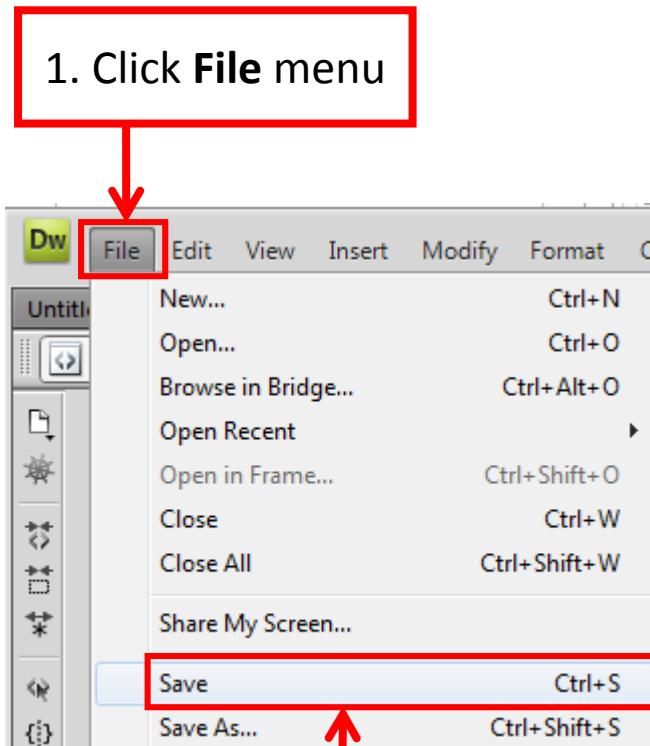
2. Click **New** menu



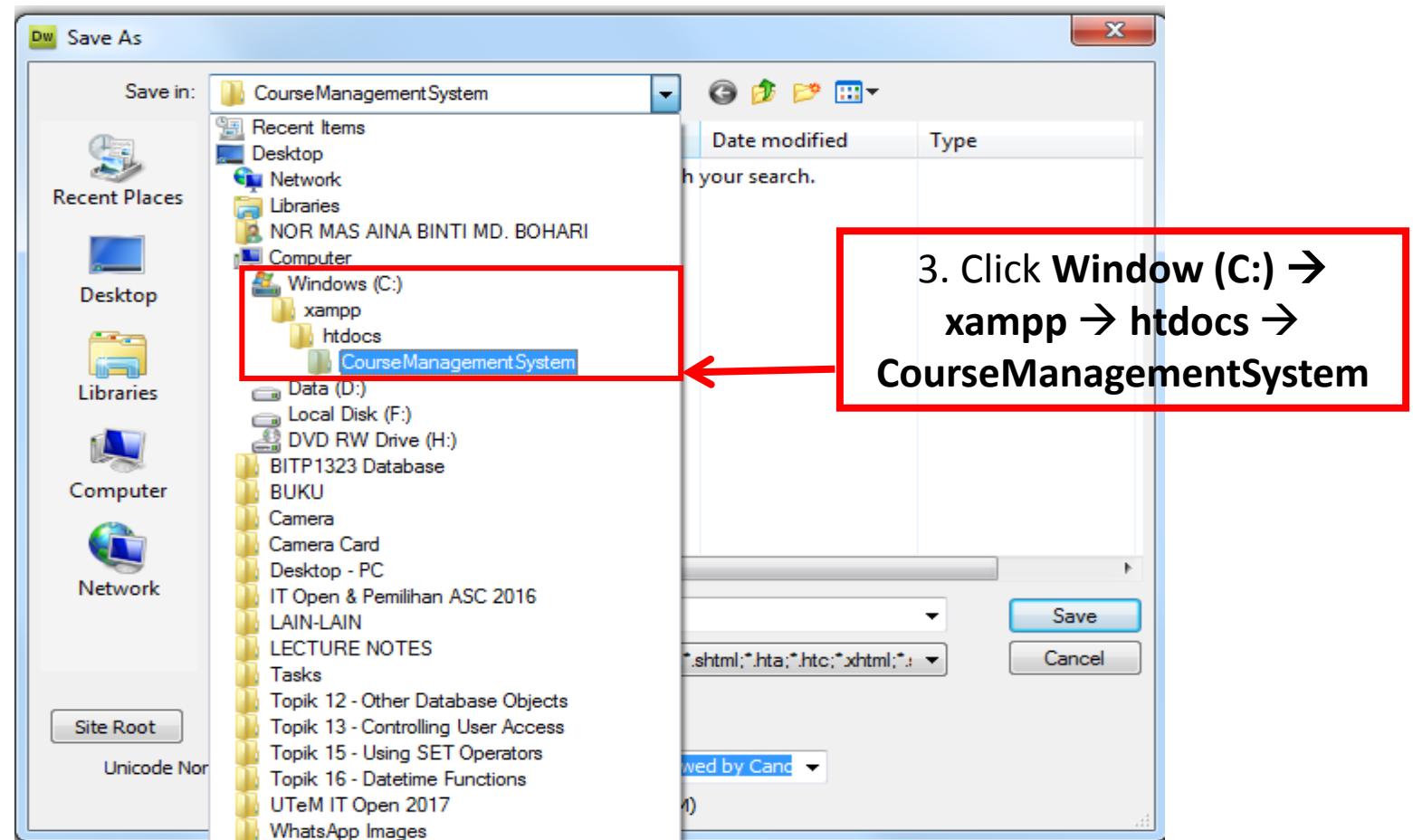
3. Make sure the selected
Page Type is **PHP**

4. Click **Create** button

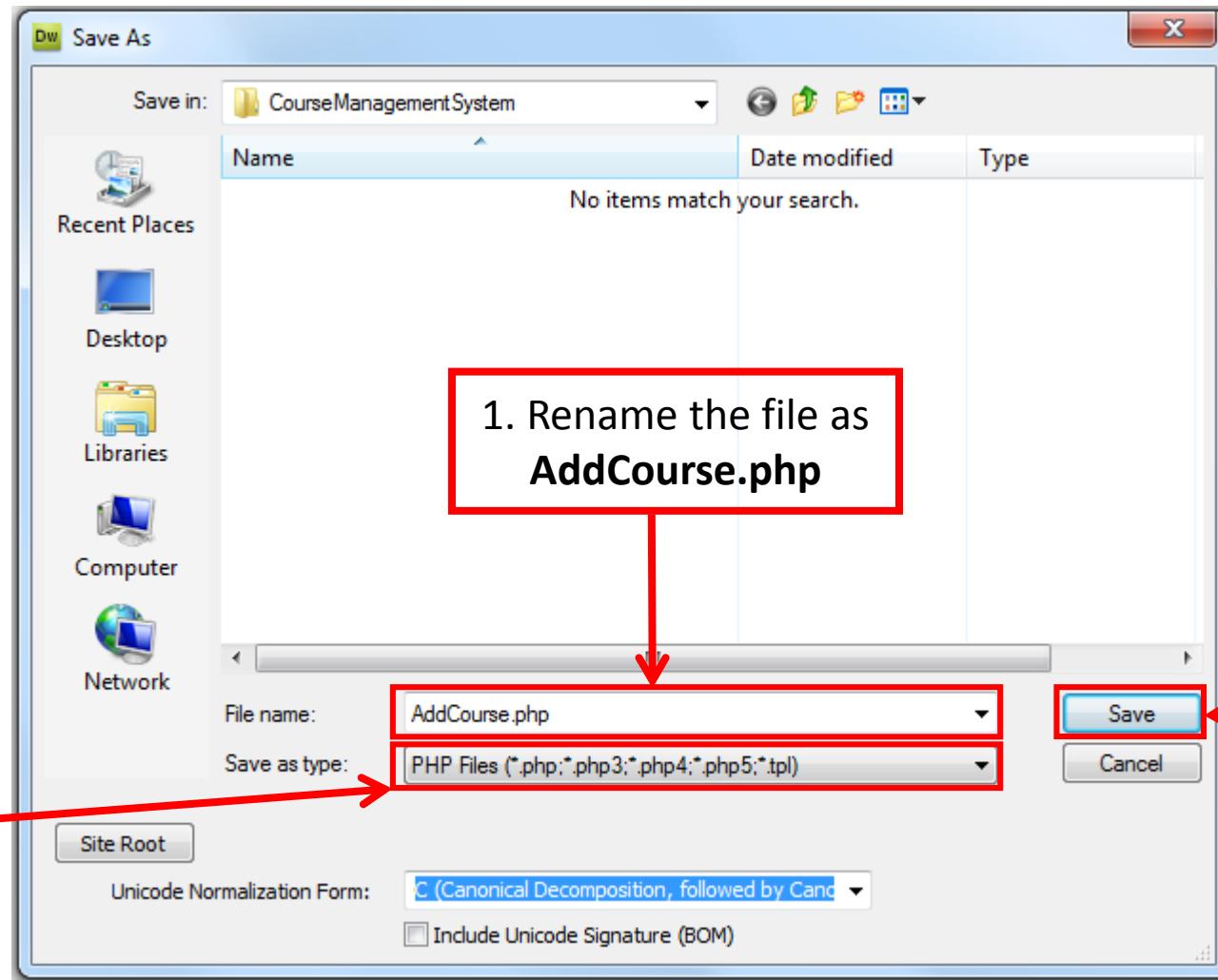
INSERT DATA THROUGH PHP INTERFACE (cont..)



2. Click Save menu

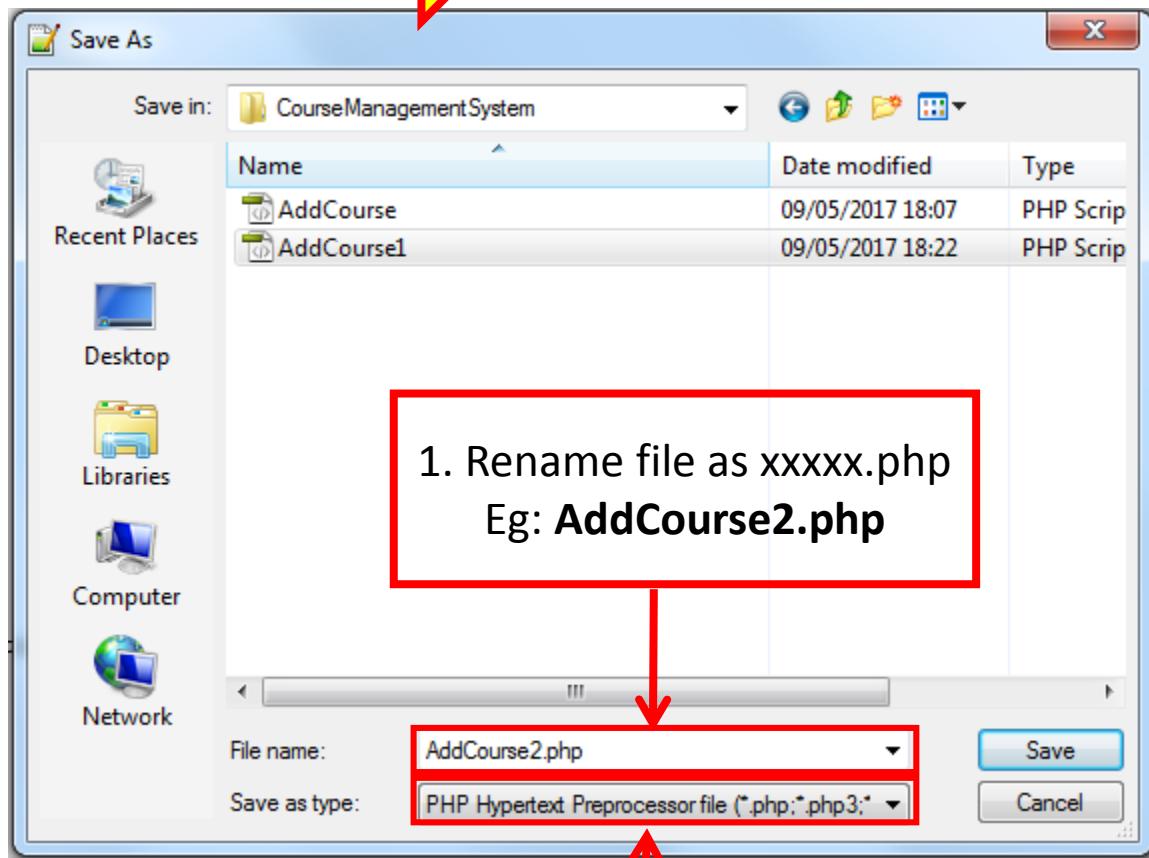


INSERT DATA THROUGH PHP INTERFACE (cont..)

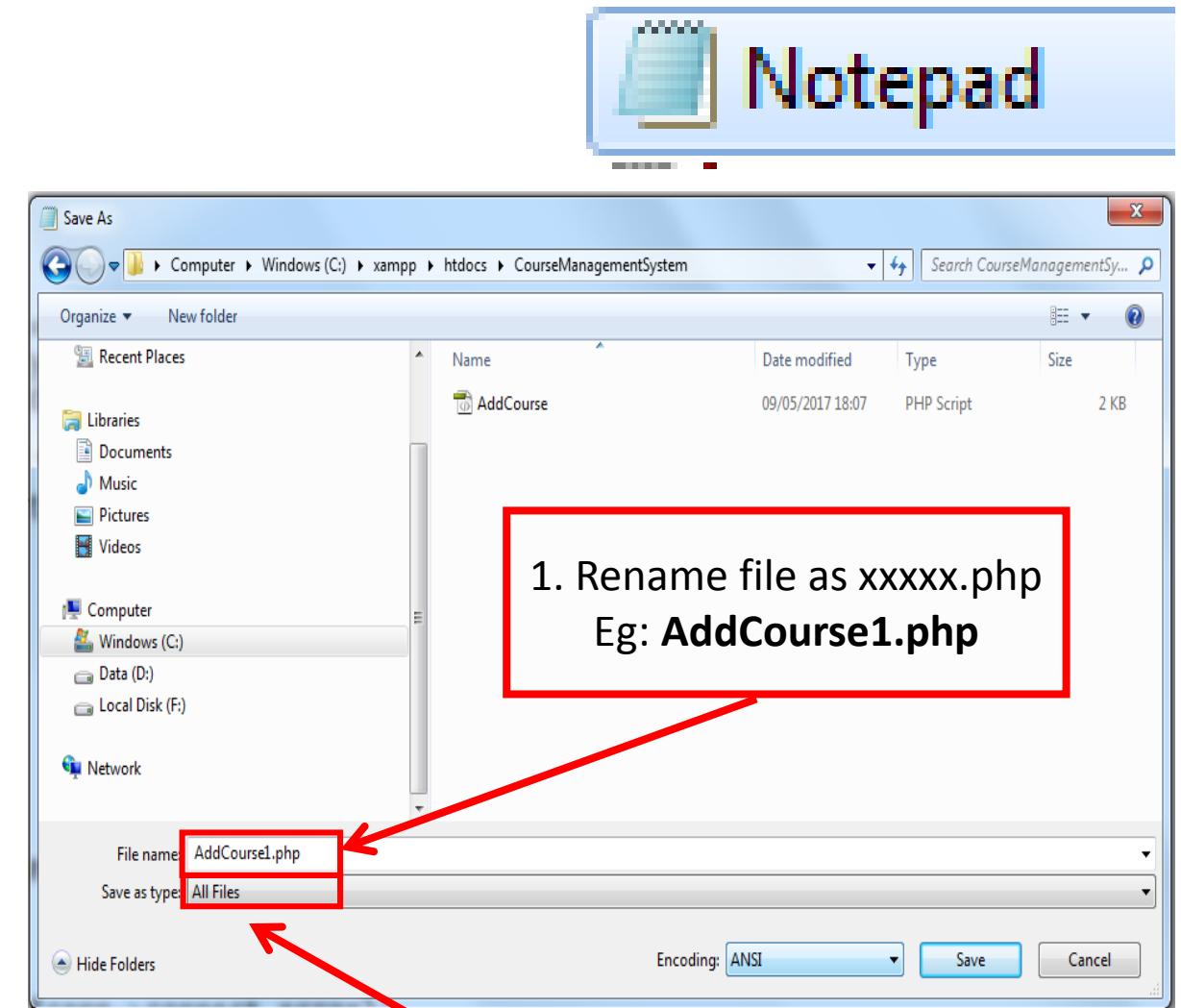


INSERT DATA THROUGH PHP INTERFACE (cont..)

NOTE! Notepad++ or
Notepad users



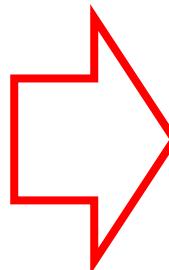
2. Find and select PHP Hypertext Preprocessor file



2. Find and select All Files

INSERT DATA THROUGH PHP INTERFACE (cont..)

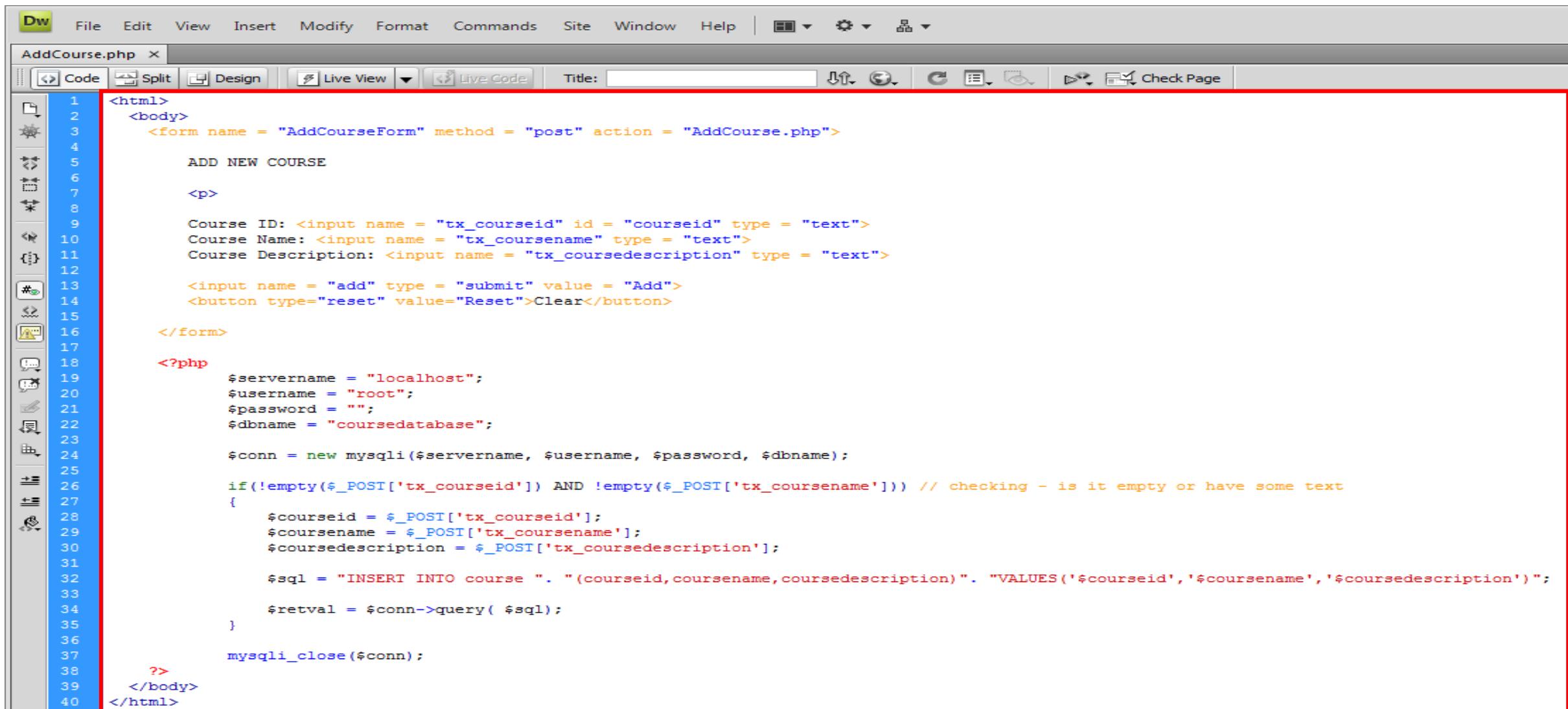
```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
<title>Untitled Document</title>
</head>
<body>
</body>
</html>
```



1. Delete these codes

The design view shows a blank white page with a vertical blue sidebar on the left containing icons for file operations, code, split view, design, live view, and other tools.

