

Douglas Goss
CMPS-294 Assignment 3
Book Database

I. Purpose

The purpose of this database is to allow a user to enter information about a book for the purpose of finding it for later operations such as search and delete.

II. Implementation

- i. Storage- the files are stored in the directory shown below

/home/goss/public_html/assmt3/				
Name	Size	Changed	Rights	Owner
..		3/29/2019 2:17:39 AM	rwxt-xr-x	goss
assmt_3.html	3 KB	3/25/2019 9:41:31 PM	rw-rw-r--	goss
database.txt	1 KB	3/30/2019 11:14:46 AM	rwxtwxrwx	goss
db_contents.php	4 KB	3/29/2019 1:26:28 AM	rw-rw-r--	goss
execute.php	7 KB	3/29/2019 1:47:27 AM	rw-rw-r--	goss

- ii. File description-

Assmt_3.html- the initial page a user opens to begin working with the database

Database.txt- the text file which contains data that describes the books

Db_contents.php- shows the entire content of the database

Execute.php- contains html and php logic that allows a user to interact with the database in ways more complex than simply showing the entire contents of the database

- iii. Usage

Select Operation- allows a user to select between Add, Delete and Search

Execute- button which carries out the selected operation

Main Page- a link which allows for easy return to the main page

View all DB records- a link which runs db_contents.php which shows all contents of the database

Book Inventory

Select Operation:

Add

AddDeleteSearch

Book

Title:

Author:

ISBN:

Publisher:

Year:

Execute

>Main Page

>View all DB records

Execute commands from this main page.

III. Walkthrough of typical usage

- i. Add a new record with the appropriate information entered in the form and then press execute

Book Inventory

Select Operation: add ▼

Book Fields

Title:

Author:

ISBN:

Publisher:

Year:

[Main Page.](#)[View all DB records.](#)

Fabric of the Cosmos%Green%8962%Rand Publishing%2002 written to the database.

Title	Author	ISBN	Publisher	Year
Fabric of the Cosmos	Green	8962	Rand Publishing	2002

- ii. Find a book stored in the database by entering the proper text by which to filter. In this case, I want to find all book published by Publisher 1

Book Inventory

Select Operation:

Book Fields

Title:

Author:

ISBN:

Publisher:

Year:

[Main Page.](#)

[View all DB records.](#)

Your search results are below.

Title	Author	ISBN	Publisher	Year
title 1	author 2	1108	publisher 1	1975
title 2	author 1	1109	publisher 1	1975
title 3	author 1	1110	publisher 1	1975
title 4	author 1	1111	publisher 1	1975

- iii. Delete books that match the entered criteria as shown below

Select Operation: delete ▼

Book Fields

Title:

Author:

ISBN:

Publisher:

Year:

[Main Page.](#)

[View all DB records.](#)

The records that have been deleted are shown below.

Title	Author	ISBN	Publisher	Year
title 2	author 1	1109	publisher 1	1975
title 3	author 1	1110	publisher 1	1975
title 4	author 1	1111	publisher 1	1975

The records that have been retained are shown below.

title 1	author 2	1108	publisher 1	1975
title 1	author 3	isbn 3	publisher 2	1975
title 2	that one dude	8963	those fellas	1960
title 6	author 2	7541	yellow 5	1961
Title 7	Brown	8942	Ralling	1912
Fabric of the Cosmos	Green	8962	Rand Publishing	2002

- iv. Show all records currently in the database by pressing the All DB records link

Book Inventory

Select Operation: Add ▼

Book Fields

Title:
Author:
ISBN:
Publisher:
Year:

[Main Page.](#)

[>View all DB records.](#)

View all records in the DB from this page.

Title	Author	ISBN	Publisher	Year
title 1	author 2	1108	publisher 1	1975
title 1	author 3	isbn 3	publisher 2	1975
title 2	that one dude	8963	those fellas	1960
title 6	author 2	7541	yellow 5	1961
Title 7	Brown	8942	Ralling	1912
Fabric of the Cosmos	Green	8962	Rand Publishing	2002

8 records are currently in the database.

