# **TESTING**

#### Introduction

In order to test my system to its full extent, I shall use white box testing. This type of testing details testing all of the internal workings of a system. Due to my familiarity with the system, I will be able to test every type of valid and invalid input in the system, as well as test every single button and every single function extensively.

I plan to conduct my tests methodically, running through the system as a typical user would. I will test every possible way that the user could interact with the system at any given stage. This will provide a logical test and will showcase every possible function in the system. I will constantly be on the lookout for anything that goes wrong / deviates from my plan, or any improvements that need to be made.

Jack Browne - 555784

CARDIFF AND VALE COLLEGE

## Test Plan

Test Number	Test Type	Requirement	Expected Result	Pass or Fail	Evidence
1	Intuitive user interface and navigation in every part of the system.	Users should be able to understand the whole system at a glance and be able to easily navigate it, using every programmed function.	All navigation buttons will work and take the user to the labelled page. The user will not get stuck in any loops or confusing navigations.	Pass	Teacher Testing. Screenshots.
2	Login and Security.	User should be able to login with Username and Password.	User will input their credentials. If there is a match, they will be taken to the Artist main menu or Staff main menu based on credentials. If incorrect, error message will be displayed.	Pass	Screenshots.
3	Registration of New User (Artist)	User should be able to register a new artist with all relevant data.	User will input all required credentials into the registration form. New user will be created and will be able to log into the system. Error message will show if data is invalid or missing.	Pass	Screenshots.
4	Usage of Artist Main Menu / Staff Main Menu.	Users should be able to understand and use the main menu, which contains all functions for Artists or Staff to use.	All navigation buttons will work and take the user to the labelled page. The user will not get stuck in any loops or confusing navigations.	Pass	Teacher Testing. Screenshots.
5	Creating a Booking.	User should be able to create a new booking with all relevant data.	User will input all required information into the booking creation form. New booking will be created and will be able to be	Pass	Screenshots.

			vious dand		
			viewed and modified. Error message will show if data is invalid or missing, or a double booking is detected.		
6	Modifying a Booking.	Users should be able to pick and modify a booking that they've made.	User will be able to see only bookings they have made. They will then be able to pick a booking to modify and will be able to modify it. If they attempt to use any invalid or missing data, show an error message. If they reschedule and the time conflicts with a different booking, show an error message.	Pass	Screenshots.
7	Creating an Invoice.	Users should be able to pick a booking they've made and generate an invoice.	User will be able to see only bookings they have made. They will then be able to pick a booking and an invoice will be generated.	Pass	Screenshots.
8	Deleting Own Account.	Users should be able to delete their own account.	Users should be able to attempt to delete their own account. They will be asked to confirm. If successfully confirmed, account will be deleted from the table. If not successfully confirmed, an error message will be shown.	Pass	Screenshots.
9	Displaying Support Screen.	Users should be able to access the support display.	User will be able to click Support button. This will	Pass	Screenshots.

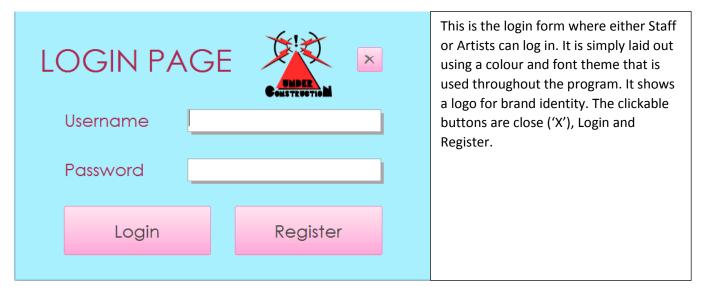
			display the support screen.		
10	Log Out.	Users should be able to log out.	User will click Log Out button. They will be taken back to the login screen.	Pass	Screenshots.
11	View Artists.	Staff should be able to view a list of registered artists.	Staff member will click View Artists. This will show them a list of all registered artists.	Pass	Screenshots.
12	Modify Users.	Staff should be able to modify registered users (artists).	Staff will choose to modify a customer. They will then be able to pick a customer and press Find to populate the form with the customer info. If they attempt to use any invalid or missing data, show an error message.	Pass	Screenshots.
13	View Bookings / Generate Invoices. (Staff)	Staff should be able to view ALL bookings and generate invoices.	Staff will see all bookings. They will be able to click any one and generate an invoice.	Pass	Screenshots.
14	Add Staff.	Staff should be able to add new staff members.	User will input all required credentials into the registration form. New staff will be created and will be able to log into the system. Error message will show if data is invalid or missing.	Pass	Screenshots.
15	User Log.	Staff should be able to view a log of all user activity.	Staff member will click User Log and see all recent user activity, starting with the most recent.	Pass	

#### **Test Format**

In order to test the system to its fullest extent, I have broken each of these test sections down into sub-tests which will eventually demonstrate the action of every piece of code in the project, as well as fully detail every test category I have laid out in the table above.

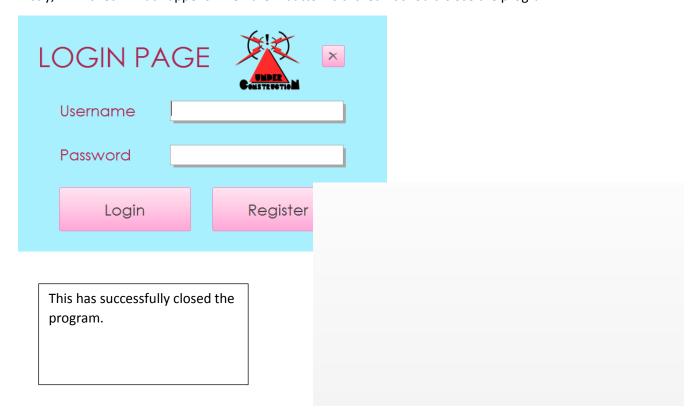
#### Test 1

The first form a user sees when they load the project is 'Login'.



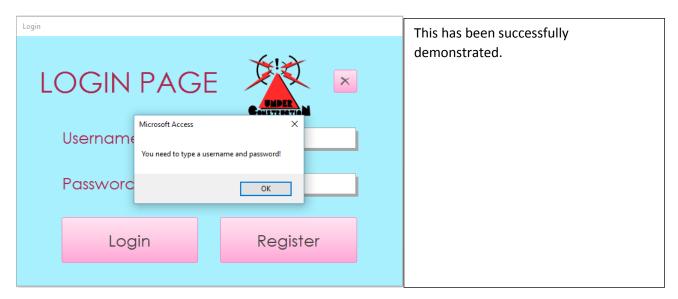
#### Test 2 (Login, Close Button)

Firstly, I will check what happens when the X button is clicked. It should close the program.

