



## UPDATE an existing record

General format of SQL update command:

```
UPDATE table_name
SET field_name='new data'
WHERE conditions
```

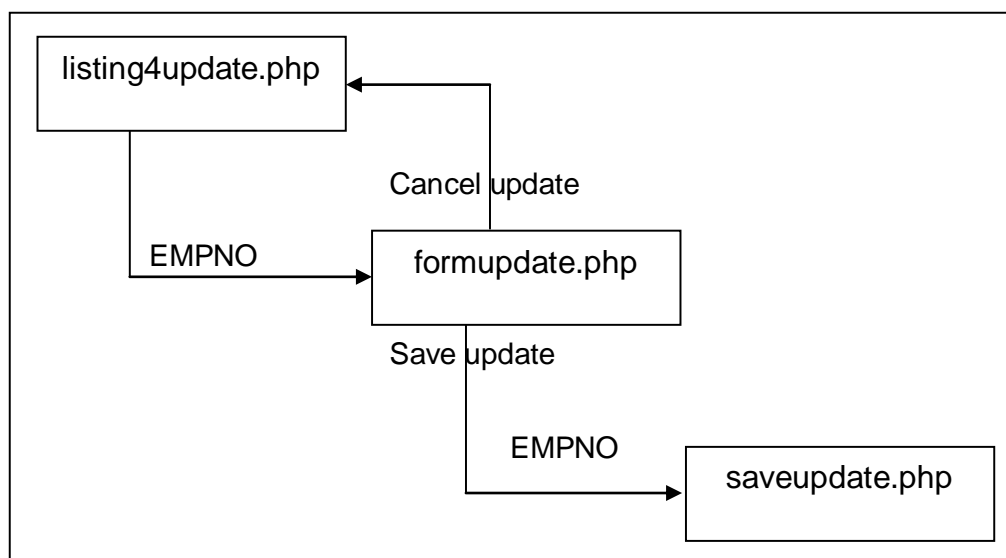
Example:

```
UPDATE employee
SET FIRSTNAME='Khirulnizam', LASTNAME='Abd Rahman', WORKDEPT='C01',
PHONENO='1110'
WHERE EMPNO='000345'
```

### Simple Update Exercise

The term UPDATE in SQL is a command to modify an exiting record from a specific table.

In this *update* exercise we will create three different pages that will communicate to each other sequentially. Refer to the diagram below.



The first page is to list records with update button so the user could select which record to update. The next page in the sequence is the update form. The existing data is populated in the form. This is very useful for the user to see the existing data in order to make the changes. The new data is than sent to another page that will save the changes to the database.

The first file is the *listing4update.php*. This is the same file as we used in the Chapter 12: Delete an Existing Record. The difference is just the last column that contains the “update” hyperlink, which connects to the page named *formupdate.php*, contains the form to change the existing data.

Filename: ***listing4update.php***

```
<?php
//include the connection details
include ("connection.php");

//Create SQL query
$query="select EMPNO, FIRSTNAME, LASTNAME, WORKDEPT, PHONENO
        from employee
        order by EMPNO asc";

//Execute the query
$qr=mysqli_query($db,$query);
if($qr==false){
    echo ("Query cannot be executed!<br>");
    echo ("SQL Error : ".mysqli_error($db));
}
?>
<html>
<head>
<title>Listing for Record Updating</title>
</head>

<body>
Listing for Record Updating<br>
<?php
//Check the record effected, if no records,
//display a message
if(mysqli_num_rows($qr)==0){
    echo ("No record fetched...<br>");
} //end no record
else{//there is/are record(s)
?>
<table width="100%" border="1">
    <tr align="center">
        <td>Employee no.</td>
        <td>First name</td>
        <td>Last name</td>
        <td>Department code</td>
        <td>Phone no.</td>
    </tr>

<?php
    while ($record=mysqli_fetch_array($qr)){
?>
    <tr>
        <td><?=$record['EMPNO']?></td>
        <td><?=$record['FIRSTNAME']?></td>
        <td><?=$record['LASTNAME']?></td>
        <td><?=$record['WORKDEPT']?></td>
```

```

<td><?=$record['PHONENO']?></td>
<td>
  <a href="formupdate.php?EMPNO=<?=$record['EMPNO']?>">
    update
  </a>
</td>

</tr>
</table>
<?php
    }//end of records
?>
</table>
<?php
} //end if there are records
?>
</body>
</html>