INSERT DATA THROUGH PHP INTERFACE (cont..)



```
<?php
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "coursedatabase";

$conn = new mysqli($servername, $username, $password, $dbname);

if(!empty($_POST['tx_courseid']) AND !empty($_POST['tx_coursename'])) // checking - is it empty or have some text
{
    $courseid = $_POST['tx_courseid'];
    $coursename = $_POST['tx_coursename'];
    $coursedescription = $_POST['tx_coursedescription'];

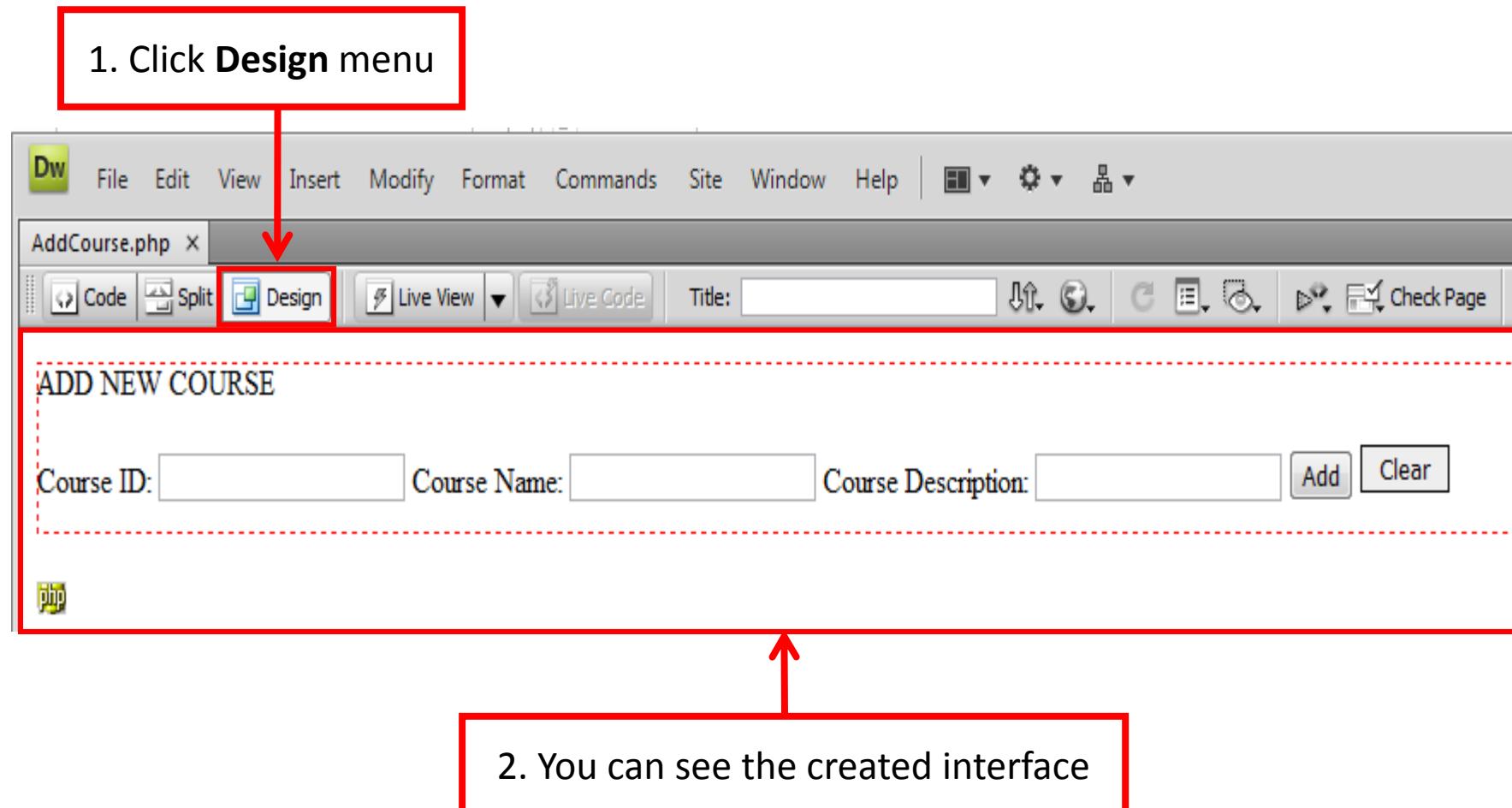
    $sql = "INSERT INTO course ". "(courseid,coursename,coursedescription)". "VALUES('$courseid','$coursename','$coursedescription')";

    $retval = $conn->query( $sql);
}

mysqli_close($conn);
?>
</body>
</html>
```

Type these codes

INSERT DATA THROUGH PHP INTERFACE (cont..)



INSERT DATA THROUGH PHP INTERFACE (cont..)

1. Open any **web browser**, eg: Google Crome. Then, type the following **URL**

The screenshot shows a web browser window with the address bar containing "localhost / 127.0.0.1 / co" and the tab title "localhost/coursemanage". Below the address bar, the URL "localhost/coursemanagementsystem/AddCourse.php" is highlighted with a red box and a red arrow pointing from the "URL" step above. The main content area displays the heading "ADD NEW COURSE" and three input fields: "Course ID:", "Course Name:", and "Course Description:". To the right of these fields are two buttons: "Add" and "Clear".

2. You can see the created interface

3. Enter the Course ID, Course Name and Course Description

The screenshot shows the same web browser window after data has been entered. The URL "localhost/coursemanagementsystem/AddCourse.php" is still visible in the address bar. The main content area now shows the entered data: "Course ID: BITP2313", "Course Name: Database Design", and "Course Description: Database Design is fun". The "Add" button is highlighted with a red box and a red arrow pointing from the "Add" step above.

3. Click **Add** button. The data will be inserted into database

INSERT DATA THROUGH PHP INTERFACE (cont..)

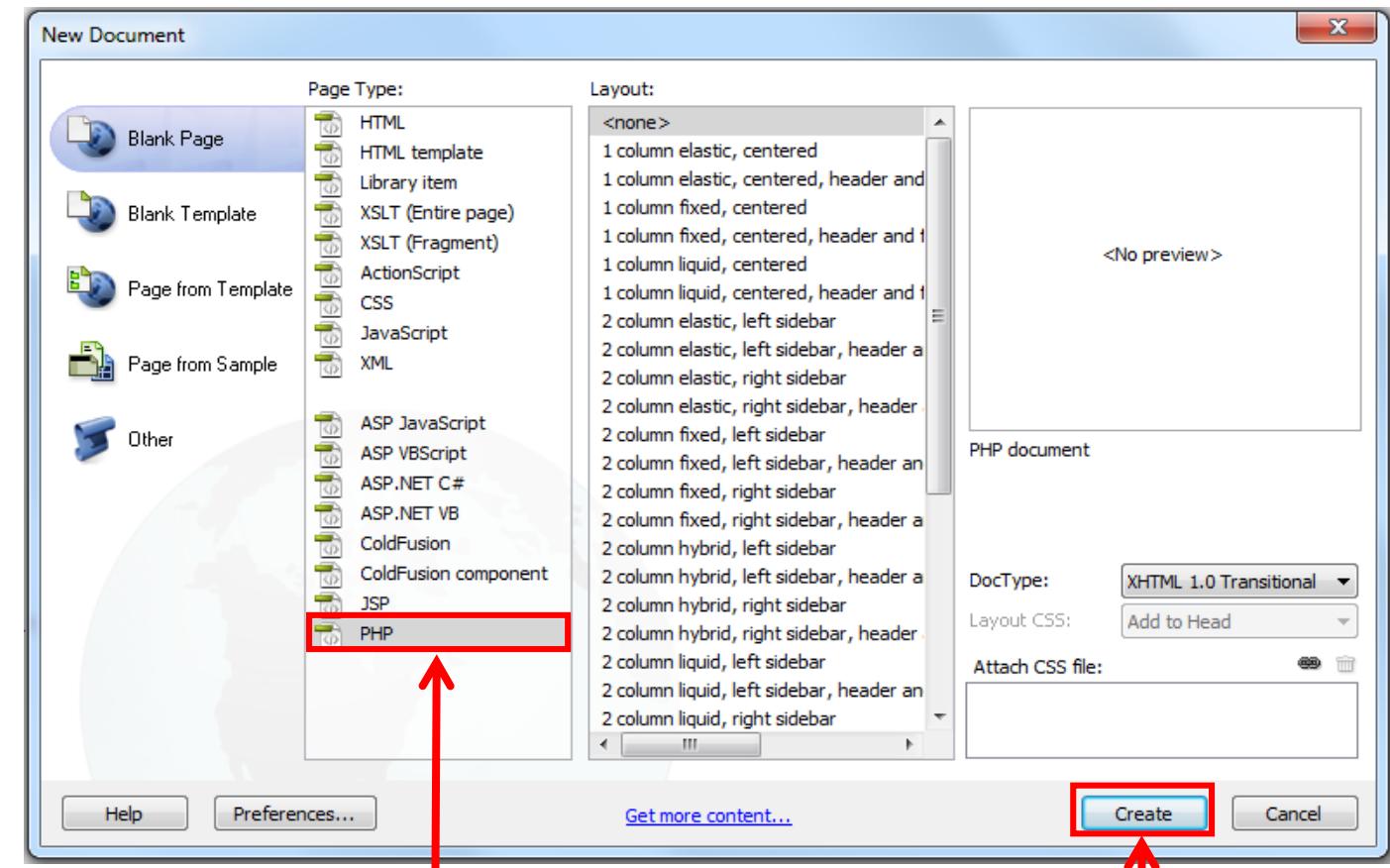
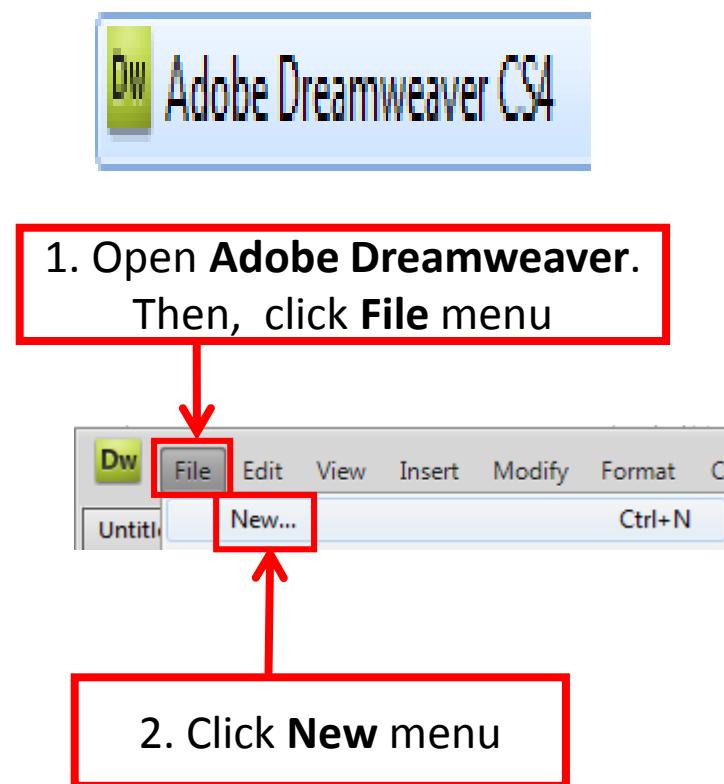
1. Open **phpMyAdmin** and
then click **coursedatabase**
→ **course** table

2. You can see the data is
inserted into **course** table

The screenshot shows the phpMyAdmin interface. In the left sidebar, under the 'coursedatabase' database, the 'course' table is selected and highlighted with a red box. The main panel displays the results of a SELECT query: 'Showing rows 0 - 1 (2 total, Query took 0.0000 seconds.)'. The results grid shows one row with CourseID 1, CourseName 'BITP2313', and CourseDescription 'Database Design Database Design is fun'. This row is also highlighted with a red box. At the bottom of the results grid, there are edit, copy, and delete buttons for the current row.

CourseID	CourseName	CourseDescription
1	BITP2313	Database Design Database Design is fun

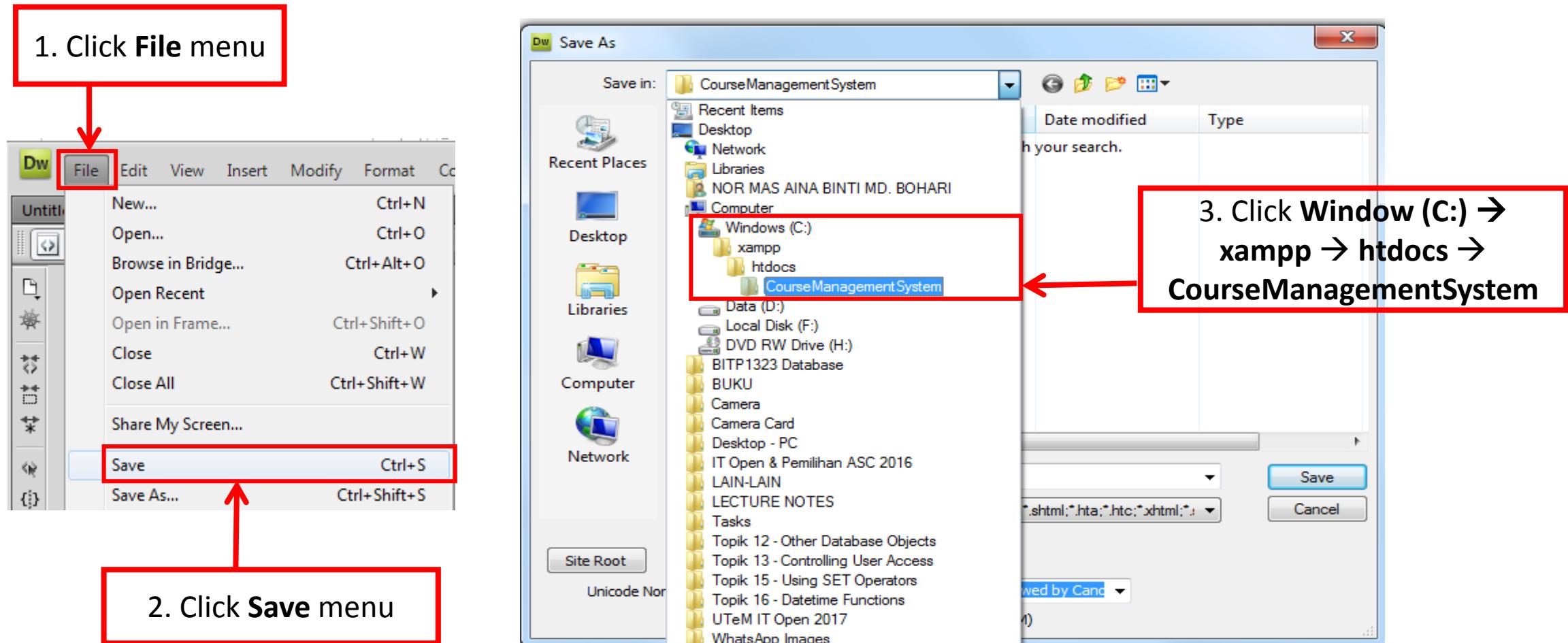
LIST ALL DATA THROUGH PHP INTERFACE (cont..)



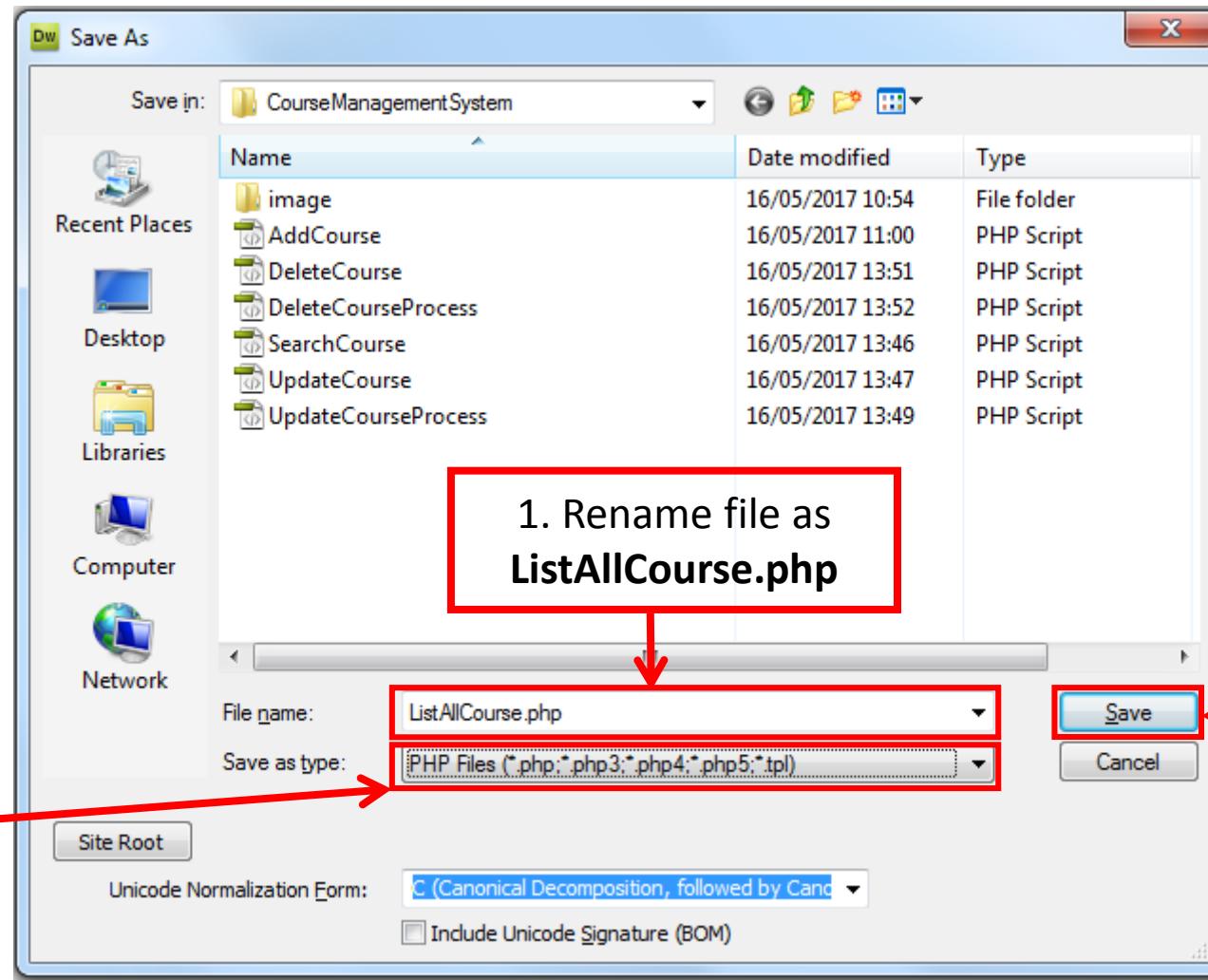
3. Make sure the selected
Page Type is **PHP**

4. Click **Create** button

LIST ALL DATA THROUGH PHP INTERFACE (cont..)