IV. Code

i. Assmt_3.html

```
<!doctype html>
<html>
<head>
<meta charset="utf-8">
<title>assmt_3</title>
</head>
<style>
.flex-container {
display: flex;
background-color: DodgerBlue;
```

```
margin: auto;
width: 40%;
//border: 1px solid #73AD21;
padding-top: 3px;
padding-bottom: 3px;
justify-content: center;
}

div{
    //border: 1px solid #73AD21;
}

.flex_col1{
    width:25%
}

.flex_col2{
    width:25%;
    text-align: right
}

.flex_col3{
    width:25%
}

.flex_col4{
    width:25%
}

h1{
    text-align: center;
    padding-top: 0px;
    padding-bottom: 0px;
    margin: 0px;
}

hr{
    height: 1px;
    border: none;
    color: #000;
    background-color: #000;
    width: 40%;
    text-align: center;
    margin: 5 auto;}

table{
    border: 1px solid black;
}

</style>

<body>
    <form action="execute.php" method="GET">
```

```

<h1>Book Inventory</h1>
<hr>

<div class="flex-container">
  <div class="flex_col1"></div>
  <div class="flex_col2">Select Operation:&nbsp;</div>
  <div class="flex_col3"><select name="operation" style="width: 100%">
    <option value="add">Add</option>
    <option value="delete">Delete</option>
    <option value="search">Search</option>
  </select>
</div>
<div class="flex_col4"></div>
</div><hr>
<h1>Book Fields</h1><hr>
<div class="flex-container">
  <div class="flex_col1"></div>
  <div class="flex_col2">Title:&nbsp;</div><div class="flex_col3"><input type="text" name="title"
style="width: 100%"></div>
  <div class="flex_col4"></div>
</div>

<div class="flex-container">
  <div class="flex_col1"></div>
  <div class="flex_col2">Author:&nbsp;</div><div class="flex_col3"><input type="text"
name="author" style="width: 100%"></div>
  <div class="flex_col4"></div>
</div>

<div class="flex-container">
  <div class="flex_col1"></div>
  <div class="flex_col2">ISBN:&nbsp;</div><div class="flex_col3"><input type="text" name="isbn"
style="width: 100%"></div>
  <div class="flex_col4"></div>
</div>

<div class="flex-container">
  <div class="flex_col1"></div>
  <div class="flex_col2">Publisher:&nbsp;</div><div class="flex_col3"><input type="text"
name="publisher" style="width: 100%"></div>
  <div class="flex_col4"></div>
</div>

<div class="flex-container">
  <div class="flex_col1"></div>

```



```

        <div class="flex_col2">Year:&nbsp;  </div><div class="flex_col3"><input type="text" name="year"
style="width: 100%"></div>
        <div class="flex_col4"></div>
    </div>

    <div class="flex-container">
        <input type="submit" value="Execute">
    </div>
</form>
<div class="flex-container">
    <div class="flex_col1">>Main Page</div>
    <div class="flex_col2"></div>
    <div class="flex_col3"></div>
    <div class="flex_col4"><a href="db_contents.php">>View all DB records.</a></div>
</div>
<hr>
<h1>Execute commands from this main page.</h1><hr>
</body>
</html>

```

ii. Db_contents.php

```

<!DOCTYPE html>
<html>
<style>
    .flex-container {
        display: flex;
        background-color: DodgerBlue;

        margin: auto;
        width: 40%;
        //border: 1px solid #73AD21;
        padding-top: 3px;
        padding-bottom: 3px;
        justify-content: center;
    }
    div{
        border: 0px solid #73AD21;
    }
    .flex_col1 {
        width:25%
    }
    .flex_col2 {
        width:25%;
    }

