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Veterinary program testing

Testing plan:

Disclaimer: At various stages in this testing process I have referred to the use of an SMTP and the lack thereof. I have multiple features in my program that rely on the use of a paid SMTP, these features, whilst coded to a standard that would work, of course don't work. Some I have left with the error message and some I have commented out and replaced with a message box containing a mock email. This is to display that, if given the resources, I would be capable of implementing these features into my program

Throughout this document I will be testing my project. These tests cover the subroutines and functions on all forms included on my project. The aim of this is to ensure that I have met the success criteria I previously laid out for myself during the investigation section of this process. I will create a test plan preliminarily to carrying out the actual testing to ensure I have a clear view of the tests that will proceed. This test plan will include the following; the test itself along with an identifying number, what I wish for the outcome of the test to be, the actual outcome, if applicable the data I used in the test, the actual outcome, either a pass or fail mark and finally if necessary, any comments on the test itself such as the validity or possibly a way to fix it if it is to fail. A plethora of testing methods will be used throughout the testing stage to ensure the most appropriate method of testing is used, these testing methods include functional testing which tests the system as a whole to ensure it runs as I have aimed, procedural testing to test processes or routines within the system, dry runs to ensure calculations, in my programs case an example would be the estimated price for a procedure, work as intended and finally sanity testing to ensure that the code changes introduced after I presented my code to the customer are working as expected. Furthermore, to ensure that a thorough test is carried out I will use varying test data types such as normal, invalid and extreme. These test data types will be carefully selected and used where most applicable for each test, this information will also be included within my test plan. Normal data is valid data that should be accepted by the system, for example entering 'Andrew Greenow' in a text box dedicated for entering a name. Invalid data is data that should not be accepted by the system, for example entering '4ndr3w Gr33n0w' in a text box dedicated to entering a name. Extreme data is data that is an extreme case of data entered that could be accepted or invalidated by the system. Below is the test plan along with its results, screenshots and other evidence for these tests along with additional information on each will be provided further down this document. Each bit of evidence will be clearly labelled with the corresponding test group and test number to ensure it is easy to find and effectively lain out, the goal being to reduce time to search for tests and avoid confusion.

Key: Group.TestNumber

E.g. Group1.Test1

=1.1

Group7.Test15

=7.15

Test data plan

Test group	Form	Data to be used
1	Login	**Correct username: 473** **Correct password: Sheils** **(valid)** **Incorrect password: 472** **Correct password: Sheils** **(invalid)** **Correct username: 473** **Incorrect password: sh3ils** **(invalid)**

2	Main menu	**Not applicable** **Functional tests e.g., button presses.**
3	Stock selection	**Not applicable** **Functional tests e.g., button presses.**
4	Existing customers	**Valid name: Curtis Cox** **Valid name: Dylan cox** **Invalid name: Curt1s c0x** **Extreme test: void of data**
5	Lavister stock	**Functional tests e.g., button presses, DGV edits.** **Invalid: -4** **Invalid :0.4** **Extreme: 1000**
6	Borras stock	**Functional tests e.g., button presses, DGV edits.** **Invalid: -4** **Invalid :0.4** **Extreme: 1000**
7	Bookings calendar	**Functional tests e.g., date selection, button presses.** **Invalid, date with no bookings: 03/03/2025** **Valid, date with booking: 01/01/2024** **Valid, date with booking: 03/03/2024**
8	Make a booking	**Functional tests e.g., form load, button presses.** **Extreme: void of data** **Invalid: 2003-2001;09** **Invalid: 900-00** **Valid: all data passed validation checks** • **03/03/2005**

		• **12:00**
9	History	**Valid: Curtis Cox** **Invalid: Curtis c0x** **Extreme: void of data**
10	Add customer	**Invalid pre-existing: 123** **Invalid: testATGmailDotCom** **Invalid: 999** **Valid: date passed all validation checks**
11	Holiday request	**Valid: test** **Extreme: void of data**
12	Staff opt	**Not applicable Functional tests e.g., button presses.**
13	Add staff	**Functional tests e.g., form load, button pressed** **Invalid:999** **Valid: all validation checks passed** **Extreme: void of data**
14	View staff	**Valid: Sandra Sheils** **Invalid: s4andra SHEILS** **Extreme: void of data**
15	Forgot password	**Invalid: gmail@felix@.com** **Valid: 123** **Valid felixvandijkk@gmail.com** **Extreme: void of data**

Test Plan commences:

Group 1- Login page:

Test Number	Test Description	Aim	Expected Outcome
1	Login function	When ‘BtnLogin’ is pressed the program will check data in text boxes against that stored in access form and recognise it is the same	Login form closes and program proceeds to open main menu form
2	Login error message	When incorrect username and password data in entered into their respective text boxes the program recognises this data does not match that in the access table	A message box is displayed stating the user has entered the incorrect username and/or password along with the number of attempts the user has remaining
3	Login attempts countdown	The program declares ‘remaining attempts’ as 5 and removes one attempt after each incorrect attempt	The text box shows 4 attempts remaining after the first attempt and 3 attempts remaining after the second attempt and so on
4	Login error message	When the username and password text boxes are left blank main menu page does not show	Identical error message as were to pop up under the circumstances of an incorrect username and/or password entered
5	Read only text boxes safety feature	When the username and password data is incorrectly entered a integer value ‘1’ in subtracted from the counts remaining declaration and stops at 0	When the remaining attempts counter reaches null the program display a new message asking the user to contact the administrated and makes the text boxes read only so no further attempts can be made
6	Password view alteration	The program recognises data being inputted into the text box and alters it to data type char	The string data inputted in changed to the dot symbol
7	Clear button	The program changes the data inside the username and password text boxes to “”	The text boxes become void of data
8	Forgotten password	When pressed the login form closes and the forgotten password form opens	“”
9	Form exit/close	When picture box in top right pressed the program stops running	Login pages closes as does the entire program

Group 2 - Main Menu Page:

Disclaimer- this form is a ‘hub’ of sorts allowing users to access the other features within the program and for this reason code is very often tediously reiterated with the only

variation being the button pressed and the form it leads to. For this reason I will only test the functionality of 4 of these buttons to ensure the majority are tested.

Test number	Test description	Aim	Expected outcome
1	Login as new user button	When button pressed main menu form hides and login page is shown again.	<-“” + the user should have to input their username and password again as they would when first loading the program
2	Holiday request button	When button pressed main menu form hides and the holiday request form is shown	<-“”
3	Existing staff button	When button pressed main menu form hides and the existing staff form is shown	<-“”
4	Stock button	When button pressed main menu form hides and stock selection form shown	<-“”

Group 3- Stock Selection Page:

Disclaimer- in similar fashion to the last form, this form consists of only buttons that lead to new forms. For this reason I will be testing only 2 out of a possible 4 buttons

Test number	Test description	Aim	Expected outcome
1	Back to main menu picture box	Close current form and open main menu form	current form closes and main menu form opens
2	Lavister navigation button	Close current form and open lavister stock form	Current form closes and lavister stock form opens

Group 4- Existing Customers:

Test number	Test description	Aim	Expected outcome
1	Search button	When BtnSearch is pressed the Program, using the connection string, checks if the data in the Text box appears in the Access database and if so shows the correlating info in the below text boxes	The program find the searched name in the database and fills the below text boxes with the appropriate, correlating information.
2	Next Button	When clients with the same last name exist, the next button should be able to	When pressed the data in the text boxes changes to ‘next’ data that fits the search criteria

		cycle through the access form showing other clients with the same last name. this cycles forwards through the database	
3	Previous button	When clients with the same last name exist, the next button should be able to cycle through the access form showing other clients with the same last name. this cycles backwards through the database	When pressed the data in the text boxes changes to 'previous' data that fits the search criteria
4	Search button Validation	When the Text box that is used for entering a search result is filled in with data that does not exist a message box should appear saying user not found	No user found message box
5	Delete button	When there is data in the text boxes and the button is pressed the program should use the connection string to access the database and remove the data	"Are you sure you want to delete" message box followed by removal of data
6	Delete button	When there is no data in the text boxes the program should recognise this and not removes anything	"no data selected to remove" message box
7	Clear button	When button is pressed all data in all text boxes should become "" regardless of contents	Text boxes become void of any data
8	Back button	When pressed should close current form and open the	Main Menu page opens proceeding closure of existing customers form

		FrmMainMenu page	
9	Search Validation empty	When the search text box is left empty and the user attempts to search for data the program should recognise this	“No name entered, try searching a name” message box appears.

Group 5- Lavister Stock editor form:

Disclaimer- In my program there are three forms for stock edit for three different branches. All of these forms, frmlavisterstock, frmborrasstock and frmGHstock are essentially identical and for this reason I will only be testing the lavister and borras forms.

