

**TEST LOG DOCUMENTATION****CYANAIR AIRLINE BOOKING SYSTEM****JUNE 2020**

1 INTRODUCTION

Purpose and Scope

The purpose and scope of this project involves the creation of a Booking System for Cyanair Airline. We will produce a piece of software that will allow the user to create a booking. There will be two users on this system – Flight Representative and the Administrator.

The Flight Representative will be able to create bookings on behalf of the Passenger using the software created. They will input the details from the perspective passenger that will allow them to book a flight from one departure to one destination, with the additional option of adding a return flight from their destination back to their departure, or an onward leg from their first destination, to another destination. The system also asks for the dates of the flights that the passenger would like, and selection of the type of seats, or class that the passenger can choose from – depending and varying on the flight selected. These options will be Economy, Business and First Class. The information regarding the booking of flights will be on a separate form to the passenger details. After the flights have been selected, the dates and class have been chosen, the flight representative can move on to the next page in the system which will allow for the input of the Passenger Details.

This form will require that all fields are completed before moving on to processing the booking and the booking reference number being generated. Here, the Flight Administrator will be able to gather all of the Passenger's details such as their Full Name, Passport Number, Nationality, Phone Number, Email Address and Gender. When this has been completed, the system will then produce a message on the screen asking for the Flight Representative to confirm the booking. After the Flight Representative has confirmed the booking, the program will move to another form that will let the Flight Representative know that the booking has been confirmed and provide a reference number that can be shared with the passenger.

The system will only allow the creation of flight bookings for one passenger at a time. Additional flights may be booked for others, or even the same passengers after the creation of a booking, by the Flight Administrator entering the beginning of the booking system again.

The software will also feature Administrator access to a Maintenance Suite that will allow the Administrator to make changes to the Airport data. The system will allow the administrator to add new airports, view and delete the current airports available. This data will then be updated in the database.

The Maintenance Suite will also feature an option to view all of the Bookings that have been, or will be created.

The database for this project will be created using SQLite and the system used to manage this database will be DB Browser.

Assumptions





There are a number of assumptions made in this project, for example, the exact details required from the Passenger when creating a booking was never specified by from the client, therefore, we had to make our own assumptions on what information an airline booking system would be looking to gather.

Another example is the inclusion of the flight representative being able to choose a flight date on behalf of the customer while selecting flights. This was never specified in any of the briefs, requirements or talks with Cyanair – but we have made the assumption ourselves that this is necessary in order to book a flight, as without it the system would make no sense, and there would be no flights available.

We also assume that the user will be able to meet both the hardware and system requirements as listed below.

Hardware Requirements

The Minimum Hardware Requirements to run the **Cyanair Booking System** includes:

	
KEYBOARD	MOUSE
	
COMPUTER	DISPLAY MONITOR

1. **Keyboard** – A keyboard is required for this system, in order to log in to the booking system, and to record the passenger's inputs (details). It is essential in order to run the program as expected and to capture the booking information.
2. **Mouse** – A mouse is essential for the program, as without it the system is completely unusable. The system will go from page to page with the aid of a mouse, in order to input information it is required, as well as viewing the maintenance suite, to add and view airports, as well as bookings, a mouse is needed. Without a mouse, the system would be useless and unusable. It allows for the control of the graphical user interface of the system.
3. **Computer** – A computer is required in order to run this system. Not only is it required to meet the hardware requirements, but also the software requirements. We will speak further about the *minimum system requirements* in the subsequent section to gain further insight.
4. **Display Monitor** – In order for the user to use the application, it is necessary to have a display monitor connected to the computer. Without the display monitor, the user cannot use the application as they cannot see or run the system and it's graphical user interface.

System Requirements

This program will be created using the C# Programming Language. The application will be developed using Microsoft Visual Studio Community. The application will be using .NET framework to develop the system. This booking system will feature the use SQLite for its database, and this will be run using the DB Browser application. The **Cyanair Booking System** can only be run on PC's using Windows. It is not available on Mac, mobile phones or tablets. As the system will be developed using Windows 7, the minimum requirements in order to run this system can be seen below.

The Minimum Software Requirements to run the **Cyanair Booking System** includes:

1. .NET Framework
2. Windows 7 Operating System or Later
3. 1 gigahertz (GHz) or faster 32-bit (x86) or 64-bit (x64) processor*
4. 1 gigabyte (GB) RAM (32-bit) or 2 GB RAM (64-bit)
5. 16 GB available hard disk space (32-bit) or 20 GB (64-bit)
6. DirectX 9 graphics device with WDDM 1.0 or higher driver

This is the ideal system specifications that are required to run this program correctly.

If your system fails to meet the system requirements, there may be performance issues, or the program may be incompatible.