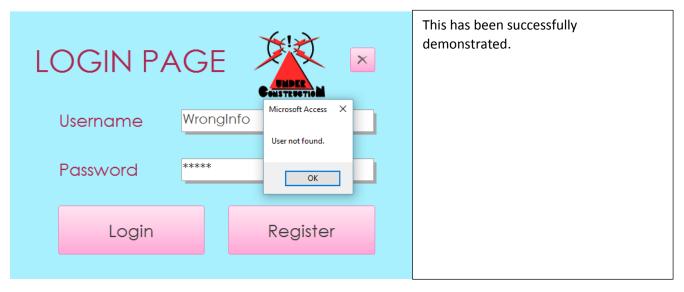


## <u>Test 3 – 3.4</u>

**3.1** Next, I will demonstrate the abilities of the login button. Firstly, if a user doesn't enter any data, an error should show this.



**3.2** If the user types incorrect data that doesn't match with either staff or artist credentials, an error should show this.



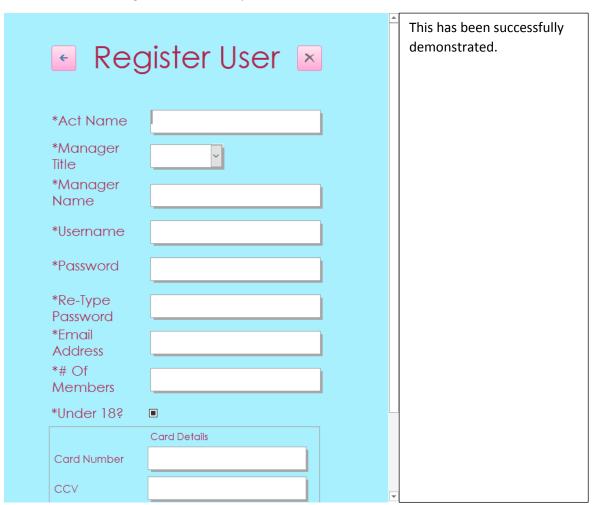
**3.3** If the user types data that matches with artist credentials, they should be brought to the artist control panel.



**3.4** If the use types data that matches with staff credentials, they should be brought to the staff control panel.

LOGIN PAGE	Staff Control Panel 🗵	This has been successfully demonstrated.
Username Jsmith1	View Artists  View Bookings / Generate Invoice	
Password ***	View Artist Control Panel (Debug)  Delete Account	
Login Register	Log Out Add Staff  User Log	

<u>Test 4</u>
If the user clicks the 'Register' button, they should be taken to the form 'AddUser'.



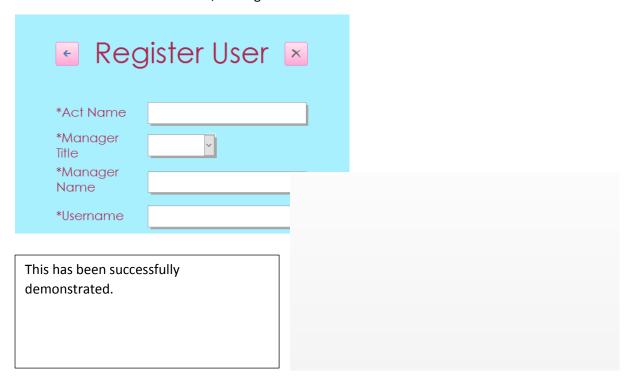
Reç	gister User 🔼		This is the AddUser form where either staff or artists can register an artist. It is simply laid out using a
*Act Name			colour and font theme that is used throughout the
*Manager Title	~		program. The clickable
*Manager Name			buttons are close ('X'), back ('<-') and Add User.
*Username			
*Password			
*Re-Type Password *Email			
Address			
*# Of Members			
*Under 18?			
Card Number	Card Details		
ccv			
Expiry Date			
	Add User	L	

## Test 6

If the user clicks the back button, they should be returned to the 'Login' form.

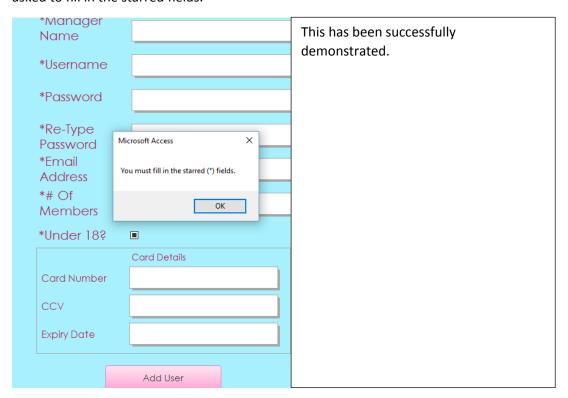


If the user clicks the close button, the register form should close.

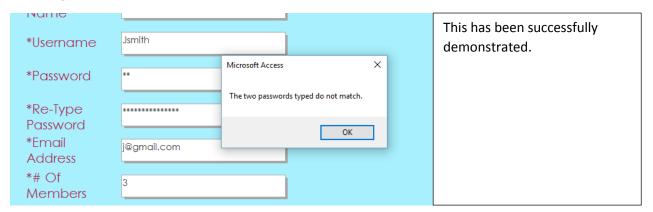


#### Test 8-8.2

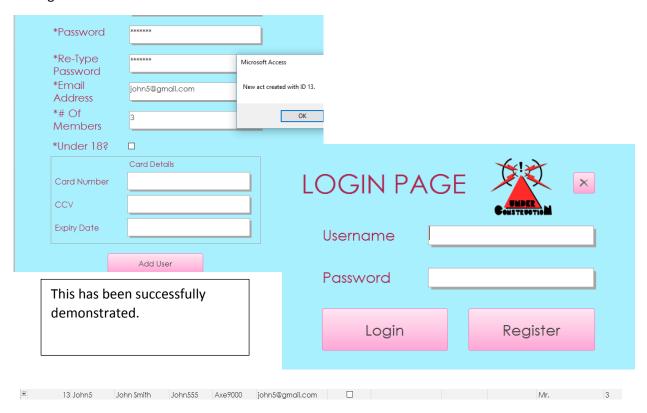
**8.1** If the user presses the register button with any of the starred fields not filled in, they should be asked to fill in the starred fields.



