Testing

Testing Strategy

The testing strategy for the system involves a performing five tests which will determine whether or not the system is fit for its intended use.

These tests are:

- 1. Navigation
- 2. Module/Functionality
- 3. Validation
- 4. Integration
- 5. Acceptance

1. Navigation

Test	Action	Test Description	Expected Result	Actual Result
1.01	Login Form(<u>frmLogin</u>) –	Tests the functionality of the login	The login form is hidden and the Menu	As expected
	<u>btnLogin</u>	button. Shows that the user can	form is displayed.	
	Button Click	navigate from the log in form to the	This result is only valid if the login	
		Menu form(frmMenu)	credentials are genuine	
1.02	Menu Form(<u>frmMenu</u>) –	Tests the functionality of the Log out	The Menu form should close and the	As expected
	btnLog out	button.	login form should be made visible to the	
	Button Click		user	
1.03	Menu Form –	Tests the functionality of the	The Manage Bookings form should be	As expected
	<u>btnManageBookings</u>	Manage Bookings button. Shows	displayed on the screen and the Menu	
	Button Click	the transition from the Menu form to	form should appear in the background.	
		the Manage Bookings form		

		(<u>frmManageBookings)</u>		
1.04	Menu Form – <u>btnManageCatering</u> Button Click	Tests the functionality of the Catering button. Shows the transition between the Menu form and the Catering form (frmManageCatering)	The Catering form should be displayed and the Menu form should appear in the background.	As expected
1.05	Menu Form – <u>btnManageCustomers</u> Button Click	Tests the functionality of the Manage Customers button. Shows the transition between the Menu form and the Manage Customers form (frmManageCustomers)	The Manage Customers form should be displayed and the Menu form should appear in the background.	As expected
1.06	Menu Form – <u>btnManageRooms</u> Button Click	Tests the functionality of the Manage Rooms button. Shows the transition between the Menu form and the Manage Rooms form (frmManageRooms)	The Manage Rooms form should be displayed and the Menu form should appear in the background.	As expected
1.07	Menu Form – <u>btnNewBooking</u> Button Click	Tests the functionality of the New Booking button. Shows the transition between the Menu form and the New Booking form (frmNewBooking)	The New Booking form should be displayed and the Menu form should appear in the background.	As expected
1.08	New Booking Form (<u>frmNewBooking</u>) – <u>btnFinish</u> ButtonClick	Tests the functionality of the Finish button	The New Booking Form Should be closed and the Menu form should be brought to the front	As expected
1.09	New Booking Form– <u>btnCancel</u> ButtonClick	Tests the functionality of the Cancel button	The New Booking Form Should be closed and the Menu form should be brought to the front	As expected
1.10	Menu Form – <u>btnSystemSettings</u> Button Click	Tests the functionality of the Manage Rooms button. Shows the transition between the Menu form and the System Settings form	The System Settings form should be displayed and the Menu form should appear in the background.	As expected

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		(<u>frmSystemSettings</u>)		
1.11	Menu Form – <u>btnBookingCalendar</u> Button Click	Tests the functionality of the Booking Calendar button. Shows the transition between the Menu form and the Booking Calendar form (frmBookingCalendar)	The Booking Calendar form should be displayed and the Menu form should appear in the background.	As expected
1.12	Manage Bookings Form (<u>frmManageBookings</u>) – <u>btnClose</u> Button Click	Tests the functionality of the Close button.	The Manage Bookings form should be closed and the Menu should be brought to the front.	As expected
1.13	Manage Catering Form (frmManageCatering) – btnNewItem Button Click	Tests the functionality of the New Item button. Shows the transition between the Catering form and the New Item form (frmNewItem)	The New Item form should be displayed and the Manage Catering form should appear in the background	As expected
1.14	New Item Form (<u>frmNewItem</u>) – <u>btnFinish</u> ButtonClick	Tests the functionality of the Finish button	The New Item Form Should be closed and the Manage Catering form should be brought to the front	As expected
1.15	New Item Form– <u>btnCancel</u> ButtonClick	Tests the functionality of the Cancel button	The New Item Form Should be closed and the Manage Catering form should be brought to the front	As expected
1.16	Manage Catering Form – <u>btnClose</u> Button Click	Tests the functionality of the Close button.	The Manage Catering form should be closed and the Menu should be brought to the front.	As expected
1.17	Manage Customers Form (<u>frmManageCustomers</u>) – <u>btnNewCustomer</u> Button Click	Tests the functionality of the New Customer button. Shows the transition between the Manage Customers form and the New Customer form (<u>frmNewCustomer</u>)	The New Customer form should be displayed and the Manage Customers form should appear in the background	As expected
1.18	New Customer Form (<u>frmNewCustomer</u>) – <u>btnFinish</u>	Tests the functionality of the Finish button	The New Customer Form Should be closed and the Manage Customers form should be brought to the front	As expected

	ButtonClick			
1.19	New Customer Form– <u>btnCancel</u> ButtonClick	Tests the functionality of the Cancel button	The New Customer Form Should be closed and the Manage Customers form should be brought to the front	As expected
1.20	Manage Customers Form – btnClose Button Click	Tests the functionality of the Close button.	The Manage Customers form should be closed and the Menu should be brought to the front.	As expected
1.21	Manage Rooms Form (<u>frmManageRooms</u>) – <u>btnNewRoom</u> Button Click	Tests the functionality of the New Room button. Shows the transition between the Manage Rooms form and the New Room form (frmNewRoom)	The New Room form should be displayed and the Manage Rooms form should appear in the background	As expected
1.22	New Room Form (frmNewRoom) – btnFinish ButtonClick	Tests the functionality of the Finish button	The New Room Form Should be closed and the Manage Rooms form should be brought to the front	As expected
1.23	New Room Form– <u>btnCancel</u> ButtonClick	Tests the functionality of the Cancel button	The New Room Form Should be closed and the Manage Rooms form should be brought to the front	As expected
1.24	Manage Rooms Form – <u>btnClose</u> Button Click	Tests the functionality of the Close button.	The Manage Rooms form should be closed and the Menu should be brought to the front	As expected
1.25	System Settings Form (frmSystemSettings) – btnClose Button Click	Tests the functionality of the Close button.	The System Settings form should be closed and the Menu should be brought to the front	As expected
1.26	System Settings Form – <u>btnManageUsers</u> Button Click	Tests the functionality of the Manage Users button. Shows the transition between the System Settings form and the Manage Users form (frmManageUsers)	The Manage Users form should be displayed and the System Settings form should appear in the background	As expected