System Creation Tools

Programming Language	C#
Framework	.NET Framework
Software Tools	<ol style="list-style-type: none"> 1. Visual Studio Community – used for the creation of the Booking System program and the Graphical User Interface 2. DB Browser – used to populate and view database tables. Management of the database used in the system
Database	SQLite – Entry Level Free database software
Packages Used	NuGet– SQLite Packages and Entity Framework installed on Visual Studio required to connect Database to the System

Project Name	Cyanair Airline Booking System
Created By	Iram
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Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status (Pass/Fail)
CY-LOGIN-001	Verify the user login	Enter valid username and valid password	Need a user account created and stored in the database in order to login.	1. Enter Username	<Valid Username>	Successful login	Choice form is opened	Choice form is opened	Pass
				2. Enter Password	<Valid Password>				
				3. Click "Login" button					
CY-LOGIN-002	Verify the user login	Enter valid username and invalid password	Need a user account created and stored in the database in order to login.	1. Enter Username	<Valid Username>	A message "The username and password entered does not match" is shown	Allows user to try login again	A message "Details are not valid" is shown	Fail
				2. Enter Password	<Invalid Password>				
				3. Click "Login" button					
CY-LOGIN-003	Verify the user login	Enter valid username and invalid password	Need a user account created and stored in the database in order to login.	1. Enter Username	<Valid Username>	A message "The username and password entered does not match" is shown	Allows user to try login again	A message "The username and password entered does not match" is shown	Pass
				2. Enter Password	<Invalid Password>				

				3. Click "Login" button		not match" is shown			
CY-LOGIN-004	Verify the user login	Enter invalid username and invalid password	Need a user account created and stored in the database in order to login.	1. Enter Username	<Invalid Username>	A message "The username and password entered does not match" is shown	Allows user to try login again	A message "The username and password entered does not match" is shown	Pass
				2. Enter Password	<Valid Password>				
				3. Click "Login" button					
CY-LOGIN-005	Verify the user login	Enter invalid username and invalid password	Need a user account created and stored in the database in order to login.	1. Enter Username	<Invalid Username>	A message "The username and password entered does not match" is shown	Allows user to try login again	A message "The username and password entered does not match" is shown	Pass
				2. Enter Password	<Invalid Password>				
				3. Click "Login" button					
CY-HELP-001	View the help system	View the help system	N/a	Click '?' Button on the right side of the form	<Opening of document>	The help html document should open on the web browser	The help document is opened, and can be closed without closing the program.	Did not load. The url in the web browser is not stored in the correct location.	Fail
CY-HELP-002	View the help system	View the help system	N/a	Click '?' Button on the right side of the form	<Opening of document>	The help html document should open on the web browser	The help document is opened, and can be closed without closing the program.	The help document opens correctly in the web browser within the form. Allows user to close the form without exiting the program.	Pass

CY-CHOICE-001	View the choice screen - Administrator	The choice form should have all buttons enabled	User has logged into system as an administrator	On load all buttons should be enabled.	<Choice form opened>	The choice form should have all buttons enabled	Based on selection of the user, the maintenance suite or the booking system should be opened. Otherwise, the system will be closed.	The user selects their choice	Pass
CY-CHOICE-002	View the choice screen – Flight Representative	The choice form should have the Maintenance suite button disabled	User has logged into system as an flight representative	On load maintenance suite should be disabled.	<Choice form opened>	On load maintenance suite should be disabled.	User can choose to enter booking system or exit the program	The user selects their choice	Pass
CY-ADDAIRPORT-001	Allows the user to add an airport	Enter new Airport Name and new Airport Code	The user needs to be logged in as an administrator and have selected the maintenance suite screen	1. Click the Airport Button		A message should be displayed to let the user know that the new airport has been added, "Inserted successfully, new record added"	Datagridviewer is refreshed with the new data. User can add another airport or any of the other options on screen.	A message is displayed to let the user know that the new airport has been added, "Inserted successfully, new record added"	Pass
				2. Click Add a New Airport					
				3. Enter the Airport Name	<New Airport Name>				
				4. Enter the Airport Code	<New Airport Code>				
				5. Click the Save button					

CY-DELETEAIRPORT-001	Delete an airport record	User selects a row to delete	The user needs to be logged in as an administrator and have selected the maintenance suite screen	1. Click the Airport Button		A message should be displayed to let the user know that the airport has been deleted, "The record you have selected has successfully been deleted!"	Datagridviewer is refreshed with the new data. User can remove another airport or any of the other options on screen.	A message is displayed to let the user know that the airport has been deleted, "The record you have selected has successfully been deleted!"	Pass
				2. Click Delete an Airport Record button					
				3. Select and click a row to delete	<Select a row>				
				4. Click the Delete button					
CY-VIEWBOOKINGS-001	View the bookings created	Datagridviewer displays the bookings with Passenger and Booking Details as expected	The user needs to be logged in as an administrator and have selected the maintenance suite screen	In the maintenance suite, click the Bookings button under Manage.	<Click Bookings Button>	The datagrid viewer should display Passenger Details and Bookings beside each other in one table.	User can view information within the table.	The datagrid viewer displays Passenger Details and Bookings beside each other in one table.	Pass
CY-FLIGHTSELECTION-001	Check confirmed availability for flight	Select Departure, Destination, Class, Date and search for availability.	The user needs to have already been logged in and select the booking system.	1. Select Departure Airport	<Valid Departure Airport >	The user clicks on the search button. If the date is valid and there is flight availability, the panel should change to green, and a confirmation tick should appear beside the flight.	The user has the option to change the flight to a return, onward leg or leave the flight as one-way. The next button will only be enabled if the flight has been	The confirmation tick image appears and the panel changes to green.	Pass
				2. Select Destination Airport	<Valid Destination Airport>				
				3. Select Seat Type	<Valid Seat Type>				
				4. Select Date	< Valid Date>				

