

G51DBI CW2 REPORT

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Features Used

HTML

- `<head>` and `<body>` tags for HTML to properly divide code
- `<link>` to utilise a consistent CSS styling throughout all pages
- `<title>` to give pages' relevant tab titles
- `<h*>` tags for headers on page
- `` to create an unordered list and properly format information on the page
- `
` tags to create line breaks and as such show information clearly
- `<a>` tags to direct to other pages through links
- `'class'` to give elements equal styles with other elements of the same class name
- `<form>` elements to navigate to new pages and pass information to be used, and `<input>` and `<select>` elements for users to interact with and `<submit>` elements to submit this information for use
- `<table>`, `<tr>`, `<th>` and `<td>` elements to fully format and display table information
- `` allows a different style element to be given to a subpart of an overall part
- `'onblur'`, `'oninput'` and `'onSubmit'` to invoke JavaScript when a relevant action is taken on the form element

CSS

- `'color'` to set text colour
- `'background-color'` to set the colour of the background of the specified element/page
- `'font-family'` to set the font type/style
- `'list-style-type: none'` to remove bullet points from being displayed in an unordered list
- `'float'` to set position of element left or right
- `'hover:not(.active)'` changes an element when the user is hovering over it
- `'padding'` allows space around an element
- `'width'` describes the allowable width of an element
- `'-webkit-transition'`, `'-moz-transition'`, `'-ms-transition'`, `'-o-transition'`, `'-moz-box-shadow'` and `'-webkit-box-shadow'` are all used to create transitions around elements

PHP

- `'require_once()'` and `'include_once()'` to import and use an external php file
- `'mysqli'` sets up a connection to the database, and uses `'connect_errno'` and `'trigger_error()'` functions and variables to check for errors in connections and requests
- `'mysqli_fetch_assoc'` gets a result row from the returned array which can then be used to gather the required information
- `'$_GET[]'` and `'$_POST[]'` obtains information supplied by the previous form and brings it into the current page to be utilised
- `'echo'` to print and return information

JavaScript

- Used JavaScript for form validation, utilising the current object and passing it to a script to check if the form can be passed or not
- `‘.style.borderColor’` and `‘.style.borderWidth’` to alter an elements properties to highlight to the user a relevant message

SQL

- `‘SELECT’` and `‘FROM’` to obtain data from the database
- `‘WHERE’`, `‘LIKE’`, `‘AND’` used to further specify parameters for selection
- `‘DELETE FROM’` used to remove data from the database
- `‘INSERT INTO’` and `‘VALUES’` used to add new data to a table
- `‘UPDATE’` used to alter existing tuples of the table

The main features of the website are -

- To view initial data about the database
- To view the entire tables of artist, album and track
- To narrow the results of these tables using the search bar on the relevant page
- To add a new artist, album or track
- To edit an existing artist, album or track
- To delete an existing artist, album or track
- Relevant links to navigate the site with ease

Code Samples used from:

<https://www.w3schools.com>

<https://www.sanwebe.com/2014/08/css-html-forms-designs>

Appendix

home.php

This is the home page for the site which contains a header, the navigation bar and some data analytics about the database

```
<!DOCTYPE HTML>
<html lang='en'>
  <head>
    <meta charset="utf-8">
    <link rel="stylesheet" type="text/css" href="styles.css">
    <title>Home</title>
  </head>
  <body>
    <h1>Home</h1>
    <ul class="toolbar">
      <li class="toolbar"><a href="home.php">Home</a></li>
      <li class="toolbar"><a href="artists.php">Artists</a></li>
      <li class="toolbar"><a href="albums.php">Albums</a></li>
      <li class="toolbar"><a href="tracks.php">Tracks</a></li>
    </ul>
    <h2>Database Metrics</h2>
    <?php
      require_once('db.php');
      $query1 = "SELECT count(artID) FROM artist";
      $query2 = "SELECT count(cdID) FROM cd";
      $query3 = "SELECT count(trackID) FROM track";
      $results1 = $conn->query($query1) or trigger_error($conn->error);
      $results2 = $conn->query($query2) or trigger_error($conn->error);
      $results3 = $conn->query($query3) or trigger_error($conn->error);
      $result1 = mysqli_fetch_assoc($results1);
      $result2 = mysqli_fetch_assoc($results2);
      $result3 = mysqli_fetch_assoc($results3);
      echo '<ul><li>Number of Artists:
'. $result1['count(artID)'] .'</li><li>Number of CDs: ' .
      $result2['count(cdID)'] .'</li><li>Number of Tracks:
'. $result3['count(trackID)'] .'</li></ul>';
    ?>
    <?php include_once('footer.php'); ?>
  </body>
</html>
```