1.07	System Cattings Form	Toote the functionality of the Catum	The Catus form should be displayed and	As avposted
1.27	System Settings Form –	Tests the functionality of the Setup button. Shows the transition	The Setup form should be displayed and	As expected
	btnSetup		the System Settings form should appear	
	Button Click	between the System Settings form	in the background.	
		and the Setup form (frmSetup)		
1.28	Manage Users Form	Tests the functionality of the Close	The System Settings form should be	As expected
	(<u>frmManageUsers</u>) –	button.	closed and the System Settings form	
	<u>btnClose</u>		should be brought to the front	
	Button Click			
1.29	Manage Users Form –	Tests the functionality of the New	The New User form should be displayed	As expected
	<u>btnNewUser</u>	User button. Shows the transition	and the Manage Users form should	
	Button Click	between the Manage Users form	appear in the background	
		and the New User form		
		(<u>frmNewUser</u>)		
1.30	New User Form	Tests the functionality of the Finish	The New User form should be closed and	As expected
	(<u>frmNewUser</u>) –	button.	the Manage User form should be brought	
	btnFinish		to the front	
	Button Click			
1.31	New User Form –	Tests the functionality of the Cancel	The New User form should be closed and	
	btnCancel	button.	the Manage User form should be brought	
	Button Click		to the front	
			This result is only valid if the setup	
			form has been accessed via the	
			System Settings form.	
1.32	Setup Form	Tests the functionality of the Finish	The Setup form should be closed and the	As expected
	(frmSetup) –	button.	System Settings form should be brought	,
	btnFinish		to the front	
	Button Click		This result is only valid if the setup	
			form has been accessed via the	
			System Settings form.	
1.33	Booking Calendar Form	Tests the functionality of the Close	The Booking Calendar form should be	As expected
	(frmBookingCalendar) –	button.	closed and the Menu form should be	'

	<u>btnClose</u>		brought to the front	
	Button Click		-	
1.34	Login Form – frmLogin Load Form load event	Test the navigation between the login form and the setup form (frmSetup). This event will only cause a transition from the Login form to the setup form if the file "Setup.dat" does not exist or if the file contains invalid data, which indicates that the setup procedure has not been completed.	The Setup form should be displayed on the screen.	As expected (Screenshot 1)
1.35	Setup Form (<u>frmSetup</u>) – <u>btnFinish</u> Button Click	Tests the functionality of the Finish button	The New User form is displayed and the Setup form should appear in the background. This result is only valid if the system setup has been carried out successfully. Furthermore this result will only transpire if the setup type has been set to "System"	As expected (Screenshot 2,3)
1.36	New User Form (<u>frmNewUser</u>) – <u>btnFinish</u> Button Click	Tests the functionality of the Finish button	The New User form should be closed and the Login form should be displayed on the screen This result is only valid if the form had been accessed via the setup form and during the initial setup process	As expected (Screenshot 4)
1.37	New User Form – <u>btnCancel</u> Button Click	Tests the functionality of the Cancel button	The New user form remains on the screen. This result is only valid if the form had been accessed via the setup form and during the initial setup process	As expected

2. Module/Functionality

Test	Action	Test Description	Expected Result	Actual Result (Screenshots)
2.01	Login Form (frmLogin) – btnLogin Button Click	This test will involve pressing the Login button when the login form (frmLogin) has been filled in with the valid logon credentials of a user. Tests whether a genuine user can log into the system.	The Login form is hidden and the Menu form is shown	As Expected (5,6)
2.02	Manage Customers Form (frmManageCustomers) – IstCustomer Customer selected btnUpdate Button Click	Tests the system's ability to retrieve, edit and update customer information stored in the file	Information is displayed in the text boxes and then updated. A message box is shown if the operation is successful	As Expected 7,8
2.03	Add New Customer Form (frmNewCustomer) – btnFinish Button Click	Tests the system's ability to add a new customer to the file	Message box is shown if the operation is successful	As Expected 9,10
2.04	Manage Rooms Form (frmManageRooms) – IstRoom Room selected btnUpdate Button Click	Tests the system's ability to retrieve, edit and update room information stored in the file	Information is displayed in the text boxes and then updated. A message box is shown if the operation is successful	As Expected 11,12
2.05	Add New Room Form	Tests the system's ability to add a	Message box is shown if the operation is	As Expected

	(frmNewRoom) – btnFinish Button Click	new room to the file	successful	13,14
2.06	Manage Catering Form (frmManageCatering) – IstItem Item selected btnUpdate Button Click	Tests the system's ability to retrieve, edit and update the information of a food item	Information is displayed in the text boxes and then updated. A message box is shown if the operation is successful	As Expected 15,16
2.07	Add New Item Form (frmNewItem) – btnFinish Button Click	Tests the system's ability to add a new food item to the file	Message box is shown if the operation is successful	As Expected 17,18
2.08	Manage Bookings Form (frmManageBookings) – IstCustomer Customer selected dgvBookings Cell Click	Tests the system's ability to retrieve, edit and update booking information stored in the file	Information is displayed in the data grid and text boxes and then updated. A message box is shown if the operation is successful	As Expected 19,20
	btnUpdate Button Click			
2.09	Booking Calendar Form (frmBookingCalendar) calBooking Date changed	Tests the system's ability to retrieve booking information for a certain date and display it in a data grid on the Booking Calendar form.	The information concerning a single booking will be displayed within the data grid and in the text boxes.	As Expected 21
	dgvBookingResults Cell Click			
2.10	Booking Calendar Form –	Tests the ability to select a range of	Bookings which occur on dates selected	As Expected 22