				5. Click Search Button			confirmed with the confirmation tick image.		
CY-FLIGHTSELECTION-002	Check confirmed availability for flight	Select Departure, Destination, Class, Date and search for availability.	The user needs to have already been logged in and select the booking system.	1. Select Departure Airport	<Valid Departure Airport >	The user clicks on the search button. If the date is valid and there is flight availability, the panel should change to green, and a confirmation tick should appear beside the flight. If the flight details are invalid, then a 'x' image should appear next to the search button, and the panel should change to red.	The user has the option to change the flight to a return, onward leg or leave the flight as one-way. The next button will only be enabled if the flight has been confirmed with the confirmation tick image.	The 'x' button appears and the panel changes to red. The user is unable to proceed to the next page as the flight is not confirmed. The next button is disabled. A message should appear on screen, "Sorry, there are no flights available for the date, departure or destination you have selected!"	Pass
				2. Select Destination Airport	<Valid Destination Airport>				
				3. Select Seat Type	<Valid Seat Type>				
				4. Select Date	< Invalid Date>				
				5. Click Search Button					
CY-PASSENGERDETAILS-001	Input Passenger Details	Input all fields with passenger details	The user has successfully logged in, selected flights in the booking system and has	1. Enter Full Name	<Valid Full Name>	The user should be able to click the next button after inputting all information without the	The user will progress to the confirmation page.	The user is able to click the next button after inputting all information without the button displaying an error message.	Pass
				2. Enter Passport Number	<Valid Passport Number>				

			opened the passenger details page.	3. Enter Nationality	<Valid Nationality>	button displaying an error message.			
				4. Enter Phone Number	<Valid Phone Number>				
				5. Enter Email Address	<Valid Email Address>				
				6. Enter Gender	<Valid Gender>				
				7. Click the Next Button					
CY-PASSENGERDETAILS-002	Input Passenger Details	Input all fields with passenger details	The user has successfully logged in, selected flights in the booking system and has opened the passenger details page.	1. Enter Full Name	<Empty Full Name>	The user should not be able to progress with the program if there are any fields left empty. An error should appear on screen depending on the field left empty.	The user clicks ok on the message box and should be able to try fill in the fields again.	The user is not be able to progress with the program since there are any fields left empty. An error should appear on screen depending on the field left empty. "Please enter the full name of the passenger, please enter the passport number of the passenger, please enter the nationality"..etc	Pass
				2. Enter Passport Number	< Empty Passport Number>				
				3. Enter Nationality	< Empty Nationality>				
				4. Enter Phone Number	< Empty Phone Number>				
				5. Enter Email Address	< Empty Email Address>				
				6. Enter Gender	< Empty Gender>				

				7. Click the Next Button		please enter the nationality”..etc			
CY-BOOKINGCONFIRMATION-001	One way flight booking confirmation loaded with details	Enter the booking confirmation page having selected an one way flight in the flight selection within the booking system	The user has successfully logged in and selected a one way flight within the flight selection. Has inputted passenger details in page prior	Load the confirmation page		The user should be able to view the booking confirmation details, make amendments to the passenger details, confirm the terms and conditions, make the booking with another confirmation and a booking reference number assigned.	Booking reference number generated. User should be able to close the application.	Program crashes. System.NullReferenceException: 'Object reference not set to an instance of an object.' OutboundFlight02. DateOfFlight was null.	Fail
CY-BOOKINGCONFIRMATION-002	Return/Onward leg flight booking confirmation loaded with details	Enter the booking confirmation page having selected either a return/onward leg flight in the flight selection within the booking system	The user has successfully logged in and selected a one way flight within the flight selection. Has inputted passenger details in page prior	Load the confirmation page		The user should be able to view the booking confirmation details, make amendments to the passenger details, confirm the terms and conditions, make the booking with another confirmation and a booking reference	Booking reference number generated. User should be able to close the application.	The user is be able to view the booking confirmation details, make amendments to the passenger details, confirm the terms and conditions, make the booking with another confirmation and a booking reference	Pass

						number assigned.			
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