```

Observe closely the bolded codes in the *listing4update.php*. The HTML tag will prepare a hyperlink that will direct user to another file named *formupdate.php* and bringing along a variable named EMPNO for the chosen employee record. This process is similar to the delete procedure.

```

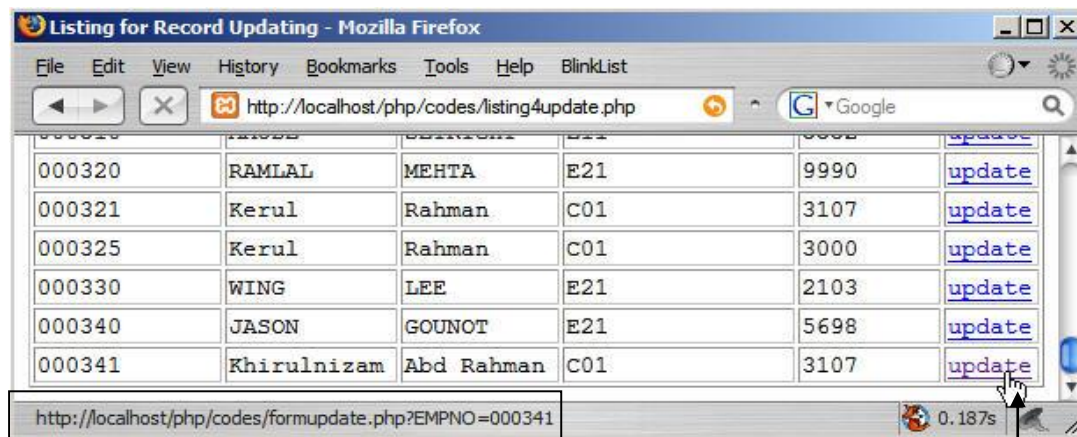
<a href="formupdate.php?EMPNO=<?=$record['EMPNO']?>">
  update
</a>

```

the target file where user will be presented with an update form

the EMPNO variable with the value of the selected employee record to be updated

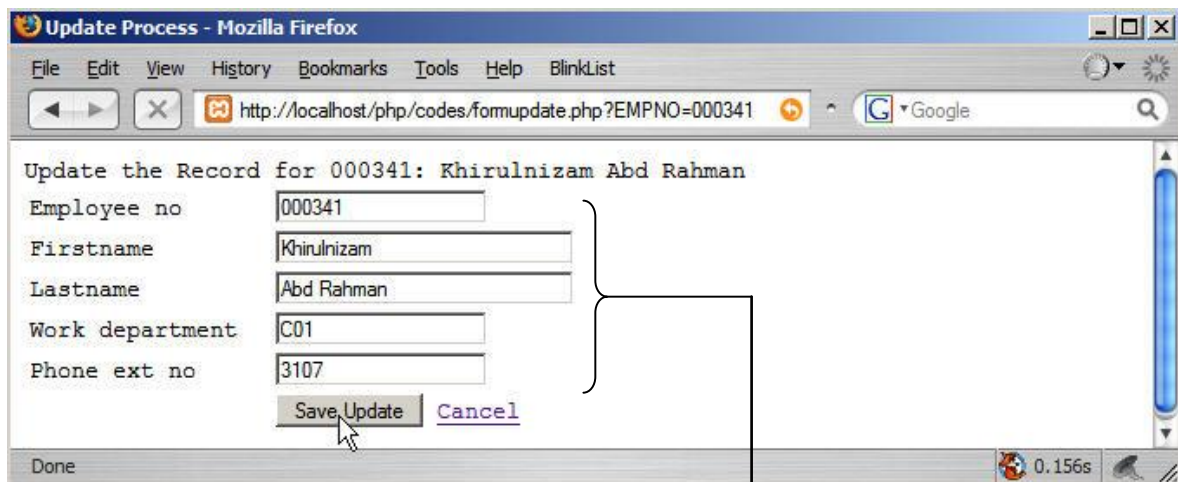
If you execute the script in the browser, it will generate a hyperlink, with a direction to another page named *formupdate.php*, by sending a variable EMPNO with the employee number of the selected employee record.