```

```
    text-align: right;
}
.flex_col3 {
    width: 25%;
}
.flex_col4 {
    width: 25%;
}
h1 {
    text-align: center;
    padding-top: 0px;
    padding-bottom: 0px;
    margin: 0px;
    background-color: white;
}
h4.message {
    text-align: center;
    padding-top: 0px;
    padding-bottom: 0px;
    margin: 0px;
    background-color: white;
}
hr {
    height: 1px;
    border: none;
    color: #000;
    background-color: #000;
    width: 40%;
    text-align: center;
    margin: 5 auto;
}
table {
    text-align: center;
    margin: 0 auto;
    border: 1px solid black;
    width: 40%;
}
td {
    text-align: left;
    margin: 0 auto;
    border: 1px solid black;
}
th {
    border: 1px solid black;
```

```

}

</style>

<body>
  <form action="execute.php" method="GET">
    <h1>Book Inventory</h1>
    <hr>
    <div class="flex-container">
      <div class="flex_col1"></div>
      <div class="flex_col2">Select Operation:&nbsp;</div>
      <div class="flex_col3"><select name="operation" style="width: 100%">
        <option value="add">Add</option>
        <option value="delete">Delete</option>
        <option value="search">Search</option>
      </select>
    </div>
    <div class="flex_col4"></div>
  </div><hr>
  <h1>Book Fields</h1><hr>
  <div class="flex-container">
    <div class="flex_col1"></div>
    <div class="flex_col2">Title:&nbsp;</div><div class="flex_col3"><input type="text" name="title"
style="width: 100%"></div>
    <div class="flex_col4"></div>
  </div>

  <div class="flex-container">
    <div class="flex_col1"></div>
    <div class="flex_col2">Author:&nbsp;</div><div class="flex_col3"><input type="text"
name="author" style="width: 100%"></div>
    <div class="flex_col4"></div>
  </div>

  <div class="flex-container">
    <div class="flex_col1"></div>
    <div class="flex_col2">ISBN:&nbsp;</div><div class="flex_col3"><input type="text" name="isbn"
style="width: 100%"></div>
    <div class="flex_col4"></div>
  </div>

  <div class="flex-container">
    <div class="flex_col1"></div>
    <div class="flex_col2">Publisher:&nbsp;</div><div class="flex_col3"><input type="text"
name="publisher" style="width: 100%"></div>

```

```

        <div class="flex_col4"></div>
    </div>

    <div class="flex-container">
        <div class="flex_col1"></div>
        <div class="flex_col2">Year:&nbsp;</div><div class="flex_col3"><input type="text" name="year"
style="width: 100%"></div>
        <div class="flex_col4"></div>
    </div>

    <div class="flex-container">
        <input type="submit" value="Execute">
    </div>
</hr>

<div class="flex-container">
    <div class="flex_col1"><a href="assmt_3.html">&nbsp;<Main Page.</a></div>
    <div class="flex_col2"></div>
    <div class="flex_col3"></div>
    <div class="flex_col2">>View all DB records.</div>
</div>
</form>
<h1>View all records in the DB from this page.</h1><hr>
<table>
    <th>Title</th><th>Author</th><th>ISBN</th><th>Publisher</th><th>Year</th>
<?php
// begin show all records

$myfile = fopen("database.txt","r");
$ttl_records=-1;
$lines = explode("\n", file_get_contents('database.txt'));
fclose($myfile);
foreach ($lines as $value) {
    $fields= explode("%",$value);

    print
"<tr><td>$fields[0]</td><td>$fields[1]</td><td>$fields[2]</td><td>$fields[3]</td><td>$fields[4]</td></tr>"
;
    $ttl_records++;
}
print "</table>";
print "<h4 class=message>";
print $ttl_records;
print " records are currently in the database.";
print "</h4>";