	calBooking Multiple dates selected	dates and display bookings which occur on those dates	in the calendar will be displayed in the data grid.	
2.11	Booking Calendar Form – calBooking Date changed btnMonth Button Click	Tests the ability to display all of the bookings taking place in the currently selected month	Bookings which occur in the currently selected month will be displayed in the data grid.	As Expected 23
2.12	Booking Calendar Form – (frmBookingCalendar) calBooking Date changed btnYear Button Click	Tests the ability to display all of the bookings taking place in the currently selected year	Bookings which occur in the currently selected year will be displayed in the data grid.	As Expected 24
2.13	Booking Calendar Form - calBooking Date changed dgvBookingResults Cell Click btnCreateReport Button Click	Tests the ability to create booking report for a particular booking.	An editable Microsoft word document will be shown on-screen. This document should contain all relevant information about the booking.	As Expected 25,26
2.14	New Booking Form (frmNewBooking) – IstCustomer Customer selected btnFinish Button Click	Tests the ability to create a booking for an already existing customer	The new booking should be added to the file and a message box should be shown, confirming that the operation was successful	As Expected 27,28
2.15	New Booking Form –	Tests the ability to create a booking	The new booking should be added to the	As Expected

	cbxNewCustomer Checked btnFinish Button Click	for a new customer	file and a message box should be shown, confirming that the operation was successful	29,30
2.16	Menu Form (frmMenu) – btnSystemSettings Button Click	Tests the ability to provide statistics regarding the system, such as the most popular room or the most frequent customer this month.	The statistics should be visible on opening of the System Settings form (frmSystemSettings)	As Expected 31
2.17	Add User Item Form (frmNewUser) – btnFinish Button Click	Tests the system's ability to add a new User to the file	Message box is shown if the operation is successful	As Expected 32,33
2.18	Manage Users Form (frmManageUsers) – IstUser User selected btnUpdate Button Click	Tests the system's ability to retrieve, edit and update customer information such as their username and their password.	Information is displayed in the text boxes and then updated. A message box is shown if the operation is successful	As Expected 33
2.19	System Settings Form (frmSystemSettings) – btnReset Button Click	Tests the system's ability to reset the system by deleting all system files.	A message box is displayed on the screen with a "Yes" and "No" button on it. If the yes button is pressed the system files will be deleted. The system setup form should then be displayed on the screen.	As Expected 34
2.20	System Settings Form – btnBackUp Button Click	Tests the system's ability to perform a back-up	A folder browser dialog will be shown on the screen to allow the user to select a location in which the system backup will be stored.	As Expected
2.21	System Settings Form –	Tests the ability to access the	The system setup form will be displayed	As Expected

	btnSetup Button Click	System Setup form	on the screen.	
2.22	Manage Bookings Form – IstItem Item Selected	Tests the ability to add a new item to a list of orders on the Manage Bookings Form (frmManageBookings)	The selected Item is added to the data grid	As Expected
	btnAddItem Button Click			
2.23	Manage Bookings Form – dgvltem Cell Click	Tests the ability to remove an item from a list of orders on the Manage Bookings Form (frmManageBookings)	The selected item is removed from the data grid	As Expected
	btnRemoveSelected Button Click			
2.24	New Booking Form – IstItem Item Selected	Tests the ability to add a new item to a list of orders on the New Booking Form (frmNewBooking)	The selected Item is added to the data grid	As Expected
	btnAddItem Button Click			
2.25	New Booking Form – dgvltem Cell Click	Tests the ability to remove an item from a list of orders on the New Booking Form (frmNewBooking)	The selected item is removed from the data grid	As Expected
	btnRemoveSelected Button Click			

3. <u>Validation</u> Invalid input tests

Test	Action	Test Description	Expected Result	Actual Result (Screenshots)
3.01	Login Form(<u>frmLogin</u>) – txtUserName Left empty	Shows the system rejecting a failed presence check.	An error message is shown.	As expected 35
	mtbPassword Left empty			
	btnLogin Button Click			
3.02	Login Form – txtUserName Contains invalid username	Shows the system not allowing a user to log in if their credentials are invalid.	An error message is shown.	As expected
	mtbPassword Contains invalid password			
	<u>btnLogin</u> Button Click			
3.03	Setup Form (frmSetup) – txtResourceFolder Left empty	Shows the system rejecting a failed presence check.	An error message is shown.	As expected
	txtCompanyName Left empty			
	cmbSetupType			

	No item selected			
	btnFinish Button Click			
3.04	Setup Form – txtResourceFolder Contains invalid file path btnFinish	Shows the system rejecting an invalid resource folder location.	An error message is shown.	As expected
0.05	Button Click			<u> </u>
3.05	Setup Form – cmbSetupType System setup selected and the resource folder already exists	Shows the system preventing a user form doing a full system setup if system files already exist in the selected resource folder location	An error message is shown.	As expected
	btnFinish Button Click			
3.06	Manage Customers Form (frmManageCustomers) – IstCustomer No customer has been selected btnUpdate	Shows the system rejecting a failed presence check.	An error message is shown.	As expected
	Button Click			
3.07	Manage Rooms Form (frmManageRooms) – IstRoom No room has been selected	Shows the system rejecting a failed presence check.	An error message is shown.	As expected

	btnUpdate Button Click			
3.08	Manage Users Form (frmManageUsers) – IstUser No User has been selected btnUpdate Button Click	Shows the system rejecting a failed presence check.	An error message is shown.	As expected
3.09	Manage Users Form – txtUserName Username length is not between 5 and 50 characters mtbPassword Password length is not between 5 and 50 characters btnUpdate	Shows the system rejecting a failed length check	An error message is shown.	As expected
3.10	Button Click Manage Users Form – mtbPassword Does not match the password in mtbReenterPass btnUpdate Button Click	Shows the system rejecting the password mismatch	An error message is shown.	As expected
3.11	Manage Catering Form (frmManageCatering) –	Shows the system rejecting a failed presence check.	An error message is shown.	As expected

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	IstItem No food item has been selected btnUpdate Button Click			
3.12	Manage Catering Form – txtPrice The value is not numeric btnUpdate Button Click	Shows the system rejecting a failed format check.	An error message is shown.	As expected
3.13	New Booking Form (frmNewBooking) – IstCustomer No customer has been selected cmbRoom No room has been selected dtpStartTime Time has not been chosen dtpStartTime Time has not been chosen btnFinish Button Click	Shows the system rejecting a failed presence check.	An error message is shown.	As expected
3.14	New Booking Form – IstItem No item has been selected	Shows the system rejecting a failed presence check.	An error message is shown.	As expected

	nudQuanity Value is zero			
	btnRemoveSelected Button Click OR btnAddItem Button Click			
3.15	New Booking Form – The current booking is clashing with another already existing booking btnFinish Button Click	Shows the system rejecting a booking which clashes with a booking which already exists	An error message is shown.	As expected 36
3.16	New Booking Form – dgvItems Contains 200 items btnFinish Button Click	Shows the system rejecting an order list containing more than 200 items	An error message is shown.	As expected
3.17	New Item Form – txtPrice The value is not numeric btnFinish Button Click	Shows the system rejecting a failed format check.	An error message is shown.	As expected
3.18	New User Form – txtUserName Username length is not between 5 and 50 characters	Shows the system rejecting a failed length check	An error message is shown.	As expected
	mtbPassword			