Each "delete" hyperlink will generate unique querystring based on the EMPNO for each record.

User choose one record to be deleted by clicking the "delete" hyperlink.

Once the user click the "delete" hyperlink, it will go the page *confirmdelete.php*, with the EMPNO to delete. When the EMPNO arrived at this page, it will be extracted and another hyperlink will be generated.



The existing data for the record appeared in the textboxes, to provide convenience for the user to change.

The first hyperlink is "Yes", and the second one is "No". If the user really want to delete the record, click "Yes". This will direct the user to another file *delete.php* where the SQL *delete* command lies. However if the user would like to cancel the deletion process, click "No" and it will direct user back to the *listing4update.php* file.

Filename: **formupdate.php**.

```

<html>
<head>
<title>Update Process</title>
</head>
<body>
<?php
include "connection.php";
$EMPNO=$_GET['EMPNO'];
$sql="select * from employee
      where EMPNO='$EMPNO'";

$rs=mysqli_query($db,$sql);
$record=mysqli_fetch_array($rs);
?>
Update the Record for <?=$record['EMPNO']?>:
<?=$record['FIRSTNAME']?> <?=$record['LASTNAME']?> <br>

<form name="insert" action="saveupdate.php" method="get">
  <table width="100%" border="0">
    <tr>
      <td width="30%">Employee no</td>
      <td width="70%">
        <input name="EMPNO" type="text" readonly
          value="<? echo $record['EMPNO']?>" >
      </td>
    </tr>
    <tr>
      <td>Firstname</td>
      <td><input name="FIRSTNAME" type="text" size="30"
        value="<?=$record['FIRSTNAME']?>" >
      </td>
    </tr>
    <tr>
      <td>Lastname</td>
      <td><input name="LASTNAME" type="text" size="30"
        value="<?=$record['LASTNAME']?>" >
      </td>
    </tr>
    <tr>
      <td>Work department </td>
      <td><input name="WORKDEPT" type="text"
        value="<?=$record['WORKDEPT']?>" >
      </td>
    </tr>
    <tr>
      <td>Phone ext no</td>
      <td><input name="PHONENO" type="text"
        value="<?=$record['PHONENO']?>" maxlength="4" >
      </td>
    </tr>
    <tr>
      <td>&nbsp;</td>
      <td><input name="save" type="submit" value="Save Update">
        <a href="listing4update.php">Cancel</a> </td>
    </tr>
  </table>
</form>

```

```
</tr>
</table>
</form>

</body>
</html>
```

The last step is to extract all the data from the form and change the old data of the record to the new one.