artists.php

This is the artists page, which obtains and displays the results from the artist table of the database, and can be narrowed using the provided search bar. On the page there are also links to edit, add and delete artists and to go to a specific artists album results

```
<!DOCTYPE HTML>
<html lang='en'>
  <head>
    <meta charset="utf-8">
    <link rel="stylesheet" type="text/css" href="styles.css">
    <title>Artists</title>
  </head>
  <body>
    <h1>Artists</h1>
    <ul class="toolbar">
      <li class="toolbar"><a href="home.php">Home</a></li>
      <li class="toolbar"><a href="artists.php">Artists</a></li>
      <li class="toolbar"><a href="albums.php">Albums</a></li>
      <li class="toolbar"><a href="tracks.php">Tracks</a></li>
    </ul>
    <br>
    <?php
      if(isset($_POST['typeAdd']) or isset($_POST['typeEdit'])) {
        require_once('db.php');
        $name = $_POST['name'];
        if(isset($_POST['typeAdd'])) {
          if($_POST['typeAdd']=='Save') {
            $queryFinal = "INSERT INTO artist (artName) VALUES
(' $name' )";

          }elseif($_POST['typeAdd']=='Delete') {
            $query1 = "SELECT artID FROM artist WHERE
artName=(' $name' )";
            $results1 = $conn->query($query1) or
trigger_error($conn->error);
            $result1 = mysqli_fetch_assoc($results1);
            $artID = $result1['artID'];
            $query2 = "SELECT cdID FROM cd WHERE artID=(' $artID' )";
            $results2 = $conn->query($query2) or
trigger_error($conn->error);
            for($i=0;$i<$results2->num_rows;$i++){
              $result2 = mysqli_fetch_assoc($results2);
              $cdID = $result2['cdID'];
              $queryTrackDelete = "DELETE FROM tracks WHERE
cdID=$cdID";
              $resultsTrackDelete = $conn->
query($queryTrackDelete) or trigger_error($conn->error);
            }
            $queryCDDelete = "DELETE FROM cd WHERE artID=$artID";
            $queryFinal = "DELETE FROM artist WHERE artID=$artID";
          }
          $results = $conn->query($queryFinal) or
trigger_error($conn->error);
        }elseif(isset($_POST['typeEdit'])) {
          if($_POST['typeEdit']=='Save') {
            // $queryFinal = "INSERT INTO artist (artName) VALUES
(' $name' )";
            $update = $_POST['extra'];
```

```

        $name = $_POST['name'];
        $queryFinal = "UPDATE artist SET artName='$name' WHERE
artName='$update'";
    }elseif($_POST['typeEdit']=='Delete'){
        $query1 = "SELECT artID FROM artist WHERE
artName=('$name')";
        $results1 = $conn->query($query1) or
trigger_error($conn->error);
        $result1 = mysqli_fetch_assoc($results1);
        $artID = $result1['artID'];
        $query2 = "SELECT cdID FROM cd WHERE artID=('$artID')";
        $results2 = $conn->query($query2) or
trigger_error($conn->error);
        for($i=0;$i<$results2->num_rows;$i++){
            $result2 = mysqli_fetch_assoc($results2);
            $cdID = $result2['cdID'];
            $queryTrackDelete = "DELETE FROM tracks WHERE
cdID=$cdID";
            $resultsTrackDelete = $conn->
query($queryTrackDelete) or trigger_error($conn->error);
        }
        $queryCDDelete = "DELETE FROM cd WHERE artID=$artID";
        $queryFinal = "DELETE FROM artist WHERE artID=$artID";
    }
    $results = $conn->query($queryFinal) or
trigger_error($conn->error);
}

?>
<form action="" method="post" id="searchArtists">
    <ul class="form-style-1">
        <li><input type="text" name="search" placeholder="Search"
class="field"></li>
    </ul>
</form>
<table>
    <thead>
        <tr>
            <th>Artist ID</th>
            <th>Artist Title</th>
            <th></th>
        </tr>
    </thead>
    <tbody>
        <?php
            require_once('db.php');
            if(isset($_POST['search'])){
                $x = '%'.$_POST['search'].'%';
                $query = "SELECT * FROM artist WHERE artName LIKE
'$x' ORDER BY artID ASC";
            }else{
                $query = "SELECT * FROM artist ORDER BY artID ASC";
            }
            $results = $conn->query($query) or trigger_error($conn->
error);
            for($i=0;$i<$results->num_rows;$i++){
                $result = mysqli_fetch_assoc($results);
                echo
'<tr><td>'.$result['artID'].'</td><td>'.$result['artName'].'</td><td>'.