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	Password length is not between 5 and 50 characters btnFinish Button Click			
3.19	New User Form – mtbPassword Does not match the password in mtbReenterPass btnFinish Button Click	Shows the system rejecting the password mismatch	An error message is shown.	As expected
3.20	Manage Bookings Form (frmManageBookings) – IstCustomer No customer has been selected cmbRoom No room has been selected dtpStartTime Time has not been chosen btnFinish Button Click	Shows the system rejecting a failed presence check.	An error message is shown.	As expected
3.21	Manage Bookings Form –	Shows the system rejecting a failed presence check.	An error message is	As expected

	IstItem No item has been selected nudQuanity Value is zero btnRemoveSelected Button Click OR btnAddItem Button Click		shown.	
3.22	Manage Bookings Form – The current booking is clashing with another already existing booking btnUpdate Button Click	Shows the system rejecting a booking which clashes with a booking which already exists	An error message is shown.	As expected 36
3.23	Manage Bookings Form – dgvItems Contains 200 items btnUpdate Button Click	Shows the system rejecting an order list containing more than 200 items	An error message is shown.	As expected

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Boundary Input tests

Test	Action	Test Description	Expected Result	Actual Result (Screenshots)
3.24	New User Form (frmNewUser) – txtUserName Enter a string composed of exactly 5 characters Valid password is entered into mtbPassword btnFinish Button Click	Shows the system accepting a Username made up of only 5 characters	A message box is shown stating that the operation was successful. The name held within IstUser may change	As expected
3.25	New User Form – txtUserName Enter a string composed of exactly 50 characters Valid password is entered into mtbPassword btnFinish Button Click	Shows the system accepting a Username made up of exactly 50 characters	A message box is shown stating that the operation was successful. The name held within IstUser may change	As expected
3.26	New User Form – mtbPassword Enter a string composed of exactly 5 characters Valid Username is entered As	Shows the system accepting a password made up of only 5 characters	A message box is shown stating that the operation was successful.	As expected

	expected into txtUserName			
	btnFinish Button Click			
3.27	New User Form – mtbPassword Enter a string composed of exactly 50 characters	Shows the system accepting a Password made up of exactly 50 characters	A message box is shown stating that the operation was successful.	As expected
	Valid User Name is entered into txtUserName			
	btnFinish Button Click			
3.28	New Booking Form (frmNewBooking) – nudQuanity Value is exactly 1	Shows the system accepting an item quantity of 1	The item is added to the data grid	As expected
	btnAddItem Button Click			
3.29	New Booking Form – nudQuanity Value is exactly 100	Shows the system accepting an item quantity of 100	The item is added to the data grid	As expected
	btnAddItem Button Click			
3.30	New Booking Form – dtpStartTime Value is set to 00:00:01 btnFinish Button Click	Shows the system accepting a time that is one second past midnight	A message box is shown stating that the operation was successful.	As expected

3.31	New Booking Form – dgvAddItem Contains exactly 199 items btnAddItem Button Click	Shows the system accepting the addition of the 200 th item	The item is added to the data grid	As expected
3.32	New Booking Form — The date and room of the new booking match those of a booking that already exists. dtpStartTime Contains a time value that is equal to the ending time of another booking OR dtpEndTime Contains a time value that is equal to the starrtin time of another booking btnFinish Button Click	Shows the system accepting a booking which starts at the same time as another booking ends or a booking which ends when another booking starts	A message box is shown stating that the operation was successful.	As expected
3.33	Manage Bookings Form (frmManageBookings) – nudQuanity Value is exactly 1 btnAddItem Button Click	Shows the system accepting an item quantity of 1	The item is added to the data grid	As expected
3.34	Manage Bookings Form – nudQuanity	Shows the system accepting an item quantity of 100	The item is added to the data grid	As expected

	Value is exactly 100			
	btnAddItem Button Click			
3.35	Manage Bookings Form – dtpStartTime Value is set to 00:00:01 btnUpdate Button Click	Shows the system accepting a time that is one second past midnight	A message box is shown stating that the operation was successful.	As expected
3.36	Manage Bookings Form – dgvAddItem Contains exactly 199 items btnAddItem Button Click	Shows the system accepting the addition of the 200 th item	The item is added to the data grid	As expected
3.37	Manage Bookings Form – The date and room of the new booking match those of a booking that already exists. dtpStartTime Contains a time value that is equal to the ending time of another booking OR dtpEndTime Contains a time value that is equal to the starting time of another booking	Shows the system accepting a booking which starts at the same time as another booking ends or a booking which ends when another booking starts	A message box is shown stating that the operation was successful.	As expected
	btnUpdate Button Click			

4. Integration

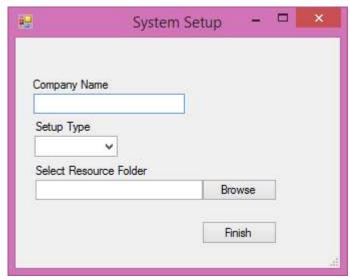
Integration tests involves taking individual modules (forms) and combining them in order to verify the effectiveness and functionality of the major design items. The main purpose of integration testing is to check whether or not forms can work together without any errors occurring during the testing process. If the tests don't show up any errors then another module/form is added and the process is repeated. For example in screen shot 16 and 17 (Manage Bookings form) we can see that a booking is being edited and updated, furthermore in screen shot 18 (Booking Calendar form) we can see that the booking appears in the list of bookings that will occur during the selected month.