LIST ALL DATA THROUGH PHP INTERFACE (cont..)

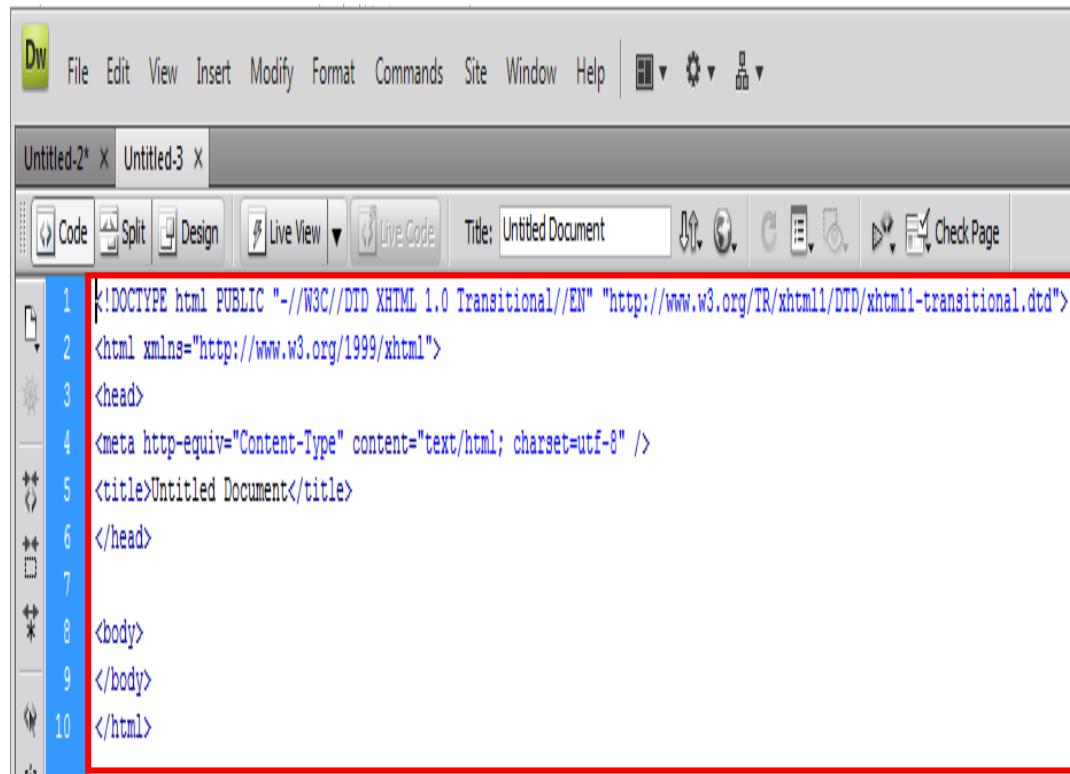


2. Find and select
PHP Files

1. Rename file as
ListAllCourse.php

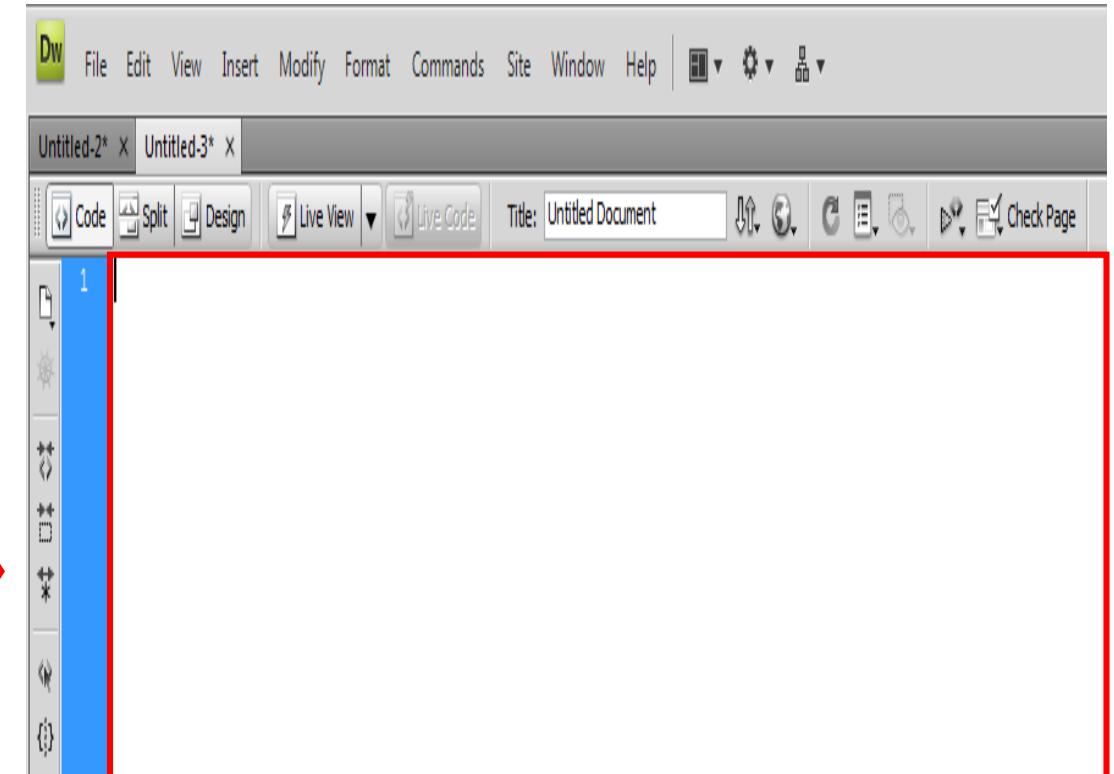
3. Click **Save** button

LIST ALL DATA THROUGH PHP INTERFACE (cont..)



```
1 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
2 <html xmlns="http://www.w3.org/1999/xhtml">
3 <head>
4 <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
5 <title>Untitled Document</title>
6 </head>
7
8 <body>
9 </body>
10 </html>
```

1. Delete these codes



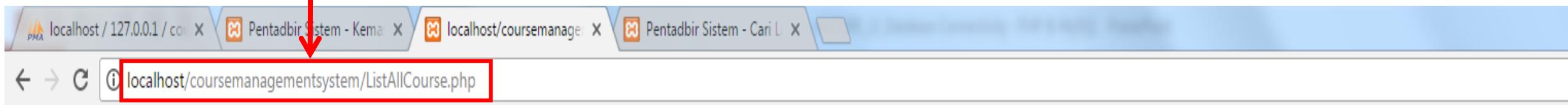
LIST ALL DATA THROUGH PHP INTERFACE (cont..)

```
1 <html>
2   <body>
3     ALL COURSES
4     <p>
5     <?php
6       $servername = "localhost";
7       $username = "root";
8       $password = "";
9       $dbname = "coursedatabase";
10
11       $conn = new mysqli($servername, $username, $password, $dbname);
12
13       if ($conn->connect_error)
14       {
15         die("Connection failed: " . $conn->connect_error);
16       }
17
18       $sql = "SELECT      courseid,coursename,coursedescription
19             FROM        Course
20             ORDER BY    CourseName ASC";
21
22       $retval = $conn->query( $sql );
23
24       ?>
25       <table width = "1500" border = "1" bgcolor="#CCCCCC">
26         <tr>
27           <td width = "100" align="center"><?php echo "Course ID"?></font></td>
28           <td width = "350" align="center"><?php echo "Course Name"?></td>
29           <td width = "450" align="center"><?php echo "Course Description"?></td>
30           <td width = "127" align="center"><?php echo "Action"?></td>
31         </tr>
32       </table>
33
34       <?php
35       $retval = $conn->query( $sql );
36
37       while($row = $retval->fetch_assoc())
38       {
39
40         <table width = "1500" border = "1">
41           <tr>
42             <td width = "100"><?php echo "{$row['courseid']}?></td>
43             <td width = "350"><?php echo "{$row['coursename']}?></td>
44             <td width = "450"><?php echo "{$row['coursedescription']}?></td>
45             <td width = "60"><a href="UpdateCourse.php?courseid=<?=$row['courseid'];?>">UPDATE</a></td>
46             <td width = "60"><a href="DeleteCourse.php?courseid=<?=$row['courseid'];?>">DELETE</a></td>
47           </tr>
48         </table>
49
50       }
51
52       mysqli_close($conn);
53     ?>
54   </body>
55 </html>
```

Type these codes

LIST ALL DATA THROUGH PHP INTERFACE (cont..)

1. Open any **web browser**, eg: Google Crome. Then, type the following **URL**

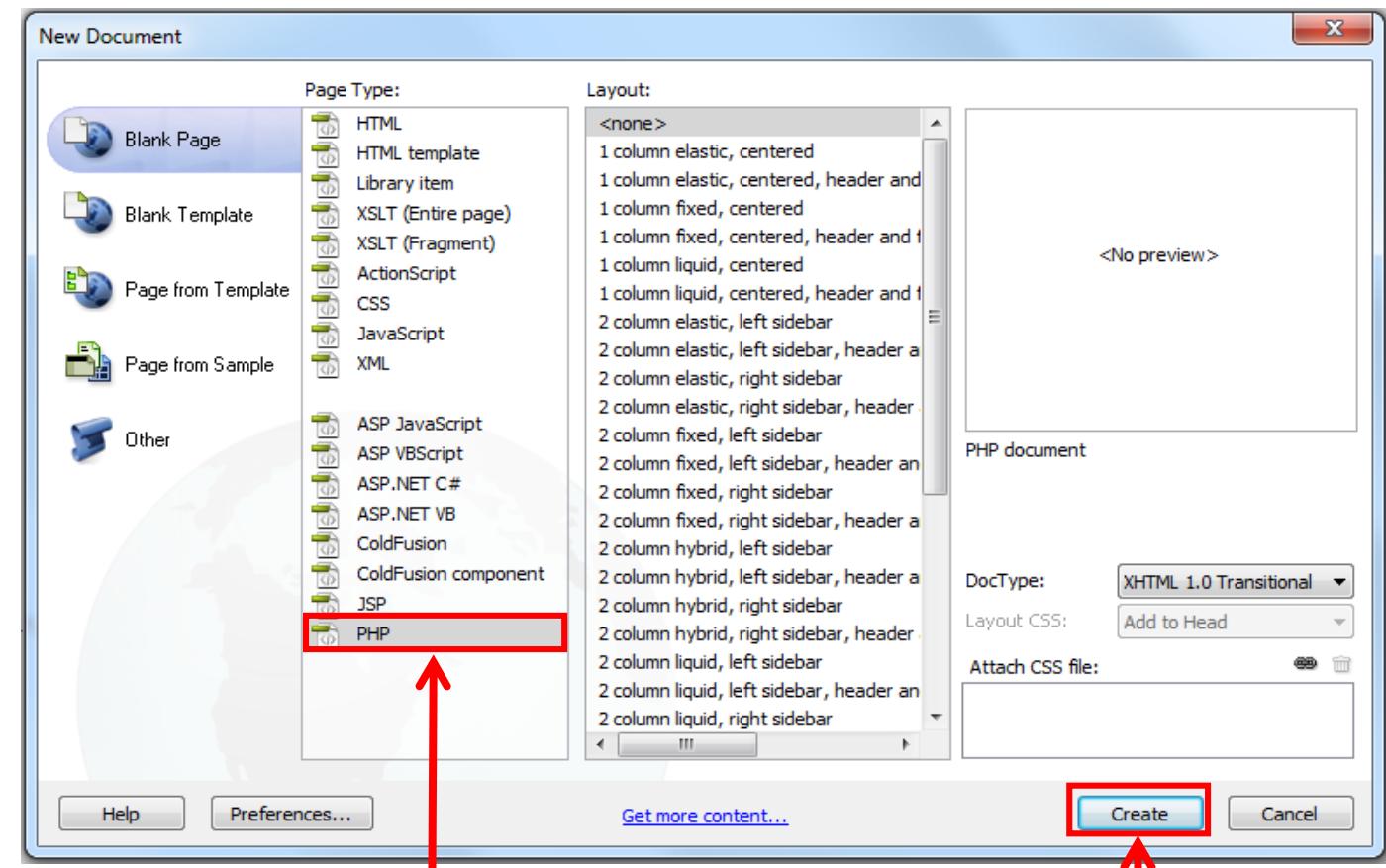
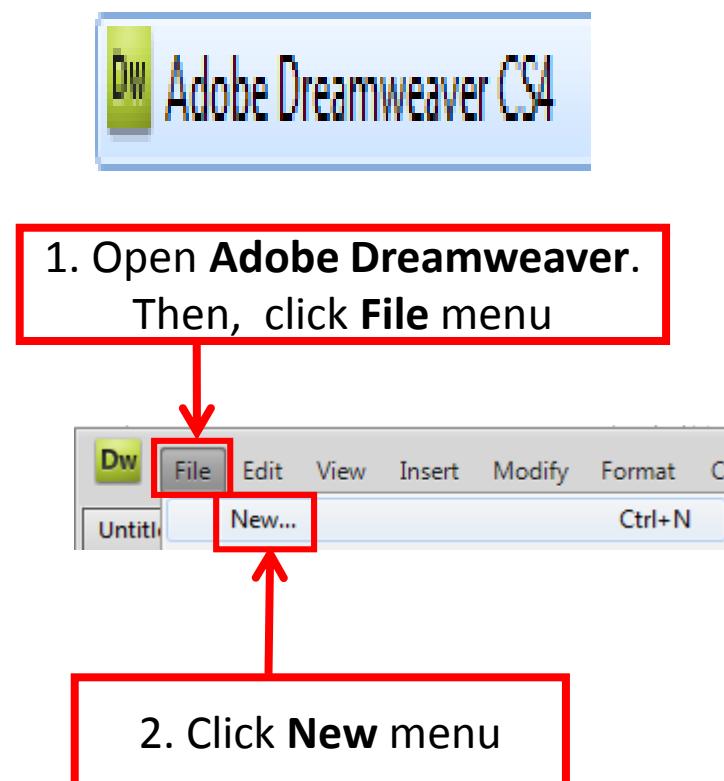


ALL COURSES

Course ID	Course Name	Course Description	Action
BITP1323	Database	Database is fun	UPDATE DELETE
BITP2313	Database Design	Database Design is fun	UPDATE DELETE
BITP1333	Programming Technique	C++ is fun	UPDATE DELETE

2. You can see the listed data

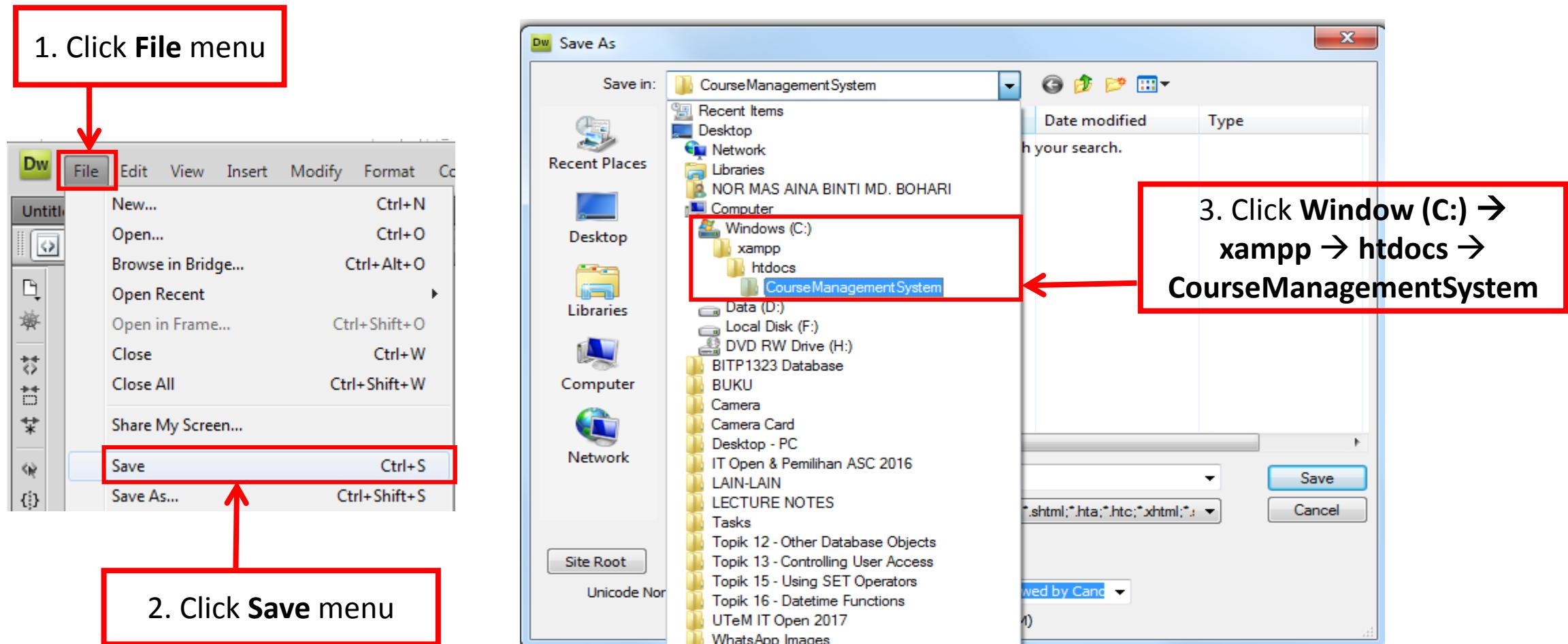
SEARCH DATA THROUGH PHP INTERFACE (cont..)



