IFB299 – Application Design and Development

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My main focus throughout this release has been working getting the passwords stored in the database appropriately hashed, fixing bugs from previous stories as well as adding additional functionalities that had been overlooked in the previous sprints. My main areas of work have been on the user stories relating security, volunteer database search functions, inconsistent user interface elements, account functions

# Artefact 1 – Password Hashing & Salting

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| File Name | Technologies Used | Description |
| Hashed Passwords.png | MySQL | This is a screenshot showing examples of user accounts stored in the database. These have been hashed and salted. |
| login\_page.php | HTML, PHP, MySQL | This file is the main login page for the system. It was originally checking plain text passwords against plain text stored in the logins table. I have modified this so it now uses PHP to grab the password from the user, hash it and compare with the hash stored in the logins table. I have also modified UI elements of this page to make it look better and more consistent with other pages. |
| signup.php | HTML, PHP, MySQL | This file is the main signup page for customers. I have modified it so that it makes the user type in the password twice for accuracy checking and then runs the password through an algorithm to hash and salt it. The hash and salt are combined together and then stored in the logins table. |

# Artefact 2 – Staff Account Management Functions

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| File Name | Technologies Used | Description |
| admin.php, manager.php, volunteers.php | HTML, PHP, MySQL | These are all essentially the same page. They are used to manage accounts for users of varying access levels. They currently support resetting a user’s password and enabling/disabling a user’s account. These pages (except admin.php I created this as there was no way to administer an admin account) existed already, I have changed them to look more like the rest of the system and have added the reset password functionality |
| upgrade.php | HTML, PHP, MySQL | This page is used to change a user’s access level. Despite the name, access can be changed up and down to any access level. |

# Artefact 3 – Password Resetting

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| File Name | Technologies Used | Description |
| home.php | HTML, PHP | This is the main home page which displays a welcome message when no one is logged on, and displays links appropriate to a particular user level when they are logged in. I have made some modifications to this page. I have made this page the landing page for password changes, I have modified UI elements to ensure consistency and have added various new links for the Admin user group. The page now also checks if a user’s session is logged in to prevent users with expired passwords from accessing the page. |
| reset\_password.php | HTML, PHP, MySQL | This page generates a random number and then changes a user’s password to this random number. The number Is then displayed. This is intended to be provided to users who have forgotten their passwords. When a user next logs in they will be redirected to a page to choose a new password. |
| expired\_password.php | HTML, PHP | This page gets user input to select a new password when it has been reset. It then passes processing on the execute\_expired\_password.php |
| execute\_expired\_password.php | PHP, MySQL | This page checks that the input received is valid, if it is not valid it sends the user back to the expired\_password.php page to choose a new password. If the password is valid it updates the logins table and re-enables the user account. |

# Artefact 4 – Customer Account Creation

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| File Name | Technologies Used | Description |
| create.php | HTML, PHP, MySQL | This page allows a staff member to create an account on behalf of a user rather than making them do it themselves. The system will automatically set a random number as the password and set the password as expired to force the user to change on first login. |
| ifb299\_logins.sql | MySQL | This is a MySQL dump file showing the structure of the logins table. I have amended it and added a column for expired passwords. This field is always flagged as 1 for all new accounts created and all password resets across the entire site. This ensures users change their passwords for better security. |

# Artefact 5 – Customer Search & Update Functions

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| File Name | Technologies Used | Description |
| search.php | HTML, PHP | This page is used for searching for existing customers in the database. You are able to lookup customers by last name, phone number and client number. |
| search\_results.php | HTML, PHP, MySQL | This page looks up customer information provided by search.php and displays all relevant matches. Links are displayed to edit user details or to reset passwords. |
| edit\_client.php | HTML, PHP, MySQL | This page allows information about migrant customers to be updated. This page takes user inputs and passes them to the modify\_execute.php page for processing. |
| modify\_execute.php | PHP, MySQL | This script takes input from edit\_client.php and makes the appropriate updates in the database. |