**8.2** If the user presses the register button with an incorrect password validation, they should be told that the passwords do not match.



**8.3** If the user presses the register button and all is correct, they should be notified that their data has been added successfully. Their data will be added to the Artists table. They will be returned to the login form.



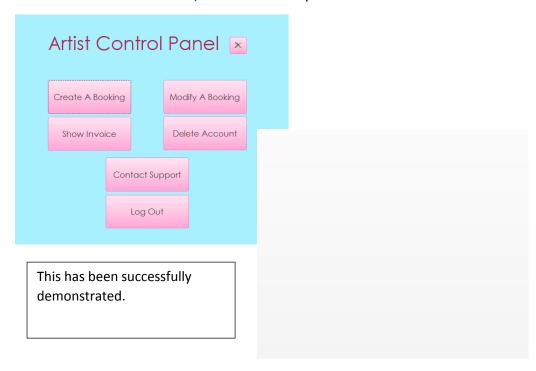
#### Test 9



This is the 'AMain' form which is displayed to artists when they log in. It is simply laid out using a colour and font theme that is used throughout the program. It is a hub which displays the functions which artists can use. The clickable buttons are close ('X'), Create a Booking, Modify a Booking, Show Invoice Delete Account, Contact Support and Log Out.

#### <u>Test 10</u>

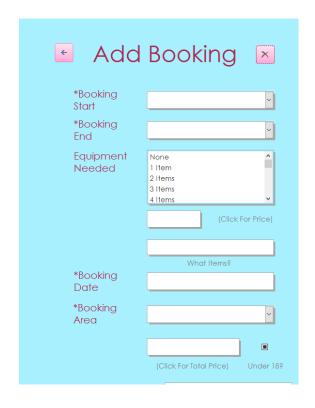
If the user clicks the close button, the artist control panel form should close.



## <u>Test 11</u>

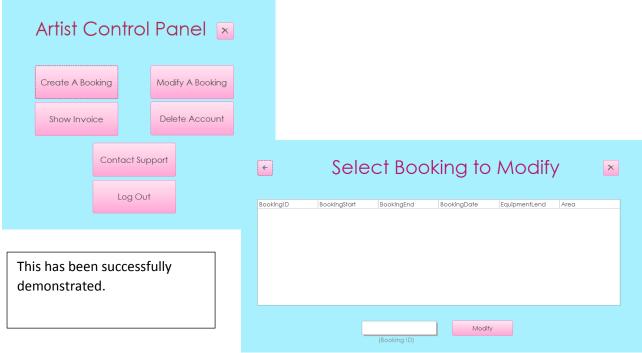
If the user clicks the create a booking button, they should be taken to the AddBooking form.





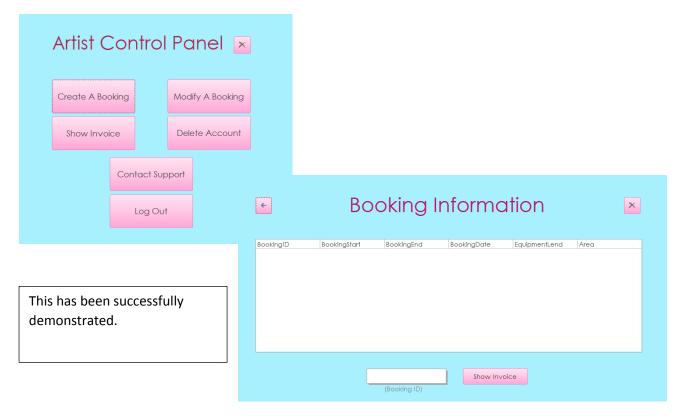
<u>Test 12</u>

If the user clicks the Modify a Booking button, they should be taken to the 'ModifyBooking' form.



## <u>Test 13</u>

If the user clicks the Show Invoice button, they should be taken to the 'BookingInfo' Form.



#### <u>Test 14 – 14.4</u>

**14.1** If the user clicks the Delete Account button, they should be given a pop-up box which gives them the option to delete their account.

Artist Control

Microsoft Access

If you are certain you wish to delete your account, please type 'DELETE'

Create A Booking

Show Invoice

This has been successfully demonstrated. Here, the user can cancel or can type DELETE to confirm account deletion

This has been successfully demonstrated. Here, the user can cancel or can type DELETE to confirm account deletion

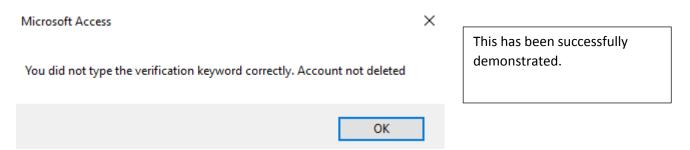
Create A Booking

Show Invoice

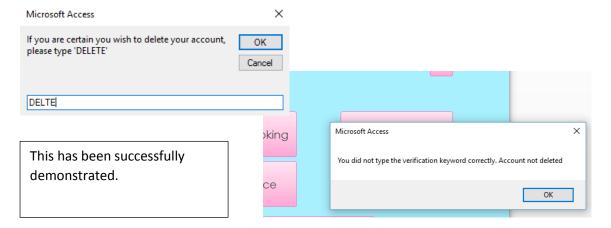
Delete Account

Log Out

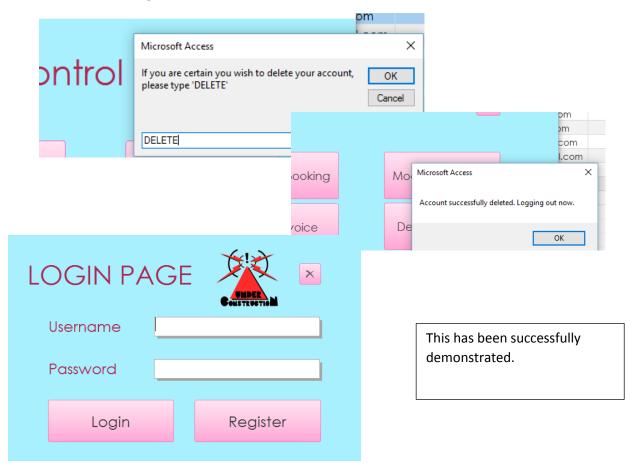
**14.2** If the user presses cancel, they should be told that their account has not been deleted and the delete box should close.



**14.3** If a user types the incorrect keyword and presses ok, they should be told that their account has not been deleted and the delete box should close.



