**Honor Flight Bus Book Documentation**

***Release 1.0.0***

**Team Ruby**

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# **1. About the Project**

The purpose of this project is to provide a web-base architecture that the team at “Honor Flight Rochester” can use to build and manage their mission “bus book” in a “role-based” manner. This project includes a comprehensive administrative interface along with a “staff” interface that will be utilized while on a mission trip.

## 1.1 High Level Project Description

This bus book comes in the form of a website that can be utilized to access and modify pertinent information mission information while on said mission. This information will be initially provided by Honor Flight themselves, and presumably any veterans or guardians who are currently present during the mission.

Additionally, the website provides a dedicated administrative section so that the systems admin can update, remove or add any new mission relevant information at will, while also being able to construct and structure the bus book and any information within it for any given mission.

## 1.2 Objectives

The objective of this project is to provide an easy to use and simple to navigate web application that fulfills the needs of the “Honor Flight Rochester” team. The application utilizes the “Honor Flight” database to keep their data ingestion system unchanged along with a few additional tables that are utilized by the application itself.

## 1.3 Team

The Honor Flight Bus Book application was created by Team Ruby at the Rochester Institute of technology and was facilitated by the schools ISTE-500/501 Senior Development course, offered by the school of information. The Team’s members are as follows:

* Arcoraci, Justin
* Easley, Zach
* Riley, Edward
* Risch, Marcus
* Schweickhardt, Campbell
* Thurrott, Mark

# **2. Features**

## 2.1 User Portal Functionality

### 2.1.1 Modifying Veteran Information on-mission

* **Status:** Implemented
* **Technology decision:** Codeigniter
* **Relevant domain(s):** Full Stack
* **Summary of approach:** Using Codeigniter’s query builder functionality, we were easily able to make it so that mission pertinent veteran information could be modified on the fly.
* **Completion Criteria:** Relevant users (those with access) will be able to access specific editing functionality which will be hidden from use on the page otherwise.

### 2.1.2 Document Management

* **Status:** Implemented
* **Technology decision:** Codeigniter
* **Relevant domain(s):** Full Stack
* **Summary of approach:** Utilizing the “document upload” functionality provided by Codeigniter, a user can select a file and have it uploaded to the “uploads” directory.
* **Completion Criteria:** An administrator can navigate to the “documents” tab in the admin portal and click the “Choose File” button, this will open a window where the admin can select a file to upload to the server. Once a file is selected, the admin can click the “upload” button and the file will be uploaded to the “uploads” directory.

### 2.1.3 Information Download for offline & medical use

* **Status:** Implemented
* **Technology decision:** Codeigniter
* **Relevant domain(s):** Full Stack
* **Summary of approach:** Files located in the “documents” directory are pulled and served to users with adequate permissions.
* **Completion Criteria:** Administrators will be able to view and download uploaded documents when navigating to the “documents” tab in the admin portal. Users with adequate permissions will be able to download uploaded documents after navigating to the “documents” tab in the user portal.

## 2.2 Admin Portal Functionality

### 2.2.1 Bus Book Creation

* **Status:** Implemented
* **Technology decision:** Codeigniter
* **Relevant domain(s):** Full Stack
* **Summary of approach:** After filling out a brief form, the database will be automatically updated to produce a new bus book and mission relevant information, including any new teams/busses you have designated for use during the mission.
* **Completion Criteria:** The System administrator processes all pertinent information relevant to the creation of the bus book in the form, and then the server simply does the rest.

### 2.2.2 Team Management

* **Status:** Implemented
* **Technology decision:** Codeigniter, Ajax
* **Relevant domain(s):** Full Stack
* **Summary of approach:** The team page is designed in such a way that Veterans and staff members can either be removed through a quick button pressor moved via the use of a quick form popup.
* **Completion Criteria:** The system administrator either performs the specific button push, or utilizes the specific form required to modify the relevant team information.