```

```

        ' <a
href="editArtist.php?id='.$result['artName'].'">Edit</a> <a
href="albums.php?id='.$result['artID'].'">Albums</a></td></tr>';
    }
    ?>
</tbody>
</table>
<a href="editArtist.php">Add Artist</a>
<?php include_once('footer.php'); ?>
</body>
</html>

```

albums.php

This is the albums page, which obtains and displays the results from the album table of the database, and can be narrowed using the provided search bar. On the page, there are also links to edit, add and delete albums and to go to a specific albums track results

```

<!DOCTYPE HTML>
<html lang='en'>
  <head>
    <meta charset="utf-8">
    <link rel="stylesheet" type="text/css" href="styles.css">
    <title>Albums</title>
  </head>
  <body>
    <h1>Albums</h1>
    <ul class="toolbar">
      <li class="toolbar"><a href="home.php">Home</a></li>
      <li class="toolbar"><a href="artists.php">Artists</a></li>
      <li class="toolbar"><a href="albums.php">Albums</a></li>
      <li class="toolbar"><a href="tracks.php">Tracks</a></li>
    </ul>
    <br>
    <?php
      if(isset($_POST['typeAdd'])) {
        require_once('db.php');
        $cdTitle = $_POST['title'];
        if($_POST['typeAdd']=='Save') {
          $artName = $_POST['artist'];
          $price = $_POST['price'];
          $genre = $_POST['genre'];
          $tracks = $_POST['tracks'];
          $query1 = "SELECT artID FROM artist WHERE
(artName='$artName') ";
          $results1 = $conn->query($query1) or trigger_error($conn-
>error);
          $result1 = mysqli_fetch_assoc($results1);
          $artID = $result1['artID'];
          $queryFinal = "INSERT INTO cd
(artID,cdTitle,cdPrice,cdGenre,cdNumTracks) VALUES
($artID, '$cdTitle', $price, '$genre', $tracks) ";
        }elseif($_POST['typeAdd']=='Delete') {
          $query1 = "SELECT cdID FROM cd WHERE (cdTitle='$cdTitle') ";

```

```

        $results1 = $conn->query($query1) or trigger_error($conn-
>error);
        $result1 = mysqli_fetch_assoc($results1);
        $cdID = $result1['cdID'];
        $trackDelete = "DELETE FROM track WHERE cdID=$cdID";
        $queryFinal = "DELETE FROM cd WHERE cdID=$cdID";
        $results2 = $conn->query($trackDelete) or
trigger_error($conn->error);
    }
    $results = $conn->query($queryFinal) or trigger_error($conn-
>error);
}elseif(isset($_POST['typeEdit'])) {
    require_once('db.php');
    $cdTitle = $_POST['title'];
    if($_POST['typeEdit']=='Save') {
        $artName = $_POST['artist'];
        $cdID = $_POST['extra'];
        $price = $_POST['price'];
        $genre = $_POST['genre'];
        $tracks = $_POST['tracks'];
        $query1 = "SELECT artID FROM artist WHERE
(artName='$artName')";
        $results1 = $conn->query($query1) or trigger_error($conn-
>error);
        $result1 = mysqli_fetch_assoc($results1);
        $artID = $result1['artID'];
        $queryFinal = "UPDATE cd SET cdTitle='$cdTitle',
cdPrice=$price, cdGenre='$genre', cdNumTracks=$tracks WHERE cdID=$cdID";
    }elseif($_POST['typeEdit']=='Delete') {
        $query1 = "SELECT cdID FROM cd WHERE (cdTitle='$cdTitle')";
        $results1 = $conn->query($query1) or trigger_error($conn-
>error);
        $result1 = mysqli_fetch_assoc($results1);
        $cdID = $result1['cdID'];
        $trackDelete = "DELETE FROM track WHERE cdID=$cdID";
        $queryFinal = "DELETE FROM cd WHERE cdID=$cdID";
        $results2 = $conn->query($trackDelete) or
trigger_error($conn->error);
    }
    $results = $conn->query($queryFinal) or trigger_error($conn-
>error);
}
?>
<form action="" method="post" id="searchArtists">
    <ul class="form-style-1">
        <li><input type="text" name="search" placeholder="Search"
class="field"></li>
    </ul>
</form>
<table>
    <thead>
        <tr>
            <th>CD ID</th>
            <th>Artist</th>
            <th>Title</th>
            <th>Genre</th>
            <th>Price</th>
            <th>Tracks</th>
            <th></th>
        </tr>
    </thead>