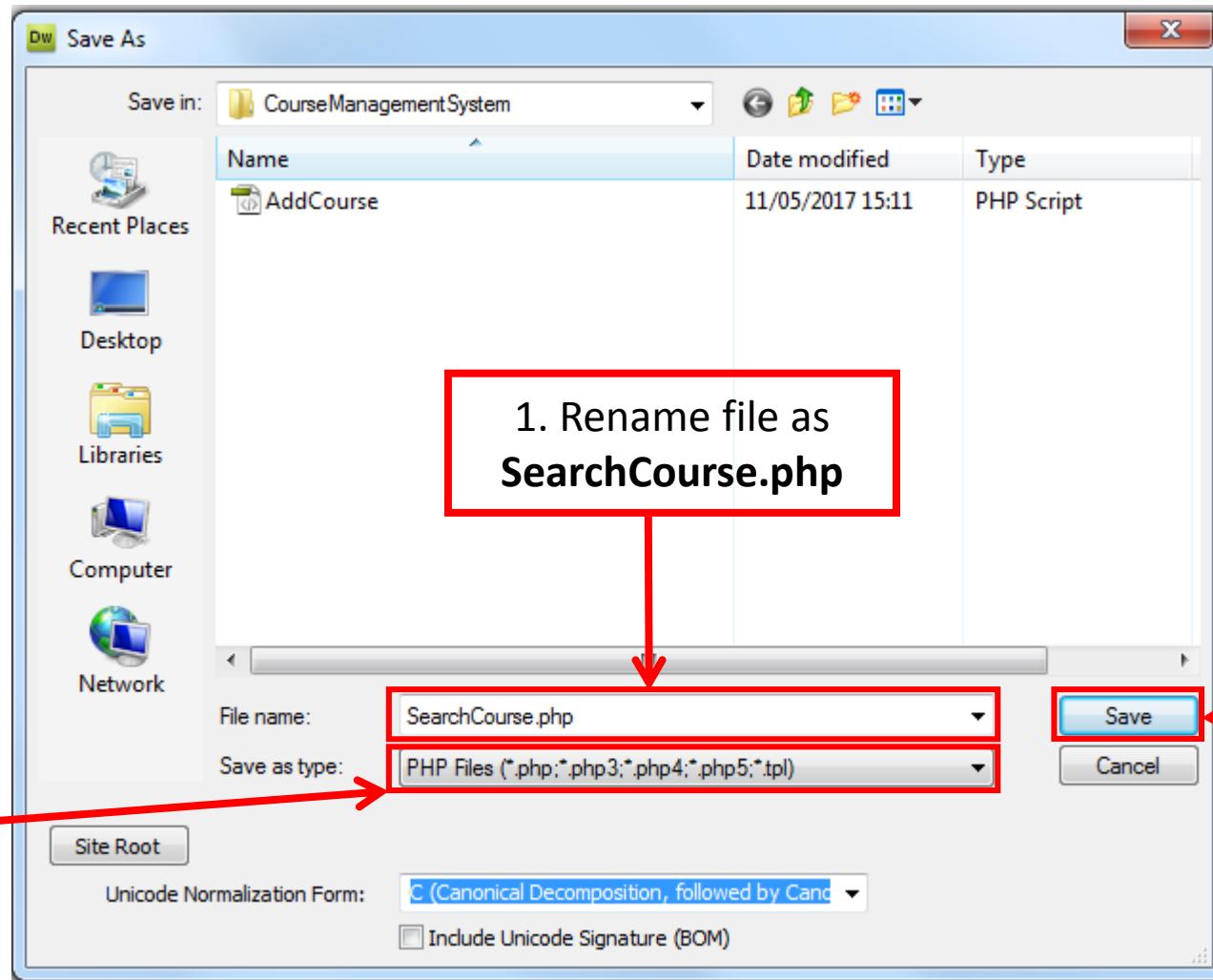
3. Make sure the selected
Page Type is **PHP**

4. Click **Create** button

SEARCH DATA THROUGH PHP INTERFACE (cont..)



SEARCH DATA THROUGH PHP INTERFACE (cont..)

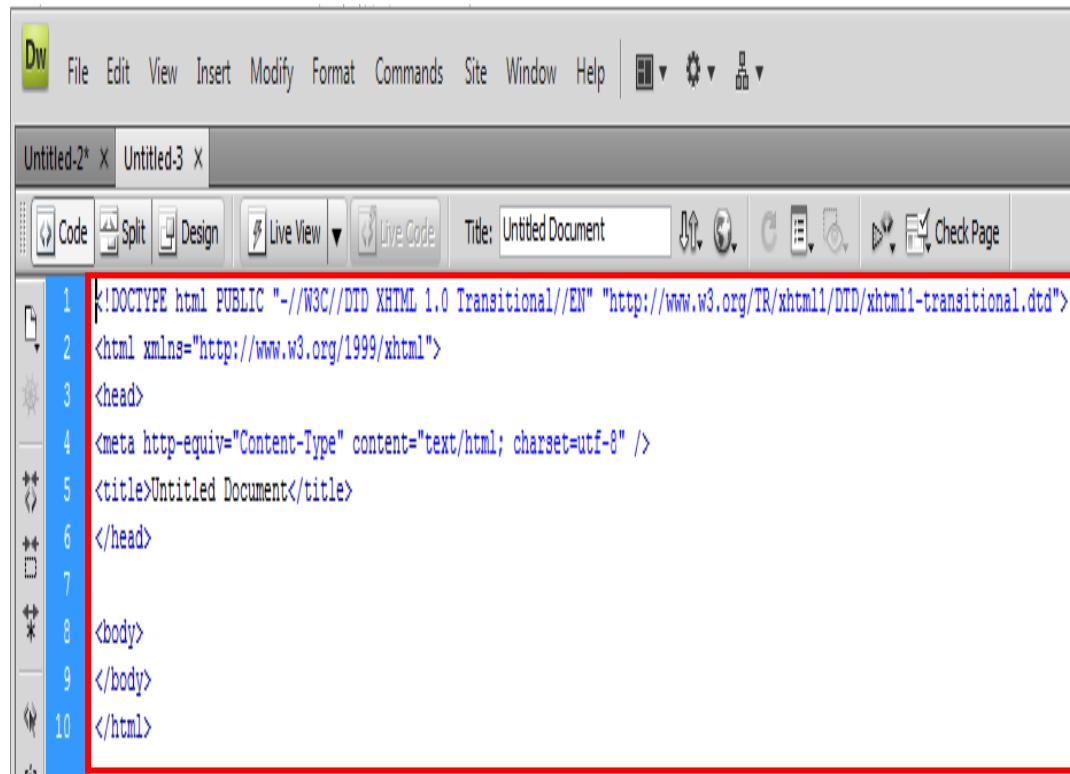


2. Find and select
PHP Files

1. Rename file as
SearchCourse.php

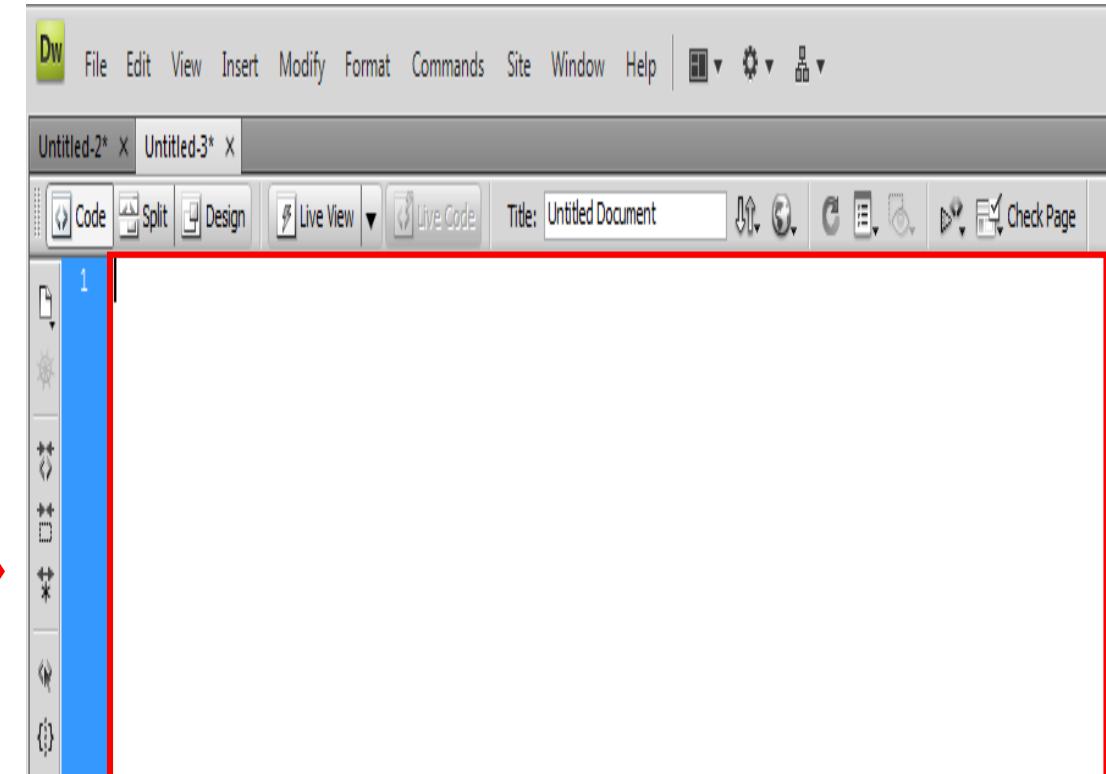
3. Click **Save** button

SEARCH DATA THROUGH PHP INTERFACE (cont..)

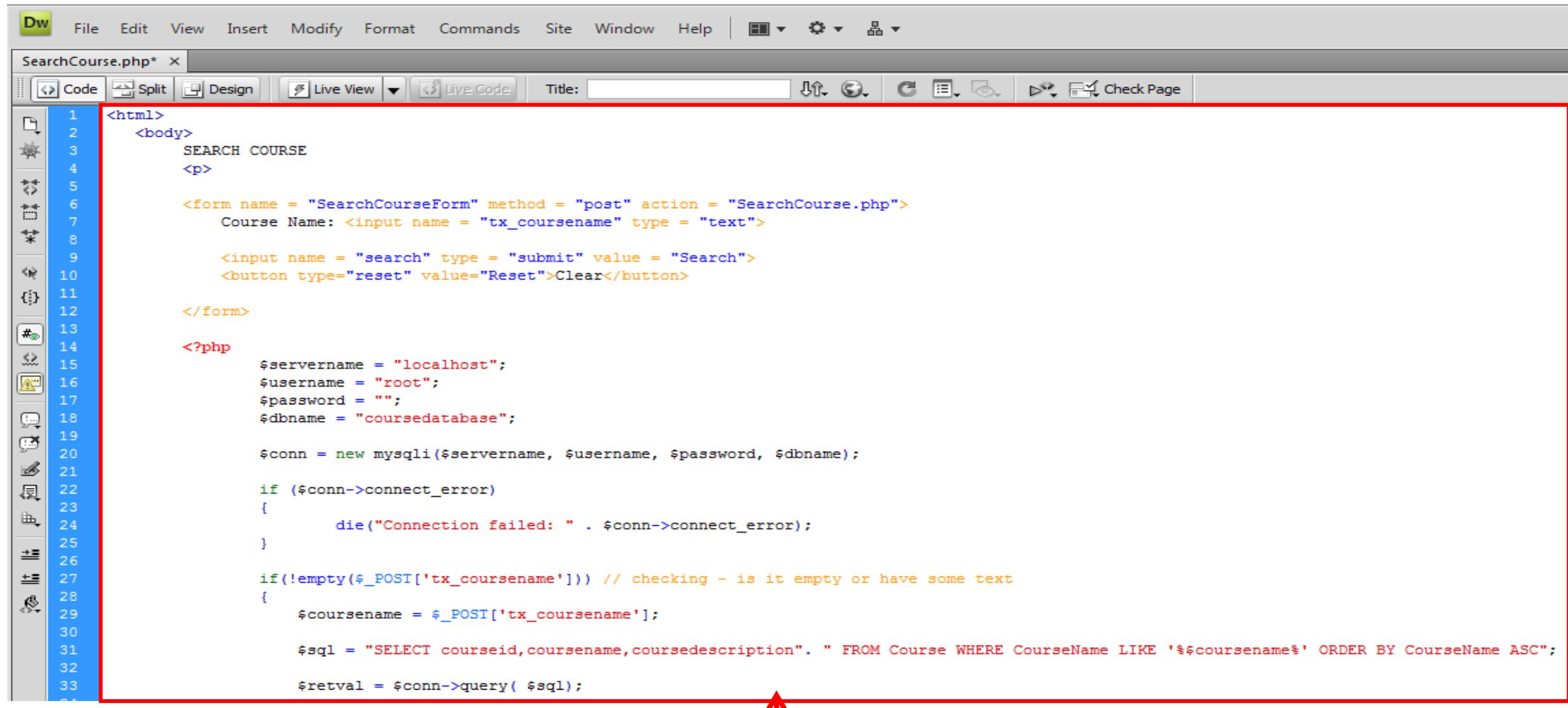


```
1 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
2 <html xmlns="http://www.w3.org/1999/xhtml">
3 <head>
4 <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
5 <title>Untitled Document</title>
6 </head>
7
8 <body>
9 </body>
10 </html>
```

1. Delete these codes



SEARCH DATA THROUGH PHP INTERFACE (cont..)



The screenshot shows the Adobe Dreamweaver interface with the file 'SearchCourse.php*' open. The code editor displays PHP and HTML code for a search form. A red box highlights the entire code area, and a red arrow points from the bottom right towards the code, indicating where to type the provided code.

```
1 <html>
2     <body>
3         SEARCH COURSE
4         <p>
5
6             <form name = "SearchCourseForm" method = "post" action = "SearchCourse.php">
7                 Course Name: <input name = "tx_coursename" type = "text">
8
9                 <input name = "search" type = "submit" value = "Search">
10                <button type="reset" value="Reset">Clear</button>
11
12            </form>
13
14        <?php
15            $servername = "localhost";
16            $username = "root";
17            $password = "";
18            $dbname = "coursedatabase";
19
20            $conn = new mysqli($servername, $username, $password, $dbname);
21
22            if ($conn->connect_error)
23            {
24                die("Connection failed: " . $conn->connect_error);
25            }
26
27            if(!empty($_POST['tx_coursename'])) // checking - is it empty or have some text
28            {
29                $coursename = $_POST['tx_coursename'];
30
31                $sql = "SELECT courseid,coursename,coursedescription". " FROM Course WHERE CourseName LIKE '%$coursename%' ORDER BY CourseName ASC";
32
33                $retval = $conn->query( $sql);
34
```

Type these codes

SEARCH DATA THROUGH PHP INTERFACE (cont..)

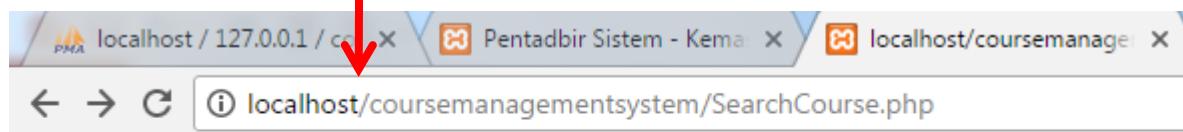
```
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
```

```
if(!empty($retval->fetch_assoc()))
{
    ?>
        <table width = "1500" border = "1" bgcolor="#CCCCCC">
            <tr>
                <td width = "100" align="center"><?php echo "Course ID"?></td>
                <td width = "350" align="center"><?php echo "Course Name"?></td>
                <td width = "450" align="center"><?php echo "Course Description"?></td>
                <td width = "127" align="center"><?php echo "Action"?></td>
            </tr>
        </table>
    <?php
        $retval = $conn->query( $sql );
        while($row = $retval->fetch_assoc())
        {
            ?>
                <table width = "1500" border = "1">
                    <tr>
                        <td width = "100"><?php echo "{$row['courseid']}?></td>
                        <td width = "350"><?php echo "{$row['coursename']}?></td>
                        <td width = "450"><?php echo "{$row['coursedescription']}?></td>
                        <td width = "60"><a href="UpdateCourse.php?courseid=<?= $row['courseid']; ?>">UPDATE</a></td>
                        <td width = "60"><a href="DeleteCourse.php?courseid=<?= $row['courseid']; ?>">DELETE</a></td>
                    </tr>
                </table>
            <?php
                }
            }
        else
        {
            ?>
                <center><font size = "5" color = "red" ><?php echo "No related data"; ?></font></center>
            <?php
                }
            }
        else if(isset($_POST['search']))
        {
            ?>
                <center><font size = "5" color = "red" ><?php echo "Please enter course name"; ?></font></center>
            <?php
                }
        mysqli_close($conn);
    ?>
</body>
</html>
```

Type these codes (cont..)

SEARCH DATA THROUGH PHP INTERFACE (cont..)