### 2.2.3 Document Management

* **Status:** Implemented
* **Technology decision:** Codeigniter
* **Relevant domain(s):** Full Stack
* **Summary of approach:** Utilizing Codeigniter’s functionality to upload documents, the application needs to allow for files of any type to be uploaded to the server.
* **Completion Criteria:** The administrator can upload and delete documents from the server from the “documents” tab in the admin portal.

### 2.2.4 Reservation & Planning Management

* **Status:** Implemented
* **Technology decision:** Codeigniter
* **Relevant domain(s):** Full Stack
* **Summary of approach:** The page is broken down into 3 tables which carry all specific flight, event, and hotel information, and enables the admin to create any new entries, these specific entries will then appear in the designated locations on both this page and the user page.
* **Completion Criteria:** The Administrator can complete this task by hitting any of the Adding, Editing, or Removing buttons, within their pertinent tables, to modify, add or remove existing entries.

### 2.2.5 User Management

* **Status:** Implemented
* **Technology decision:** Codeigniter
* **Relevant domain(s):** Full Stack
* **Summary of approach:** A table provides the ability to view or search for a specific user, you can then add additional users, or edit any pertinent information.
* **Completion Criteria:** The Administrator only needs to press the relevant Add button to create a new user, or edit if they want to modify the information of an existing user.

### 2.2.6 Veteran Management

* **Status:** Implemented
* **Technology decision:** Codeigniter
* **Relevant domain(s):** Full Stack
* **Summary of approach:** All Veteran information can be located on the veteran table section, and anything not present on the table itself can be located by using the edit function to both examine all relevant veteran information, as well as update it as the administrator needs, naturally more information is not only provided but modifiable than that present on the user portal section, as this is only available for a higher level user (the Admin).
* **Completion Criteria:** The Admin can view all needed information on the table by tabbing through, or searching to locate the user of interest, then they can both view all their relevant information, as well as edit it, by pressing the edit button.

### 2.2.7 Guardian Management

* **Status:** Implemented
* **Technology decision:** Codeigniter
* **Relevant domain(s):** Full Stack
* **Summary of approach:** While general guardian information is provided on the table everything can be accessed and edited by the administrator as needed.
* **Completion Criteria:** The admin simply needs to access the edit button associated with the specific guardian they’d like to edit.

### 2.2.8 Report Creation

* **Status:** Implemented
* **Technology decision:** Codeigniter / Python / FPDF
* **Relevant domain(s):** Full Stack
* **Summary of approach:** The database is queried for all relevant information pertaining to the latest mission and a PDF document is built using a Python script and the FPDF plugin. The document is automatically placed in the “uploads” directory which is served to the admin and all other users with the correct permissions.
* **Completion Criteria:**The admin can navigate to the “documents” tab in the admin portal. From there, the admin can click the “Build Mission Report PDF”. The document will appear in the “uploads” directory and is served to the administrator on the “documents” tab as well as users who have the correct permissions.

## 2.3 All User Permissions

* **Highest (0)** (Only ones with access to the administrative section)
* Admin
* **Leaders (1)** (Access to all veteran and mission information, ability to edit veteran details on the fly, access mission documents)
* Trip Leader
* Safety Leader
* Bus Leader
* **Assistants (2)** (Able to access most veteran and mission information, cannot edit)
* Safety Assistant
* Mission Assistant
* Team Assistants
* Bus Assistants
* **Secondary Roles (3)** (Can view general information about the team/bus they are assigned to)
* Photographer
* generic level Users

# **3. Honor Flight Bus Book User Documentation**

## 3.1 Modification of Veteran Information

Administrators and users with adequate permissions can edit veteran information on the fly. User’s and administrators can veteran information by navigating to the specific veteran they want to edit from the homescreen of the user portal by:

* Clicking the team color the veteran is assigned to..
* Clicking the veteran they’d like to change.
* Clicking the “Edit” button associated with that veteran.
* Filling out / editing the fields that are displayed.
* Clicking the “Save Changes” button at the bottom of the form.