```



```

        <tbody>
            <?php
                require_once('db.php');
                if(isset($_POST['search'])) {
                    $x = '%' . $_POST['search'] . '%';
                    $query = "SELECT
cdID,artName,cdTitle,cdPrice,cdGenre,cdNumTracks
                        FROM cd,artist WHERE artist.artID=cd.artID ORDER BY
cdID ASC";
                }elseif(isset($_GET['id'])) {
                    $x = $_GET['id'];
                    $query = "SELECT
cdID,artName,cdTitle,cdPrice,cdGenre,cdNumTracks
                        FROM cd,artist WHERE artist.artID=cd.artID
                        AND cd.artID=$x ORDER BY cdID ASC";
                }else{
                    $query = "SELECT
cdID,artName,cdTitle,cdPrice,cdGenre,cdNumTracks
                        FROM cd,artist WHERE artist.artID=cd.artID ORDER BY
cdID ASC";
                }
                $results = $conn->query($query) or trigger_error($conn-
>error);
                for($i=0;$i<$results->num_rows;$i++){
                    $result = mysqli_fetch_assoc($results);
                    echo
'<tr><td>'.$result['cdID'].'</td><td>'.$result['artName'].'</td><td>'.
$result['cdTitle'].'</td><td>'.$result['cdGenre'].'</td><td>'.$result['cdPr
ice'].'
                        '</td><td>'.$result['cdNumTracks'].'</td><td><a
href="editCD.php?id='.$result['cdID'].'
'&title='.$result['cdTitle'].'&artist='.$result['artName'].'&price='.$resul
t['cdPrice'].'
'&genre='.$result['cdGenre'].'&tracks='.$result['cdNumTracks'].'
'>Edit</a> <a
href="tracks.php?id='.$result['cdID'].'>Tracks</a></td></tr>';
                }
            ?>
        </tbody>
    </table>
    <a href="editCD.php">Add CD</a>
    <?php include_once('footer.php'); ?>
</body>
</html>