5. Acceptance

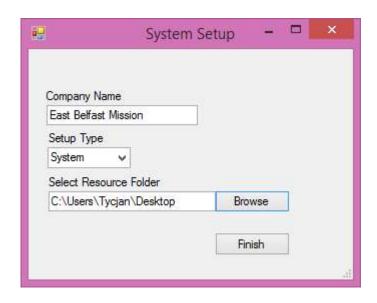
Acceptance testing shall be carried out by the customer who has requested the system in question. The acceptance testing will be carried out to make sure that the customer is satisfied with the end product and to check that it does meet the required specifications. The acceptance test will be included in the Appraisal/Evaluation section.

Screenshots

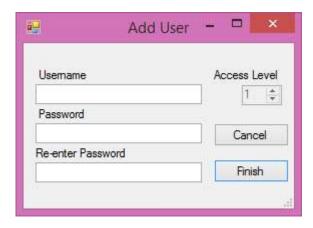
1. This screen shot shows the system setup form which will be shown if the system has not been setup. This form will always be shown if the system setup file does not exist i.e. when the system has not been setup on a particular machine before.



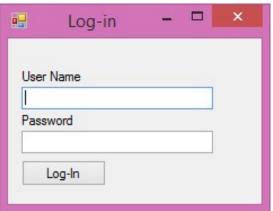
2. In the second screen shot the Setup form has been completed with valid data



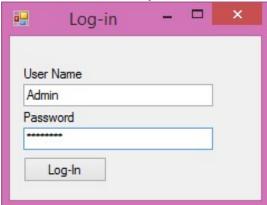
3. If the system setup option is chosen the setup form will be moved into the background and the Add User Form will be shown



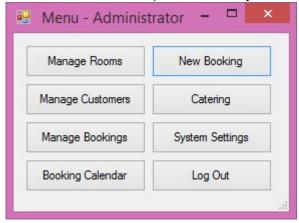
4. If the first user has been added then the Add User Form will be closed and a blank login form will be shown on the screen.



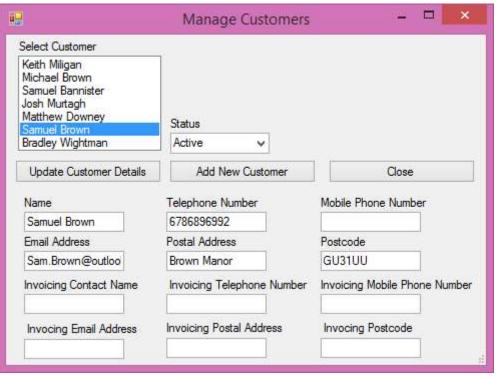
5. Screenshot 5 shows the Login form filled with information so that a user may be able to log in to the system. IN order to proceed to the Menu form the Login button must be pressed causing the system to check if the user credentials present on this form are valid and match those of a user who already exists.



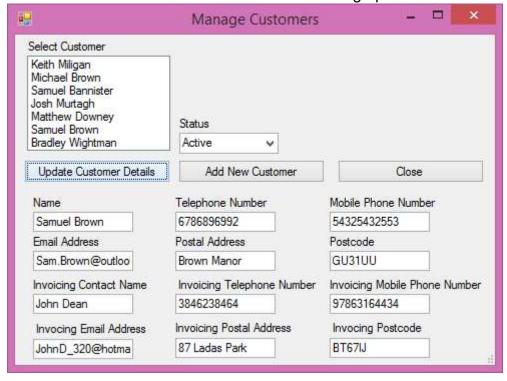
6. If the Login button has been pressed and the login credentials have been valid then the Menu form will be shown and the Login form will be hidden. The form below is titled "Menu – Administrator" due to the fact that the current user is logged in as a system administrator and has access to all parts of the system.



7. Clicking on the list box containing names of customers causes their information to be displayed in editable text boxes below the list box. In the form below we can see that some of the text boxes have not been filled in.



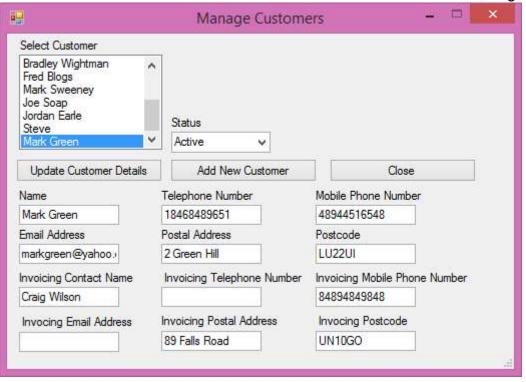
8. The screen shot below shows the same customer but with his data being updated and written to the file.



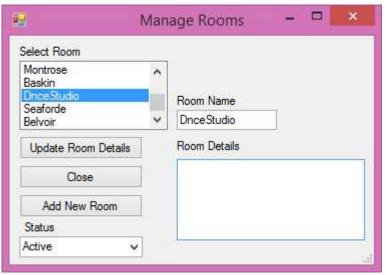
9. The following screen shot illustrates the system's ability to add new customers. Once all of the information necessary is entered the "Finish" button should be pressed in order to write the new information to the file.



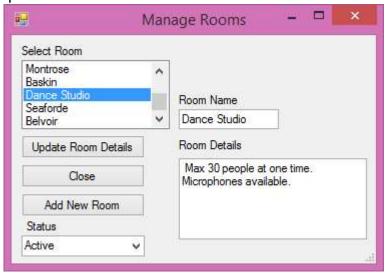
10. The following screenshot shows the new customer called "Mark Green" on the "Manage Customers" form.



11. The image below shows the "Manage Rooms" form being used to display information about a room. The room currently being selected is called "DnceStudio". Quite clearly this is a mistake made by a user of the system. The selected room also seem sot be lacking the "Room Details" data.



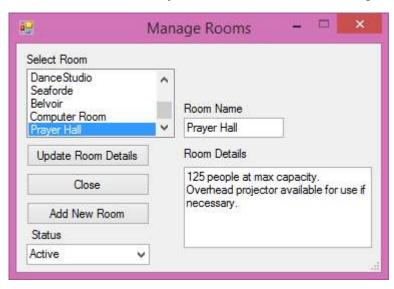
12. In order for the mistake to be corrected new information has to be entered. As can be seen in the following screenshot, the name is changed to "Dance Studio" and the room details are entered in. To finalize these changes the Update Room Details button should be pressed



13. The Add New Room form is shown in the screenshot below. In it we can see that a user is adding a room called "Prayer Hall" and pressing the "Finish" button to add the new room to the file.