## 3.2 Management of Documents

Users with adequate permissions can access mission documents that are uploaded by the admin when navigating to the “Documents” tab. These users can then view and download the documents listed.



## 3.3 Downloading Information for offline use

Users with adequate permissions can download files for offline use by navigating to the “Documents” tab in the user portal.

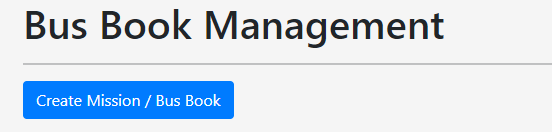
# **4. Honor Flight Bus Book Administrative Documentation**

## 4.1 Bus Book Management

* Navigating to the “Bus Book” tab.

### 4.1.1 Create a new Mission / Bus Book

Administrators can create a new mission / bus book by navigating to the “Bus Book” tab in the admin portal and clicking the “Create Mission / Bus Book” button. From here the admin can fill out the given fields and click the “Create” button at the bottom of the form.

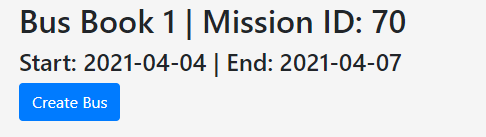


### 4.1.2 Create New Buses and Teams

Administrators can create buses and teams by first navigating to the “Bus Book” tab in the admin portal.

**To create a bus -**

* Click the “Create Bus” button and fill out the form provided.
* Click the “Create” button at the bottom of the form.

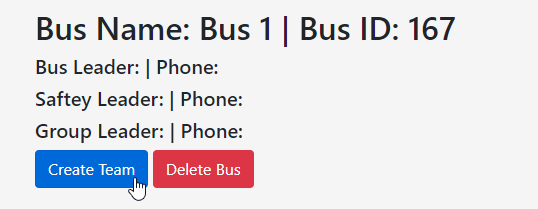


**To create a new team -**

* Click the “Details” button associated with the bus you would like to create a team for.



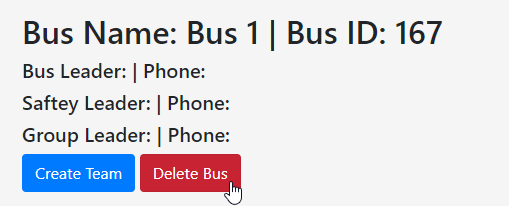
* Click the “Create Team” button and fill out the form provided.



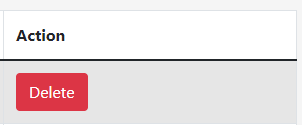
* Click the “Create” button and the new team will be built

### 4.1.3 Delete Buses and Teams

To delete buses the admin can navigate to the “Bus Book” tab in the admin portal and click the “Details” button for the specific bus. Then click the “Delete Bus” button and the bus and all associated teams will be deleted.



To delete a team the admin can navigate to the “Bus Book” tab in the admin portal and click the “Details” button for the bus they would like to delete a team from. The admin then clicks the “Delete” button associated with the team they would like to delete.



## 4.2 Team Management

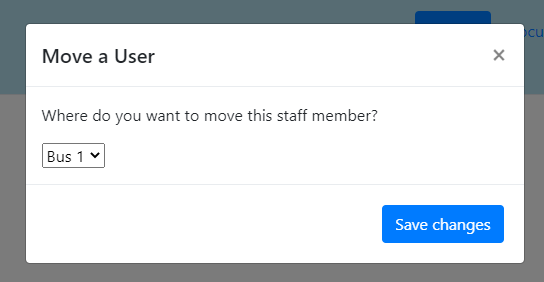
* Navigating to the “Teams” tab.

### 4.2.1 Moving Assigned Bus Staff

* This can be accomplished by using the move command located under the Action section of the Bus staff table, located under each bus section, or the “Uncategorized Section” at the bottom of the page.