```

```
?>
</table>
</body>
</html>
```

iii. Execute.php

```
<!DOCTYPE html>
<html>
<style>
    .flex-container {
        display: flex;
        background-color: DodgerBlue;

        margin: auto;
        width: 40%;
        //border: 1px solid #73AD21;
        padding-top: 3px;
        padding-bottom: 3px;
        justify-content: center;
    }
    div{
        border: 0px solid #73AD21;
    }
    .flex_col1 {
        width:25%
    }
    .flex_col2 {
        width:25%;
        text-align: right
    }
    .flex_col3 {
        width:25%
    }
    .flex_col4 {
        width:25%
    }
    h1 {
        text-align: center;
        padding-top: 0px;
        padding-bottom: 0px;
        margin: 0px;
        background-color: white;
    }
```

```
h4.message{
    text-align: center;
    padding-top: 0px;
    padding-bottom: 0px;
    margin: 0px;
    background-color: white;
}
hr{
height: 1px;
border: none;
color: #000;
background-color: #000;
width: 40%;
text-align: center;
margin: 5 auto;
}
table{
    text-align: center;
    margin: 0 auto;
    border: 1px solid black;
    width: 40%;
}
td{
    text-align: left;
    margin: 0 auto;
    border: 1px solid black;

}
th{
    border: 1px solid black;
}
```

</style>

<?php

//begin pulling in html tags

\$operation=\$_GET["operation"];

\$title=\$_GET["title"];

\$author=\$_GET["author"];

\$isbn=\$_GET["isbn"];

\$publisher=\$_GET["publisher"];

\$year=\$_GET["year"];

//end pulling in html tags

?>

```

<body>
  <form action="execute.php" method="GET">
    <h1>Book Inventory</h1>
    <hr>
    <div class="flex-container">
      <div class="flex_col1"></div>
      <div class="flex_col2">Select Operation:&nbsp;  </div>
      <div class="flex_col3"><select name="operation" style="width: 100%">
        <option value='<?php echo $operation?>' selected='selected'><?php echo $operation?></option>
        <option value="add">Add</option>
        <option value="delete">Delete</option>
        <option value="search">Search</option>
      </select>
    </div>
    <div class="flex_col4"></div>
  </div><hr>
  <h1>Book Fields</h1><hr>
  <div class="flex-container">
    <div class="flex_col1"></div>
    <div class="flex_col2">Title:&nbsp;  </div><div class="flex_col3"><input type="text" name="title"
value="<?php print $title; ?>" style="width: 100%"></div>
    <div class="flex_col4"></div>
  </div>

  <div class="flex-container">
    <div class="flex_col1"></div>
    <div class="flex_col2">Author:&nbsp;  </div><div class="flex_col3"><input type="text"
name="author" value="<?php print $author; ?>" style="width: 100%"></div>
    <div class="flex_col4"></div>
  </div>

  <div class="flex-container">
    <div class="flex_col1"></div>
    <div class="flex_col2">ISBN:&nbsp;  </div><div class="flex_col3"><input type="text" name="isbn"
value="<?php print $isbn; ?>" style="width: 100%"></div>
    <div class="flex_col4"></div>
  </div>

  <div class="flex-container">
    <div class="flex_col1"></div>
    <div class="flex_col2">Publisher:&nbsp;  </div><div class="flex_col3"><input type="text"
name="publisher" value="<?php print $publisher; ?>" style="width: 100%"></div>
    <div class="flex_col4"></div>
  </div>