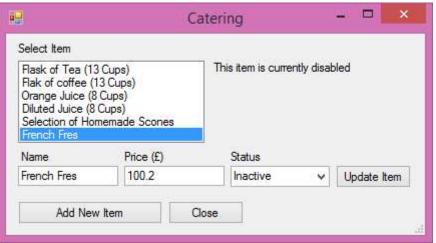
14. The screenshot shows the newly added room on the "Manage Rooms" form



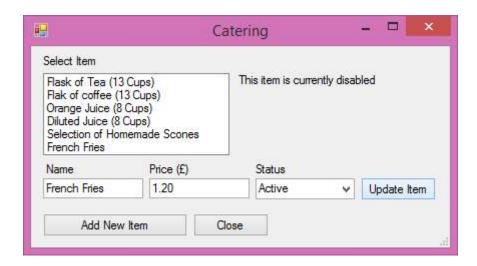
Centre Number: 71234 Candidate Number: 8049

101

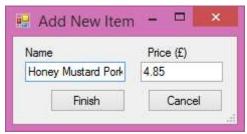
15. The following screen shot shows the user preparing to alter the information concerning a certain food item which is identified as "French Fres" in the screenshot.



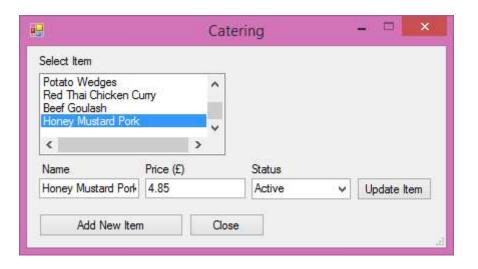
16. This screenshot shows the result of the user's actions in updating the details of a food item. From the screenshot it can be seen that the name of the item has been changed to "French Fries"



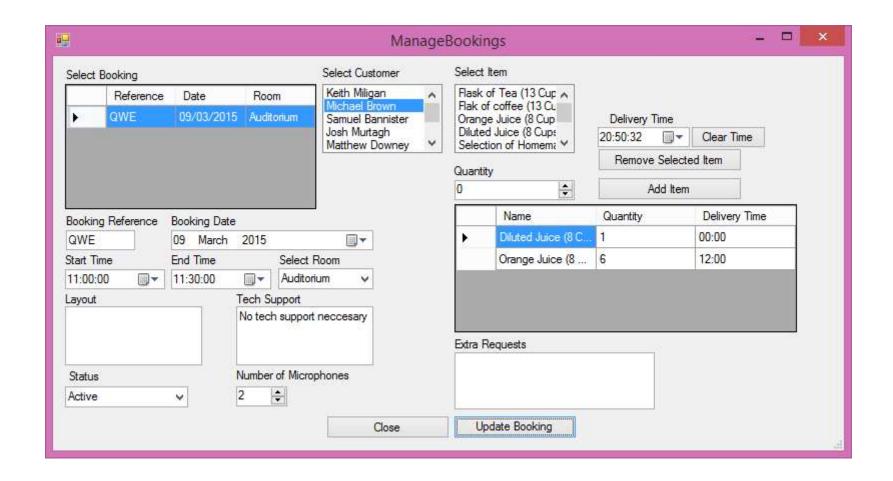
17. In the next screen shot the user is shown creating a new food item which could be ordered for a booking.



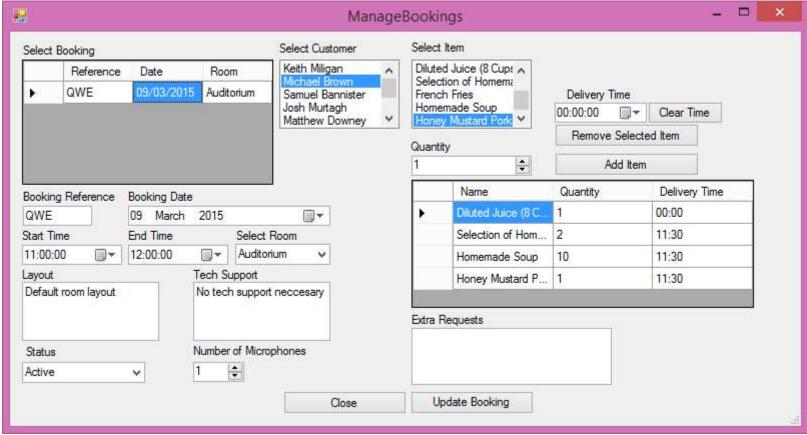
18. This screen shot shows that the new item has been added to the list of items and can be edited if necessary



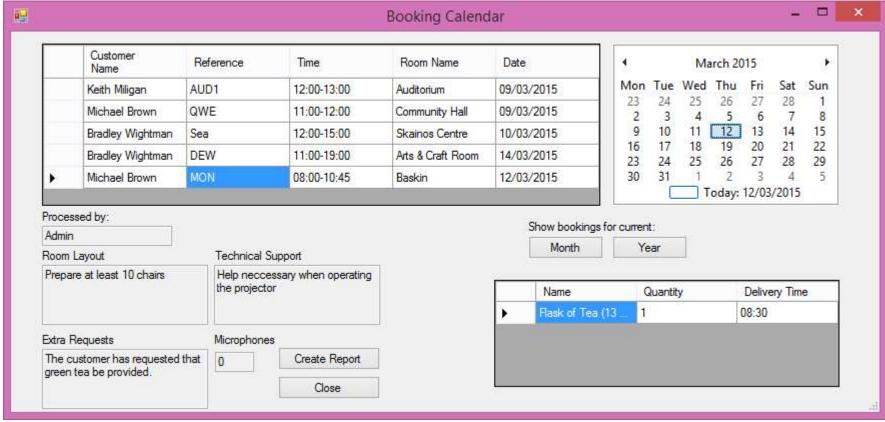
19. This screen shot shows the process used to update the details of a particular booking made by a user. Here we can see that the user has chosen a customer called Michael Brown



20. This screen shot shows the result of the user changing the information contained in the booking. We can see that the time of the booking has been changed and extra items have been ordered for the booking.