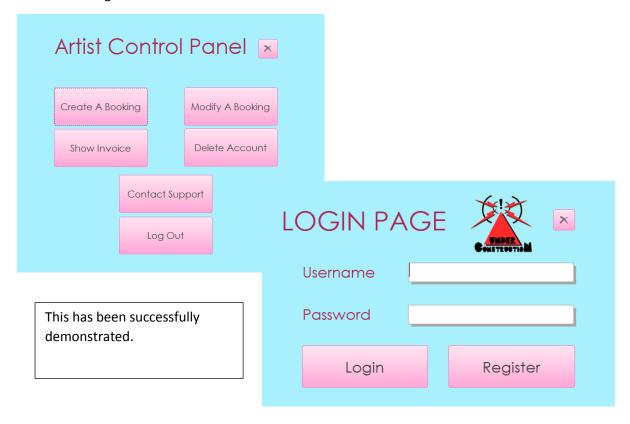
**14.4** If the user types DELETE and presses ok, the account will be deleted and the user logged off and returned to the login form.



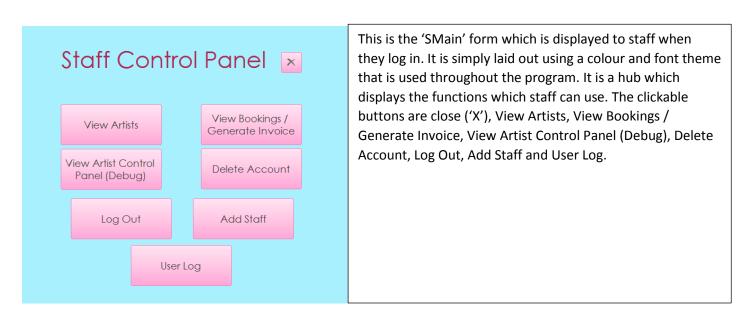
Test 15
When the user presses the Contact Support, they should be taken to the 'Support' form.



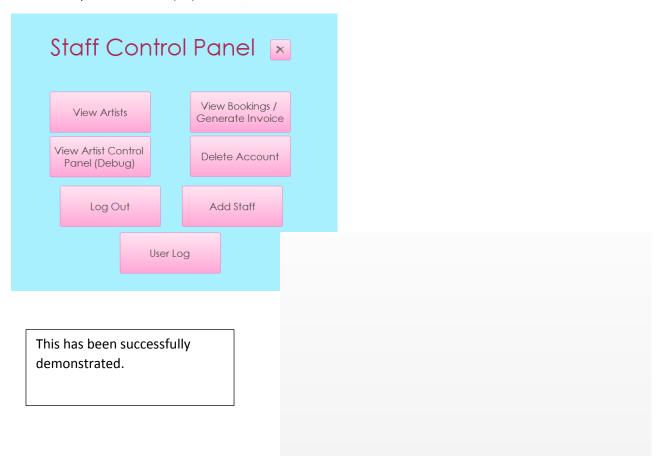
When the user presses Log Out, the Artist Control Panel form should close and the user should be taken to the login form.



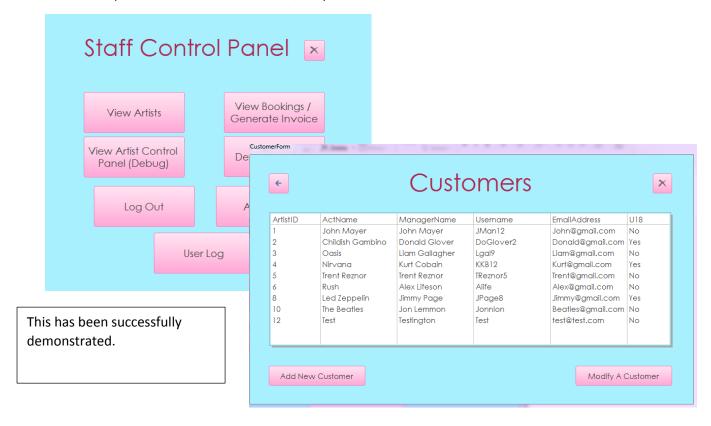
<u>Test 17</u>



Test 18
When staff press the close ('X') button, the form should close.



Test 19
When staff press the 'View Artists' button, they should be taken to the CustomerForm form.

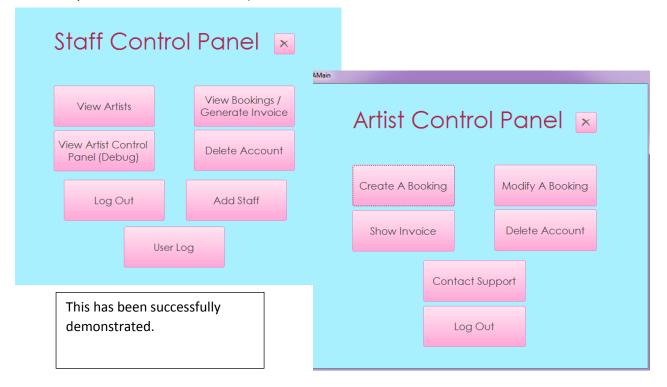


When staff press the 'View Bookings / Generate Invoice' button, they should be taken to the BookingInfoStaff form.



#### **Test 21**

When staff press the 'View Artist Control Panel (Debug)' button, they should be brought to the artist control panel. (Note that this dimension of the artist control panel will not be tested because it is essentially the same as the tested one).

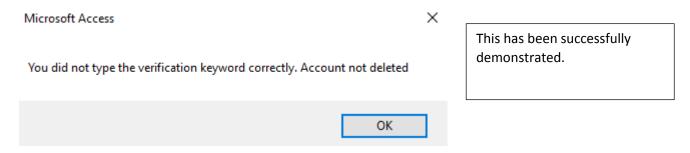


#### Test 22 - 22.4

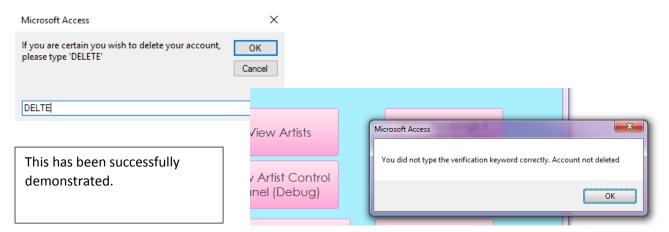
**22.1** If the user clicks the Delete Account button, they should be given a pop-up box which gives them the option to delete their account.