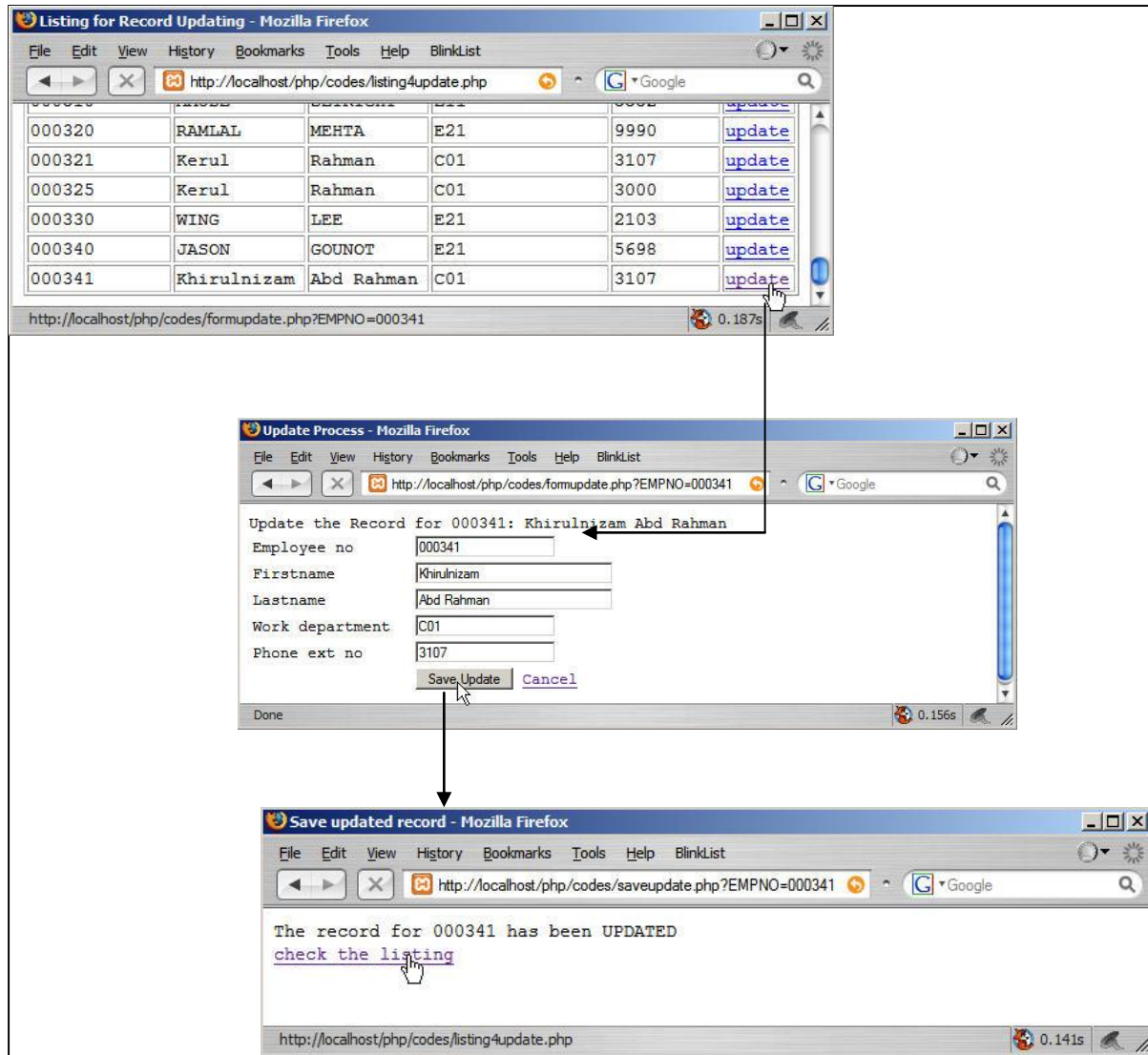
Filename: ***update.php***

```
<?php
$EMPNO=$_GET['EMPNO'];
$FIRSTNAME=$_GET['FIRSTNAME'];
$LASTNAME=$_GET['LASTNAME'];
$WORKDEPT=$_GET['WORKDEPT'];
$PHONENO=$_GET['PHONENO'];

$sql="update employee set FIRSTNAME='$FIRSTNAME',
      LASTNAME=' $LASTNAME' ,
      WORKDEPT=' $WORKDEPT' ,
      PHONENO=' $PHONENO'
      where EMPNO='$EMPNO'";

include "connection.php";
$rs=mysqli_query($db, $sql);
?>

<html>
<head>
<title>Save updated record</title>
</head>
<body>
<?php
if($rs==true){
    echo "The record for $EMPNO has been UPDATED<br>";
    echo "<a href='listing4update.php'>check the listing</a><br>";
}
else{
    echo "The update is NOT SUCCESSFUL!<br>";
}
?>
</body>
</html>
```







```

else if ($LASTNAME!=NULL){
    $condition="where LASTNAME LIKE '%$LASTNAME%'";
}

//Create SQL query
$query="select EMPNO, FIRSTNAME, LASTNAME, WORKDEPT, PHONENO
        from employee
        $condition
        order by EMPNO asc";

//Execute the query
$qqr=mysqli_query($db,$query);
if($qqr==false){
    echo ("Query cannot be executed!<br>");
    echo ("SQL Error : ".mysqli_error($db));
}

/*Check the record effected, if no records,
display a message*/
if(mysqli_num_rows($qqr)==0){
    echo ("No record found...<br>");
} //end no record
else{//there is/are record(s)
?>

<table width="100%" border="1">
<tr align="center">
    <td>Employee no.</td>
    <td>First name</td>
    <td>Last name</td>
    <td>Department code</td>
    <td>Phone no.</td>
</tr>

<?php
    while ($record=mysqli_fetch_array($qqr)){//redo to other
records
    ?>
        <tr>
            <td><?=$record['EMPNO']?></td>
            <td><?=$record['FIRSTNAME']?></td>
            <td><?=$record['LASTNAME']?></td>
            <td><?=$record['WORKDEPT']?></td>
            <td><?=$record['PHONENO']?></td>
            <td>
                <a href="xformupdate.php?EMPNO=<?=$record['EMPNO']?>">
                update</a>
            </td>
        </tr>
    </tr>
<?php
    } //end of records
    ?>
</table>
<?php
    } //end if there are records