```

```

<div class="flex-container">
    <div class="flex_col1"></div>
    <div class="flex_col2">Year:&nbsp;</div><div class="flex_col3"><input type="text" name="year"
value="<?php print $year; ?>" style="width: 100%"></div>
    <div class="flex_col4"></div>
</div>

<div class="flex-container">
    <input type="submit" value="Execute">
</div>
</form><hr>

<div class="flex-container">
    <div class="flex_col1"><a href="http://localhost/cmpps294/Assmt%203/assmt_3.html">Main
Page.</a></div>
    <div class="flex_col2"></div>
    <div class="flex_col3"></div>
    <div class="flex_col4"><a href="db_contents.php">View all DB records.</a></div>
</div>
<table>
<th>Title</th><th>Author</th><th>ISBN</th><th>Publisher</th><th>Year</th>

<?php
//begin add record
if ($_GET["operation"] == "add" ) {

    $myfile = fopen("database.txt", "a") or die("Unable to open file!");

    $txt = "$title%$author%$isbn%$publisher%$year\r\n";//each field bounded by %
    fwrite($myfile, $txt);
    fclose($myfile);
    print "<h4 class=message> $txt written to the database. </h4>";
    $fields= explode("%",$txt);
    print
"<tr><td>$fields[0]</td><td>$fields[1]</td><td>$fields[2]</td><td>$fields[3]</td><td>$fields[4]</td></tr>"
;
}
//end add record
?>

<?php
// begin search records
if ($_GET["operation"] == "search" ) {

    $myfile = fopen("database.txt", "r");

```



```

$lines = explode("\n", file_get_contents('database.txt'));
fclose($myfile);
print "<h4 class=message> Your search results are below. </h4>";
foreach ($lines as $value) {
    $fields= explode('%',$value);
    if($fields[0]==$title||$fields[1]==$author||$fields[2]==$isbn||$fields[3]==$publisher||$fields[4]==$year){
        print
        "<tr><td>$fields[0]</td><td>$fields[1]</td><td>$fields[2]</td><td>$fields[3]</td><td>$fields[4]</td></tr>"
        ;
    }
}
//print "</table>";
}
//end search records
?>

<?php
// begin delete records
if ($_GET["operation"] == "delete" ) {

    if($title!=NULL){
        $title_to_delete=$title;
    }else{$title_to_delete=".*";
    }

    if($author!=NULL){
        $author_to_delete=$author;
    }else{$author_to_delete=".*";
    }

    if($isbn!=NULL){
        $isbn_to_delete=$isbn;
    }else{$isbn_to_delete=".*";
    }

    if($publisher!=NULL){
        $publisher_to_delete=$publisher;
    }else{$publisher_to_delete=".*";
    }

    if($year!=NULL){
        $year_to_delete=$year;
    }else{$year_to_delete=".*";
    }
}

```

```

$myfile = fopen("database.txt","r");
$lines = explode("\n", file_get_contents('database.txt'));
fclose($myfile);

foreach ($lines as $value){
    if
(preg_match("/$title_to_delete%$author_to_delete%$isbn_to_delete%$publisher_to_delete%$year_to_delete/"
, $value)){
        $delete[]=$value;
        //print_r($delete);
    }else{
        $keep[]=$value;
    }
}

print "<h4 class=message>The records that have been deleted are shown below. </h4>";
foreach ($delete as $value) {
    //print "$value <br>";
    $fields= explode('%',"$value");
    print
"<tr><td>$fields[0]</td><td>$fields[1]</td><td>$fields[2]</td><td>$fields[3]</td><td>$fields[4]</td></tr>"
;
    }

print "</table>";

print "<h4 class=message>The records that have been retained are shown below. </h4>";
print "<table>";

$myfile = fopen("database.txt", "w") or die("Unable to open file!");

foreach ($keep as $value) {
    //print "$value <br>";
    $txt = "$value\r\n";
    fwrite($myfile, $txt);
    $fields= explode('%',"$value");
    print
"<tr><td>$fields[0]</td><td>$fields[1]</td><td>$fields[2]</td><td>$fields[3]</td><td>$fields[4]</td></tr>"
;
    }
    fclose($myfile);
print "</table>";

} //end delete records

```

```
?>
</table>
</body>
</html>
```

V. File/Aid links

http://147.174.59.103/~goss/assmt3/assmt_3.html
http://147.174.59.103/~goss/assmt3/db_contents.php
<http://147.174.59.103/~goss/assmt3/execute.php>
<https://regex101.com/>