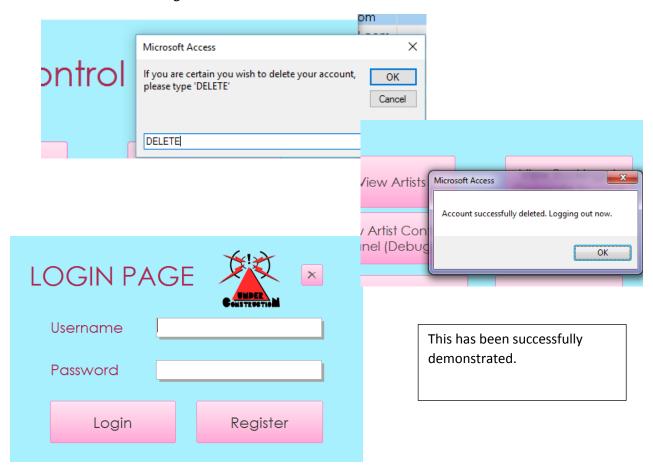
**22.2** If the user presses cancel, they should be told that their account has not been deleted and the delete box should close.



**22.3** If a user types the incorrect keyword and presses ok, they should be told that their account has not been deleted and the delete box should close.

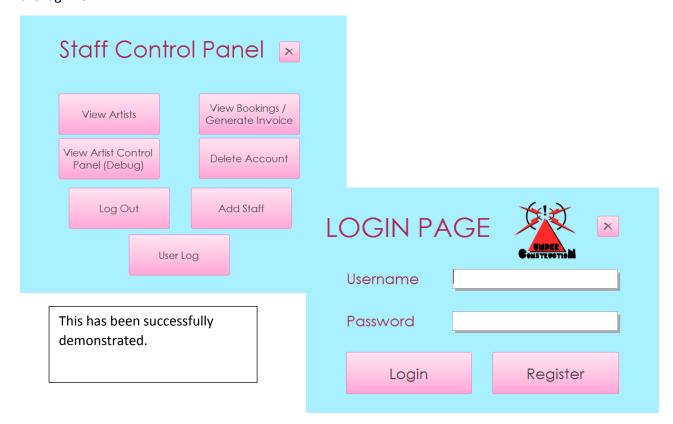


**22.4** If the user types DELETE and presses ok, the account will be deleted, and the user logged off and returned to the login form.



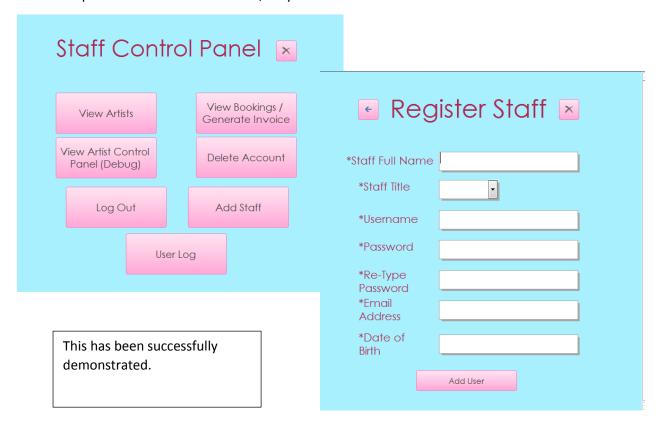
#### **Test 23**

If the staff presses Log Out, the Staff Control Panel form should close, and they should be taken to the login form.

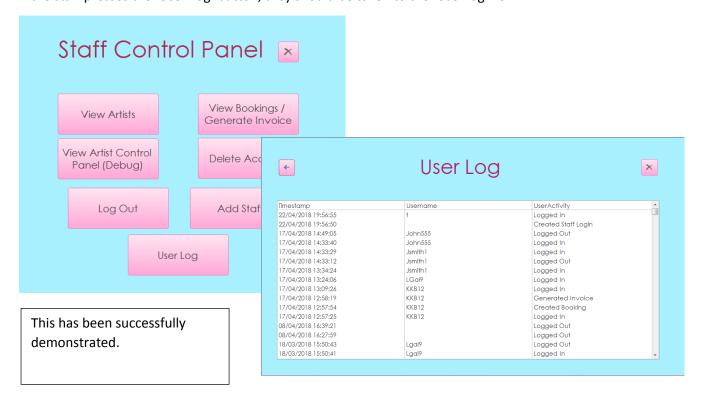


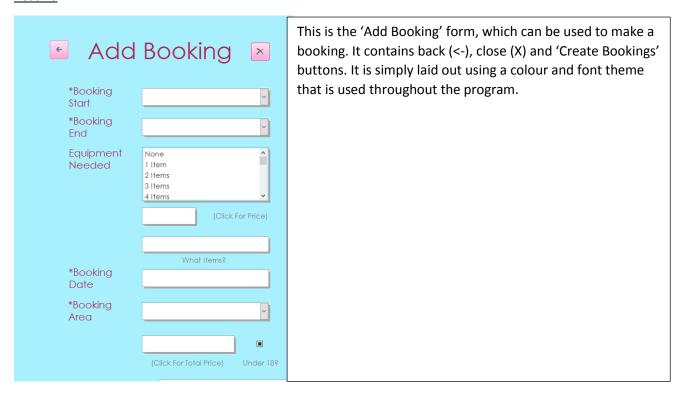
<u>Test 24</u>

If the staff presses the 'Add Staff' button, they should be taken to the 'AddStaff' Form.

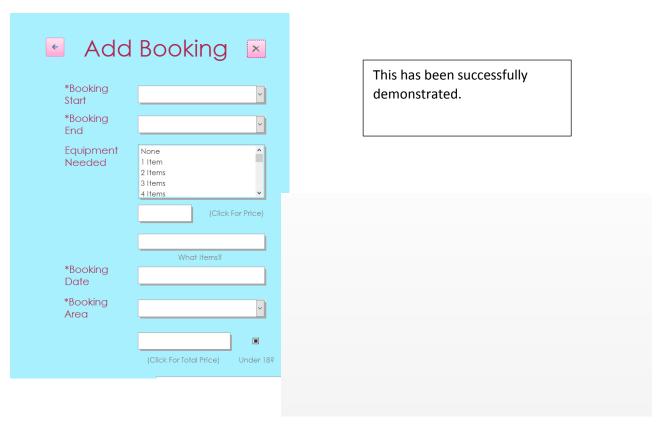


<u>Test 25</u>
If the staff presses the 'User Log' button, they should be taken to the 'UserLog' Form.