```

```

} //end if any user input
?>
</body>
</html>

```

Description for bolded and gray-shadowed text in *xlisting4update.php* codes.

1. Search and listing will only be done if one of the field for EMPNO, FIRSTNAME or LASTNAME is entered by the user.
2. This script will generate the condition of the SQL select statement to search for the record the user request, using the criteria chosen.
3. This will generate the hyperlink to direct user to another page named *xformupdate.php*, and bringing along the EMPNO.

Screen shot of file: *xlisting4update.php*

**Listing for Record Updating - Mozilla Firefox**

File Edit View History Bookmarks Tools Help BlinkList

http://localhost/php/codes/xlisting4update.php?l

**Search for Record to be Updated**  
Please enter only ONE of the criteria below

EMPNO

FIRSTNAME

LASTNAME

**Listing for Record Updating**

Employee no.	First name	Last name	Department code	Phone no.	
000341	Khirulnizam	Abd Rahman	B01	3001	<a href="#">update</a>

http://localhost/php/codes/xformupdate.php?EMPNO=000341 0.187s

This example will consider the data validating and filtering. The important part in this exercise is to provide user with a more user-friendly form. For instance, the work department must be listed using drop down list. This is to prevent the user from typing the wrong department code. The phone number must be all digits, without any special character or alphabet.

This is the improved version of formupdate.php with the name *xformupdate.php*.

Filename: ***xformupdate.php***

```
<html>
<head>
<title>Update Process</title>
</head>
<body>
<?php
include "connection.php";
$EMPNO=$_GET['EMPNO'];
$sql="select * from employee
      where EMPNO='$EMPNO'";

$rs=mysqli_query($db,$sql);
$record=mysqli_fetch_array($rs);
?>
Update the Record for <?=$record['EMPNO']?>:
<?=$record['FIRSTNAME']?> <?=$record['LASTNAME']?> <br>

<form name="insert" action="xsaveupdate.php" method="get">
  <table width="100%" border="0">
    <tr>
      <td width="30%">Employee no</td>
      <td width="70%"><input name="EMPNO" type="text" readonly
        value="<? echo $record['EMPNO']?>" ></td>
    </tr>
    <tr>
      <td>Firstname</td>
      <td><input name="FIRSTNAME" type="text" size="30"
        value="<?=$record['FIRSTNAME']?>" ></td>
    </tr>
    <tr>
      <td>Lastname</td>
      <td><input name="LASTNAME" type="text" size="30"
        value="<?=$record['LASTNAME']?>" ></td>
    </tr>
    <tr>
      <td>Work department </td>
      <td>
        <?php
        /*this script generates dropdown list
         with the selected record WORKDEPT as the default value*/
        $employeeWORKDEPT=$record['WORKDEPT'];
        $sqldept="select DEPTNO, DEPTNAME from department";
        $rsdept=mysqli_query($db,$sqldept);
        ?>
        <select name="WORKDEPT">
          <?php
          while ($dept=mysqli_fetch_array($rsdept)){
            $deptno=$dept['DEPTNO'];
            $deptname=$dept['DEPTNAME'];
            /*if the DEPTNO equals to the employee's WORKDEPT,
             option list is default*/
            if ($employeeWORKDEPT==$deptno){
              echo "<option value='$deptno' selected>
```

```

                                $deptno - $deptname </option>\n";
                    }else{
                        echo "<option value='$deptno'> $deptno -
                                $deptname </option>\n";
                    }
                }//end while
            ?>
        </select>
    </td>
</tr>
<tr>
    <td>Phone ext no</td>
    <td><input name="PHONENO" type="text"
        value="<?=$record['PHONENO']?>" maxlength="4" >
        Eg: 9999</td>
</tr>
<tr>
    <td>&nbsp;</td>
    <td><input name="save" type="submit" value="Save Update">
        <a href="listing4update.php">Cancel</a> </td>
</tr>
</table>
</form>
</body>
</html>

