California State University, East Bay

Database Architecture

AddBook.php & Checkout.php

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AddBook.php

Source code

```php
<?php
define('USER', 'root');
define('PWD', 'K@T/QUJ@');

$dsn = 'mysql:host=localhost;dbname=library-sql_project';

try {
  $sql = new PDO($dsn, USER, PWD);
} catch (PDOException $e) {
  echo 'Connection failed: ' . $e->getMessage();
}


?>

<!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>
    <title>Add Book</title>
    <link rel="stylesheet" media="screen" type="text/css" href="design.css" />
  </head>
  <body>
    <h1>Add Book</h1>
    <h3>Fill in below fields and click on 'Add Book'</h3>
    <form name="AddBook" method="post" action="">
      <p>
        <label for="book">Book:</label><br />
        <input type="text" name="book" id="book" /><br /><br />
        <label for="branch">Branch:</label><br />
        <select name="branch" id="branch">
          <?php
            foreach ($sql->query('SELECT branchname FROM Branches') as $row):
          ?>
          <option value="<?php echo $row['branchname']; ?>"><?php echo $row['
              branchname']; ?></option>
          <?php endforeach; ?>
        </select><br /><br />
        <label for="category">Category:</label><br />
        <select name="category" id="category">
          <?php
            foreach ($sql->query('SELECT categoryname FROM Categories') as
                $row):
          ?>
          <option value="<?php echo $row['categoryname']; ?>"><?php echo $row[
              'categoryname']; ?></option>
          <?php endforeach; ?>
        </select><br /><br />
        <input type="submit" name="add" value="Add Book" />
```

```php
                <input type="button" name="return" value="Return" onClick="location.
                    href='index.php'" />
            </p>
        </form>

<?php
if (isset($_POST['add'])) {
    if (!empty($_POST['book']) && !empty($_POST['branch']) && !empty($_POST['
        category'])) {
        $sth = $sql->query("select count(*) from Books where bookname='".$_POST['
            book']."' and branch='".$_POST['branch']."'");
        $row = $sth->fetch();
        $copy = $row[0];
        if ($copy == 0) {
            $sql->exec("insert into Books (BookName, Branch, Category) values ('".
                $_POST['book']."', '".$_POST['branch']."', '".$_POST['category']."')
                ");
            echo '<p>'.$_POST['book'].' successfully added in the '.$_POST['category
                '].' catgeory of the '.$_POST['branch'].' branch.</p>';
        }
        else
            echo '<p>'.$_POST['book'].' already exists in the '.$_POST['category'].'
                 catgeory of the '.$_POST['branch'].' branch.</p>';
    }
    else
        echo '<p>All fields are required.</p>';
}

$sql = null;
?>

    </body>
</html>
```

Result

Add Book

Fill in below fields and click on 'Add Book'

Book:

Branch:
AutoRow ▲▼

Category:
Business ▲▼

[Add Book] [Return]

Fremont history successfully added in the Travel catgeory of the CalState branch.

Add Book

Fill in below fields and click on 'Add Book'

Book:

Branch:
AutoRow ▲▼

Category:
Business ▲▼

[Add Book] [Return]

Fremont history already exists in the Travel catgeory of the CalState branch.

Checkout.php

Source code

```php
<?php
define('USER', 'root');
define('PWD', 'K@T/QUJ@');

$dsn = 'mysql:host=localhost;dbname=library-sql_project';

$cardholder = '';
$balance = '';
$numberCheckedOut = '';

try {
  $sql = new PDO($dsn, USER, PWD);
} catch (PDOException $e) {
  echo 'Connection failed: ' . $e->getMessage();
  }

if (isset($_POST['checkout']))
  if (!empty($_POST['cardholder']) && !empty($_POST['book']) && !empty($_POST[
      'balance']) && !empty($_POST['due'])) {
    $sql->exec('UPDATE Books SET Cardholder="'.$_POST['cardholder'].'" WHERE
        BookName="'.$_POST['book'].'"');
    $sql->exec('UPDATE Books SET DueDate="'.date('Y-m-d', strtotime($_POST['
        due'])).'" WHERE BookName="'.$_POST['book'].'"');
    $sql->exec('UPDATE Cardholders SET balanceowing='.$_POST['balance'].'
        WHERE cardholdername="'.$_POST['cardholder'].'"');
  }
  else {
    echo '<p>All fields are required.</p>';
  }

if (!isset($_POST['checkout'])) {
  if (!isset($_POST['cardholder'])) {
    $sth = $sql->query('SELECT CardholderName FROM Cardholders ORDER BY
        cardholdername LIMIT 1');
    $row = $sth->fetch();
    $cardholder = $row[0];
  }
  else
    $cardholder = $_POST['cardholder'];
}
else
    $cardholder = $_POST['cardholder'];

$sth = $sql->query('SELECT COUNT(*) FROM Books WHERE cardholder="'.$cardholder
    .'"');
$row = $sth->fetch();
$numberCheckedOut = $row[0];
```

```php
$sth = $sql->query ( 'SELECT balanceowing FROM Cardholders WHERE cardholdername
    ="'.$cardholder.'"');
$row = $sth->fetch ();
$balance = $row[0];
?>

<!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>
    <title>Check Out</title>
    <link rel="stylesheet" media="screen" type="text/css" href="design.css" />
  </head>
  <body>
    <h1>Check Out</h1>
    <h3>Fill in below fields and click on 'Check Out'</h3>
    <form name="Checkout" method="post" action="">
      <p>
        <label for="cardholder">Cardholder:</label><br />
        <select name="cardholder" id="cardholder" onchange="Checkout.submit()"
            >
          <?php
            foreach ($sql->query ( 'SELECT cardholdername FROM Cardholders') as
                $row):
          ?>
          <option  value="<?php echo $row['cardholdername']; ?>" <?php if (
              $row['cardholdername'] == $cardholder) echo 'selected="selected"
              ' ?>><?php echo $row['cardholdername']; ?></option>
          <?php endforeach; ?>
        </select><br /><br />
        <label for="book">Book:</label><br />
        <select name="book" id="book">
          <?php
            foreach ($sql->query ( 'SELECT bookname FROM Books WHERE cardholder
                is null') as $row):
          ?>
          <option value="<?php echo $row['bookname']; ?>"><?php echo $row['
              bookname']; ?></option>
          <?php endforeach; ?>
        </select><br /><br />
        <p>Number Already Checked Out: <?php echo $numberCheckedOut; ?><br
            /></p>
        <label for="balance">Balance Owing ($):</label><br />
        <input type="text" name="balance" id="balance" value="<?php echo
            $balance ?>" /><br /><br />
        <label for="due">Due Date:</label><br />
        <input type="text" name="due" id="due" value="<?php echo date ('M-d-o',
            time()+14*60*60*24); ?>" /><br /><br />
        <input type="submit" name="checkout" value="Check Out" />
        <input type="button" name="return" value="Return" onClick="location.
            href='index.php'" />
      </p>
    </form>
```

```
    </body>
</html>

<?php
    $sql = null;
?>
```

Result

Check Out

Fill in below fields and click on 'Check Out'

Cardholder:

[Myrtle Grimes ‡]

Book:

[Fremont history ‡]

Number Already Checked Out: 0

Balance Owing ($):

[5.00]

Due Date:

[Dec-14-2011]

[Check Out] [Return]

Check Out

Fill in below fields and click on 'Check Out'

Cardholder:

[Myrtle Grimes ‡]

Book:

[Toxic Bonds ‡]

Number Already Checked Out: 1

Balance Owing ($):

[5.00]

Due Date:

[Dec-14-2011]

[Check Out] [Return]