Test number	Test description	Aim	Expected outcome
1	Data Grid View access data load	Within the private sub from load the code for reading data from the access form and inputting that correct information into an DataGrid view is present.	As soon as the form loads the information from the table ‘tblLavisterstock’ should be written into the data grid view
2	Data grid stock level edit	The DataGrid view should allow for the user to select the stock level column and edit the data within	When a stock level cell is selected the user can change it
3	Data Grid view stock level save button	The program should overwrite the old data in the stock level column in the access table with the new inputted data	Values in Access database are updated to new desired values
4	Updated values remain	When the form is closed and reloaded the program should now display the changes values	New values present when form is reloaded
5	Back button	Current form should be hidden and stock selector form should be shown	Stock selector form shown
6	DGV validation check, negative integer	When a negative number in entered the program should notice this as a mistake and output a message box stating the user should enter an	Message box shown

		acceptable positive integer or 0	
7	DGV validation check, non-integer value	When a non-integer value number in entered the program should notice this as a mistake and output a message box stating the user should enter an acceptable positive integer or 0	Message box shown
8	DGV validation check, unrealistic integer	When a unrealistic number in entered the program should notice this as a mistake and output a message box stating the user should enter an acceptable positive integer or 0	Message box shown

Group 6- Borras stock editor page:

Test number	Test description	Aim	Expected outcome
1	Data Grid View access data load	Within the private sub from load the code for reading data from the access form and inputting that correct information into an DataGrid view is present.	As soon as the form loads the information from the table 'tblBorrasstock' should be written into the data grid view
2	Data grid stock level edit	The DataGrid view should allow for the user to select the stock level column and edit the data within	When a stock level cell is selected the user can change it
3	Data Grid view stock level save button	The program should overwrite the old data in the stock level column in the access table with the new inputted data	Values in Access database are updated to new desired values
4	Updated values remain	When the form is closed and reloaded the program should now display the changes values	New values present when form is reloaded
5	Back button	Current form should be hidden and stock selector form should be shown	Stock selector form shown

6	DGV validation check, negative integer	When a negative number in entered the program should notice this as a mistake and output a message box stating the user should enter an acceptable positive integer or 0	Message box shown
7	DGV validation check, non-integer value	When a non-integer value number in entered the program should notice this as a mistake and output a message box stating the user should enter an acceptable positive integer or 0	Message box shown
8	DGV validation check, unrealistic integer	When a unrealistic number in entered the program should notice this as a mistake and output a message box stating the user should enter an acceptable positive integer or 0	Message box shown

Group 7- Bookings calendar form:

Test Number	Test description	Aim	Expected outcome
1	Date selection	The DateTimePicker should appear when the form is loaded and allow the user to select a date month and year	Works as aim suggests
2	Date with bookings	When a date is selected the program should check this against the column BookingDate in tblBooking in the access database and if the date appears in the column then programmatically generate button for each time associated with that day.	Buttons appear for each time there is a booking on that day with the boking time as the text inside the button so its easily identifiable.

3	**Date without bookings**	**When a date is selected the program should check this against the column BookingDate in tblBooking in the access database and recognises there are no bookings on that day and so generates no buttons**	**The form should remain as it was before**
4	**Booking information form**	**If the program has programmatically generated buttons, the user should be able to press the buttons which should display the rest of the information to do with the booking such as price, procedure, owner name, animal name, booking ID ext.**	**A small form will appear with the header of the date and time of the booking with the additional information shown below in bold.**
5	**Booking information form back button**	**When this form appears after the user has selected one of the button a ‘back’ button should also generate on the form allowing the user to close the form and select a new date or time**	**Back button on lower right of new temporary form appears with form and allows user to go back to the calendar.**
6	**Form back button**	**Hides the calendar form and shows the main menu form**	**Main menu form appears.**
7	**Booking buttons size change**	**Within the code for the programmatically generated buttons is an equation that decides the size of the buttons. They should change size to be able top fit the page dependant on how many buttons have to be generated**	**Buttons become smaller and more are needed to be generated.**

Group 8- Make a booking form:

Test number	Test description	Aim	Expected outcome
1	Random ID load	When the form is loaded a random 3 digit number is programmatically generated and put into the booking id text box	Random three digits appear in text box to be used to identify the specific booking
2	New ID button	In the event an error occurs or the user wants to generate a new booking ID for a new booking this button can be pressed programmatically generating a new random booking ID	Three new random integers appear in the desired text box
3	ID read only on load	As soon as the form is loaded the booking ID text box becomes read only to ensure it cannot be tampered with. Can only be changed with 'New ID' button or by closing an reopening the form	The text box will be read only as soon as the form opens and remain as such indefinitely
4	Owner name validation	A presence check is carried out ensuring some type of information has been entered as this is an important piece of info	Message box stating the issue of lack of data
5	Animal name validation	A presence check is carried out ensuring some type of information has been entered as this is an important piece of info	Message box stating the issue of lack of data
6	Owner ID validation	A presence check is carried out ensuring some type of information has been entered as this is an important piece of info	Message box stating the issue of lack of data
7	Date validation	A format check is carried out ensuring that the date has been entered in the correct format, DD/MM/YYYY, to ensure the date can be read and recognised from the	Message box stating the issue of incorrect formatting

		access form and buttons can be generated on the calendar form	
8	Time validation	A format check is carried out ensuring that the time has been entered in the correct format, 00:00, to ensure the date can be read and recognised from the access form and buttons can be generated on the calendar form	Message box stating the issue of incorrect formatting
9	Procedure type combo box	When the program is loaded a set list of procedures form the procedures table in the access form are to be loaded in to this combo box	List of procedures appear when combo box is used
10	Save button	When the text boxes have been filled appropriately this is to save a new record to the access file	The program writes the information into the correct table in the access database and displays a message stating it has done so
11	Print button	This is to allows the user to print a physical recipe of sorts. This will include the necessary information as well as header and a thank you message all predesigned in the code.	A small print form appears allowing selection of printer and copies ext.
12	Physical print format check	The text on the physical piece of paper is lain out appropriately and all the information is present.	The recipe will be displayed as such HEADER Info Info Info Info Info Info Thank you for choosing the gatehouse vets.
13	Email button	To email the user the recipe instead of or as well as a	A message box will appear explaining the issue as I have

		paper recipe. Takes info in text boxes and designs an email similar to that of the recipe	not paid for a service to actually send the emails
14	Clear button	Empties all text boxes by setting them = “”	All text boxes become blank
15	‘X’ picture box (close)	Closes/hides the current form and shows the main menu form	Main menu is shown
16	Procedure price textbox	When a procedure is selected in the combo box the price that is associated with that procedure in the access file will be read from the text file and written into the text box.	The price of the selected procedure appears in the text box adjacent to it

Group 9- History form:

Test number	Test description	Aim	Expected outcome
1	Search	When a valid full name is entered into the ‘txtsearch’ textbox and the search button is pressed the program uses the connection string to access the database and search the ‘tblbooking’ table for any past bookings under that name. if they have past bookings the information of those bookings is written into the text boxes beneath.	Information correlation with that name read from access the written ton text boxes
2	Search invalid	When a name that does not exists in the database is searched the program should attempt to read this name from the database, recognise that is does not exist and output an appropriate	Text box appears alerting the user of the fact the name does not exist in the database

		message box stating such	
3	Search extreme	When no data is entered into the search text box and the button is pressed the program should recognise the lack of data and output a message box stating such	Text box appears alerting the user of the lack of data in the text box
4	Next button	When the next button is pressed, in the event that the searched name has multiple past procedures, the program should cycle ‘forwards’ through saves records changing the info in the text boxes each time	Records cycles through in a forward fashion displaying new info for that name in text boxes
5	Previous button	When the previous button is pressed, in the event that the searched name has multiple past procedures, the program should cycle ‘backwards’ through saves records changing the info in the text boxes each time	Records cycles through in a backward fashion displaying new info for that name in text boxes
6	Previous button end of information	When using the previous button, if the end of the saved records has been reached and the user attempts to press the button again the program should output a message box stating so to reduce chances of confusion of seeing the same records multiple times.	Text box saying “no more records found”
7	Clear button	Should empty all text boxes by setting them = “”	All info in all text boxes disappears
8	Back button	Should hide the current form and show the main menu form	Closes current from and opens main menu form.

9	Sort algorithm	When a value is searched for the program should sort all the names in the table alphabetically. This is in order to be able to perform a Binary search	Names sorted alphabetically ready for search
10	Binary search	Using the sorted list the program should perform a binary search on the list in order to find the value that has been searched for	Sorted list searched through via a binary search.

Group 10- Add Customer form:

Test number	Test Description	Aim	Expected Outcome
1	Clear Button	When button is pressed all text boxes are set = “”	All input fields cleared and ready for new customer entry
2	Save button	Valid customer data entered and save button pressed the program uses the connection string to write the new info to the database	Customer data saves in database and a success message appears
3	Back Button	When button pressed main menu should appear and current form should be hidden	Main menu shown
4	Input validation	When an attempt to save a customer with empty fields is made the program should recognise this	Error message displayed
5	Existing customer prevention	Attempting to save a customer with the same ID as another does not work as the program checks the database for repeat IDs	Error message appears and data not saved
6	Email validation	The program should recognise any attempts to save an email address of the incorrect format	The program displays an error message
7	Phone number validation	When attempting to save a customer with an invalid phone number the	Error message displayed

		program should recognise the format is incorrect	
8	Random ID generated	When the form loads a random three integer ID should be written into the ID text box	Three random integers appear in text box.