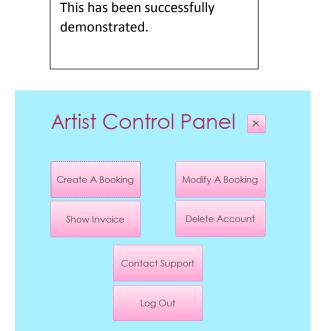
<u>Test 27</u>
When the user presses the close ('X') button, the form should close.



Test 28

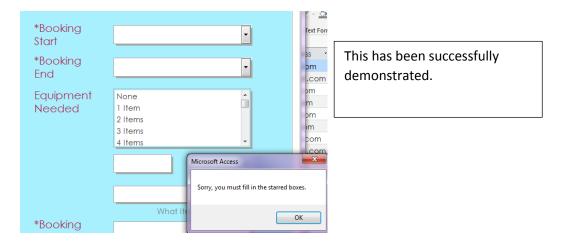
When the user presses the back button, they should be taken back to the Artist Control Panel.



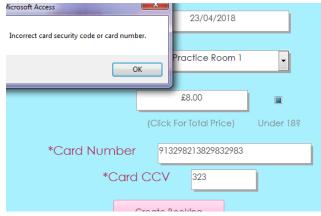


#### Test 29 - 29.4

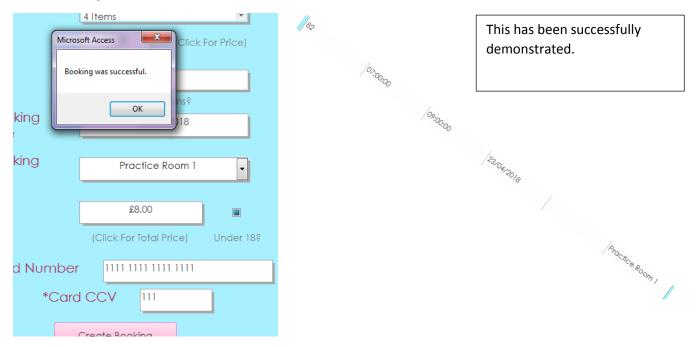
**29.1** If the user has failed to fill in any of the specified starred boxes, they should get an error stating this.



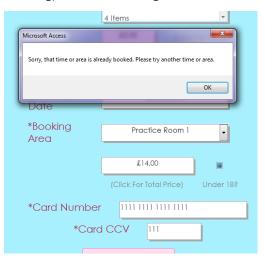
**29.2** If the user has entered a card number and CCV which doesn't match the saved credentials, they should get an error stating this.



**29.3** If the user has filled in everything correctly, they should have a successful booking which is added to the table / visible from their bookings view. A success message should be shown. The create booking form should close.



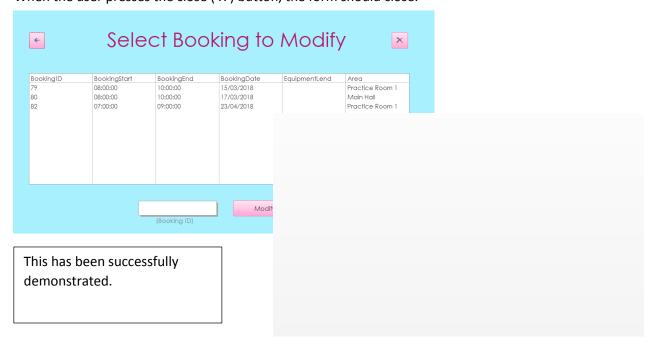
**29.4** Lastly, if the user's attempted booking conflicts with one already made (attempted double booking), an error message should be shown.





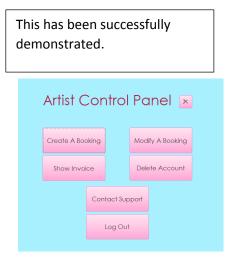
This is the 'Modify Booking' form. It is simply laid out using a colour and font theme that is used throughout the program. The clickable buttons are back (<-), close (X) and Modify. The list is also clickable, so the user can pick a booking.

<u>Test 31</u>
When the user presses the close ('X') button, the form should close.

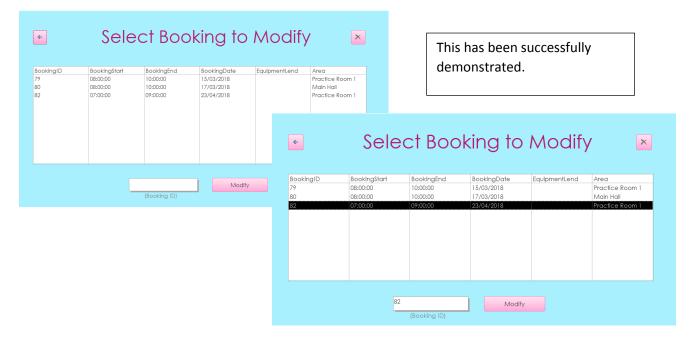


<u>Test 32</u>
When the user presses the back button, they should be taken back to the Artist Control Panel.



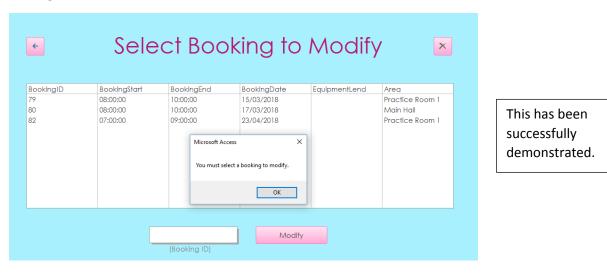


When the user presses a booking item in the list, the ID should appear in the textbox below.



#### Test 34 - 34.4

**34.1** If the user tries to press 'Modify' without selecting a booking, they should receive an error message.



**34.2** If the user presses 'Modify' with a booking selected, they should be taken to the 'ModifyBooking\_p2' form – their chosen booking data should be filled in automatically.



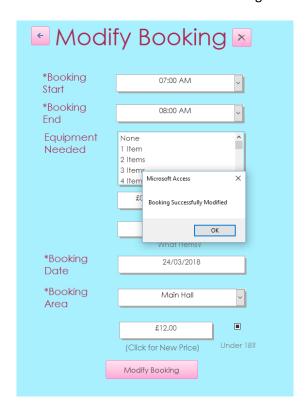


**34.3** If the user tries to modify the booking and the new date/time conflicts with another booking, they should be shown an error.