1. Open any **web browser**, eg: Google Crome. Then, type the following **URL**



SEARCH COURSE

Course Name:

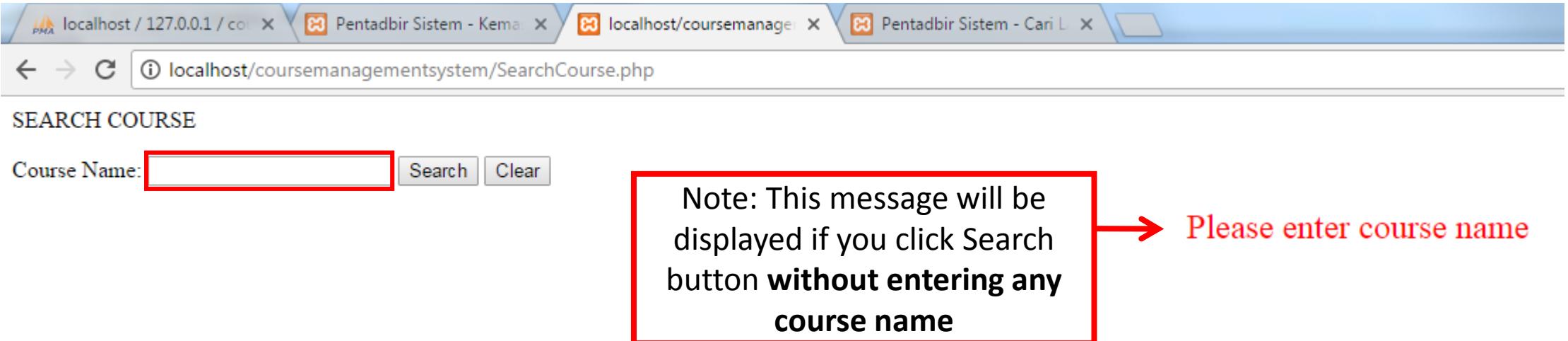
2. You can see the created interface

3. Enter course name and then click **Search button**

A screenshot of a web browser window showing the search results. The URL bar shows 'localhost / 127.0.0.1 / coursemanagementsystem / SearchCourse.php'. The page title is 'Pentadbir Sistem - Kema'. The main content area is titled 'SEARCH COURSE'. A red box highlights the 'Course Name' input field containing 'Tech' and the 'Search' button. Below the search form is a table with the following data:

Course ID	Course Name	Course Description	Action
BITP1333	Programming Technique	C++ is fun	UPDATE DELETE

SEARCH DATA THROUGH PHP INTERFACE (cont..)



localhost / 127.0.0.1 / col X Pentadbir Sistem - Kema X localhost/coursemanager X Pentadbir Sistem - Cari L X

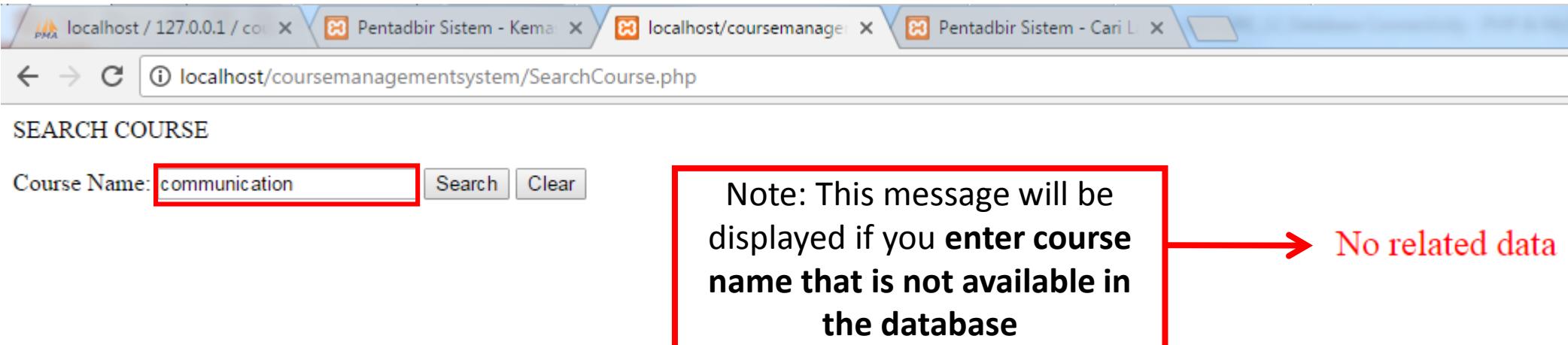
localhost/coursemanagementsystem/SearchCourse.php

SEARCH COURSE

Course Name: Search Clear

Note: This message will be displayed if you click Search button **without entering any course name**

Please enter course name



localhost / 127.0.0.1 / col X Pentadbir Sistem - Kema X localhost/coursemanager X Pentadbir Sistem - Cari L X

localhost/coursemanagementsystem/SearchCourse.php

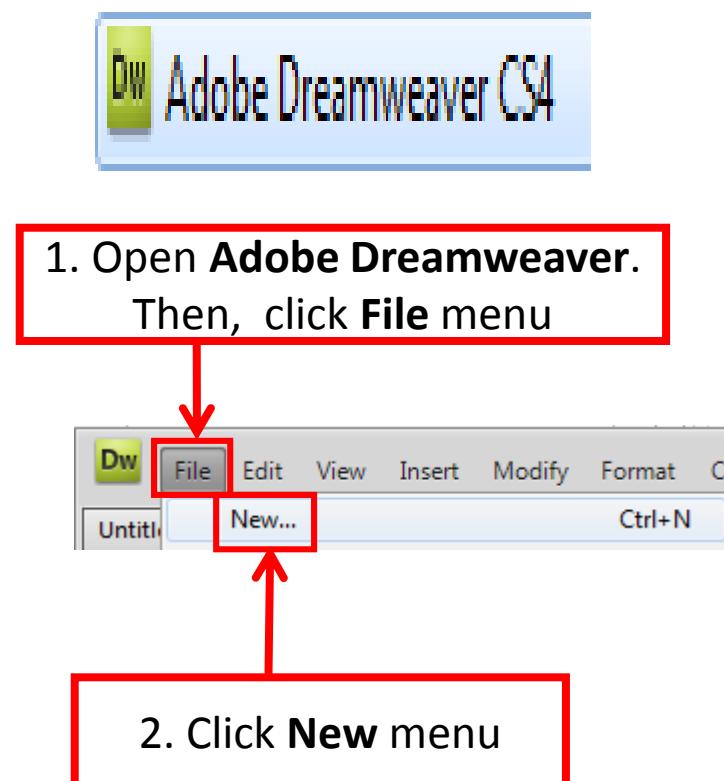
SEARCH COURSE

Course Name: Search Clear

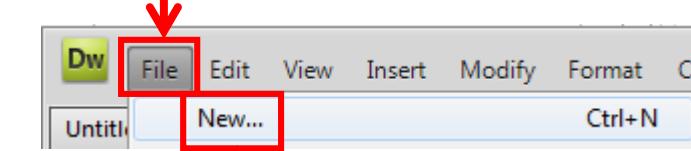
Note: This message will be displayed if you **enter course name that is not available in the database**

No related data

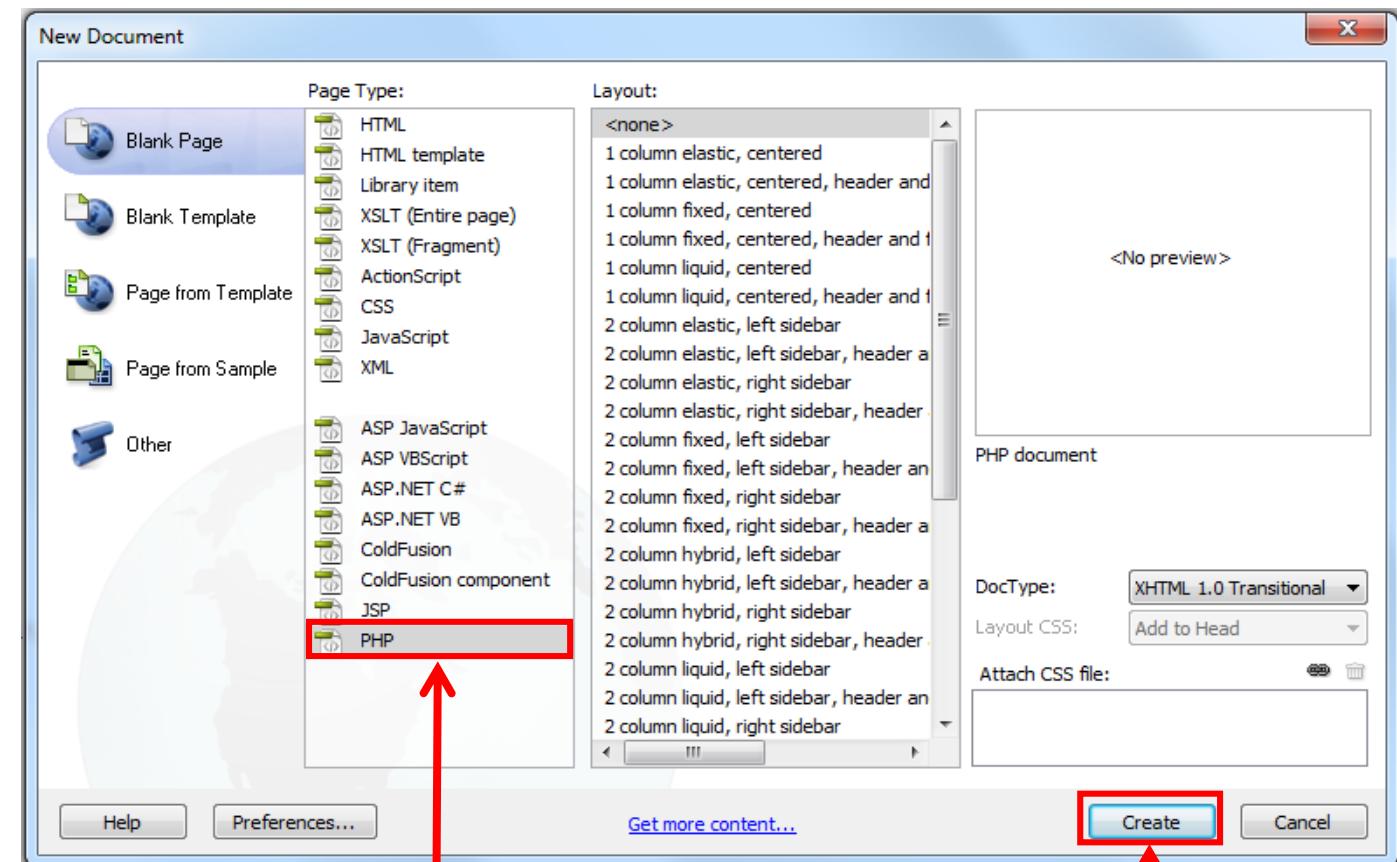
UPDATE DATA THROUGH PHP INTERFACE (cont..)



1. Open Adobe Dreamweaver.
Then, click **File** menu



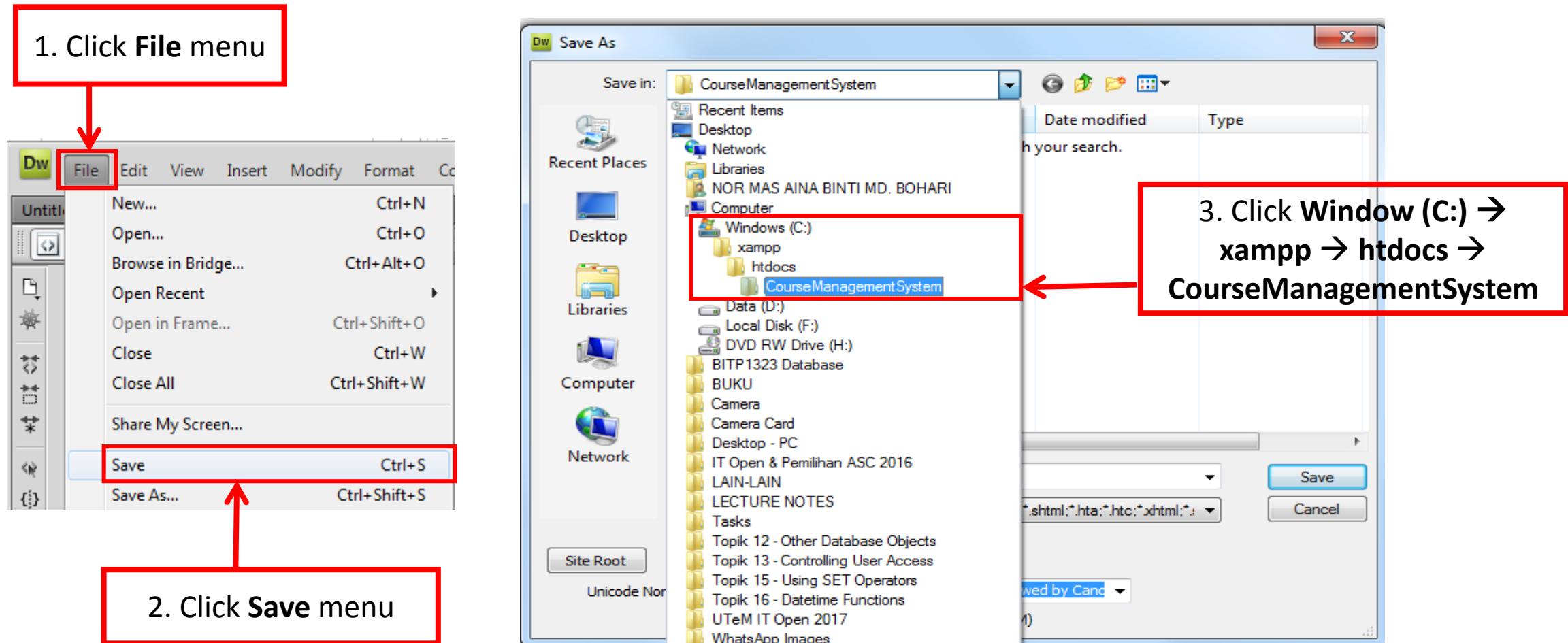
2. Click **New** menu



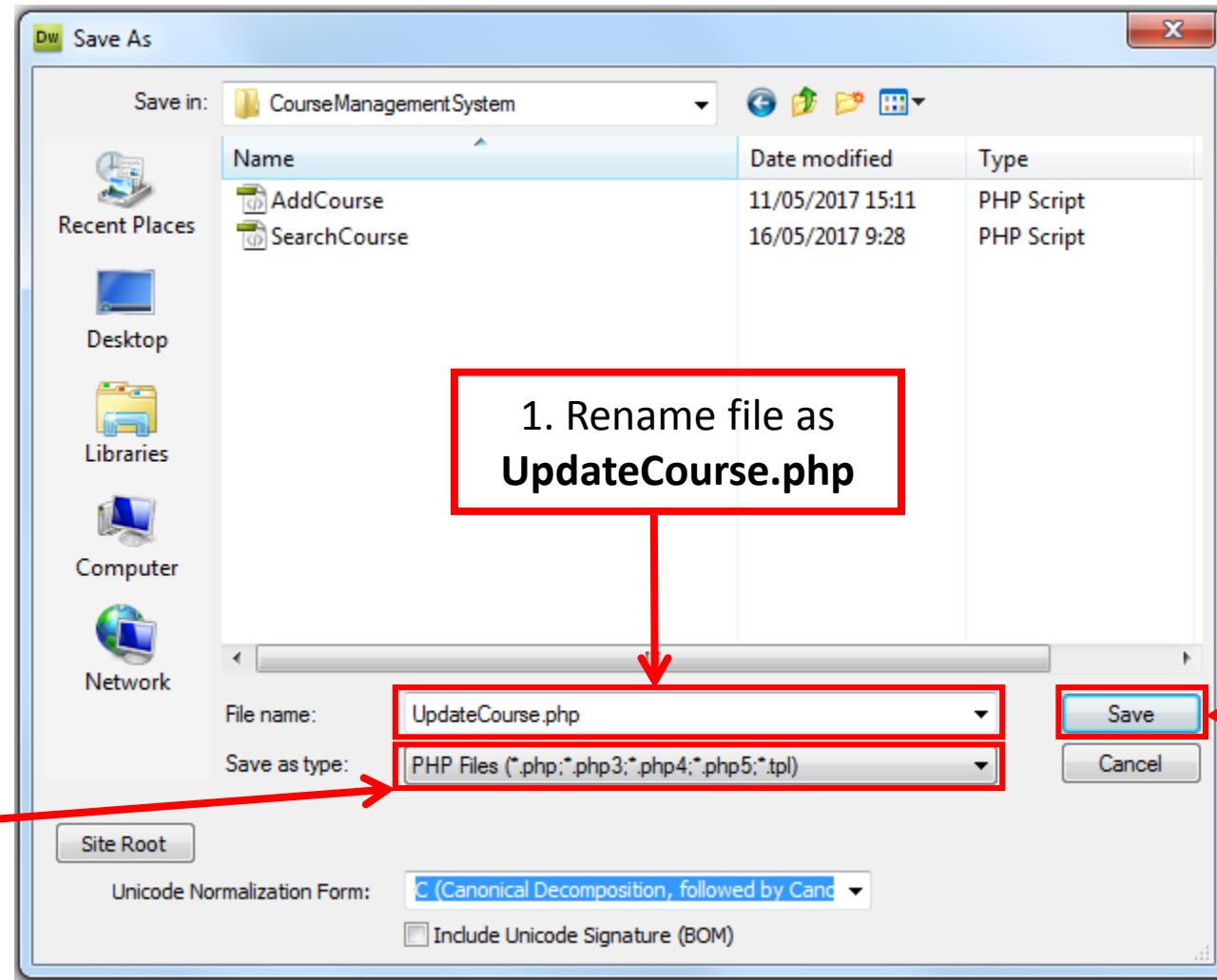
3. Make sure the selected
Page Type is **PHP**

4. Click **Create** button

UPDATE DATA THROUGH PHP INTERFACE (cont..)



UPDATE DATA THROUGH PHP INTERFACE (cont..)



UPDATE DATA THROUGH PHP INTERFACE (cont..)

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
<title>Untitled Document</title>
</head>
<body>
</body>
</html>
```

1. Delete these codes

```
<!-->
```

UPDATE DATA THROUGH PHP INTERFACE (cont..)

The screenshot shows the Adobe Dreamweaver interface with the 'UpdateCourse.php' file open. The code editor displays PHP and HTML code for updating course data. A red box highlights the entire code area, and a red arrow points from the bottom right towards the code, indicating where the user should type the provided code.

```
<html>
    <body>
        <p align="center"></p>

        <table width = "1000" border = "1" align="center" bgcolor="">
            <tr>
                <td bgcolor="#003366"><p align="center"><a href="AddCourse.php"><font color="white">ADD COURSE</font></a></p></td>
                <td bgcolor="#003366"><p align="center"><a href="SearchCourse.php"><font color="white">SEARCH COURSE</font></a></p></td>
                <td bgcolor="#003366"><p align="center"><a href="ListAllCourse.php"><font color="white">LIST ALL COURSES</font></a></p></td>
            </tr>
        </table>

        <p align="center"><font size = "10"><b>UPDATE COURSE</b></font></p>
        <p align="center"><font size = "5" color="red"> * </font><font size="5">you may update these fields</font></p>

        <?php
            $courseid=$_GET['courseid'];

            $servername = "localhost";
            $username = "root";
            $password = "";
            $dbname = "coursedatabase";

            $conn = new mysqli($servername, $username, $password, $dbname);

            if ($conn->connect_error)
            {
                die("Connection failed: " . $conn->connect_error);
            }

            $sql = "SELECT courseid,coursename,coursedescription FROM Course WHERE courseid = '".$courseid."'";
            $retval = $conn->query($sql);

            if(! $retval )
            {

                die('Could not get data: ' . mysqli_connect_error());
            }

            $row = $retval->fetch_assoc();
        ?>
```

Type these codes

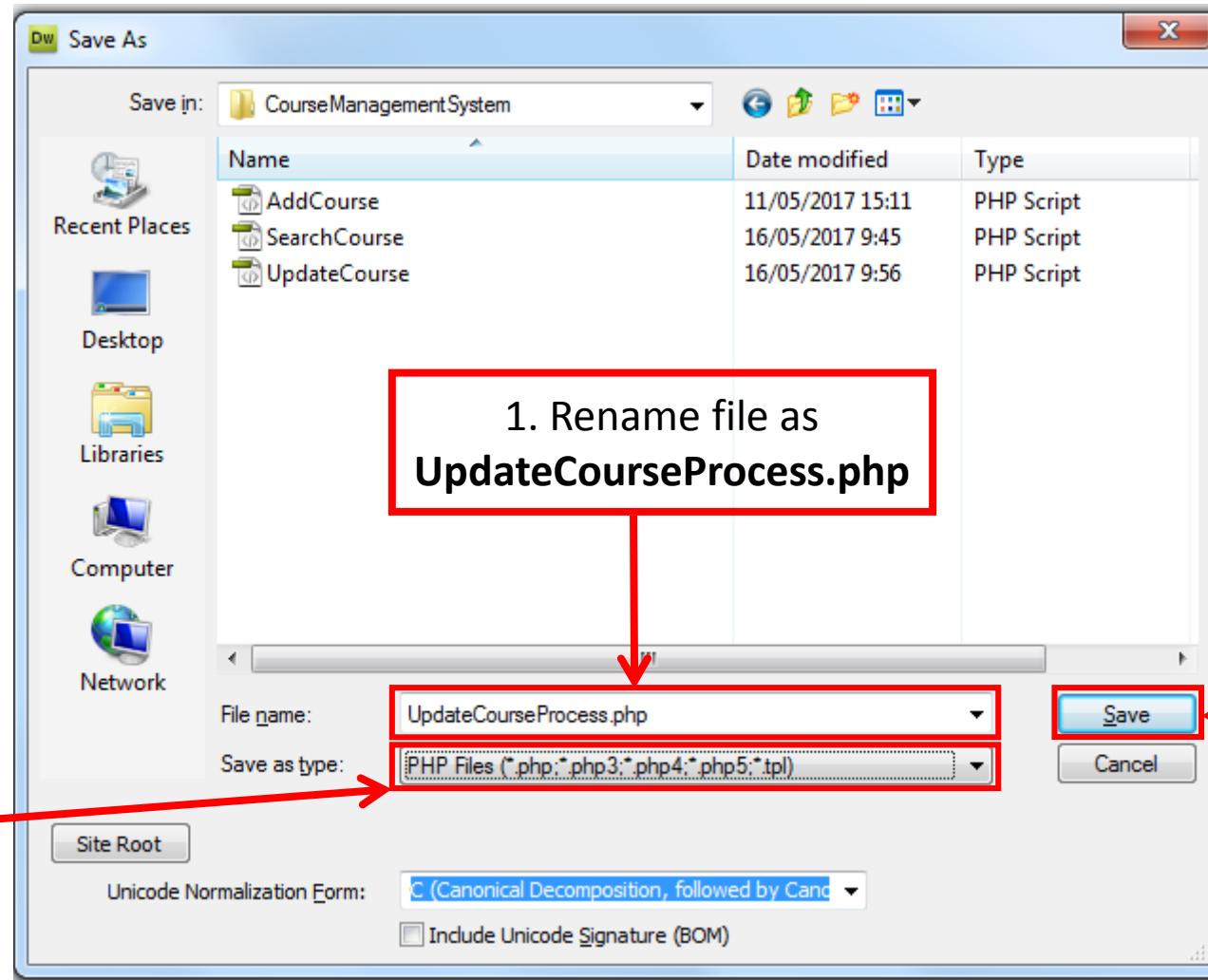
UPDATE DATA THROUGH PHP INTERFACE (cont..)