```

tracks.php

This is the tracks page, which obtains and displays the results from the track table of the database, and can be narrowed using the provided search bar. On the page, there are also links to edit, add and delete tracks

```
<!DOCTYPE HTML>
<html lang='en'>
  <head>
    <meta charset="utf-8">
    <link rel="stylesheet" type="text/css" href="styles.css">
    <title>Tracks</title>
  </head>
  <body>
    <h1>Tracks</h1>
    <ul class="toolbar">
      <li class="toolbar"><a href="home.php">Home</a></li>
      <li class="toolbar"><a href="artists.php">Artists</a></li>
      <li class="toolbar"><a href="albums.php">Albums</a></li>
      <li class="toolbar"><a href="tracks.php">Tracks</a></li>
    </ul>
    <br>
    <?php
      if(isset($_POST['typeAdd'])) {
        require_once('db.php');
        $trackTitle = $_POST['trackTitle'];
        $cdTitle = $_POST['cdTitle'];
        $duration = $_POST['duration'];
        $query1 = "SELECT cdID FROM cd WHERE (cdTitle='$cdTitle')";
        $results1 = $conn->query($query1) or trigger_error($conn-
>error);
        $result1 = mysqli_fetch_assoc($results1);
        $cdID = $result1['cdID'];
        if($_POST['typeAdd']=='Save') {
          $queryFinal = "INSERT INTO track (cdID,trackTitle,duration)
VALUES
          ($cdID, '$trackTitle', $duration)";
        }elseif($_POST['typeAdd']=='Delete') {
          $queryFinal = "DELETE FROM track WHERE
trackTitle=('$trackTitle') AND cdID=($cdID)";
        }
        $results = $conn->query($queryFinal) or trigger_error($conn-
>error);
      }elseif(isset($_POST['typeEdit'])) {
        require_once('db.php');
        $trackTitle = $_POST['trackTitle'];
        $cdTitle = $_POST['cdTitle'];
        $duration = $_POST['duration'];
        $query1 = "SELECT cdID FROM cd WHERE (cdTitle='$cdTitle')";
        $results1 = $conn->query($query1) or trigger_error($conn-
>error);
        $result1 = mysqli_fetch_assoc($results1);
        $cdID = $result1['cdID'];
        if($_POST['typeEdit']=='Save') {
          $queryFinal = "UPDATE track SET cdID=$cdID,
trackTitle='$trackTitle', duration=$duration";
        }elseif($_POST['typeEdit']=='Delete') {
          $queryFinal = "DELETE FROM track WHERE
trackTitle=('$trackTitle') AND cdID=($cdID)";
        }
      }
```

```

        $results = $conn->query($queryFinal) or trigger_error($conn-
>error);
    }
    ?>
    <form action="" method="post" id="searchArtists">
        <ul class="form-style-1">
            <li><input type="text" name="search" placeholder="Search"
class="field"></li>
        </ul>
    </form>
    <table>
        <thead>
            <tr>
                <th>Track ID</th>
                <th>Artist</th>
                <th>CD</th>
                <th>Title</th>
                <th>Duration</th>
                <th></th>
            </tr>
        </thead>
        <tbody>
            <?php
                require_once('db.php');
                if(isset($_POST['search'])) {
                    $x = '%'.$_POST['search'].'%';
                    $query = "SELECT
trackID,artName,cdTitle,trackTitle,duration
FROM cd,artist,track WHERE artist.artID=cd.artID
AND track.cdID=cd.cdID AND trackTitle LIKE '$x'
ORDER BY trackID ASC";
                }elseif(isset($_GET['id'])) {
                    $x = $_GET['id'];
                    $query = "SELECT
trackID,artName,cdTitle,trackTitle,duration
FROM cd,artist,track WHERE artist.artID=cd.artID
AND track.cdID=cd.cdID AND track.cdID=$x ORDER BY
trackID ASC";
                }else{
                    $query = "SELECT
trackID,artName,cdTitle,trackTitle,duration
FROM cd,artist,track WHERE artist.artID=cd.artID
AND track.cdID=cd.cdID ORDER BY trackID ASC";
                }
                $results = $conn->query($query) or trigger_error($conn-
>error);
                for($i=0;$i<$results->num_rows;$i++){
                    $result = mysqli_fetch_assoc($results);
                    echo
'<tr><td>'.$result['trackID'].'</td><td>'.$result['artName'].'</td><td>'.
$result['cdTitle'].'</td><td>'.$result['trackTitle'].'</td><td>'.
$result['duration'].'</td><td><a
href="editTrack.php?id='.$result['trackID'].'&title='
$result['trackTitle'].'&album='.$result['cdTitle'].'&duration='.$result['du
ration'].'">
                    Edit</a></td></tr>';
                }
            ?>
        </tbody>
    </table>
    </tbody>

```

```

        </table>
        <a href="editTrack.php">Add Track</a>
        <?php include_once('footer.php'); ?>
    </body>
</html>

```

editArtist.php

This page provides the form for the user to add a new artist to the database, edit an existing artist or delete an artist and then passes the information back to artists.php which contains the code to access the database

```

<!DOCTYPE HTML>
<html lang='en'>
    <head>
        <meta charset="utf-8">
        <link rel="stylesheet" type="text/css" href="styles.css">
        <title>Edit Artist</title>
    </head>
    <body>
        <h1>Edit Artist</h1>
        <ul class="toolbar">
            <li class="toolbar"><a href="home.php">Home</a></li>
            <li class="toolbar"><a href="artists.php">Artists</a></li>
            <li class="toolbar"><a href="albums.php">Albums</a></li>
            <li class="toolbar"><a href="tracks.php">Tracks</a></li>
        </ul>
        <br>
        <form action="artists.php" method="post" id="editArtist"
onSubmit="return validate(this)">
            <ul class="form-style-1">
                <li><label>Name <span class="required">*</span></label>
                <?php
                    if(isset($_GET['id'])) {
                        echo '<input type="text" name="name"
value="' . $_GET['id'] . '" class="field" onblur="return empty(this)"
oninput="return empty(this)"></li>';
                        echo '<li><input type="submit" name="typeEdit"
value="Save"></li>';
                        echo '<li><input type="submit" name="typeEdit"
value="Delete"></li>';
                        echo '<input type="hidden" name="extra"
value="' . $_GET['id'] . '">';
                    } else {
                        echo '<input type="text" name="name" class="field"
onblur="return empty(this)" oninput="return empty(this)"></li>';
                        echo '<li><input type="submit" name="typeAdd"
value="Save"></li>';
                        echo '<li><input type="submit" name="typeAdd"
value="Delete"></li>';
                    }
                <?>
            </ul>