* Upon doing so, a popup will appear and provide you with the option to move the staff member to a specific bus.



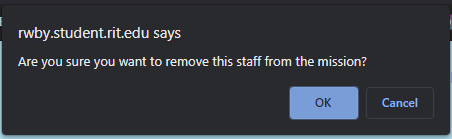
* Saving will refresh the page, and reflect the changes you’ve made.

### 4.2.2 Removing Assigned Bus Staff

* This can be accomplished by using the remove command located under the Action section of the Bus staff table, located under each bus section, or the “Uncategorized Section” at the bottom of the page.

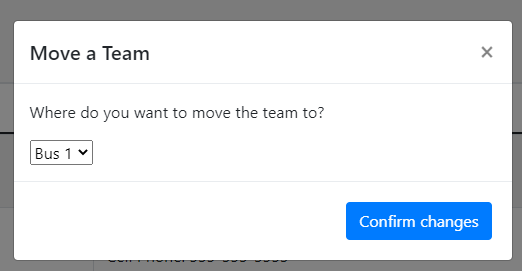


* The site will then prompt you to complete the action, doing so will refresh the page and the user will then be moved to the “uncategorized” section.



### 4.2.3 Moving a Veteran Team

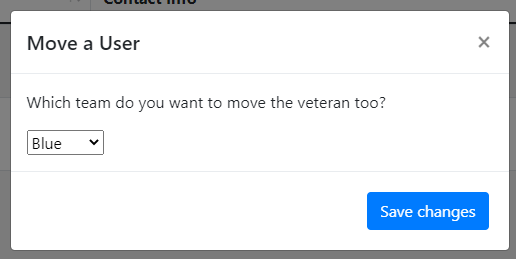
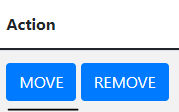
* Under each Bus Section, you’ll see that the teams present on the page all have the option to be moved, upon clicking it, you’ll be prompted to change what bus that team is assigned too.



* Saving will refresh the page, and reflect the changes you’ve made.

### 4.2.4 Moving an Individual Veteran

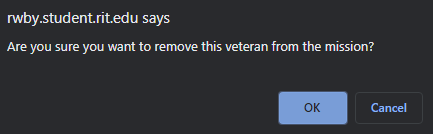
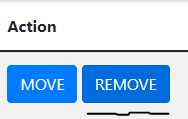
* Under any of the specified Veteran Team lists, you’ll have the option to move an individual veteran by selecting the Move Action on the next to the specified user on the Table. upon clicking it, you’ll be prompted to change what team the veteran is assigned too.



* Saving will refresh the page, and reflect the changes you’ve made.

### 4.2.5 Removing an Individual Veteran

* Under any of the specified Veteran Team lists, you’ll have the option to remove an individual veteran by selecting the Remove Action next to the specified user on the Table. upon clicking it, you’ll be prompted to see if you truly want to remove the veteran.



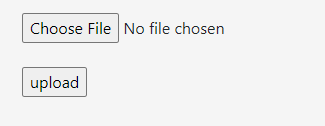
* Clicking “ok” will cause the Veteran to be moved to the “uncategorized section” at the bottom of the page.

## 4.3 Document Management

* Navigating to the “Documents” tab.

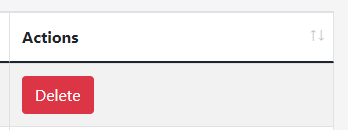
### 4.3.1 Adding a Document

The administrator can add a document to the mission by navigating to the “Documents” tab in the admin portal. The administrator then clicks the “Choose File” button and selects a file from their local computer they would like to upload. Then the administrator clicks the “upload” button and the document will be added to the list of uploaded documents.



### 4.3.2 Deleting a Document

The administrator can delete a document added to a mission by first navigating to the “Documents” tab in the admin portal. Then the admin can click the “Delete” button associated with the document they would like to remove in the “Uploaded Documents” section of the page.