Group 11- Holiday request form:

Test number	Test description	Aim	Expected outcome
1	Send button	Sends information inputted into text boxes to admin to await approval	Admin receives and denies or accepts or amends offering an alternative option
2	Clear button	Sets all text boxes = “”	Text boxes become void of any data
3	Back button	Hides current form and opens main menu form	Main menu appears
4	validation	Carries out a presence check before sending information	In the event a field is left blank a message box appear stating which field has been left blank and the request is not sent

Group 12- Staff option form:

Test number	Test description	Aim	Expected outcome
1	Add staff button	Current form hidden add staff form shown	Shows add staff form
2	View staff button	Current form hidden view staff shown	Shows view staff form
3	Back button	Current form hidden main menu form shown	Shows main menu form

Group 13- Add staff form:

Test number	Test description	Aim	Expected outcome
1	Random staff ID generated	When the form loads a random staff ID should be generated programmatically	Three random integers appear in the staff ID text box
2	Staff ID read only	When the program loads the text box dedicated to staff ID should be reads only and remain as such throughout	Staff ID text box is read only and stays so.

		the duration of the program running	
3	Contacts number Validation	A format validation check in run on the contact number section of the forms	If the number is not in the correct nor desired format a message box appears stating the issue
4	Role combo box	When the program starts and the user selects the combo box all applicable staff roles are shown	Combo box filled with desired data
5	Branch ID combo box	When the program starts and the user selects the combo box all applicable Branches and their associated IDs are shown	Combo box filled with desired data
6	Save button	When the button is pressed the program, using the connection string, should read all data in all text boxes and write the to a new line in the appropriate position in the database	new row of staff details added to the appropriate table
7	Save validation	Program should run a presence validation on all text boxes on the form in order none are left blank	Message box appears stating which boxes were left blank and info not saved
8	Clear	All text boxes set = “”	Text boxes become void of data
9	Back	Current form hidden and staff option form opens	Staff option shown

Group 14- View staff form:

Test number	Test description	Aim	Expected outcome
1	Search	When a valid search result is inputted the program, via the connection string checks if this results exists in the access database and outputs the correlating results if so.	Text boxes get information written into them.

2	Invalid search	When a search is conducted on a name that does not exist in the database the program should recognise this.	Message box outputted with message
3	Extreme search	When the search text box is left empty the program should recognise this	Message box outputted with appropriate message
4	Previous	Before a name is searched this button should allow users to cycle 'backwards' through all records saved	Text boxes get the previous record saved in the table written into them
5	Next	Before a name is searched this button should allow users to cycle 'forwards' through all records saved	Text boxes get next record in array written into them
6	Clear	All text boxes set = ""	Text boxes become blank
7	Back	Current form hidden staff option form shown	Staff option form appears

Group 15- Forgotten password form:

Test Number	Test description	Aim	Expected outcome
1	Email format	Program checks if the email is entered In the correct format or a pre-approved format	If its not then a message box appears
2	Email presence	Checks if any data is in the email text box	Outputs message box lack of data detected
3	Username presence	Checks if any data has been entered into the username textbox	Outputs message box if lack of data detected
4	Send button	Designs email and send to user with a link	User receives an email designed by the program that contains a recovery link for the password.
5	Re send	In the event the user did not receive the email this acts as a fail safe to ensure an email is received.	Send user another identical email, makes both buttons read only and starts a timer for 60 seconds to prevent

			spamming emails. Once the timer ends the user can then use the re send button
6	Countdown timer	Starts a countdown timer when the re send button is pressed	A timer form 60 downwards appears and disappears once the timer runs out.
7	Read only	Send becomes reads only when it is pressed indefinitely and re send becomes read only for 60 seconds until the timer has counted down.	Send becomes read only and re send becomes temporarily read only but becomes useable again once the timer finishes.
8	Back	Hides current form and shows the login page	Login page shown.

Testing Begins:

In this section I will be displaying the outcomes of the tests and the data used. This will be displayed in the form of a table and screenshots with comments for proof of tests.

Test Group 1: Login Page:

Test Number	Test Data Used	Actual Outcome	Verdict	Comment
1	Correct username (473) correct Password(Sheils) Normal test data type	Data accepted and main menu form opens	Pass	N/A
2	Incorrect username(472P) correct password (Sheils) Correct username(473)incorrect password (sh3ils) Incorrect username and incorrect password Invalid test data type	Data invalid and text box shown, main menu form NOT shown.	Pass	N/A
3	Run 1: Incorrect username Incorrect password Run 2: Incorrect username	Run 1: 4 attempts remaining displayed Run 2: 3 attempts remaining displayed	Pass	N/A

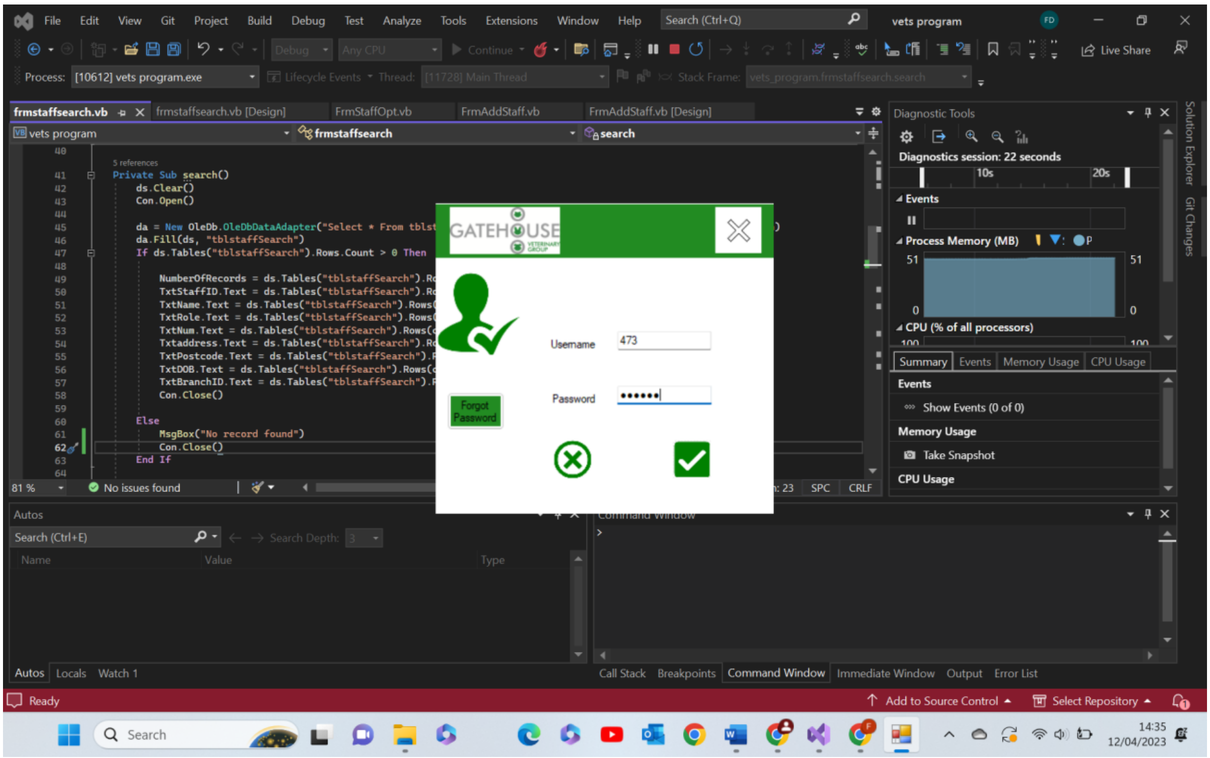
	Incorrect username Invalid test data type			
4	None Extreme test data type	Error message displayed	Pass	Could possibly implement a feature in future that displays a separate error message under these circumstances as this lack of data would likely be a miss click or just carelessness
5	Incorrect username and incorrect password entered 5 times respectively Invalid test data type	New error message displayed and text boxes access level altered to read only	Pass	Important safety feature to reduce risk of certain hacking processes such as brute force. One issue however is that the only requirement to bypass this safety check is to restart the program, in future versions I could make it so this is not the

				case and only the administrator Is able to revert the access levels.
6	Correct password Normal test data used	Password entered (sheils) was changed to •••••	Pass	Helpful to further ensure safety
7	Correct password Correct username Normal test data type	Username ‘473’ and password ‘Sheils’ were each removed leaving empty text boxes	Pass	N/A
8	n/a Functional test	Login form closed and forgotten password form was displayed	Pass	In future could make forgotten password button only available after all attempts have been exhausted. May cause some users to have to enter details incorrectly more than necessary however
9	N/A Functional test	Login page closed and program stopped running	Pass	Could implement an “are you sure you wish to close” feature in future.