```

Description for bolded and gray-shadowed text in *xformupdate.php* codes.

1. The script generates a option list (drop down combo box). The default selected item will be based on the WORKDEPT in the employee's record.

Screen shot of file: *xformupdate.php*

The screenshot shows a Mozilla Firefox browser window titled "Update Process - Mozilla Firefox". The address bar displays "http://localhost/php/codes/xformupdate.php?EM". The page content shows a form titled "Update the Record for 000341: Khirulnizam Abd Rahman". The form fields are as follows:

- Employee no: 000341
- Firstname: KHIRULNIZAM
- Lastname: ABD RAHMAN
- Work department: B01 - PLANNING (dropdown menu)
- Phone ext no: 1122 (with example text "Eg: 9999")

At the bottom of the form, there are two buttons: "Save Update" and "Cancel". A mouse cursor is pointing at the "Save Update" button. The browser's status bar at the bottom shows "Done" and a loading time of "0.310s".

And the last process is to extract all the data, do some data filtering. If there's nothing wrong with the data save the changes. However if the data is invalid, go back to the form.

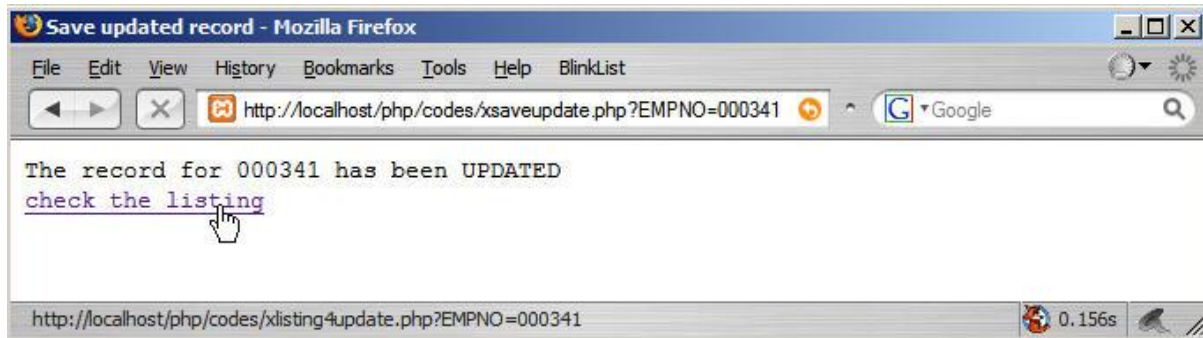
Filename: ***xsaveupdate.php***

```
<?php
include "connection.php";
$EMPNO=$_GET['EMPNO'];
$FIRSTNAME=$_GET['FIRSTNAME'];
$LASTNAME=$_GET['LASTNAME'];
$WORKDEPT=$_GET['WORKDEPT'];
$PHONENO=$_GET['PHONENO'];

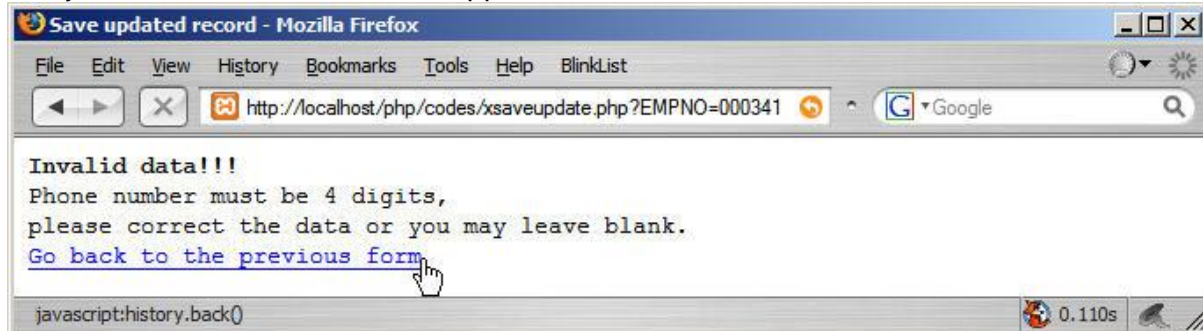
//check for input error (filtering)
$dataerror=false;
if ($PHONENO!=NULL &&(!ctype_digit($PHONENO)||strlen($PHONENO)!=4)){
    /* phone number not blank and (not digit or length not 4)*/
    $dataerror=true;
}
?>

<html>
<head>
<title>Save updated record</title>
</head>
<body>
<?php
if ($dataerror==false){
    $sql="update employee set FIRSTNAME='$FIRSTNAME',
        LASTNAME='$LASTNAME',
        WORKDEPT='$WORKDEPT',
        PHONENO='$PHONENO'
        where EMPNO='$EMPNO'";
    $rs=mysqli_query($db, $sql);
    if($rs==true){
        echo "The record for $EMPNO has been UPDATED<br>";
