

Updates to

Volunteer Hours App

Prepared by The Woodland Rangers

UGA MBT Capstone Project

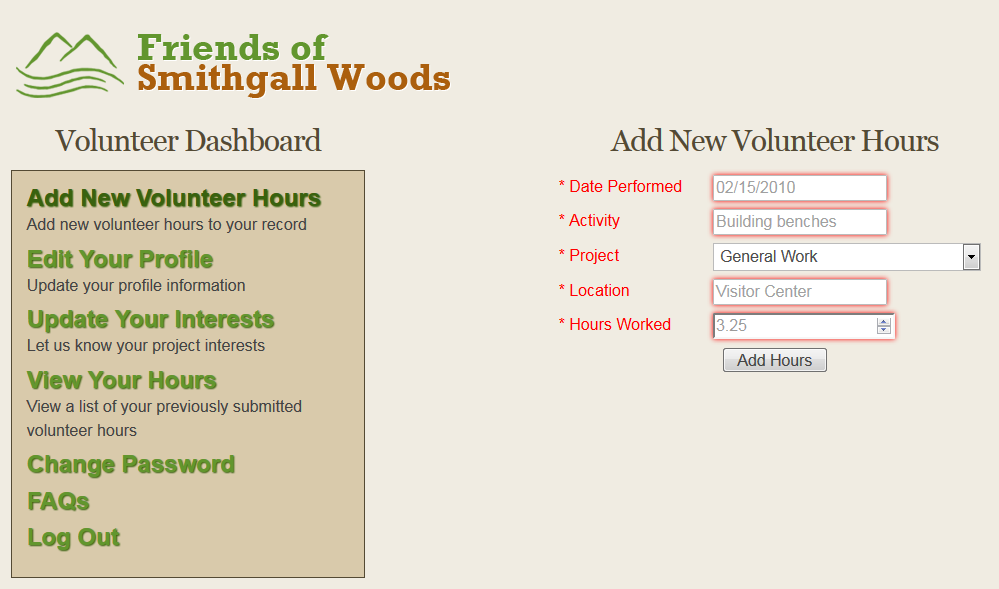
April 28, 2018

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:

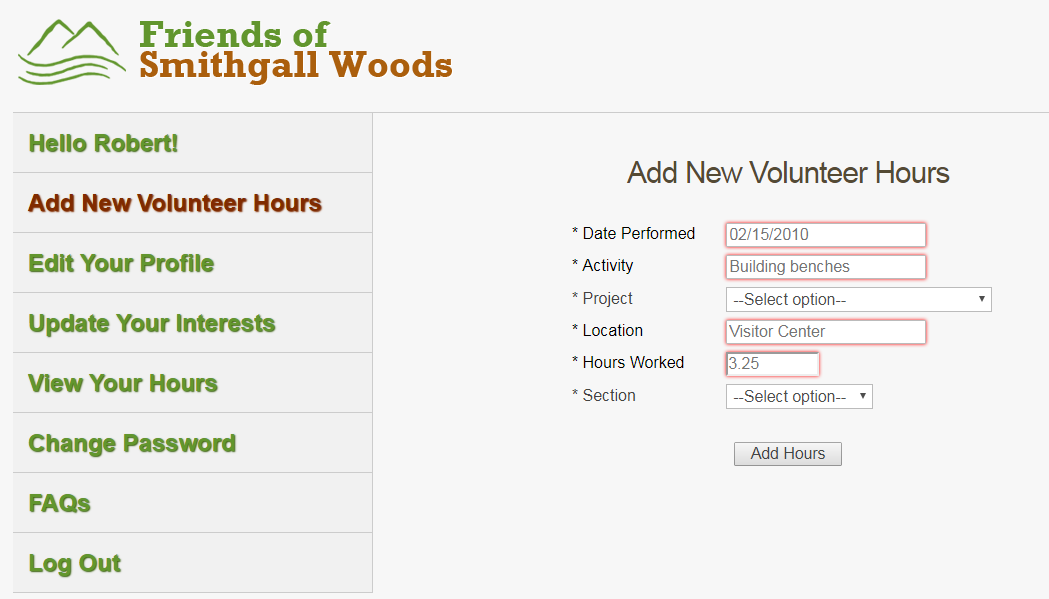
* Updated the app to PHP 7.2
  + Resolved the MySQL deprecation for later versions of PHP
* Added the Section field to the Add New Volunteer Hours page
* Replaced the Volunteer Dashboard with Left Sidebar navigation menu
* Added the Login name to the Left Sidebar of each page
* Added the required and 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");

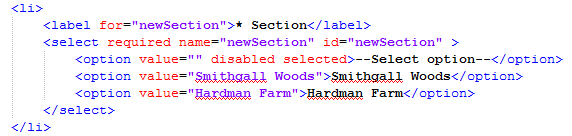
mysqli\_query($conn, $sql) or die('ERROR: '.mysqli\_error($conn));

…………………;

}

**Section Field Addition**

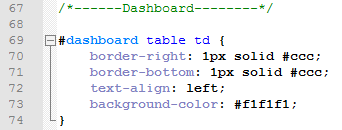
The Section field was added as a drop-down window to the “Add New Volunteer Hours” page to categorize the volunteer hours as Smithgall Woods and Hardman Farm. It was also added to the Volunteer Hours table in the database.



**Left Sidebar Navigation Menu**

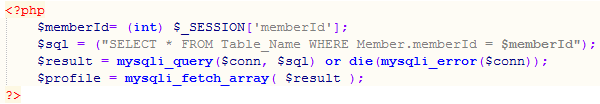
The Volunteer Dashboard was replaced with the Left Sidebar navigation menu to improve the app’s mobile-friendly feature and user experience design. The script and stylesheet settings are shown below.

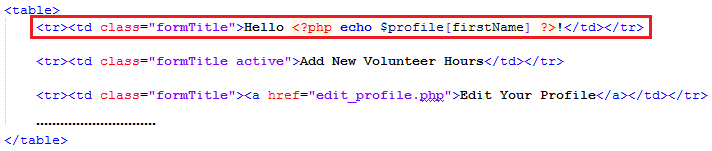




**Login Name Addition**

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





**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.