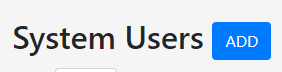
## 4.4 Reservation & Planning Management

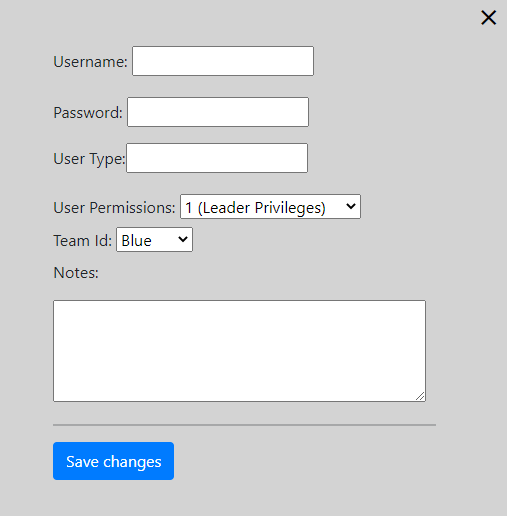
## 4.5 User Management

* Navigating to the “Users” tab.

### 4.5.1 Adding a User

* In the page header “System Users” you can click the ADD Button to open the user creation tab.

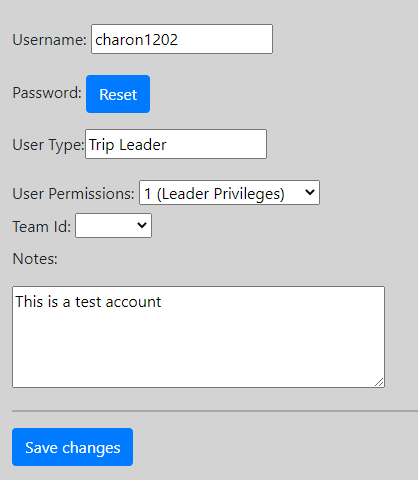




* Upon filling out the Username, Password, User Type, Permissions, Team Id, and any specific notes (optional), the system will refresh, and the new user will be displayed on the user Table.

### 4.5.2 Editing a Users

* By going into the User table and hitting “Edit” next to the specified user, you’ll be able to enter the editing tab



* This will provide you with all the users associated fields, upon making any changes and then hitting “save changes” the page will refresh and any associated information will be updated.
* Note that you cannot designate more than one user as an administrator.

### 4.5.3 Updating a Users Password

* By going into the User table and hitting “Edit” next to the specified user, you’ll be able to enter the editing tab.



* Upon opening the tab, the option to reset the users password will present itself.
* This will open a secondary form that will give you the option to manually change the individuals password.

## 4.6 Veteran Management

Administrators can edit veteran information in the admin portal by:

* Navigating to the “Veterans” tab.
* Clicking the “Edit” button.
* Filling out / editing the fields that are displayed.
* Clicking the “Save Changes” button at the bottom of the form.