```

```

        <br><a href="artists.php"><-- Return to Artists</a>
    </script>
        function validate(form){
            if(form.name.value==""){
                return false;
            }else{
                return true;
            }
        }
        function empty(form){
            if(form.value==""){
                form.style.borderColor = "red";
                form.style.borderWidth = "2px";
            }else{
                form.style.borderColor = '#BEBEBE';
                form.style.borderWidth = "2px";
            }
        }
    </script>
</form>
<?php include_once('footer.php'); ?>
</body>
</html>

```

editCD.php

This page provides the form for the user to add a new album to the database, edit an existing album or delete an album and then passes the information back to albums.php which contains the code to access the database

```

<!DOCTYPE HTML>
<html lang='en'>
    <head>
        <meta charset="utf-8">
        <link rel="stylesheet" type="text/css" href="styles.css">
        <title>Edit CD</title>
    </style>
    </head>
    <body>
        <h1>Edit CD</h1>
        <ul class="toolbar">
            <li class="toolbar"><a href="home.php">Home</a></li>
            <li class="toolbar"><a href="artists.php">Artists</a></li>
            <li class="toolbar"><a href="albums.php">Albums</a></li>
            <li class="toolbar"><a href="tracks.php">Tracks</a></li>
        </ul>
        <br>
        <form action="albums.php" method="post" id="editCD"
onSubmit="return validate(this)">
            <ul class="form-style-1">
                <?php
                if(isset($_GET['id'])){

```

```

        echo '<li><label>Title <span
class="required">*</span></label>';
        echo '<input type="text" name="title" class="field"
value="'. $ _GET['title'] .' onblur="return empty(this)" oninput="return
empty(this)"">';
        echo '</li><li>';
        echo '<label>Artist <span
class="required">*</span></label>';
        echo '<select name="artist" class="field">';
            include_once('db.php');
            $query = "SELECT artName FROM artist";
            $results = $conn->query($query) or
trigger_error($conn->error);
            for($i=0;$i<$results->num_rows;$i++){
                $result = mysqli_fetch_assoc($results);
                if($result['artName']==$_GET['artist']){
                    echo '<option selected
name="artName">'. $result['artName'] .'</option>';
                }else{
                    echo '<option
name="artName">'. $result['artName'] .'</option>';
                }
            }
        echo '</select>';
        echo '</li><li><label>Price <span
class="required">*</span></label>';
        echo '<input type="text" name="price" class="field"
value="'. $ _GET['price'] .' onblur="return empty(this)" oninput="return
empty(this)"">';
        echo '</li><li><label>Genre <span
class="required">*</span></label>';
        echo '<input type="text" name="genre" class="field"
value="'. $ _GET['genre'] .' onblur="return empty(this)" oninput="return
empty(this)"">';
        echo '</li><li><label>Tracks</label>';
        echo '<input type="number" name="tracks" class="field"
value="'. $ _GET['tracks'] .'>';
        echo '</li>';
        echo '<li><input type="submit" name="typeEdit"
value="Save"></li>';
        echo '<li><input type="submit" name="typeEdit"
value="Delete"></li>';
        echo '<input type="hidden" name="extra"
value="'. $ _GET['id'] .'>';
    }else{
        echo '<li><label>Title <span
class="required">*</span></label>';
        echo '<input type="text" name="title" class="field"
onblur="return empty(this)" oninput="return empty(this)"">';
        echo '</li><li>';
        echo '<label>Artist <span
class="required">*</span></label>';
        echo '<select name="artist" class="field">';
            include_once('db.php');
            $query = "SELECT artName FROM artist";
            $results = $conn->query($query) or
trigger_error($conn->error);
            for($i=0;$i<$results->num_rows;$i++){
                $result = mysqli_fetch_assoc($results);
                echo '<option
name="artName">'. $result['artName'] .'</option>';