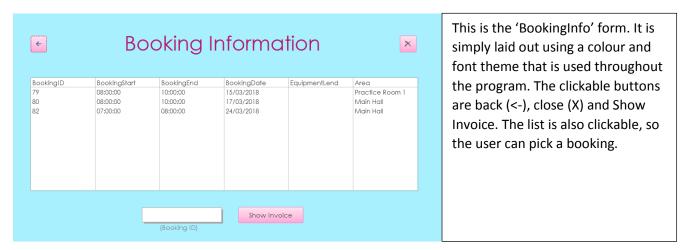


This has been successfully demonstrated.

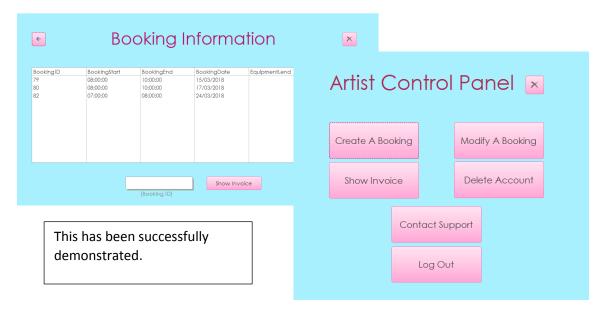
**34.4** If the user fills in every field appropriately, they should get a success message and be returned to the Artist Control Panel. The 'Bookings' table will be updated.



#### <u>Test 35</u>



<u>Test 36</u>
When the user presses the back button, they should be taken back to the Artist Control Panel.



<u>Test 37</u>
When the user presses the close button, the form should close.



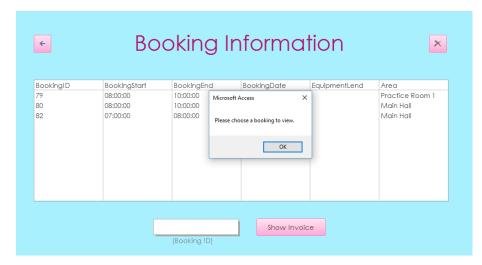
When the user presses a booking item in the list, the ID should appear in the textbox below.



This has been successfully demonstrated.

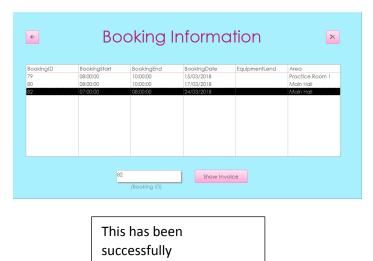
#### Test 39 - 39.2

**39.1** If the user tries to press 'Show Invoice' without selecting a booking, they should receive an error message.

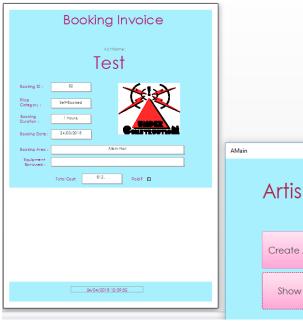


This has been successfully demonstrated.

**39.2** If the user presses 'Show Invoice' with a chosen booking, they should be presented with an invoice for that booking. The BookingInformation form should close.



demonstrated.





#### Test 41

When the user presses the back button, they should be taken back to the Staff Control Panel.



#### Test 42

When the user presses the close button, the form should close.



When the user presses a booking item in the list, the ID should appear in the textbox below.



This has been successfully demonstrated.

#### Test 44 - 44.2

**44.1** If the user tries to press 'Show Invoice' without selecting a booking, they should receive an error message.



This has been successfully demonstrated.

**44.2** If the user presses 'Show Invoice' with a chosen booking, they should be presented with an invoice for that booking. The BookingInfoStaff form should close.





This is the 'CustomerForm' form. It is simply laid out using a colour and font theme that is used throughout the program. The clickable buttons are back (<-), close ('X'), Add New Customer and Modify A Customer.

#### Test 46

When the user presses the back button, they should be taken back to the Staff Control Panel.



#### Test 47

When the user presses the close button, the form should close.



When the user presses 'Add New Customer' they should be taken to the previously tested 'Register' form.





#### **Test 49**

When the user presses 'Modify A Customer', they should be taken to the 'ModifyUser' Form.



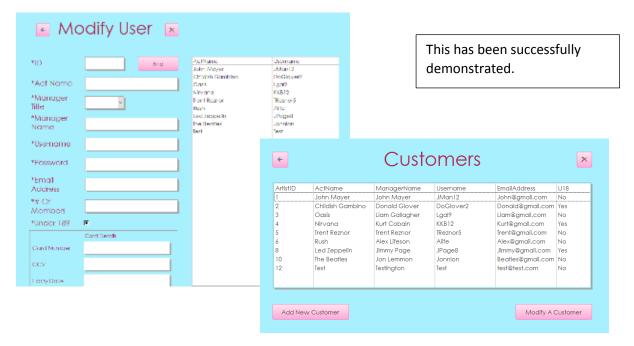
This has been successfully demonstrated.

#### Test 50



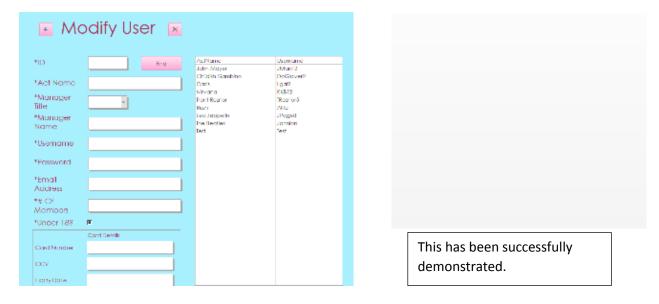
This is the 'ModifyUser' form. It is simply laid out using a colour and font theme that is used throughout the program. The clickable buttons are back (<-), close ('X'), Find and Modify User.

When the user presses the back button, they should be taken back to the Customer Info form.



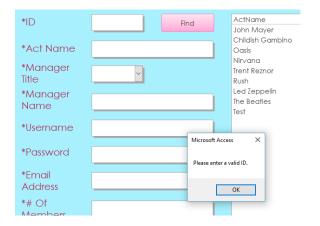
#### Test 52

When the user presses the close button, the form should close.



#### Test 53 - 53.2

**53.1** If the user presses find without choosing a customer, an error message should be presented.

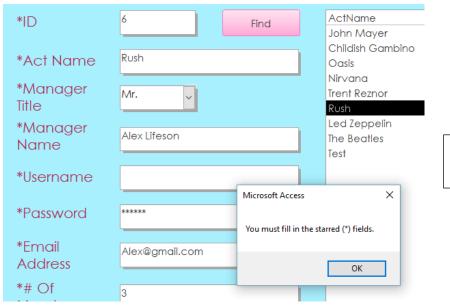


**53.2** If the user presses the Find button after clicking a customer, the customer's relevant info should be filled into the form.