Insert screenshots here later

Test group one screenshots:

1.1-

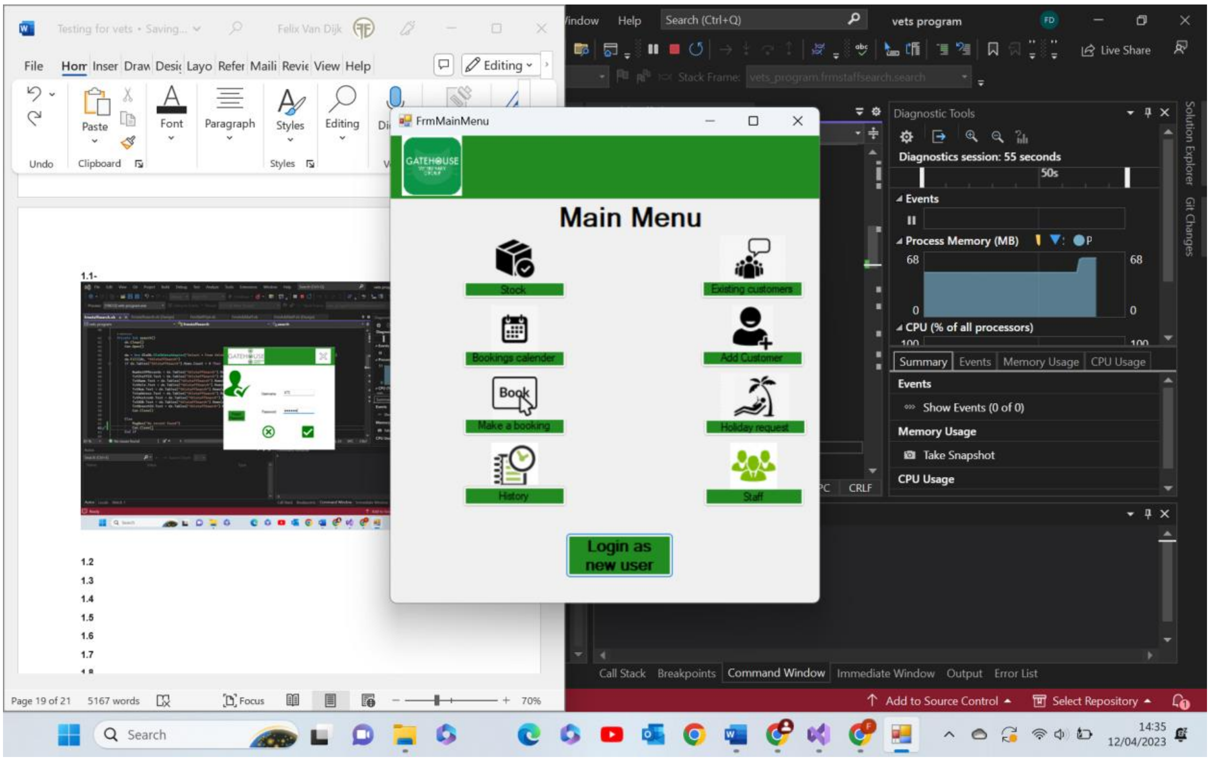


```
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * From tblst
    da.Fill(ds, "tblstaffSearch")
    If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

        NumberOfRecords = ds.Tables("tblstaffSearch").Ro
        TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
        TxtName.Text = ds.Tables("tblstaffSearch").Rows(
        TxtRole.Text = ds.Tables("tblstaffSearch").Rows(
        TxtNum.Text = ds.Tables("tblstaffSearch").Rows(c
        Txtaddress.Text = ds.Tables("tblstaffSearch").Ro
        TxtPostcode.Text = ds.Tables("tblstaffSearch").R
        TxtDOB.Text = ds.Tables("tblstaffSearch").Rows(c
        TxtBranchID.Text = ds.Tables("tblstaffSearch").R
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If
```

Username: 473

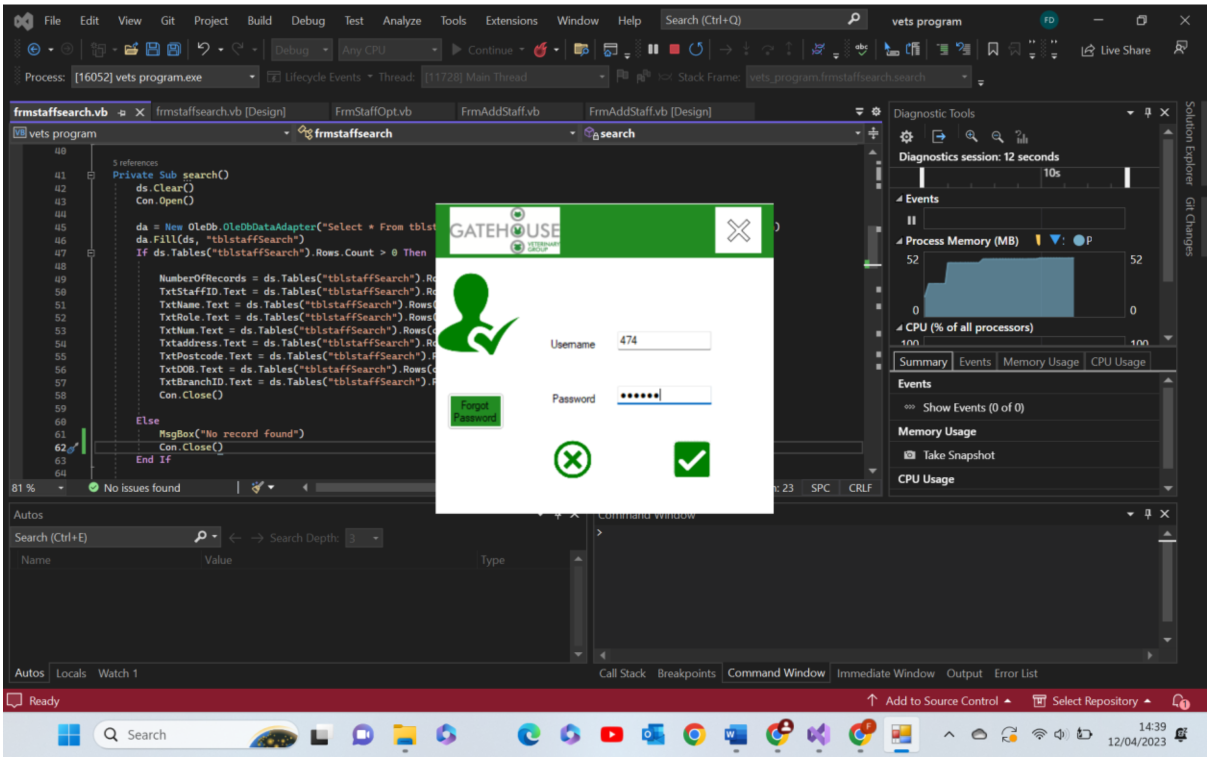
Password: ••••••

GATEHOUSE
Forgot Password
Diagnostic Tools
Diagnostics session: 22 seconds
Process: [10612] vets program.exe
No issues found
Ready



Test 1.1 comments- As is clear by the above screenshots when the correct username and password, 473 and Sheils respectively, are used the program performs as expected. Pass

1.2-

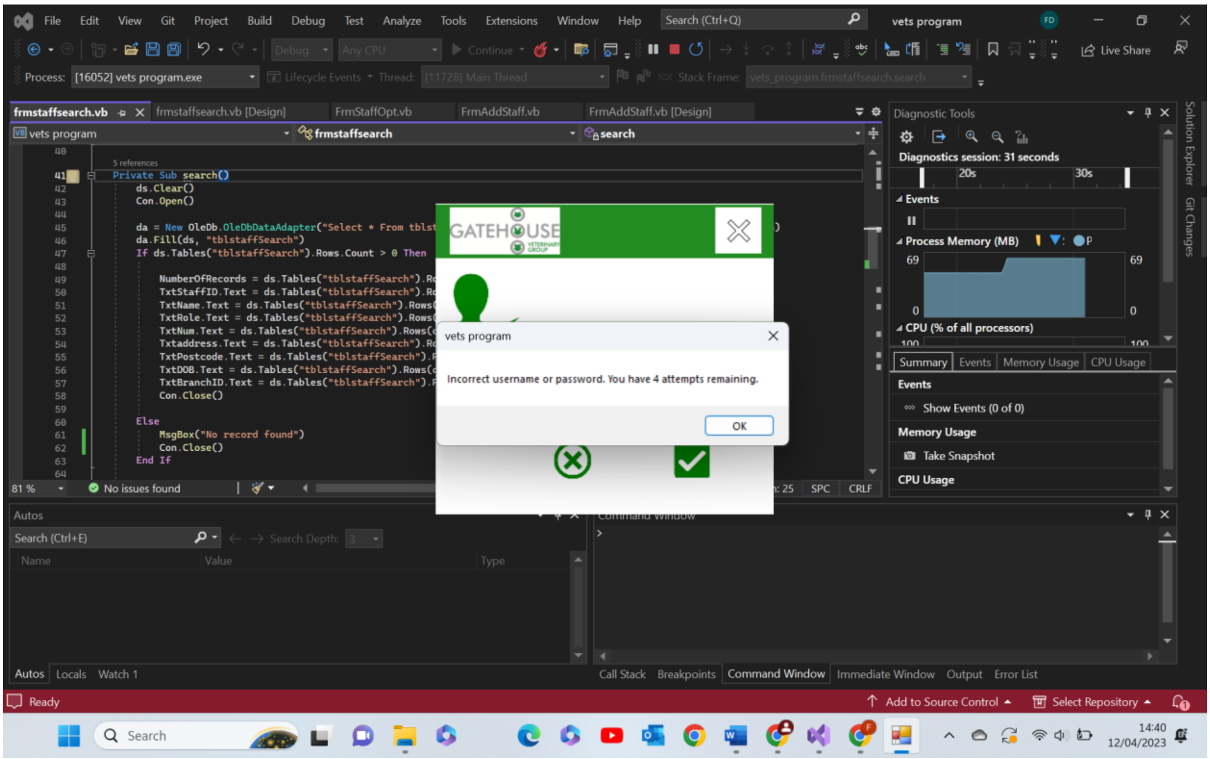


```
5 references
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * From tblst
    da.Fill(ds, "tblstaffSearch")
    If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

        NumberOfRecords = ds.Tables("tblstaffSearch").Ro
        TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
        TxtName.Text = ds.Tables("tblstaffSearch").Rows(
        TxtRole.Text = ds.Tables("tblstaffSearch").Rows(
        TxtNum.Text = ds.Tables("tblstaffSearch").Rows(c
        Txtaddress.Text = ds.Tables("tblstaffSearch").Ro
        TxtPostcode.Text = ds.Tables("tblstaffSearch").R
        TxtDOB.Text = ds.Tables("tblstaffSearch").Rows(c
        TxtBranchID.Text = ds.Tables("tblstaffSearch").R
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If
```