```
45 <form name = "UpdateCourseForm" role="form" action="UpdateCourseProcess.php" method="post">
46   <table width = "1000" border = "0" align="center">
47     <tr>
48       <td><font size = "5">Course ID </font></td>
49       <td><font size = "5">:</font></td>
50       <td><input name = "courseid" type = "text" style = "font-size : 20px; width: 200px; height: 40px;" value=<?php echo "{$row['courseid']}?>" readonly></td>
51     </tr>
52
53     <tr>
54       <td><font size = "5">Course Name </font><font size = "5" color="red" >*</font></td>
55       <td><font size = "5">:</font></td>
56       <td><input name = "coursename" type = "text" style = "font-size : 20px; width: 700px; height: 40px;" value=<?php echo "{$row['coursename']}?>" maxlength="100"></td>
57     </tr>
58
59     <tr>
60       <td><font size = "5">Course Description</font><font size = "5" color="red" >*</font></td>
61       <td><font size = "5">:</font></td>
62       <td><input name = "coursedescription" type = "text" style = "font-size : 20px; width: 700px; height: 40px;" value=<?php echo "{$row['coursedescription']}?>" maxlength="150"></td>
63     </tr>
64
65     <tr>
66       <td></td>
67       <td></td>
68       <td><button name="submit" type = "submit" style = "font-size : 20px; width: 200px; height: 40px;" onClick="return confirm ('Are you sure?');>Update</button></td>
69     </tr>
70   </table>
71 </form>
72
73 <?php
74   mysqli_close($conn);
75 ?>
76 </body>
77 </html>
```



Type these codes (cont..)

UPDATE DATA THROUGH PHP INTERFACE (cont..)

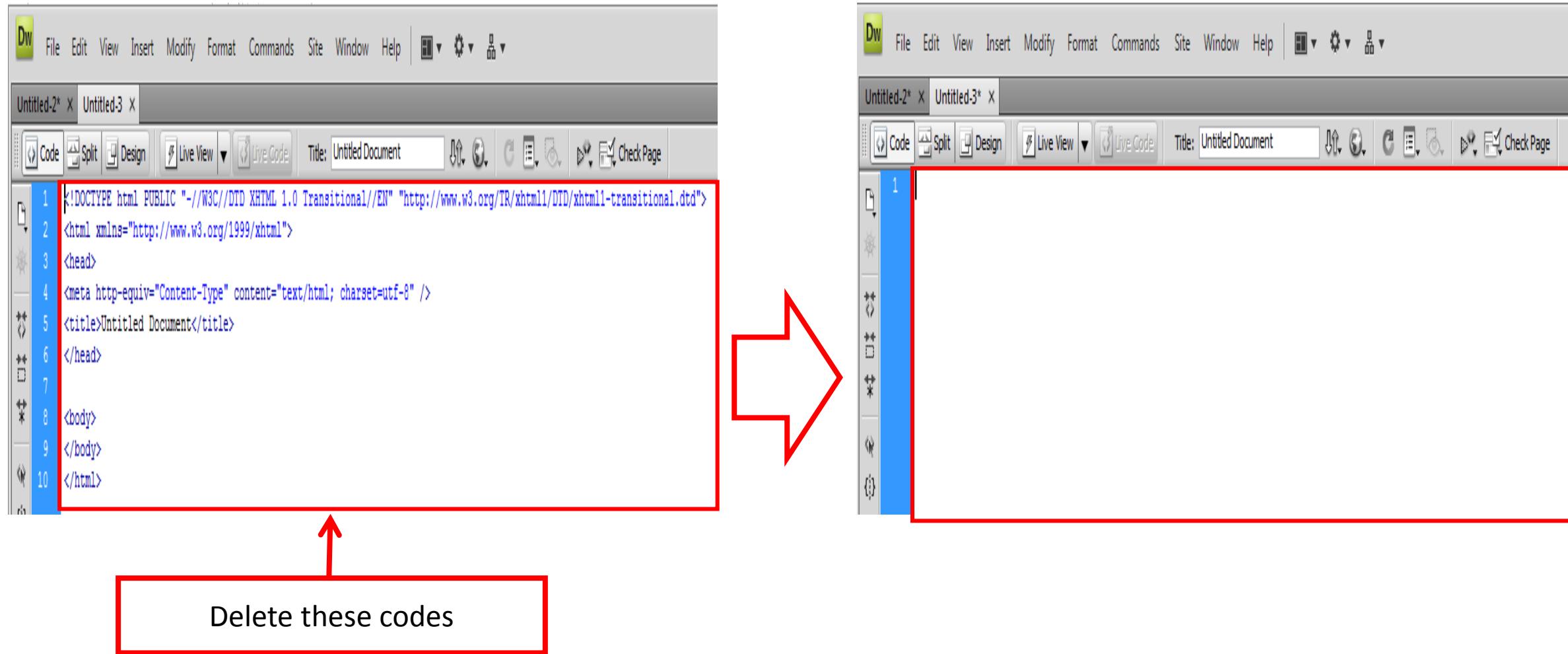


2. Find and select
PHP Files

1. Rename file as
UpdateCourseProcess.php

3. Click **Save** button

UPDATE DATA THROUGH PHP INTERFACE (cont..)



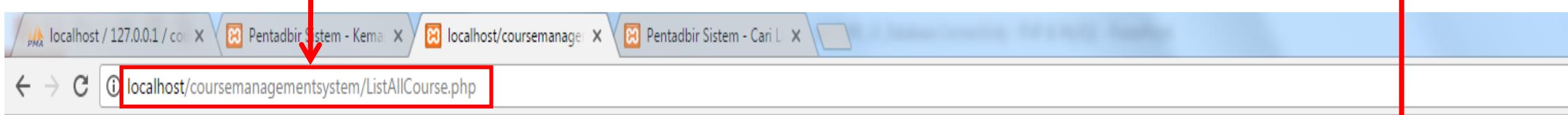
UPDATE DATA THROUGH PHP INTERFACE (cont..)