        echo "<a href='xlisting4update.php?EMPNO=$EMPNO'>
            check the listing</a><br>";
    }
    else{
        echo "The update is NOT SUCCESSFUL!<br>";
    }
}else{
    echo "<strong>Invalid data!!!<br></strong>";
    echo "Phone number must be 4 digits,<br>";
    echo "please correct the data or you may leave blank. <br>";
    echo "<a href='javascript:' onclick='history.back()'>
        Go back to the previous form </a><br>";
    /*this provides a hyperlink similar to Back button in
    the browser*/
}
?>
</body>
</html>
```

Screen shot of file: ***xsaveupdate.php***



If any invalid data, this screen will appear;





Screen shots for the whole process;

The process is shown in four screenshots:

- Listing for Record Updating - Mozilla Firefox**  
Search for Record to be Updated  
Please enter only ONE of the criteria below  
EMPNO  
FIRSTNAME  
LASTNAME  
SEARCH  
Listing for Record Updating  

Employee no.	First name	Last name	Department code	Phone no.	
000341	Khirlunizam	Abd Rahman	B01	3001	<a href="#">update</a>

  
[http://localhost/php/codes/xformupdate.php?EMPNO=000341](#) 0.187s
- Update Process - Mozilla Firefox**  
Update the Record for 000341: KHIRULNIZAM ABD RAHMAN  
Employee no: 000341  
Firstname: KHIRULNIZAM  
Lastname: ABD RAHMAN  
Work department: B01 - PLANNING  
Phone ext no: 1122 Eg: 9999  
Save Update Cancel  
Done  
  
0.312s
- Save updated record - Mozilla Firefox**  
The record for 000341 has been UPDATED  
[check the listing](#)  
  
[http://localhost/php/codes/xlisting4update.php?EMPNO=000341](#) 0.156s
- Listing for Record Updating - Mozilla Firefox**  
Search for Record to be Updated  
Please enter only ONE of the criteria below  
EMPNO  
FIRSTNAME  
LASTNAME  
SEARCH  
Listing for Record Updating  

Employee no.	First name	Last name	Department code	Phone no.	
000341	KHIRULNIZAM	ABD RAHMAN	B01	1122	<a href="#">update</a>

  
Done  
  
0.172s

Annotations:

- Search the name of employee to be modified.
- Do the amendments in the form
- The amendments have been saved, click to confirm.