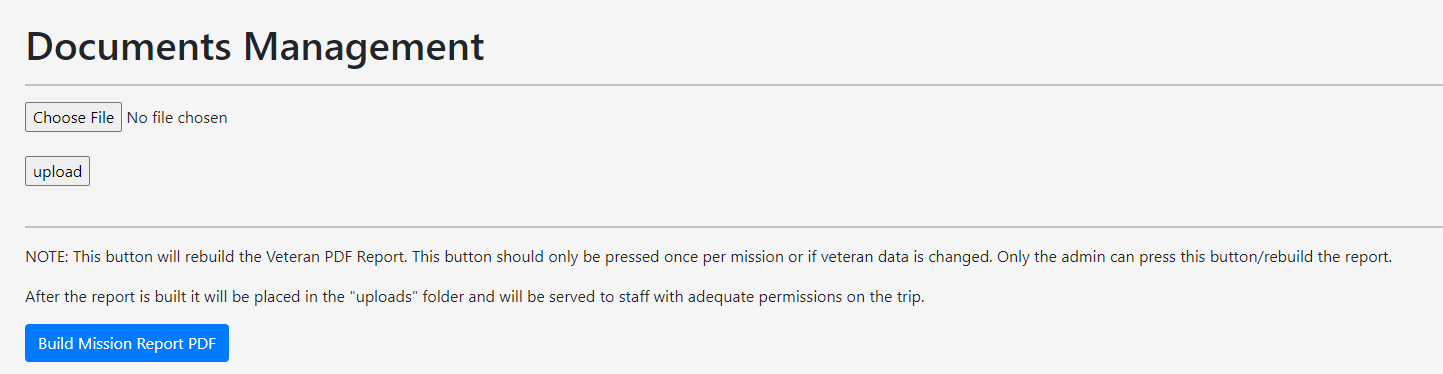
## 4.7 Guardian Management

Administrators can edit Guardian information in the admin portal by:

* Navigating to the “Guardian” tab.
* Clicking the “Edit” button.
* Filling out / editing the fields that are displayed.
* Clicking the “Save Changes” button at the bottom of the form.

## 4.8 Report Creation

Report creation can be found in the “Documents” of the website.



Honor Flight staff are able to generate a report of the total veterans divided into their teams and individual reports.

The team veteran report would show up as this with their unique identifier number that the veteran belongs to. The individual report would be focused on the individual concrete details such as the veteran’s personal information, guardian information, and additional health information.

## 

# 5. Establishing a Development Environment

## 5.1 Requirements

* Linux OS Distribution Family: Debian-based
* Linux OS: Raspbian 10 (Buster)
* PHP Version: 7.3.19-1~deb10u1
* MySQL/MariaDB Version: Ver 15.1
* Python Version: Python 3.7.3

## 5.2 Installation Files

The following commands must be run on a Debian-distribution Linux Terminal inside the folder *deployment*. This command will help you get set for deployment with the base files.

**sudo bash deployment.sh**

The deployment.sh file will perform the following actions.

* The apt-get will be updated.
* All necessary packages will be installed from requirements.txt and python\_requirements.txt. These files are inside the deployment directory.
* Base repository will be cloned from the repository at https://github.com/EDataScriptware/SeniorProjectDevelopment.
* The existing apache2.conf in your files will be updated.
* Apache2 service will be restarted.

When the script is completed, you will receive a message “deployment.sh execution complete”.

## 5.3 Database Initialization

The CREATE\_honorflight.sql set up the database structure and keys for the project. Choose the method below that works the best for your system and run the command

* **METHOD #1:** (Running the script without logging in):
  + **mysql -p -u root < CREATE\_honorflight.sql**
* **METHOD #2:** (Logging in and then running the script):
  + **mysql -p -u root**
  + **source CREATE\_honorflight.sql**

## 5.4 Database Configuration

Inside the project directory, make the following changes to /application/config/database.php scroll down to the bottom where the database connection credentials are stored. Update following the information to make it compatible for your current device and authentication. Search for this information on Line 89 and update as necessary.

|  |
| --- |
| **'hostname' => 'localhost',**  **'username' => 'pi',**  **'password' => ‘your\_password’,**  **'database' => 'honor\_flight',** |

## 5.5 Requirements Packages Installation/Updates

There are two requirements for text files that are used for creation of the writing of a pdf file. Files are **requirements.txt** and **python\_requirements.txt** which can be found inside the deployment directory. Requirements.txt focuses more on installing or updating the packages for bash scripting. File python\_requirements focuses more on installing or updating the packages for python scripting. For more information about specific bash or python packages, please refer to the files to find the packages.

## 

# 6. References

* Justin Arcoraci - Middleware
* Zachary Easley - Database Architecture, Backend Developer
* Edward Riley - System Administrator, Frontend Developer
* Marcus Risch - Project Manager
* Mark Thurrot. - Framework Designer