Friends of Smithgall Woods

Updates to
Volunteer Hours App

Prepared by The Woodland Rangers
UGA MBT Capstone Project

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The purpose of this document is to describe the updates that were implemented to the existing version of the Volunteer Hours Application as of April 5, 2018. These updates are listed below:

- Updated the app to PHP 7.2
    - Resolved the MySQL deprecation for later versions of PHP
- Added the Section field to the Add New Volunteer Hours page
- Replaced the Volunteer Dashboard with Left Sidebar navigation menu
- Added the Login name to the Left Sidebar of each page
- Added the required and disabled selection settings to Project and Section fields' drop-down window
- Changed the background color to a more neutral color (See Figures 1 and 2)
- Changed the color of the View Your Hours table for better contrast with the background

NOTE: Earlier versions of PHP used the MySQL extension. However, this extension was deprecated in 2012 which means that MySQL extensions are considered obsolete for PHP 7 and later versions. PHP 7 and later can work with a MySQL database using:

- MySQLi extension (the "i" stands for improved)
- PDO (PHP Data Objects)

Figure 1. 2011 Version of Volunteer Hours App

Figure 2. 2018 Version of Volunteer Hours App

PHP and MySQL Updates

The previous version of the app was running under PHP 5.6 that used the older version of MySQL database extension to manage the app database. In order for the app to continue running with later versions of PHP and improve its security, MySQL extension had to be updated to MySQLi extension for the app files listed in Table 1.

Table 1. Updated PHP Files

PHP Files with MySQLi Extension	
1. add_hours.php	11. database_connect.php
2. change_pswd.php	12. db_functions.php
3. edit_profile.php	13. interests_functions.php
4. interests.php	14. projects_menu.php
5. show_hours.php	15. show_hours_functions.php
6. reset_pswd.php	16. submit_account_functions.php
7. update_hours.php	17. update_hours_functions.php
8. update_interests.php	18. update_interests_functions.php
9. update_profile.php	19. update_profile_functions.php
10. update_pswd.php	20. user_functions.php

Examples of MySQLi Extension Usage

For "database_connect.php" file, the mysqli_connect function is used to establish connection to the Volunteer database.

```
$dsn = 'localhost';
$username = 'username';
$password = 'password';
$db_name = 'database_name';
$conn = mysqli_connect($dsn, $username, $password, $db_name) or
die("Connection failed: " . mysqli_connect_error());
```

For displaying volunteer's interests, an example of mysqli extension usage is shown below. NOTE: Whenever a built-in PHP function is used, the syntax "global $conn;" must be included to access the global variable "$conn" from within a function.

```
function show_interests(){
        global $conn;
        $memberId = (int) $_SESSION['memberId'];
        $member_interest = get_member_interests();
        $sql = ("SELECT field_1, field_2 FROM Table_Name");
        $interest_list = mysqli_query($conn, $sql) or die('ERROR:
        '.mysqli_error($conn));
        …………..;
}
```

For updating a user password, an example of mysqli extension usage is shown below. NOTE: When mysqli_error function is used, the variable "$conn" that was defined previously inside the "database_connect.php" file must be included inside the parenthesis as shown below. The use of PHP's global keyword is NOT required here.

```
if(…………..) {
        ………………;
}
//update database with new password
else {
        $sql = ("UPDATE Table_Name SET password = '$password' WHERE
        memberId = $memberId");
        mysqli_query($conn, $sql) or die('ERROR: '.mysqli_error($conn));
        …………………;
}
```

Section Field Addition

The Section field was added as a drop-down window to the "Add New Volunteer Hours" page to categorize the volunteer hours as Smithgall Woods and Hardman Farm. It was also added to the Volunteer Hours table in the database.

```html
<li>
    <label for="newSection">* Section</label>
    <select required name="newSection" id="newSection" >
        <option value="" disabled selected>--Select option--</option>
        <option value="Smithgall Woods">Smithgall Woods</option>
        <option value="Hardman Farm">Hardman Farm</option>
    </select>
</li>
```

Left Sidebar Navigation Menu

The Volunteer Dashboard was replaced with the Left Sidebar navigation menu to improve the app's mobile-friendly feature and user experience design. The script and stylesheet settings are shown below.

```html
<div id="leftCol">
    <div id="dashboard">
    <table>
        <tr><td class="formTitle">Hello <?php echo $profile[firstName] ?>!</td></tr>

        <tr><td class="formTitle active">Add New Volunteer Hours</td></tr>

        <tr><td class="formTitle"><a href="edit_profile.php">Edit Your Profile</a></td></tr>

        <tr><td class="formTitle"><a href="interests.php">Update Your Interests</a></td></tr>

        <tr><td class="formTitle"><a href="show_hours.php">View Your Hours</a></td></tr>

        <tr><td class="formTitle"><a href="change_pswd.php">Change Password</a></td></tr>

        <tr><td class="formTitle"><a href="faq.html" target = "_blank">FAQs</a></td></tr>

        <tr><td class="formTitle"><a href="logout.php">Log Out</a></td></tr>
    </table>
    </div>
</div>
```

```css
67    /*------Dashboard--------*/
68
69    #dashboard table td {
70        border-right: 1px solid #ccc;
71        border-bottom: 1px solid #ccc;
72        text-align: left;
73        background-color: #f1f1f1;
74    }
```

Login Name Addition

The login name was added to each app page to show who is currently logged in.

```php
<?php
    $memberId= (int) $_SESSION['memberId'];
    $sql = ("SELECT * FROM Table_Name WHERE Member.memberId = $memberId");
    $result = mysqli_query($conn, $sql) or die(mysqli_error($conn));
    $profile = mysqli_fetch_array( $result );
?>
<table>
    <tr><td class="formTitle">Hello <?php echo $profile[firstName] ?>!</td></tr>

    <tr><td class="formTitle active">Add New Volunteer Hours</td></tr>

    <tr><td class="formTitle"><a href="edit_profile.php">Edit Your Profile</a></td></tr>

    ..............................
</table>
```

Required and Disabled Selection Settings

The required and disabled selection settings were added to the Project and Section fields' drop-down window, requiring users to select an input for better user experience.

```html
<li>
    <label for="newProject">* Project</label>
    <select required name="newProject" id="newProject">
    <option value="" disabled selected>--Select option--</option>
    <?=$options ?>
    </select>
</li>

<li>
    <label for="newSection">* Section</label>
    <select required name="newSection" id="newSection" >
        <option value="" disabled selected>--Select option--</option>
        <option value="Smithgall Woods">Smithgall Woods</option>
        <option value="Hardman Farm">Hardman Farm</option>
    </select>
</li>
```