```
1 <html>
2   <body>
3     <p align="center"></p>
4
5     <table width = "1000" border = "1" align="center" bgcolor="">
6       <tr>
7         <td bgcolor="#003366"><p align="center"><a href="AddCourse.php"><font color="white">ADD COURSE</font></a></p></td>
8         <td bgcolor="#003366"><p align="center"><a href="SearchCourse.php"><font color="white">SEARCH COURSE</font></a></center></p></td>
9         <td bgcolor="#003366"><p align="center"><a href="ListAllCourse.php"><font color="white">LIST ALL COURSES</font></a></center></p></td>
10    </tr>
11  </table>
12
13  <p align="center"><font size = "10"><b>UPDATE COURSE</b></font></p>
14
15  <?php
16    $servername = "localhost";
17    $username = "root";
18    $password = "";
19    $dbname = "coursedatabase";
20
21    $conn = new mysqli($servername, $username, $password, $dbname);
22
23    if ($conn->connect_error) {
24      die("Connection failed: " . $conn->connect_error);
25    }
26
27    $courseid=$_POST["courseid"];
28    $coursename=$_POST["coursename"];
29    $coursedescription=$_POST["coursedescription"];
30
31    $sql = "UPDATE Course SET courseid = '". $courseid ."', coursename = '" . $coursename . "', coursedescription = '" . $coursedescription . "' WHERE courseid = '" . $courseid . "'";
32
33    $retval = $conn->query($sql);
34
35    if(! $retval)
36    {
37      ?>
38      <p align="center"><font size = "5" color="red" ><?php die('Course name is unique' . mysqli_connect_error()); ?></font></p>
39
40      <?php
41      }
42      ?>
43      <p align="center"><font size = "5" color="blue" ><?php echo "Course $courseid updated\n"; ?></font></p>
44
45      <?php
46
47        mysqli_close($conn);
48      ?>
49    </body>
50  </html>
```

Type these codes

LIST ALL DATA THROUGH PHP INTERFACE (cont..)

1. Open any **web browser**, eg: Google Crome. Then, type the following **URL**

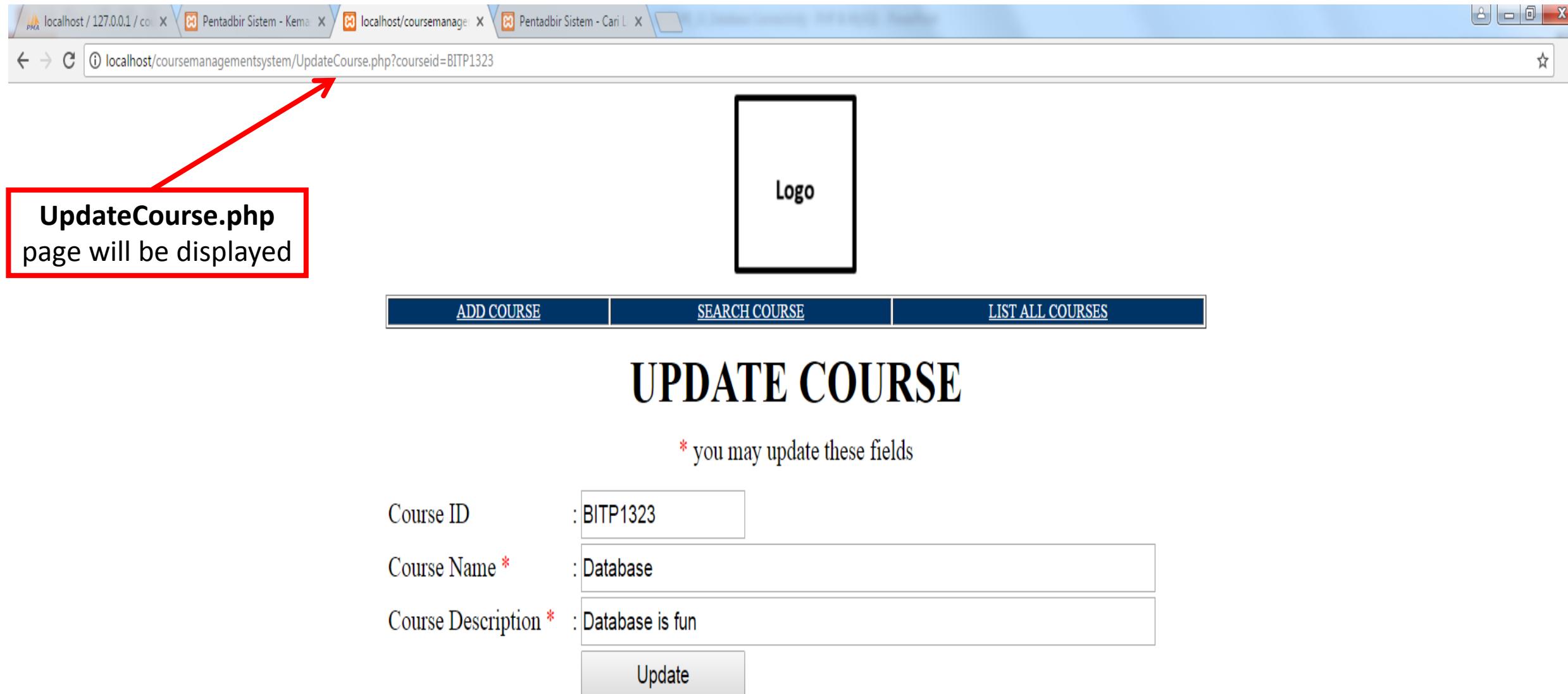


3. Click **UPDATE** link of **BITP1323 Database**

Course ID	Course Name	Course Description	Action
BITP1323	Database	Database is fun	UPDATE DELETE
BITP2313	Database Design	Database Design is fun	UPDATE DELETE
BITP1333	Programming Technique	C++ is fun	UPDATE DELETE

2. You can see the listed data

UPDATE DATA THROUGH PHP INTERFACE (cont..)



UpdateCourse.php
page will be displayed

localhost / 127.0.0.1 / co X Pentadbir Sistem - Kema X localhost/coursemanager X Pentadbir Sistem - Cari L X

localhost/coursemanagementsystem/UpdateCourse.php?courseid=BITP1323

Logo

ADD COURSE SEARCH COURSE LIST ALL COURSES

UPDATE COURSE

* you may update these fields

Course ID	:	BITP1323
Course Name *	:	Database
Course Description *	:	Database is fun

Update

UPDATE DATA THROUGH PHP INTERFACE (cont..)

The screenshot shows a web browser window with the URL `localhost/coursemanagementsystem/UpdateCourse.php?courseid=BITP1323`. The page title is "Update Course". At the top, there is a placeholder for a logo. Below it is a navigation bar with three buttons: "ADD COURSE", "SEARCH COURSE", and "LIST ALL COURSES". The main content area is titled "UPDATE COURSE". It contains three form fields:

- Course ID: BITP1323
- Course Name*: Database
- Course Description*: Database is fun and enjoy

A red box highlights the "Course Description" field and the "Update" button below it. A red arrow points from a callout box containing the text "Edit course description and then click Update button" to the "Update" button.

* you may update these fields

Course ID : BITP1323

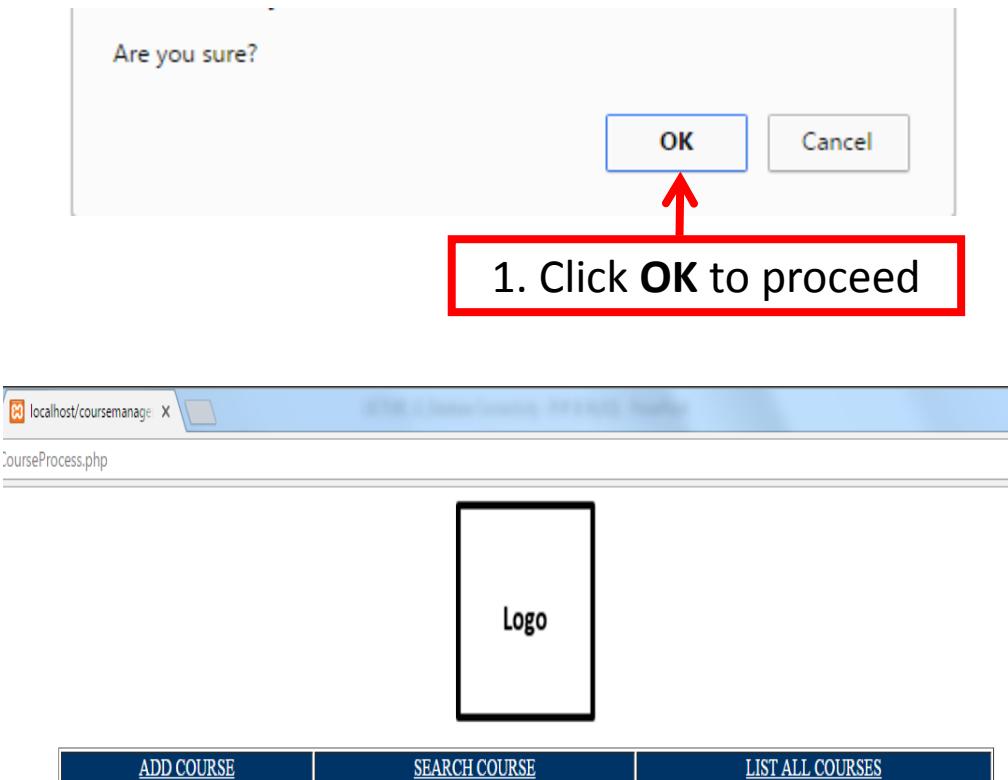
Course Name * : Database

Course Description * : Database is fun and enjoy

Update

Edit course description and then click
Update button

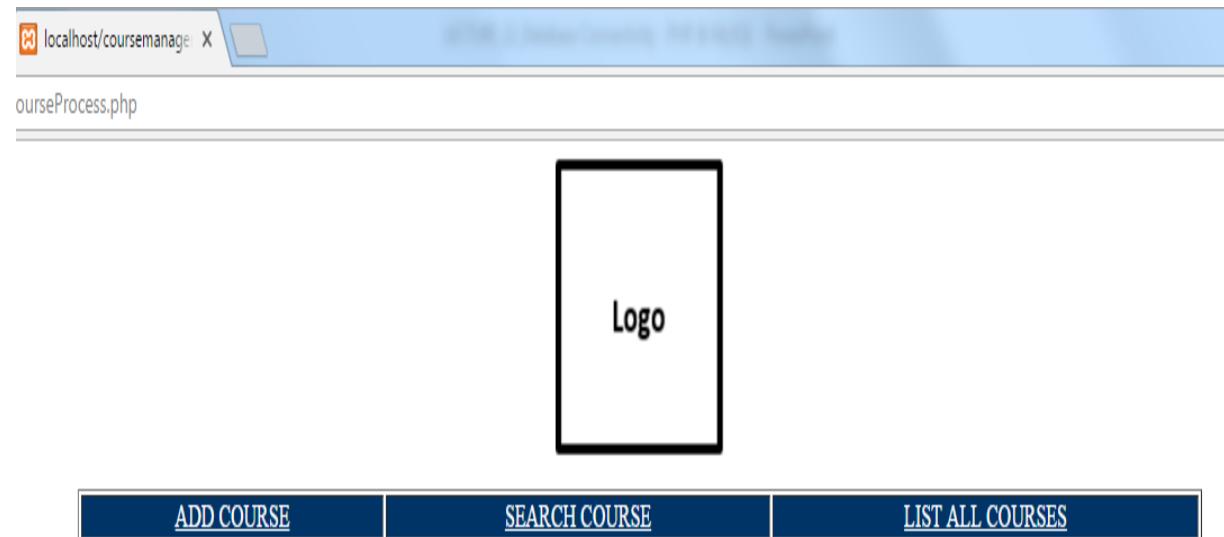
UPDATE DATA THROUGH PHP INTERFACE (cont..)



UPDATE COURSE

Course BITP1323 updated

2. This message will be displayed

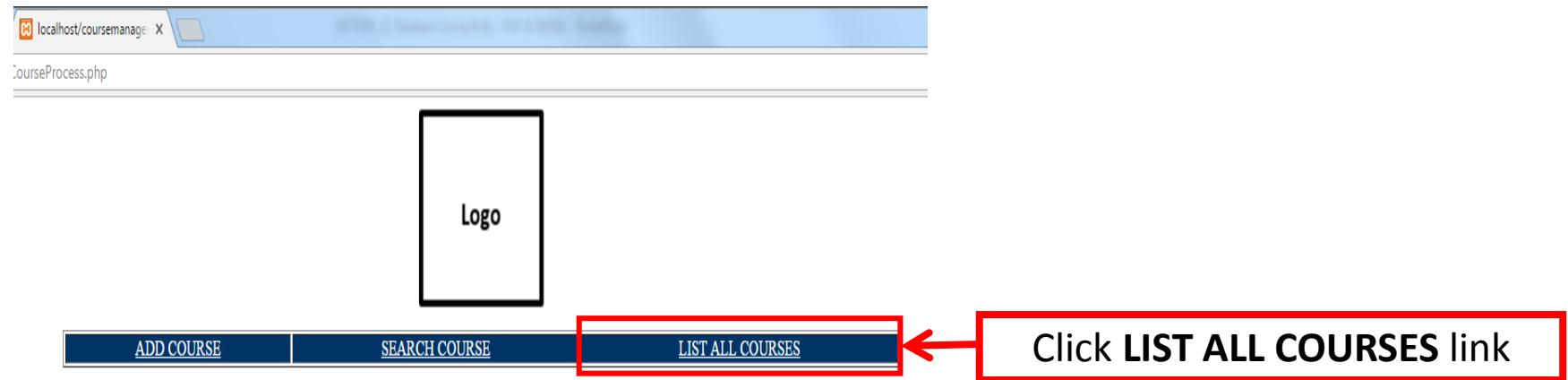


UPDATE COURSE

Course name is unique

Note: This message will be displayed if you enter course name that already exist in the database

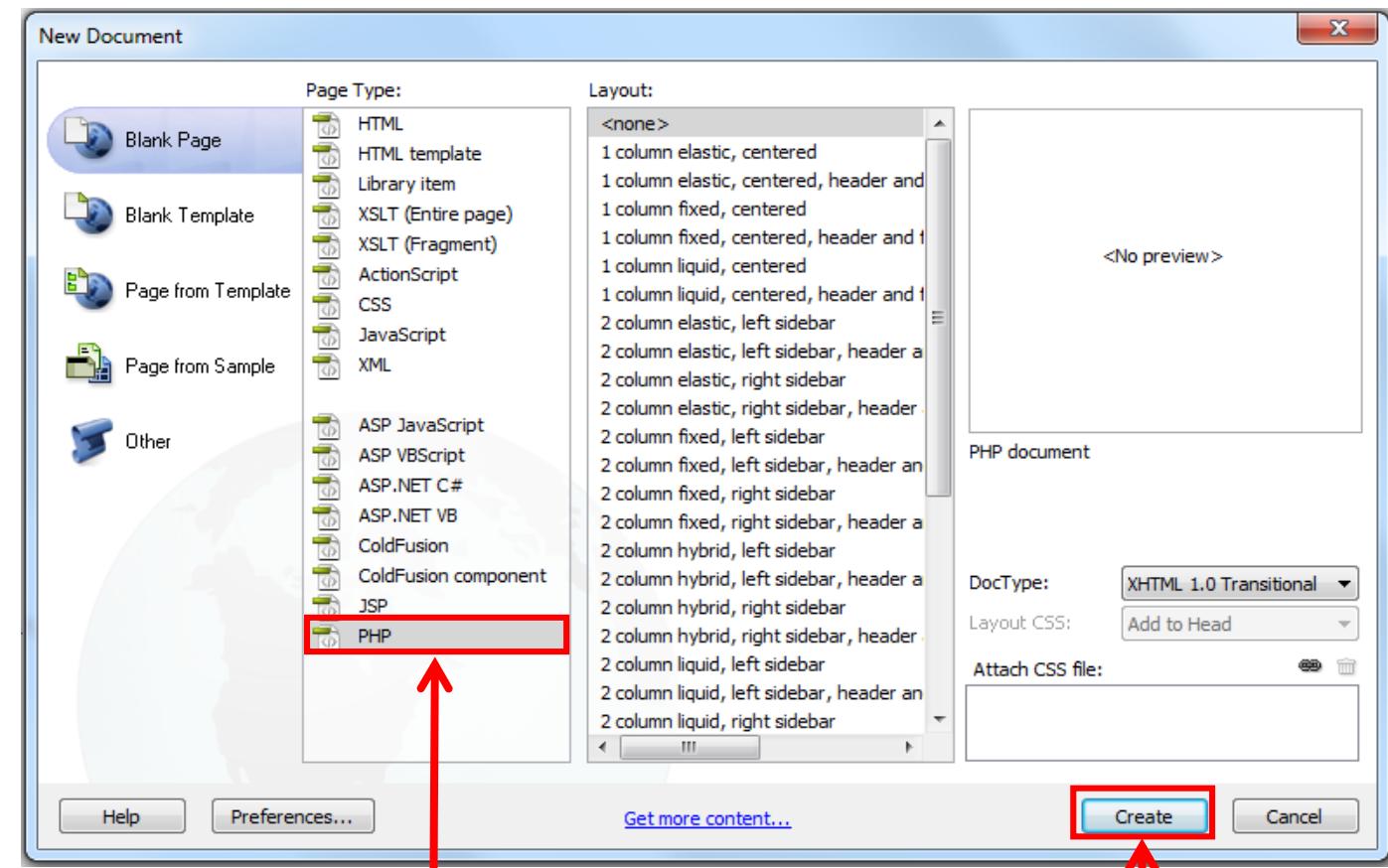
UPDATE DATA THROUGH PHP INTERFACE (cont..)



ALL COURSES

Course ID	Course Name	Course Description	Action
BITP1323	Database	Database is fun and enjoy	UPDATE DELETE
BITP2313	Database Design	Database Design is fun	UPDATE DELETE
BITP1333	Programming Technique	C++ is fun	UPDATE DELETE

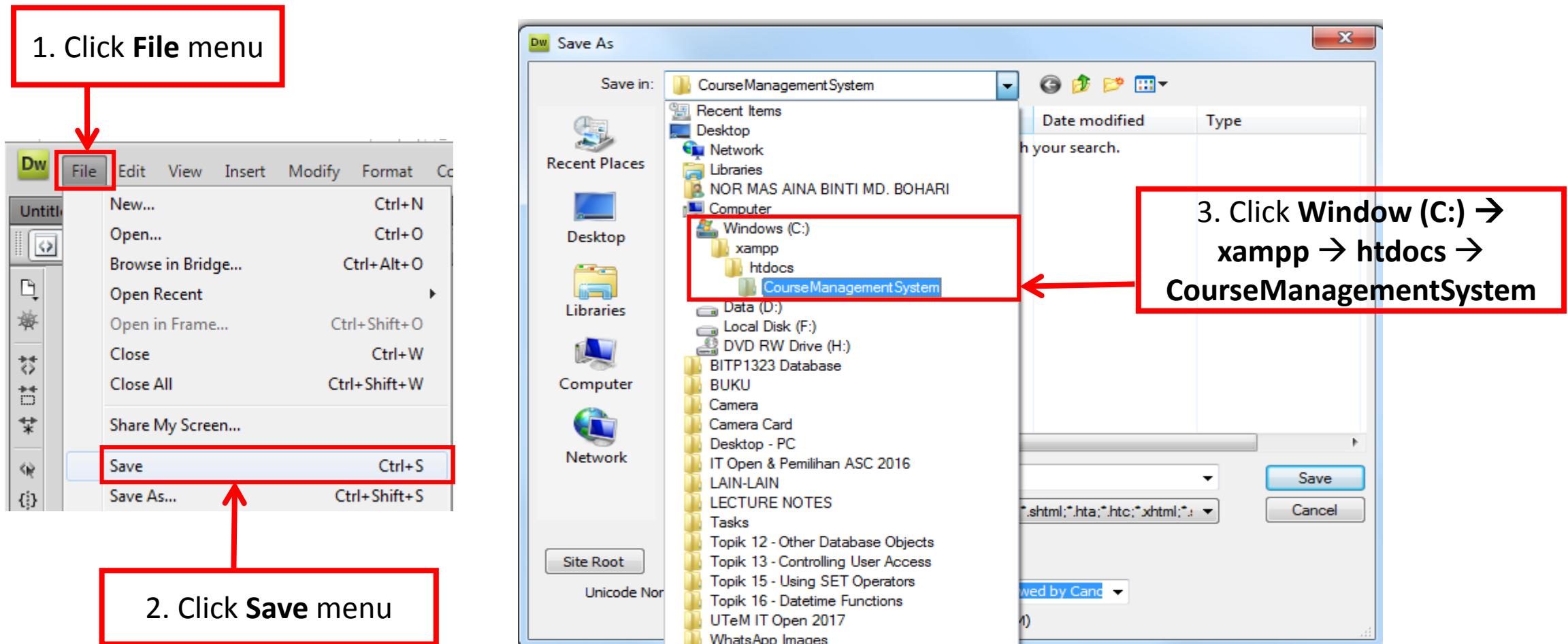
DELETE DATA THROUGH PHP INTERFACE (cont..)



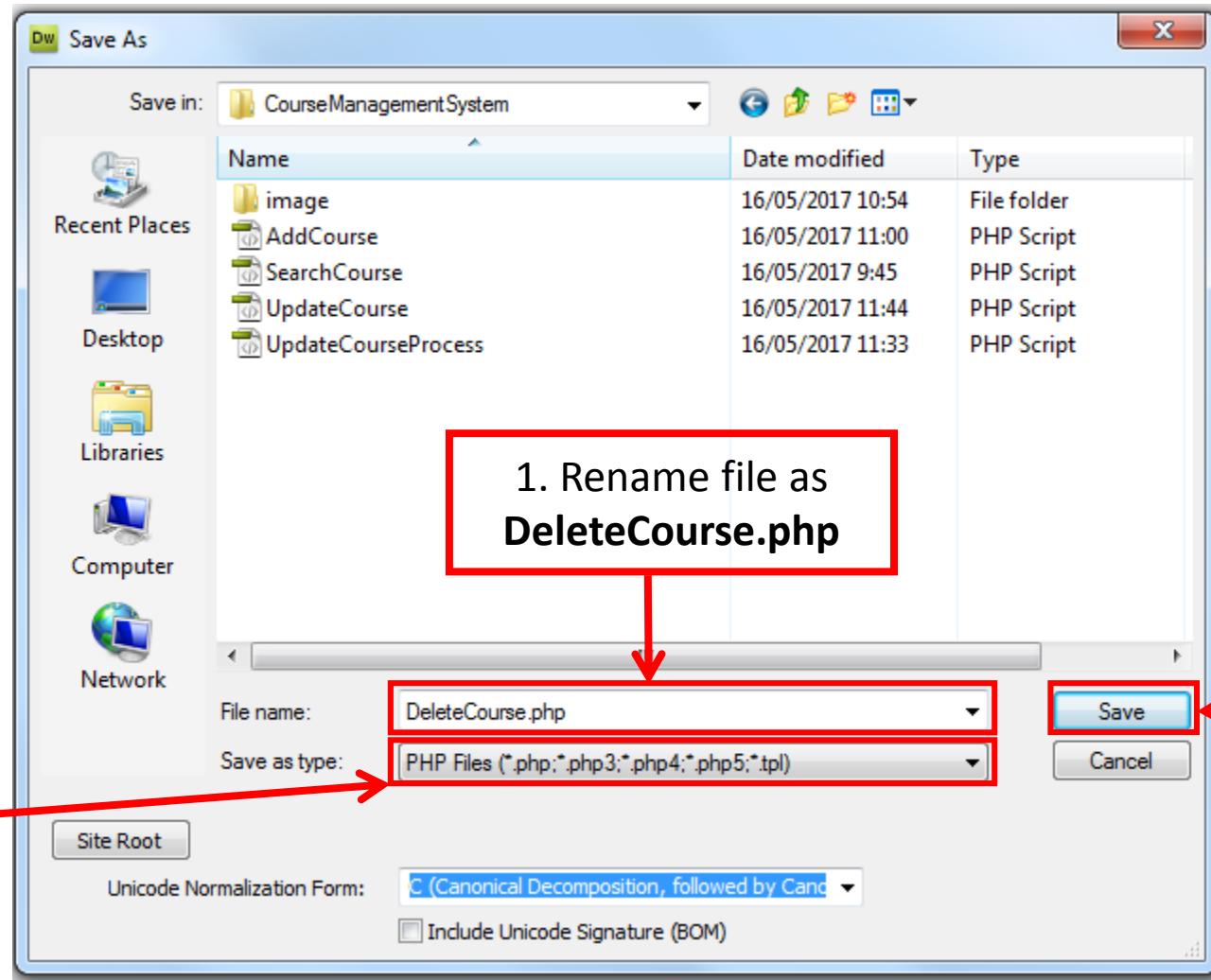
3. Make sure the selected
Page Type is **PHP**

4. Click **Create** button

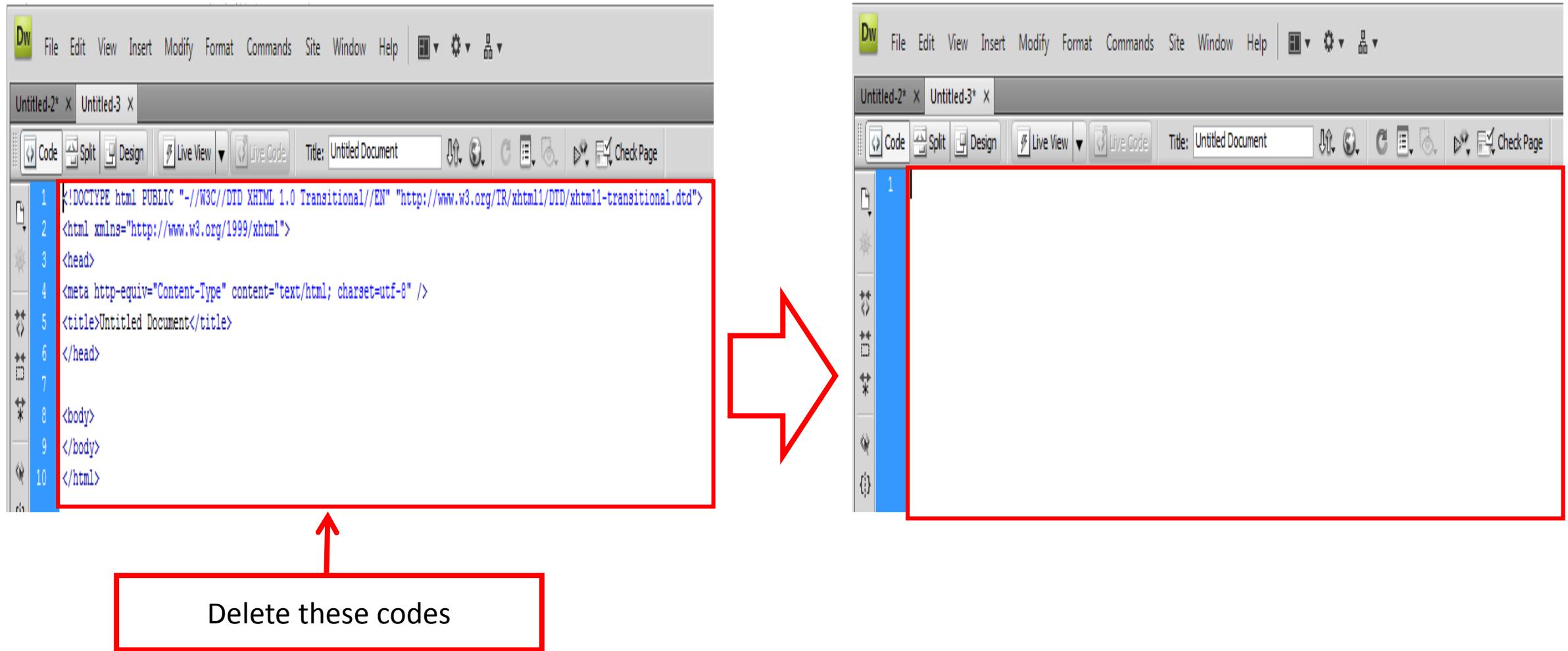
DELETE DATA THROUGH PHP INTERFACE (cont..)



DELETE DATA THROUGH PHP INTERFACE (cont..)



DELETE DATA THROUGH PHP INTERFACE (cont..)



DELETE DATA THROUGH PHP INTERFACE (cont..)

The screenshot shows the Adobe Dreamweaver interface with the file 'DeleteCourse.php' open. The code is a PHP script for deleting a course from a MySQL database. It includes HTML for a logo and a navigation menu, and PHP code for connecting to the database and executing a delete query.