```

```

        }
        echo '</select>';
        echo '</li><li><label>Price <span
class="required">*</span></label>';
        echo '<input type="number" name="price" class="field"
onblur="return empty(this)" oninput="return empty(this)">';
        echo '</li><li><label>Genre <span
class="required">*</span></label>';
        echo '<input type="text" name="genre" class="field"
onblur="return empty(this)" oninput="return empty(this)">';
        echo '</li><li><label>Tracks</label>';
        echo '<input type="number" name="tracks" class="field">';
        echo '</li>';
        echo '<li><input type="submit" name="typeAdd"
value="Save"></li>';
        echo '<li><input type="submit" name="typeAdd"
value="Delete"></li>';
    }
    ?>
</ul>
<br><a href="albums.php"><-- Return to Albums</a>
<script type="text/javascript">
    function validate(form){
        if(form.title.value==""){
            return false;
        }else if(form.price.value==""){
            return false;
        }else if(form.genre.value==""){
            return false;
        }else{
            return true;
        }
    }
    function empty(form){
        if(form.value==""){
            form.style.borderColor = "red";
            form.style.borderWidth = "2px";
        }else{
            form.style.borderColor = '#BEBEBE';
            form.style.borderWidth = "2px";
        }
    }
</script>
</form>
<?php include_once('footer.php'); ?>
</body>
</html>

```

editTrack.php

This page provides the form for the user to add a new track to the database, edit an existing track or delete a track and then passes the information back to tracks.php which contains the code to access the database

```
<!DOCTYPE HTML>
<html lang='en'>
  <head>
    <meta charset="utf-8">
    <link rel="stylesheet" type="text/css" href="styles.css">
    <title>Edit Track</title>
  </head>
  <body>
    <h1>Edit Track</h1>
    <ul class="toolbar">
      <li class="toolbar"><a href="home.php">Home</a></li>
      <li class="toolbar"><a href="artists.php">Artists</a></li>
      <li class="toolbar"><a href="albums.php">Albums</a></li>
      <li class="toolbar"><a href="tracks.php">Tracks</a></li>
    </ul>
    <br>
    <form action="tracks.php" method="post" id="editCD">
      <ul class="form-style-1">
        <?php
          if(isset($_GET['id'])) {
            echo '<li><label>Title <span
class="required">*</span></label>';
            echo '<input type="text" name="trackTitle" class="field"
value="'. $_GET['title'] .' " onblur="return empty(this)" oninput="return
empty(this)">';
            echo '</li><li>';
            echo '<label>Album <span
class="required">*</span></label>';
            echo '<select name="cdTitle" class="field">';
              include_once('db.php');
              $query = "SELECT cdTitle FROM cd";
              $results = $conn->query($query) or
trigger_error($conn->error);
              for($i=0;$i<$results->num_rows;$i++){
                $result = mysqli_fetch_assoc($results);
                if($result['cdTitle']==$_GET['album']) {
                  echo '<option selected
name="cdTitle">'. $result['cdTitle'] .'</option>';
                }else{
                  echo '<option
name="cdTitle">'. $result['cdTitle'] .'</option>';
                }
              }
            echo '</select></li><li><label>Duration</label>';
            echo '<input type="number" name="duration" class="field"
value="'. $_GET['duration'] .' " onblur="return empty(this)" oninput="return
empty(this)">';
            echo '</li><li>';
            echo '<input type="submit" name="typeEdit" value="Save">';
            echo '</li><li>';
            echo '<input type="submit" name="typeEdit"
value="Delete">';
            echo '</li><input type="hidden" name="extra"
value="'. $_GET['id'] .' ">';
```



```

        }else{
            echo '<li><label>Title <span
class="required">*</span></label>';
            echo '<input type="text" name="trackTitle" class="field"
onblur="return empty(this)" oninput="return empty(this)">';
            echo '</li><li>';
            echo '<label>Album <span
class="required">*</span></label>';
            echo '<select name="cdTitle" class="field">';
                include_once('db.php');
                $query = "SELECT cdTitle FROM cd";
                $results = $conn->query($query) or
trigger_error($conn->error);
                for($i=0;$i<$results->num_rows;$i++){
                    $result = mysqli_fetch_assoc($results);
                    echo '<option
name="cdTitle">'. $result['cdTitle'] . '</option>';
                }
            echo '</select></li><li><label>Duration <span
class="required">*</span></label>';
            echo '<input type="number" name="duration" class="field"
value=0 onblur="return empty(this)" oninput="return empty(this)"> seconds';
            echo '</li><li>';
            echo '<input type="submit" name="typeAdd" value="Save">';
            echo '</li><li>';
            echo '<input type="submit" name="typeAdd" value="Delete">';
        }
    ?>
</ul>
<br><a href="tracks.php"><-- Return to Tracks</a>
<script type="text/javascript">
    function validate(form){
        if(form.trackTitle.value==""){
            return false;
        }else if(form.duration.value==""){
            return false;
        }else{
            return true;
        }
    }
    function empty(form){
        if(form.value==""){
            form.style.borderColor = "red";
            form.style.borderWidth = "2px";
        }else{
            form.style.borderColor = '#BEBEBE';
            form.style.borderWidth = "2px";
        }
    }
</script>
</form>
<?php include_once('footer.php'); ?>
</body>
</html>