Username: 474

Password: ••••••

GATEHOUSE VETERINARY GROUP
Forgot Password
Process: [16052] vets program.exe
frmstaffsearch.vb
Diagnostic Tools
Diagnostics session: 12 seconds
No issues found
Ready
14:39
12/04/2023



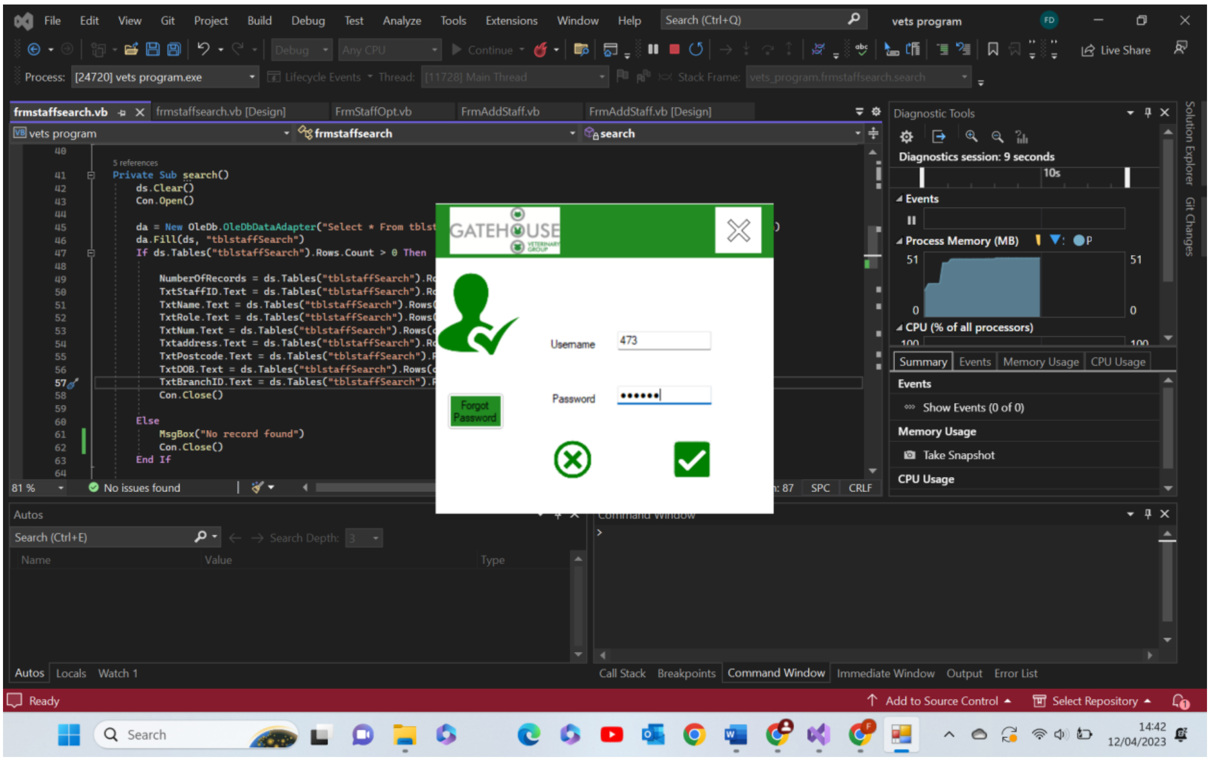
vets program

Incorrect username or password. You have 4 attempts remaining.

OK

GATEHOUSE VETERINARY GROUP
Process: [16052] vets program.exe
frmstaffsearch.vb
Diagnostic Tools
Diagnostics session: 31 seconds
No issues found
Ready
14:40
12/04/2023

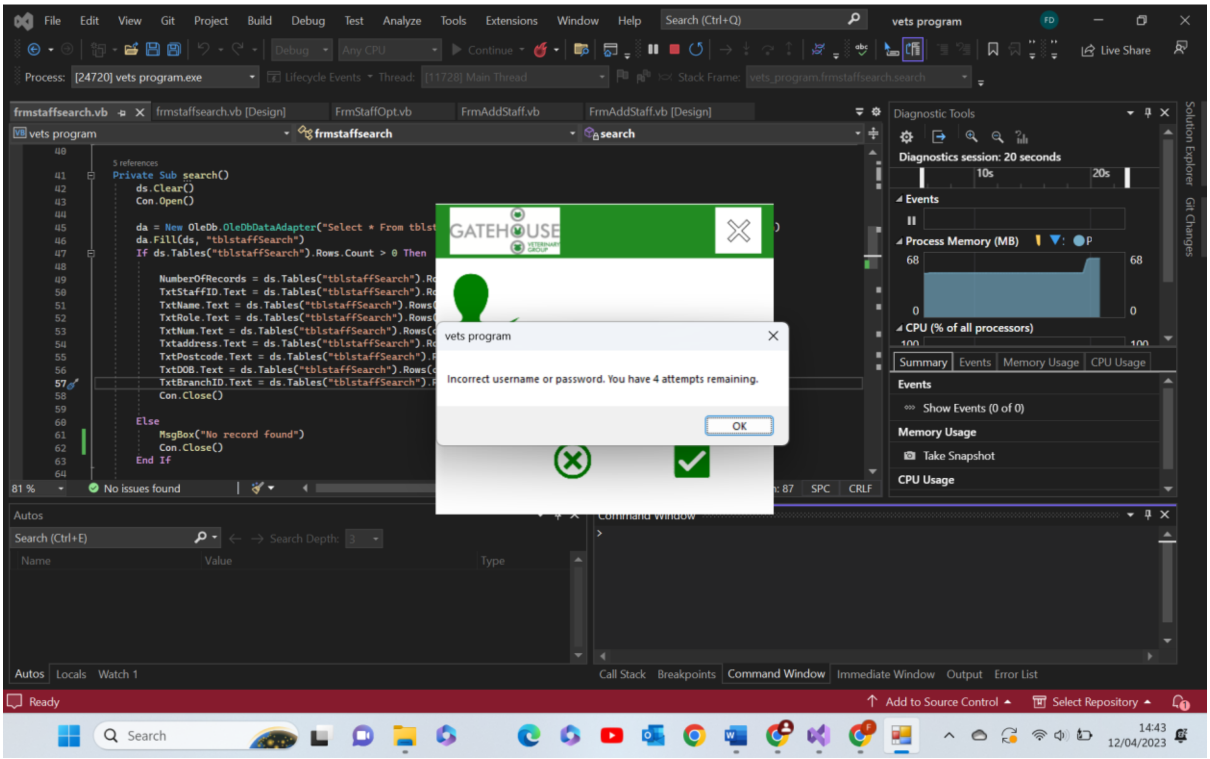
Test 1.2 part 1 comments- as you can see above the incorrect password, 474, was used and the program did not let the user progress to the main menu form but instead displayed the error message after the login function was Ran. Pass



```
5 references
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * From tblst
    da.Fill(ds, "tblstaffSearch")
    If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

        NumberOfRecords = ds.Tables("tblstaffSearch").Ro
        TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
        TxtName.Text = ds.Tables("tblstaffSearch").Rows(
        TxtRole.Text = ds.Tables("tblstaffSearch").Rows(
        TxtNum.Text = ds.Tables("tblstaffSearch").Rows(c
        Txtaddress.Text = ds.Tables("tblstaffSearch").Ro
        TxtPostcode.Text = ds.Tables("tblstaffSearch").R
        TxtDOB.Text = ds.Tables("tblstaffSearch").Rows(c
        TxtBranchID.Text = ds.Tables("tblstaffSearch").R
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If
```