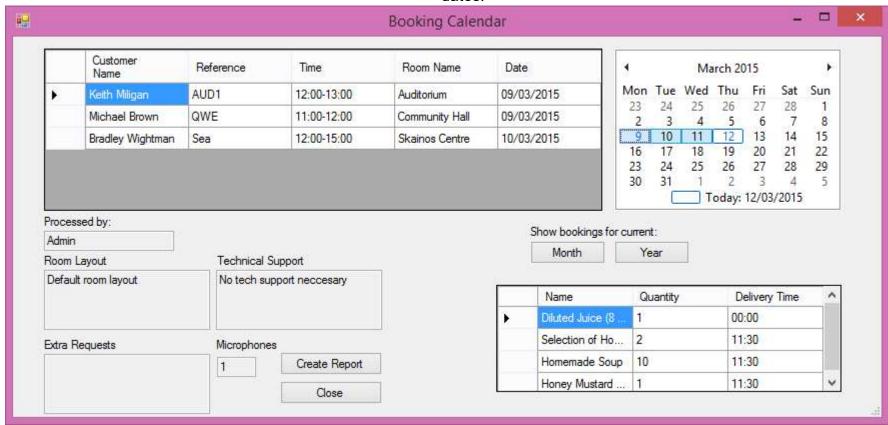
21. The screen shot below shows the result of clicking on a cell within the data grid containing a number of bookings. Once a particular booking is clicked on, the information about it will be loaded into a number of non-editable text boxes.



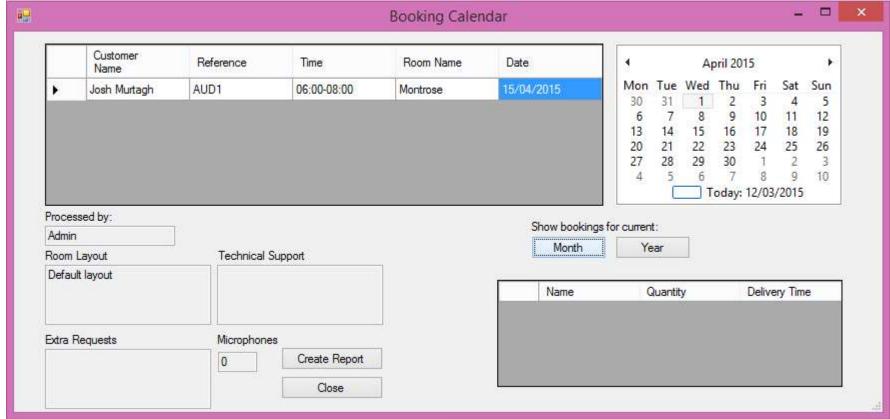
Centre Number: 71234 Candidate Number: 8049

107

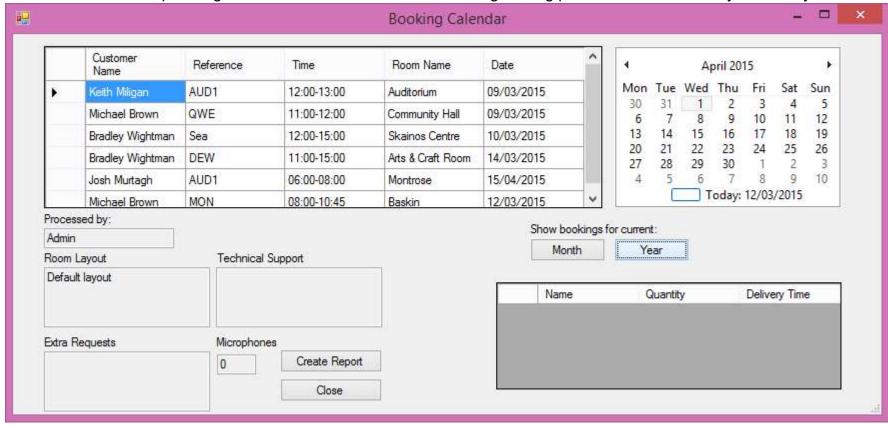
22. The following screenshot displays the ability to select a range of dates and view the bookings which occur on those dates.



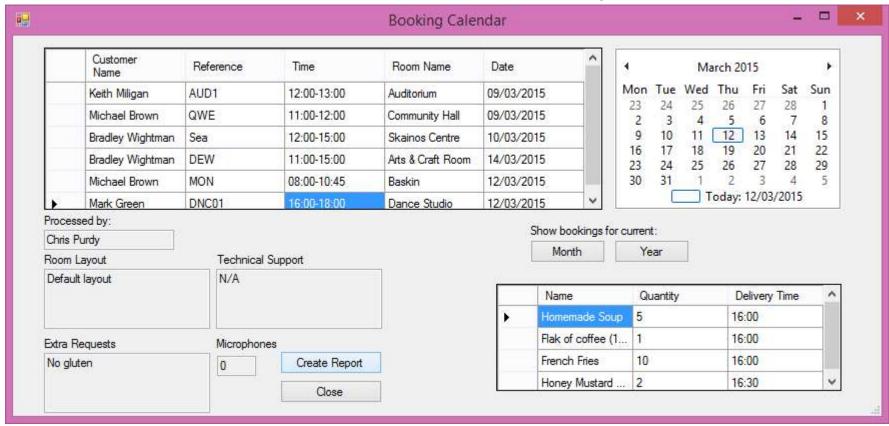
23. This screen shot shows that if the "Month" button is pressed, then the booking which occur within the currently selected month will be displayed in the data grid.



24. Likewise, pressing the "Year" button will all of the bookings taking place within the currently selected year.



25. Pressing the "Create Report" button will initiate the creation of an editable Microsoft Word document for the curently selected customer who in this case is "Mark Green".



26. Below is a screen shot of the document produced. It contains all of the relevant information about the chosen booking.