```
<html>
    <body>
        <p align="center"></p>

        <table width = "1000" border = "1" align="center" bgcolor="">
            <tr>
                <td bgcolor="#003366"><p align="center"><a href="AddCourse.php"><font color="white">ADD COURSE</font></a></p></td>
                <td bgcolor="#003366"><p align="center"><a href="SearchCourse.php"><font color="white">SEARCH COURSE</font></a></p></td>
                <td bgcolor="#003366"><p align="center"><a href="ListAllCourse.php"><font color="white">LIST ALL COURSES</font></a></p></td>
            </tr>
        </table>

        <p align="center"><font size = "10"><b>DELETE COURSE</b></font></p>

        <?php
            $courseid=$_GET['courseid'];

            $servername = "localhost";
            $username = "root";
            $password = "";
            $dbname = "coursedatabase";

            $conn = new mysqli($servername, $username, $password, $dbname);

            if ($conn->connect_error)
            {
                die("Connection failed: " . $conn->connect_error);
            }

            $sql = "SELECT courseid,coursename,coursedescription FROM Course WHERE courseid = '".$courseid."'";
            $retval = $conn->query($sql);

            if(!$retval )
            {

                die('Could not get data: ' . mysqli_connect_error());
            }

            $row = $retval->fetch_assoc();
        ?>
```

A red box highlights the entire code area, and a red arrow points to the text 'Type these codes' located at the bottom of the code block.

Type these codes

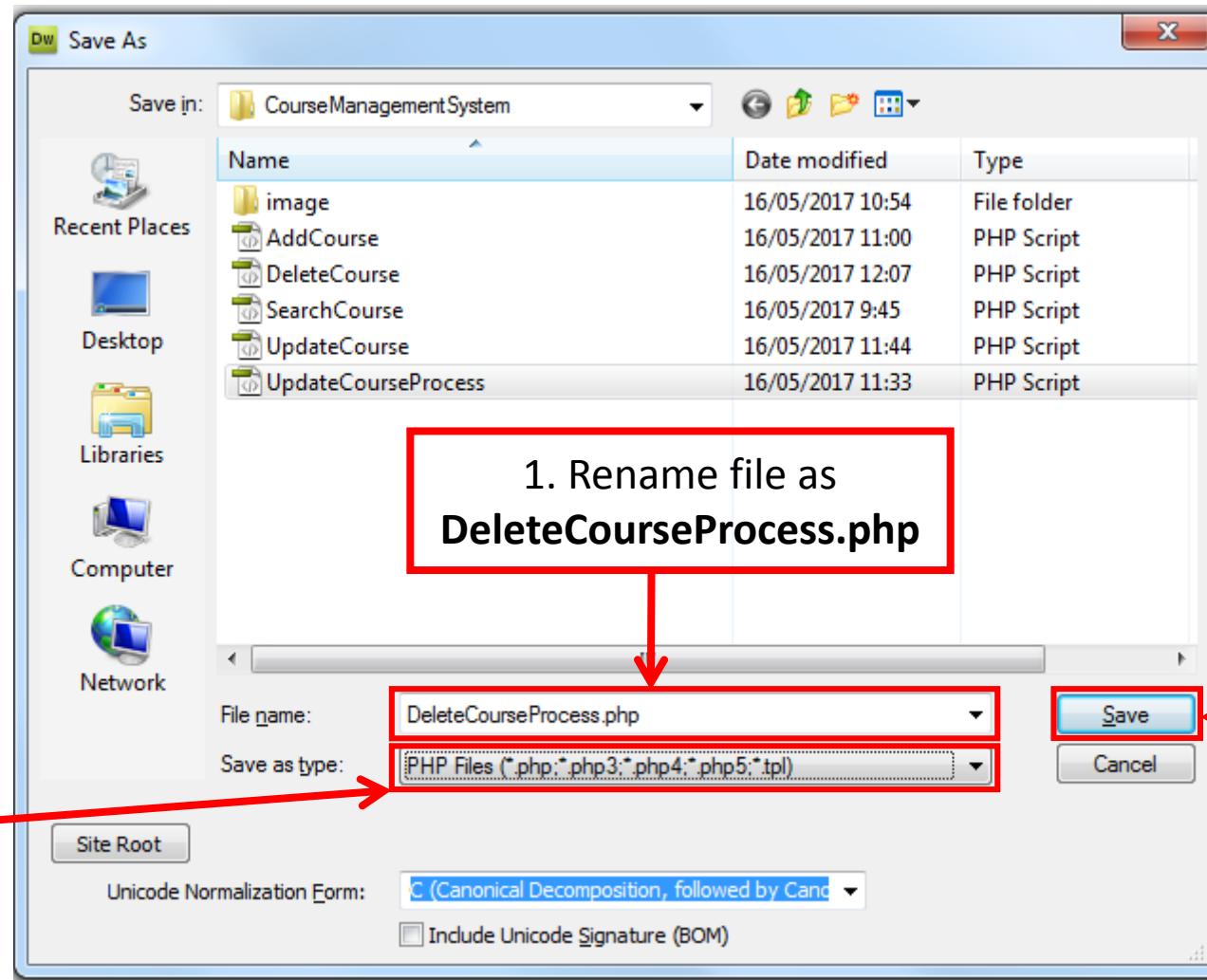
DELETE DATA THROUGH PHP INTERFACE (cont..)

```
43 <form name = "DeleteCourseForm" role="form" action="DeleteCourseProcess.php" method="post">
44     <table width = "1000" border = "0" align="center">
45         <tr>
46             <td><font size = "5">Course ID </font></td>
47             <td><font size = "5">:</font></td>
48             <td><input name = "courseid" type = "text" style = "font-size : 20px; width: 200px; height: 40px;" value=<?php echo "{$row['courseid']}?"> readonly></td>
49         </tr>
50
51         <tr>
52             <td><font size = "5">Course Name </font></td>
53             <td><font size = "5">:</font></td>
54             <td><input name = "coursename" type = "text" style = "font-size : 20px; width: 700px; height: 40px;" value=<?php echo "{$row['coursename']}?"> readonly></td>
55         </tr>
56
57         <tr>
58             <td><font size = "5">Course Description </font></td>
59             <td><font size = "5">:</font></td>
60             <td><input name = "coursedescription" type = "text" style = "font-size : 20px; width: 700px; height: 40px;" value=<?php echo "{$row['coursedescription']}?"> readonly></td>
61         </tr>
62
63         <tr>
64             <td></td>
65             <td></td>
66             <td><button name="submit" type = "submit" style = "font-size : 20px; width: 200px; height: 40px;" onClick="return confirm ('Are you sure?');">Delete</button></td>
67         </tr>
68     </table>
69 </form>
70
71 <?php
72     mysqli_close($conn);
73 ?>
74 </body>
75 </html>
```



Type these codes (cont..)

DELETE DATA THROUGH PHP INTERFACE (cont..)

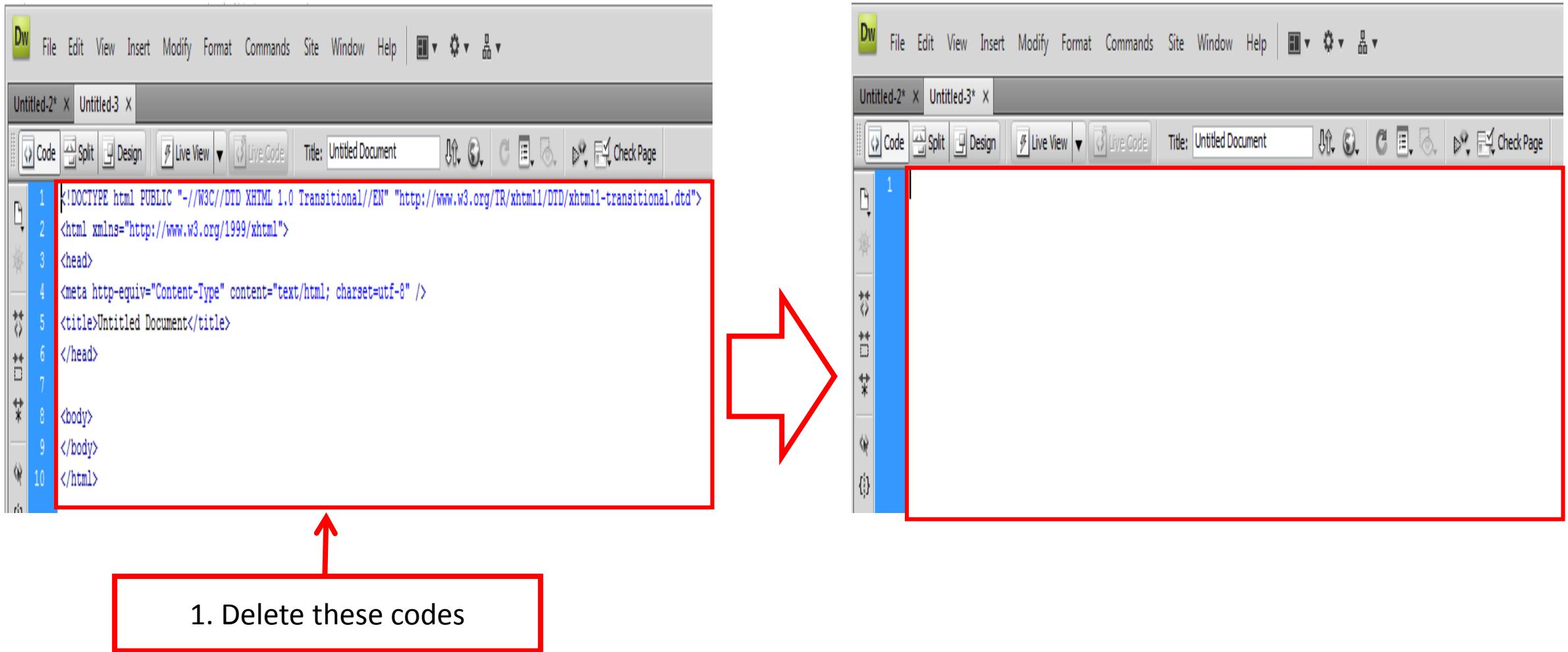


2. Find and select
PHP Files

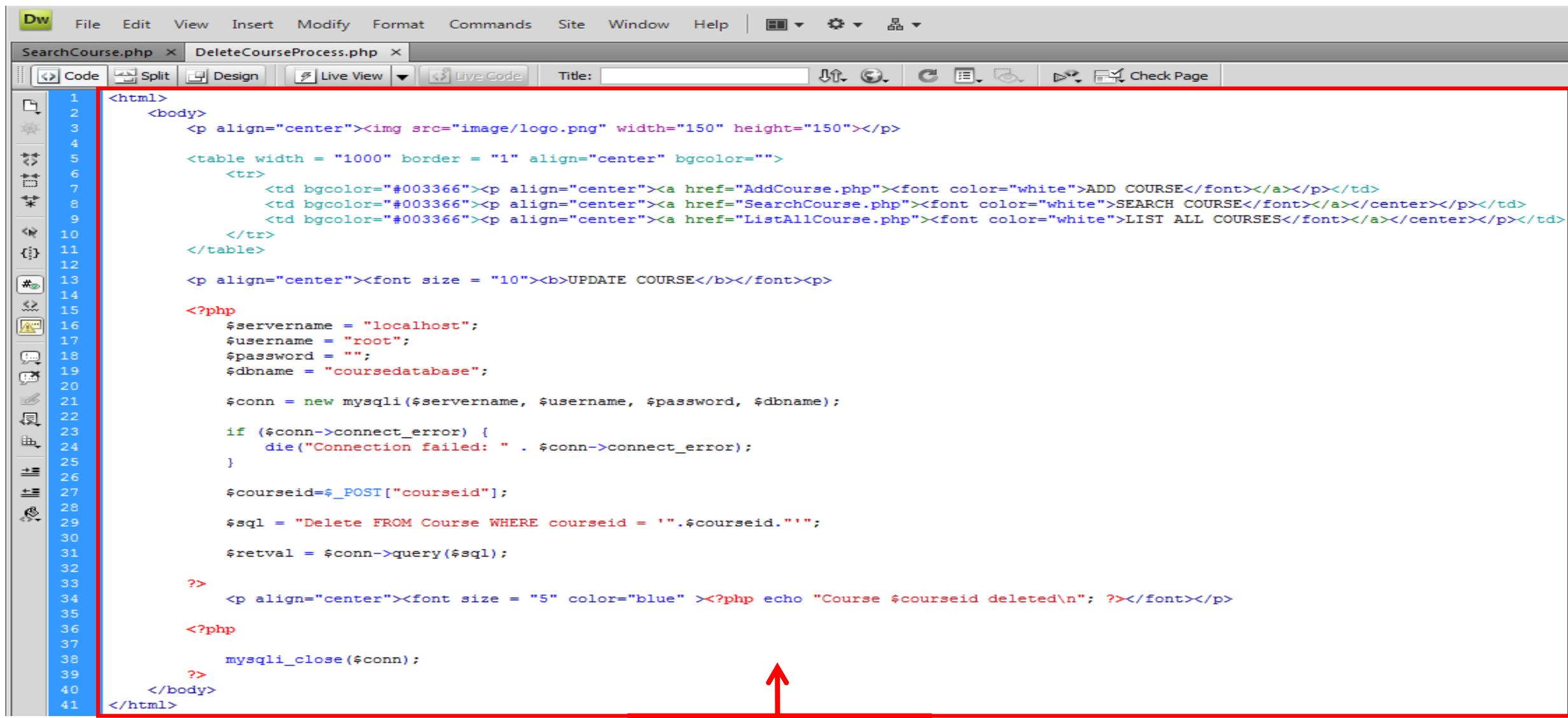
1. Rename file as
DeleteCourseProcess.php

3. Click **Save** button

DELETE DATA THROUGH PHP INTERFACE (cont..)



DELETE DATA THROUGH PHP INTERFACE (cont..)



The screenshot shows the Adobe Dreamweaver interface with two files open: "SearchCourse.php" and "DeleteCourseProcess.php". The "DeleteCourseProcess.php" file is the active document, displaying the following PHP code:

```
<html>
    <body>
        <p align="center"></p>

        <table width = "1000" border = "1" align="center" bgcolor="">
            <tr>
                <td bgcolor="#003366"><p align="center"><a href="AddCourse.php"><font color="white">ADD COURSE</font></a></p></td>
                <td bgcolor="#003366"><p align="center"><a href="SearchCourse.php"><font color="white">SEARCH COURSE</font></a></p></td>
                <td bgcolor="#003366"><p align="center"><a href="ListAllCourse.php"><font color="white">LIST ALL COURSES</font></a></p></td>
            </tr>
        </table>

        <p align="center"><font size = "10"><b>UPDATE COURSE</b></font><p>

        <?php
            $servername = "localhost";
            $username = "root";
            $password = "";
            $dbname = "coursedatabase";

            $conn = new mysqli($servername, $username, $password, $dbname);

            if ($conn->connect_error) {
                die("Connection failed: " . $conn->connect_error);
            }

            $courseid=$_POST["courseid"];

            $sql = "Delete FROM Course WHERE courseid = '".$courseid."'";
            $retval = $conn->query($sql);

            ?>
            <p align="center"><font size = "5" color="blue" ><?php echo "Course $courseid deleted\n"; ?></font></p>

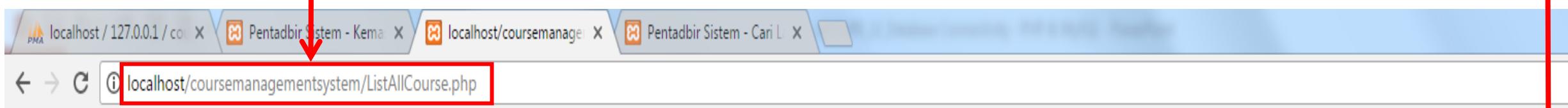
        <?php
            mysqli_close($conn);
        ?>
    </body>
</html>
```

A red box highlights the entire code block, and a red arrow points from the bottom right towards the text "Type these codes" in a red-bordered box at the bottom center.

Type these codes

LIST ALL DATA THROUGH PHP INTERFACE (cont..)

1. Open any **web browser**, eg: Google Crome. Then, type the following **URL**



ALL COURSES

Course ID	Course Name	Course Description	Action
BITP1323	Database	Database is fun	UPDATE DELETE
BITP2313	Database Design	Database Design is fun	UPDATE DELETE
BITP1333	Programming Technique	C++ is fun	UPDATE DELETE

2. You can see the listed data

3. Click **DELETE** link of **BITP2313 Database Design**

DELETE DATA THROUGH PHP INTERFACE (cont..)

1. DeleteCourse.php page will be displayed

Logo

ADD COURSE | SEARCH COURSE | LIST ALL COURSES

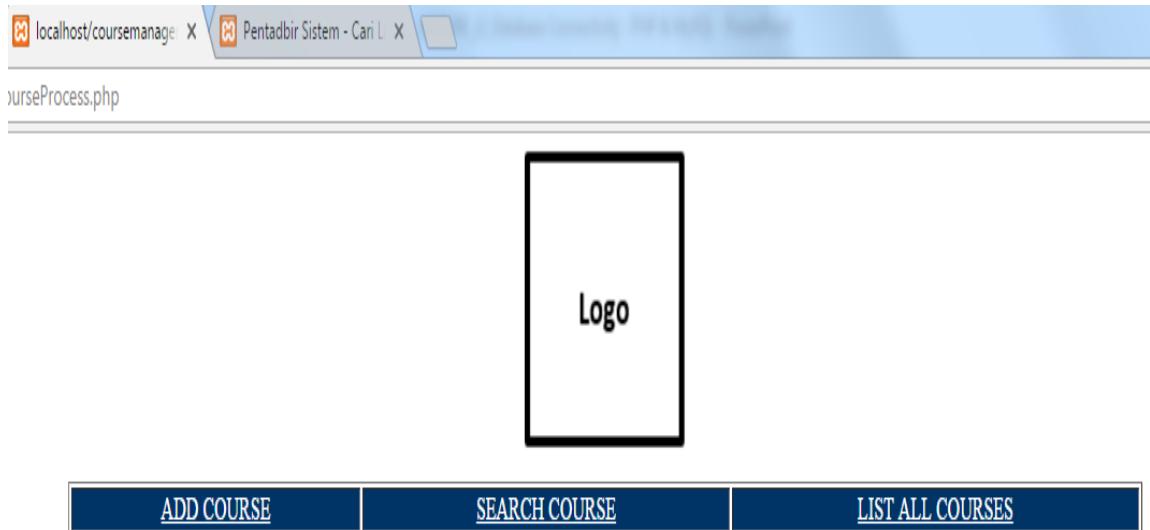
DELETE COURSE

Course ID	:	BITP2313
Course Name	:	Database Design
Course Description	:	Database Design is fun

Delete

Check the selected course and then click **Delete** button

DELETE DATA THROUGH PHP INTERFACE (cont..)

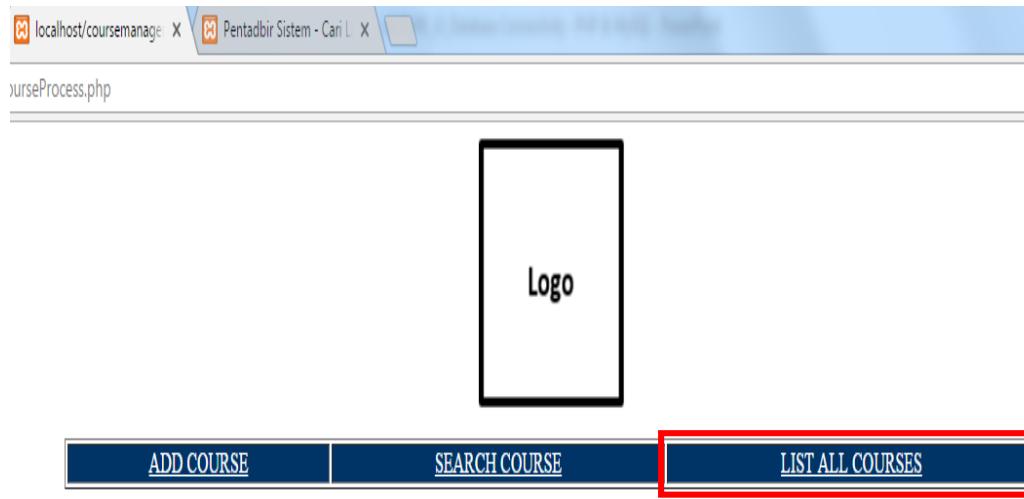


DELETE COURSE

Course BITP2313 deleted

This message will be displayed

UPDATE DATA THROUGH PHP INTERFACE (cont..)



DELETE COURSE

Course BITP2313 deleted

You can see **there is no BITP2313 Database Design**

Course ID	Course Name	Course Description	Action
BITP1323	Database	Database is fun and enjoy	UPDATE DELETE
BITP1333	Programming Technique	C++ is fun	UPDATE DELETE

The End

- Please try
- Good luck
- PHP & Oracle – please refer lab module (other authors)
- Other programming languages and DBMS – please explore