Username 473

Password ••••••



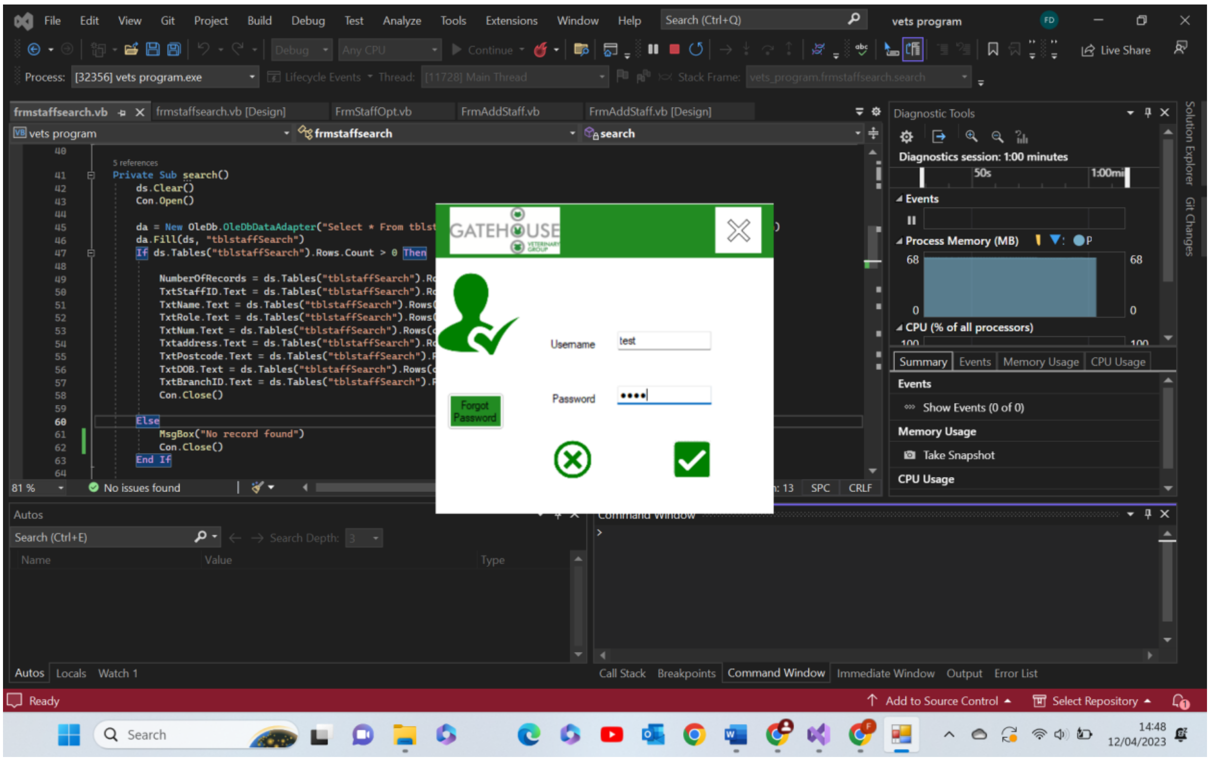
```
5 references
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * From tblst
    da.Fill(ds, "tblstaffSearch")
    If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

        NumberOfRecords = ds.Tables("tblstaffSearch").Ro
        TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
        TxtName.Text = ds.Tables("tblstaffSearch").Rows(
        TxtRole.Text = ds.Tables("tblstaffSearch").Rows(
        TxtNum.Text = ds.Tables("tblstaffSearch").Rows(c
        Txtaddress.Text = ds.Tables("tblstaffSearch").Ro
        TxtPostcode.Text = ds.Tables("tblstaffSearch").R
        TxtDOB.Text = ds.Tables("tblstaffSearch").Rows(c
        TxtBranchID.Text = ds.Tables("tblstaffSearch").R
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If
```

vets program

Incorrect username or password. You have 4 attempts remaining.

test 1.2 part 2- as you can see above when the correct password but incorrect username, sheilz, was entered the program displayed an error message and did not let the user through to the main menu. Pass

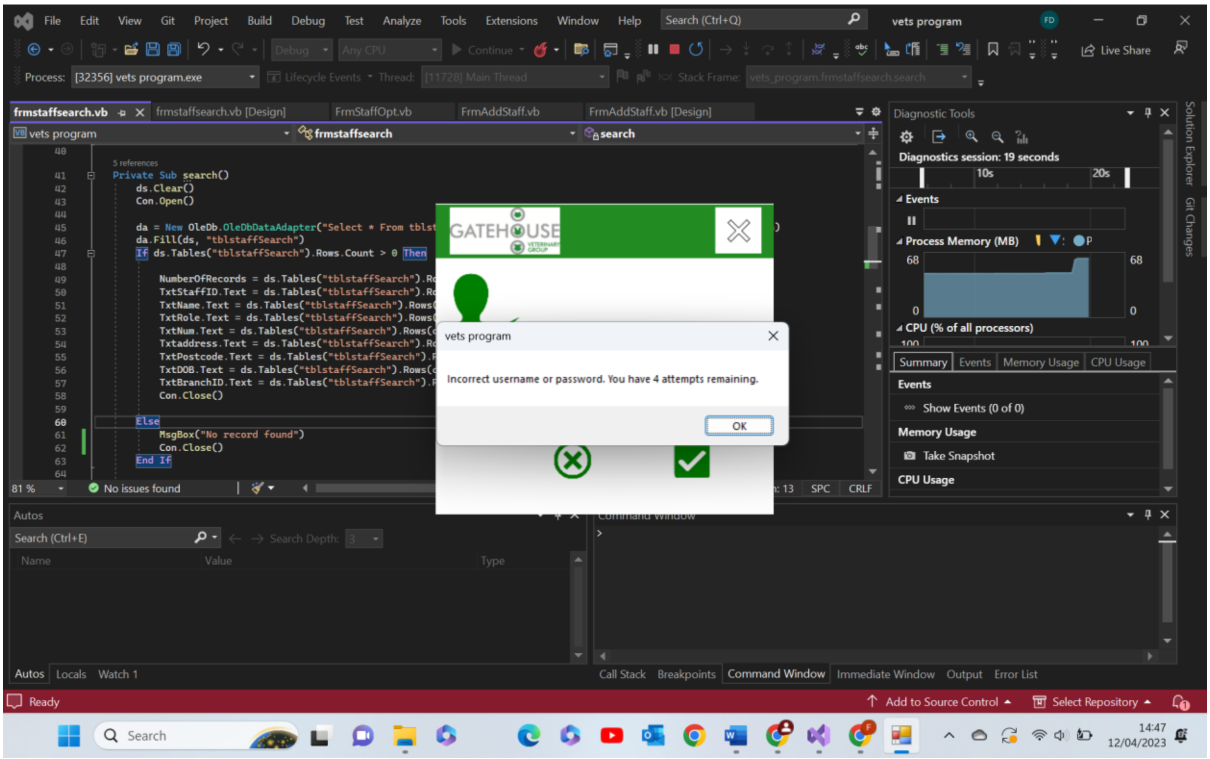
1.3-



```
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * From tblst
    da.Fill(ds, "tblstaffSearch")
    If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

        NumberOfRecords = ds.Tables("tblstaffSearch").Ro
        TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
        TxtName.Text = ds.Tables("tblstaffSearch").Rows(
        TxtRole.Text = ds.Tables("tblstaffSearch").Rows(
        TxtNum.Text = ds.Tables("tblstaffSearch").Rows(c
        Txtaddress.Text = ds.Tables("tblstaffSearch").Ro
        TxtPostcode.Text = ds.Tables("tblstaffSearch").R
        TxtDOB.Text = ds.Tables("tblstaffSearch").Rows(c
        TxtBranchID.Text = ds.Tables("tblstaffSearch").R
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If
```