```

footer.php

Small php file containing code to create a uniform footer on all pages

```
<?php
    echo '<br><br><hr>';
    echo '<div class="footer">G51DBI CW2 Created by Alessio Cauteruccio
&copy;2017</div>';
?>
```

db.php

File containing the procedure to connect to the database and is called externally by other files

```
<?php
error_reporting(-1);
ini_set('display_errors', 'On');
$db_host = 'localhost';
$db_user = 'root';
$db_pass = '';
$db_name = 'catalogue';
$conn = new mysqli($db_host, $db_user, $db_pass, $db_name);
if ($conn->connect_errno) echo "failed to connect to database";
?>
```

styles.css

CSS file containing all style items used throughout the pages, allowing a consistent look and feel throughout the site

```
html *{
    color: white;
}

body {
    background-color: #222;
    font-family: Calibri;
}

ul.toolbar {
    list-style-type: none;
    margin: 0;
    padding: 0;
    overflow: hidden;
    background-color: #f0f;
    width: 100%
}

li.toolbar {
    float: left;
}

li.toolbar a {
    display: block;
```

```
        text-align: center;
        padding: 14px 16px;
        text-decoration: none;
    }

    li.toolbar a: hover: not(.active) {
        background-color: #333;
    }

    th {
        height: 50px;
        border-bottom: 2px solid #f0f;
    }

    td {
        border-bottom: 1px solid #f0f;
        padding: 10px 20px;
    }

    input[type=text] {
        color: black;
        border: 0.25px solid white;
    }

    input[type=text]:focus{
        border: 0.25px solid #f0f;
    }

    input[type=submit]{
        background-color: #f0f;
        border: 2px #f0f;
        padding: 3px 3px;
    }

    .form-style-1 {
        max-width: 400px;
        font: Calibri;
    }

    .form-style-1 li {
        padding: 0;
        display: block;
        list-style: none;
        margin: 10px 0 0 0;
        margin-left: -40px;
    }

    .form-style-1 label{
        margin:0 0 3px 0;
        padding:0px;
        display:block;
        font-weight: bold;
    }

    .form-style-1 input[type=text],
    .form-style-1 input[type=number],
    select,
    select option{
        color: black;
        box-sizing: border-box;
        -webkit-box-sizing: border-box;
        -moz-box-sizing: border-box;
        border:2px solid #BEBEBE;
        padding: 7px;
```

```
margin:0px;
-webkit-transition: all 0.30s ease-in-out;
-moz-transition: all 0.30s ease-in-out;
-ms-transition: all 0.30s ease-in-out;
-o-transition: all 0.30s ease-in-out;
outline: none;
}
.form-style-1 input[type=text]:focus,
.form-style-1 input[type=number]:focus,
.form-style-1 select:focus{
    -moz-box-shadow: 0 0 8px #88D5E9;
    -webkit-box-shadow: 0 0 8px #88D5E9;
    box-shadow: 0 0 8px #88D5E9;
    border: 2px solid #88D5E9;
    color: black;
}
.form-style-1 .field{
    width: 50%;
    color: #000;
}

.form-style-1 input[type=submit], .form-style-1 input[type=button]{
    background: #f0f;
    padding: 8px 15px 8px 15px;
    border: none;
    color: #fff;
    width: 20%;
}
.form-style-1 input[type=submit]:hover, .form-style-1
input[type=button]:hover{
    background: #f2f;
    box-shadow:none;
    -moz-box-shadow:none;
    -webkit-box-shadow:none;
}
.form-style-1 .required{
    color:red;
}

hr {
    border-color: #f0f;
}

.footer {
    padding: 5px;
    text-align: center;
}
```