Booking Report for Mark Green on 12/03/2015 at 16:00

This booking was created by Chris Purdy

Preferred Room Layout

Default layout

Technical Support

The customer has requested 0 microphone/s

N/A

Catering

Name	Quantity	Delivery Time
Homemade Soup	5	16:00
Flak of coffee (13 Cups)	1	16:00
French Fries	10	16:00
Honey Mustard Pork	2	16:30

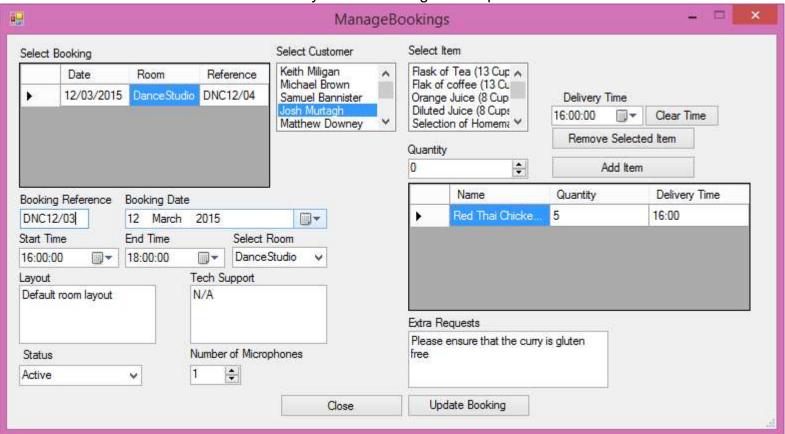
Extra Request

No gluten

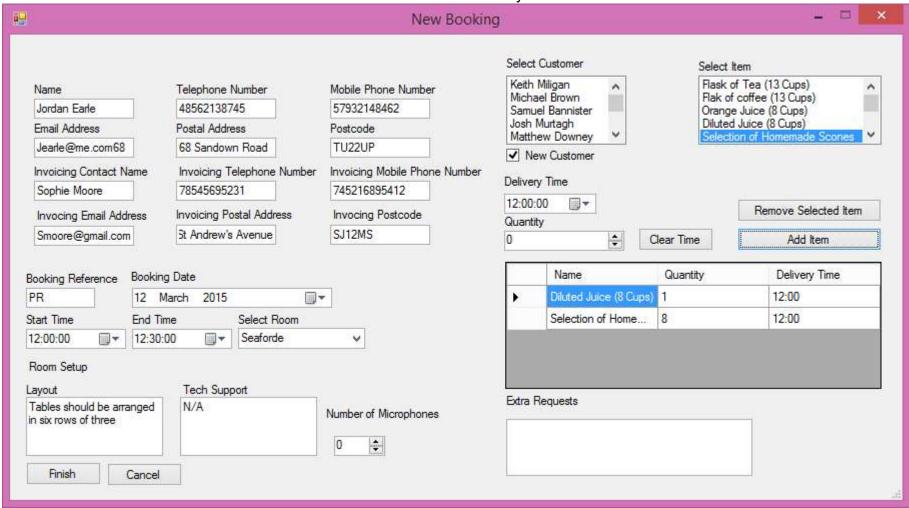
112

27. In this screen shot the user is creating a booking for a customer that already exists in the system. 4 **New Booking** Select Customer Select Item Cocktail Sausage (4pc) Keith Miligan Potato Wedges Red Thai Chicken Curry Beef Goulash Michael Brown Samuel Bannister Josh Murtagh Honey Mustard Pork V Matthew Downey New Customer Delivery Time 16:00:00 -Remove Selected Item Quantity Clear Time Add Item Delivery Time Name Quantity Booking Reference Booking Date -Red Thai Chicken 16:00 DNC12/03 12 March 2015 Start Time End Time Select Room DanceStudio 16:00:00 18:00:00 Room Setup Tech Support Layout Extra Requests Default room layout N/A Number of Microphones Please ensure that the curry is gluten free -Finish Cancel

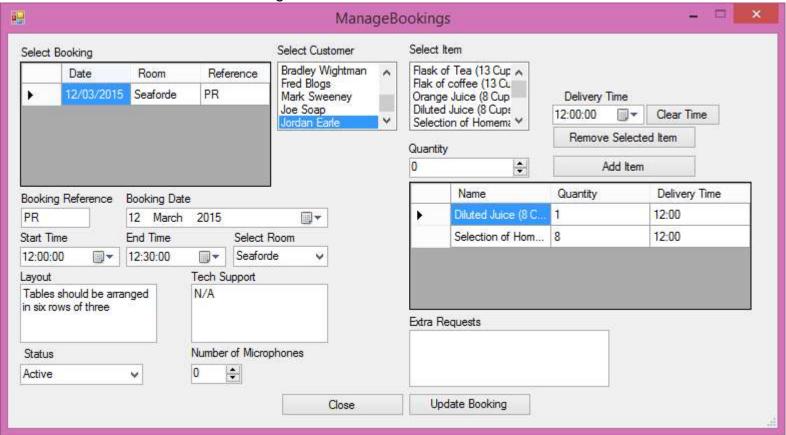
28. The screen shot below shows the newly added booking for that particular customer



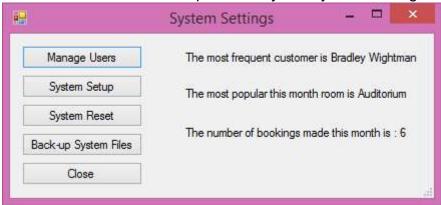
29. In the following screen shot the user is shown creating a booking for a completely new user whose details have not yet been recorded in the system.



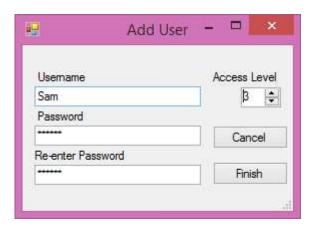
30. The screenshot shows the booking after it has been added



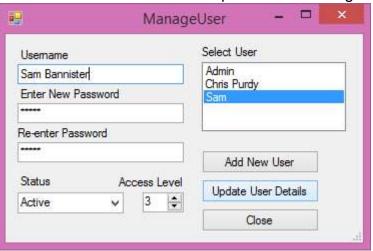
31. This screen shot shows the statistics provided by the System Settings form on opening.



32. This screenshot shows the system adminintrator creating a new user called "Sam" with an access level of 3



33. In this screen shot the administrator is changing some of the information of the user called "Sam". The name is updated to "Sam Bannister" and the password is changed.



34. The screenshot below shows the message box which is displayed if the user clicks on the "Reset System" button. The message box give the user a choice on whether or not to reset the entire system and wipe all of th edata in the process.



35. The screen shot shows the message box which will appear if the user tries to log in without the proper credentials



36. The following message box will displayed any time the system detects a clash between bookings. A booking will clash if it takes place in the same room, on the same date and if the times for the bookings coincide.