Username test

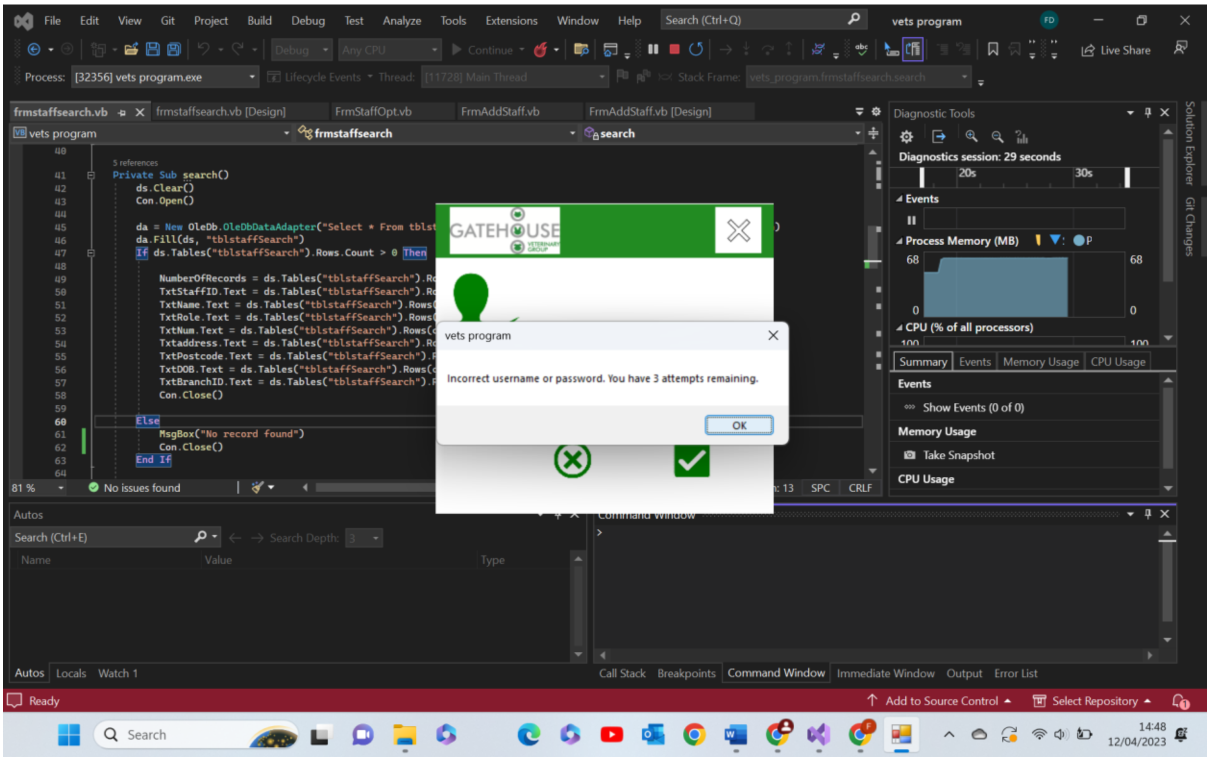
Password ••••



vets program

Incorrect username or password. You have 4 attempts remaining.

OK

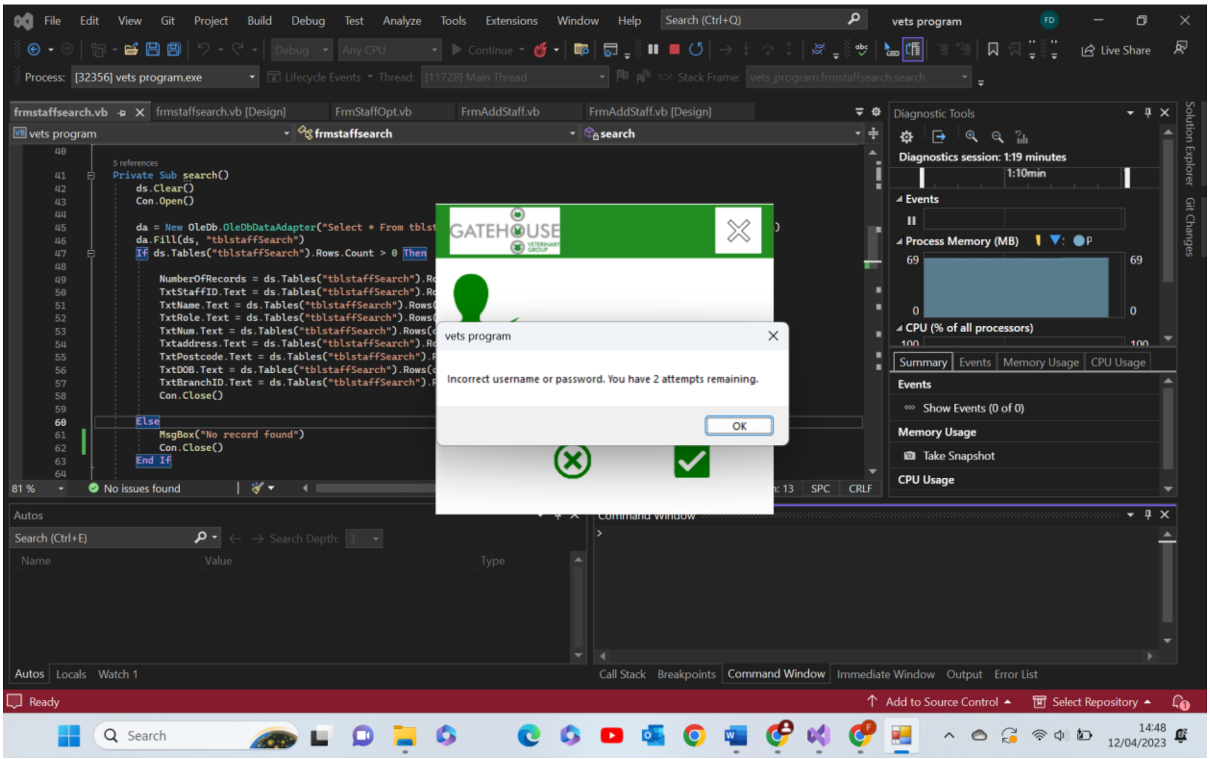


```
5 references
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * From tblst
    da.Fill(ds, "tblstaffSearch")
    If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

        NumberOfRecords = ds.Tables("tblstaffSearch").Ro
        TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
        TxtName.Text = ds.Tables("tblstaffSearch").Rows(
        TxtRole.Text = ds.Tables("tblstaffSearch").Rows(
        TxtNum.Text = ds.Tables("tblstaffSearch").Rows(
        Txtaddress.Text = ds.Tables("tblstaffSearch").Ro
        TxtPostcode.Text = ds.Tables("tblstaffSearch").R
        TxtDOB.Text = ds.Tables("tblstaffSearch").Rows(
        TxtBranchID.Text = ds.Tables("tblstaffSearch").R
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If
```

vets program

Incorrect username or password. You have 3 attempts remaining.

OK

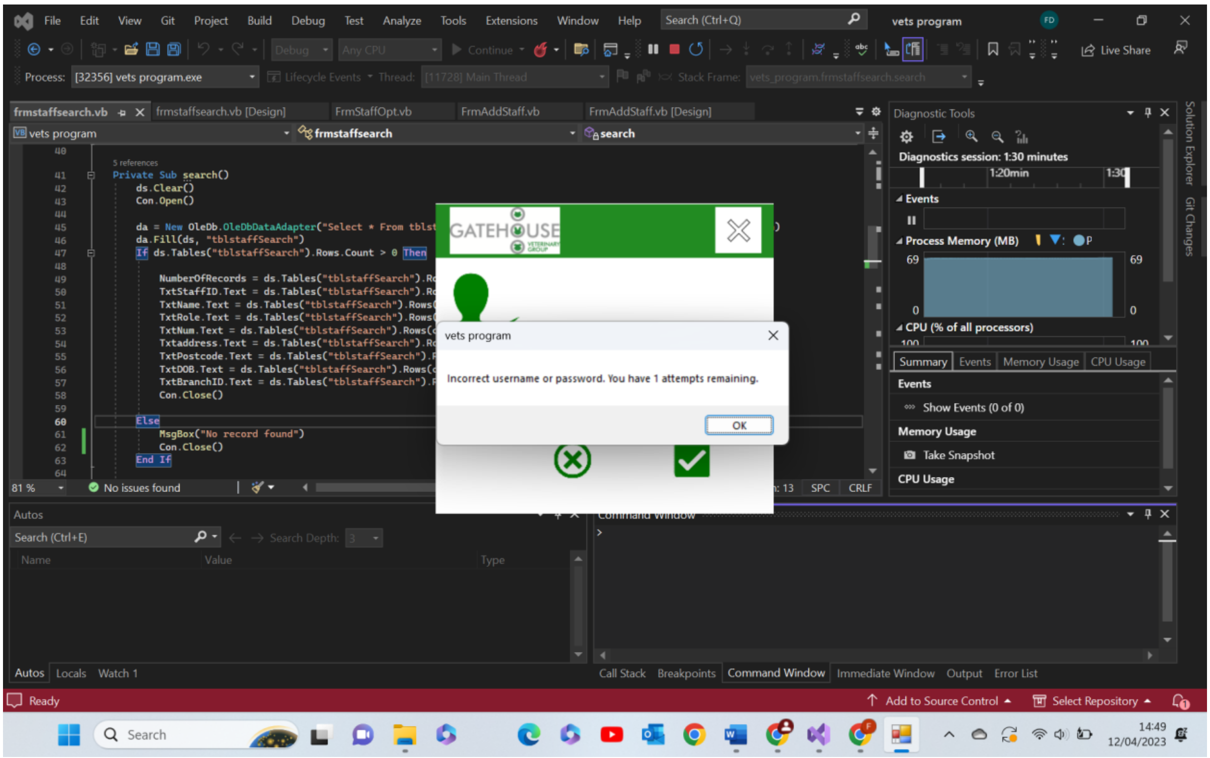


```
5 references
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * From tblst
    da.Fill(ds, "tblstaffSearch")
    If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

        NumberOfRecords = ds.Tables("tblstaffSearch").Ro
        TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
        TxtName.Text = ds.Tables("tblstaffSearch").Rows(
        TxtRole.Text = ds.Tables("tblstaffSearch").Rows(
        TxtNum.Text = ds.Tables("tblstaffSearch").Rows(
        Txtaddress.Text = ds.Tables("tblstaffSearch").Ro
        TxtPostcode.Text = ds.Tables("tblstaffSearch").R
        TxtDOB.Text = ds.Tables("tblstaffSearch").Rows(
        TxtBranchID.Text = ds.Tables("tblstaffSearch").R
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If
```

vets program

Incorrect username or password. You have 2 attempts remaining.