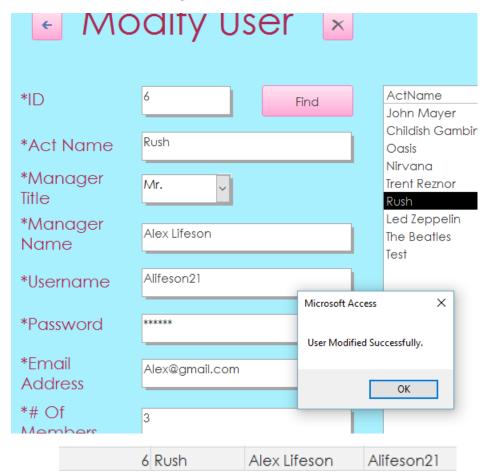


<u>Test 54 – 54.2</u>

**54.1** If the user has not filled in all the starred fields and presses 'Modify User', they will get an error message.

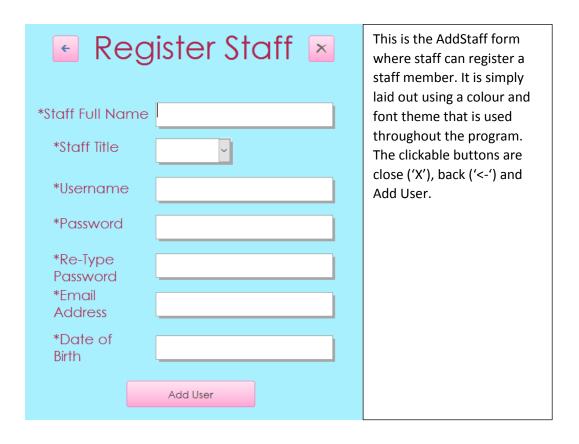


**54.2** If the user has filled out all the appropriate data, the form should provide a success message and the user should be brought back to the staff main menu.



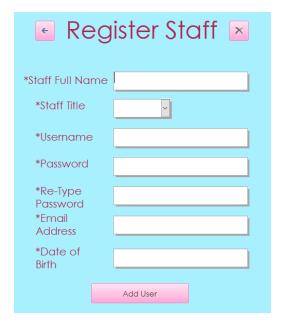
This has been successfully demonstrated.

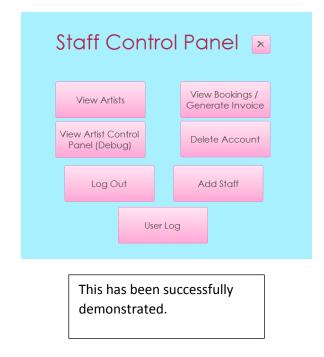
#### Test 55



#### <u>Test 56</u>

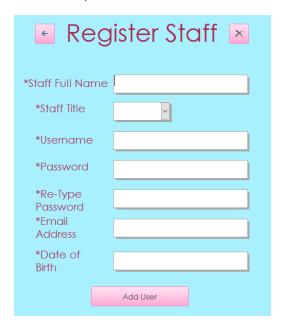
If the user clicks the back button, they should be returned to the Staff Control Panel.

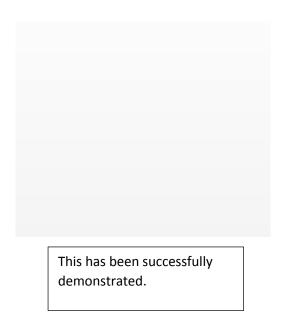




#### Test 57

If the user presses the close button, the form should close.





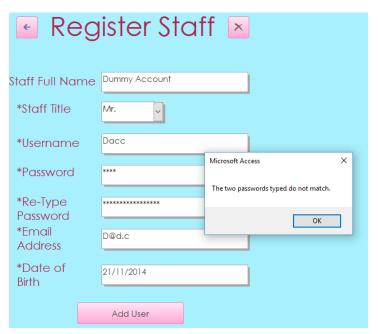
#### <u>Test 58 – 58.2</u>

**58.1** If the user presses 'Add User' without filling in the required fields, they should get an error message.



This has been successfully demonstrated.

**58.2** If the user presses the register button with an incorrect password validation, they should be told that the passwords do not match.

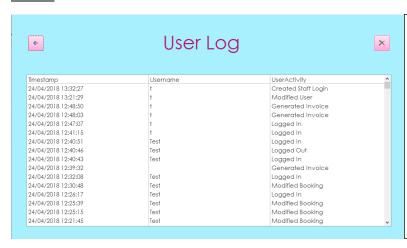


**58.3** If the user presses the register button and all is correct, they should be notified that their data has been added successfully. Their data will be added to the Staff table. They will be returned to the staff control panel form.



This has been successfully demonstrated.

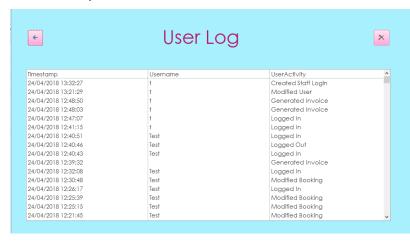
#### Test 59



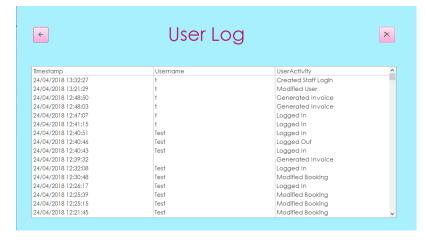
This is the AddStaff form where staff can vie. It is simply laid out using a colour and font theme that is used throughout the program. The clickable buttons are close ('X') and back ('<-').

#### Test 60

f the user presses the close button, the form should close.



<u>Test 61</u>
If the user clicks the back button, they should be returned to the Staff Control Panel.





This has been successfully demonstrated.

#### **Final Words**

Even though all of my testing went as planned, I believe it would be beneficial to undertake black box testing. For this, I would have to bring in someone who didn't develop system (such as Jay Marsh, the person I previously interviewed and the owner of the business) for them to test that the system and see that it is to their liking.

This will allow me to make sure I haven't personally missed anything, but it will also allow Jay to suggest any potential improvements he wants to see considering the system has been made for him and his business. This way, any bias from myself will be removed.