OK



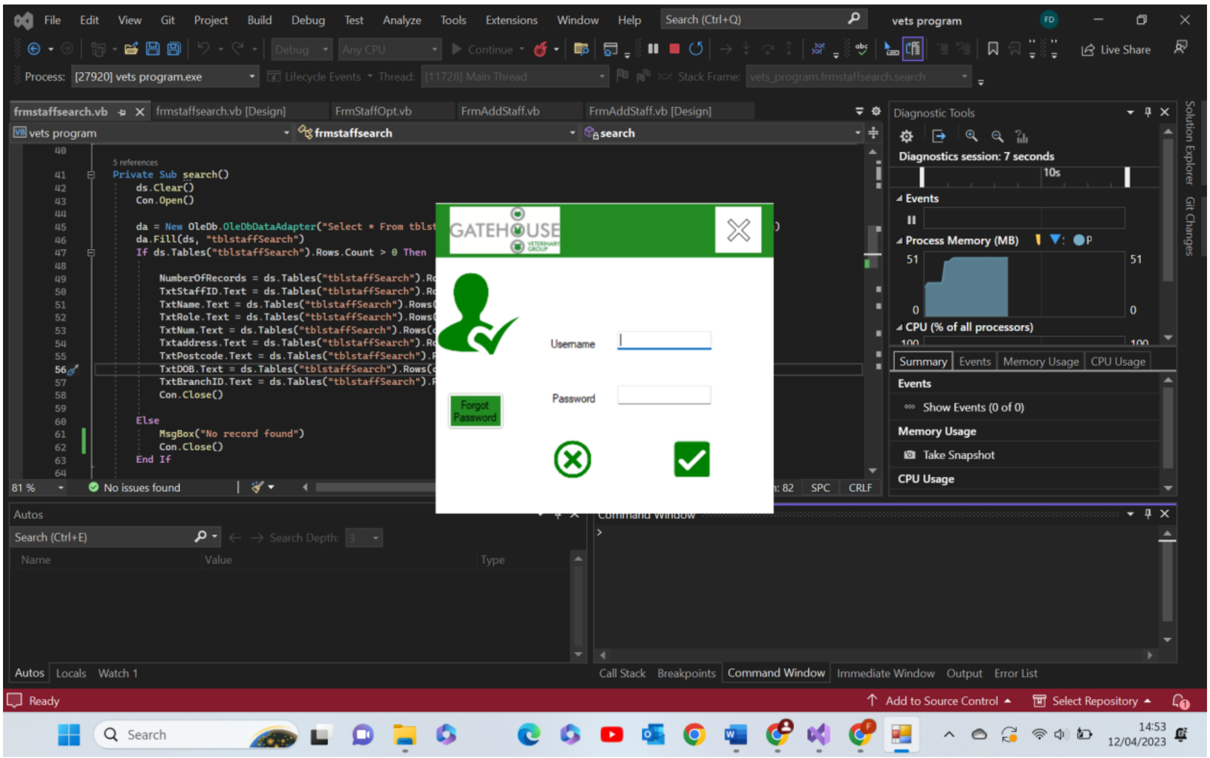
```
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * From tblst
    da.Fill(ds, "tblstaffSearch")
    If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

        NumberOfRecords = ds.Tables("tblstaffSearch").Ro
        TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
        TxtName.Text = ds.Tables("tblstaffSearch").Rows(
        TxtRole.Text = ds.Tables("tblstaffSearch").Rows(
        TxtNum.Text = ds.Tables("tblstaffSearch").Rows(c
        Txtaddress.Text = ds.Tables("tblstaffSearch").Ro
        TxtPostcode.Text = ds.Tables("tblstaffSearch").R
        TxtDOB.Text = ds.Tables("tblstaffSearch").Rows(c
        TxtBranchID.Text = ds.Tables("tblstaffSearch").R
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If
```

vets program

Incorrect username or password. You have 1 attempts remaining.

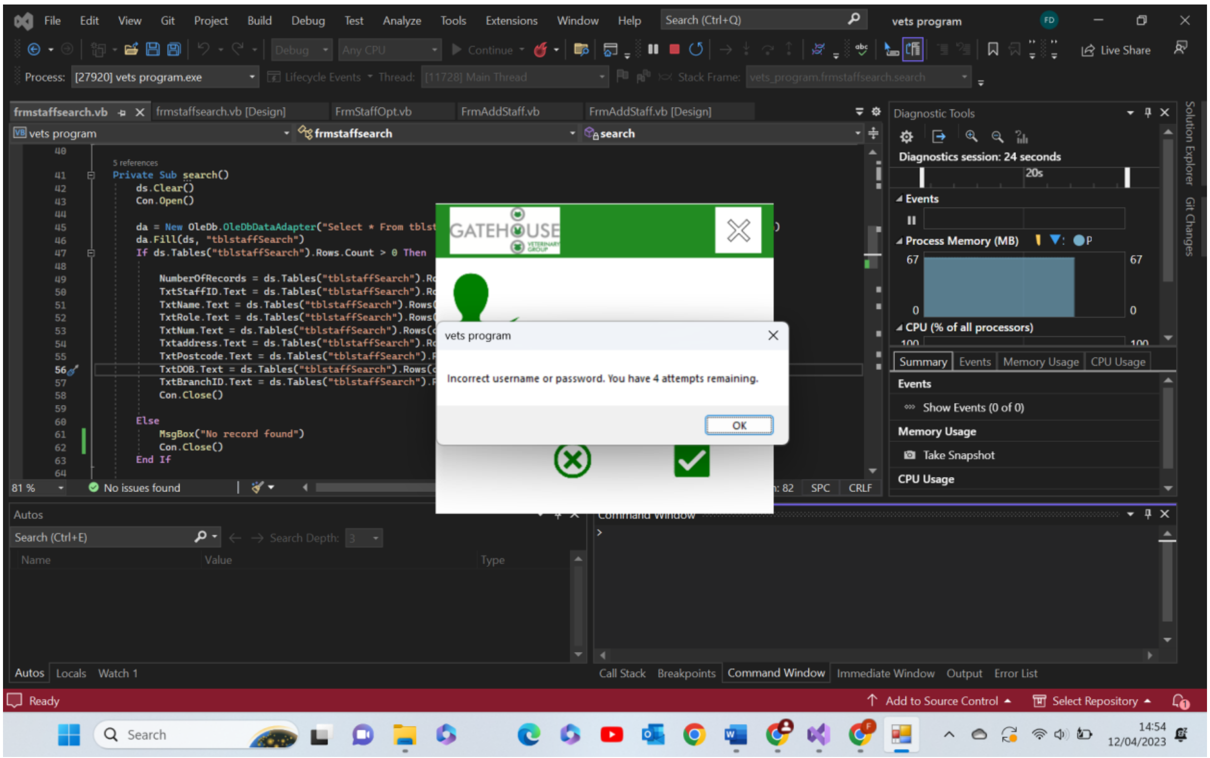
Test 1.3 comments- as you can see from the above screenshots the program recognises how many attempts have been made and subtracts one from the counter 5 each time an incorrect attempt is made, displaying a message warning the user of how many attempts are left. Pass

1.4-



```
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * From tblst
    da.Fill(ds, "tblstaffSearch")
    If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

        NumberOfRecords = ds.Tables("tblstaffSearch").Ro
        TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
        TxtName.Text = ds.Tables("tblstaffSearch").Rows(
        TxtRole.Text = ds.Tables("tblstaffSearch").Rows(
        TxtNum.Text = ds.Tables("tblstaffSearch").Rows(c
        Txtaddress.Text = ds.Tables("tblstaffSearch").Ro
        TxtPostcode.Text = ds.Tables("tblstaffSearch").R
        TxtDOB.Text = ds.Tables("tblstaffSearch").Rows(c
        TxtBranchID.Text = ds.Tables("tblstaffSearch").R
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If
```

Process: [27920] vets program.exe
GATEHOUSE
Username
Password
Forgot Password
Diagnostics session: 7 seconds
10s
Ready
14:53
12/04/2023



Process: [27920] vets program.exe

```
        5 references
        Private Sub search()
            ds.Clear()
            Con.Open()

            da = New OleDb.OleDbDataAdapter("Select * From tblst
            da.Fill(ds, "tblstaffSearch")
            If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

                NumberOfRecords = ds.Tables("tblstaffSearch").Ro
                TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
                TxtName.Text = ds.Tables("tblstaffSearch").Rows(
                TxtRole.Text = ds.Tables("tblstaffSearch").Rows(
                TxtNum.Text = ds.Tables("tblstaffSearch").Rows(c
                Txtaddress.Text = ds.Tables("tblstaffSearch").Ro
                TxtPostcode.Text = ds.Tables("tblstaffSearch").R
                TxtDOB.Text = ds.Tables("tblstaffSearch").Rows(c
                TxtBranchID.Text = ds.Tables("tblstaffSearch").R
                Con.Close()

            Else
                MsgBox("No record found")
                Con.Close()
            End If
```

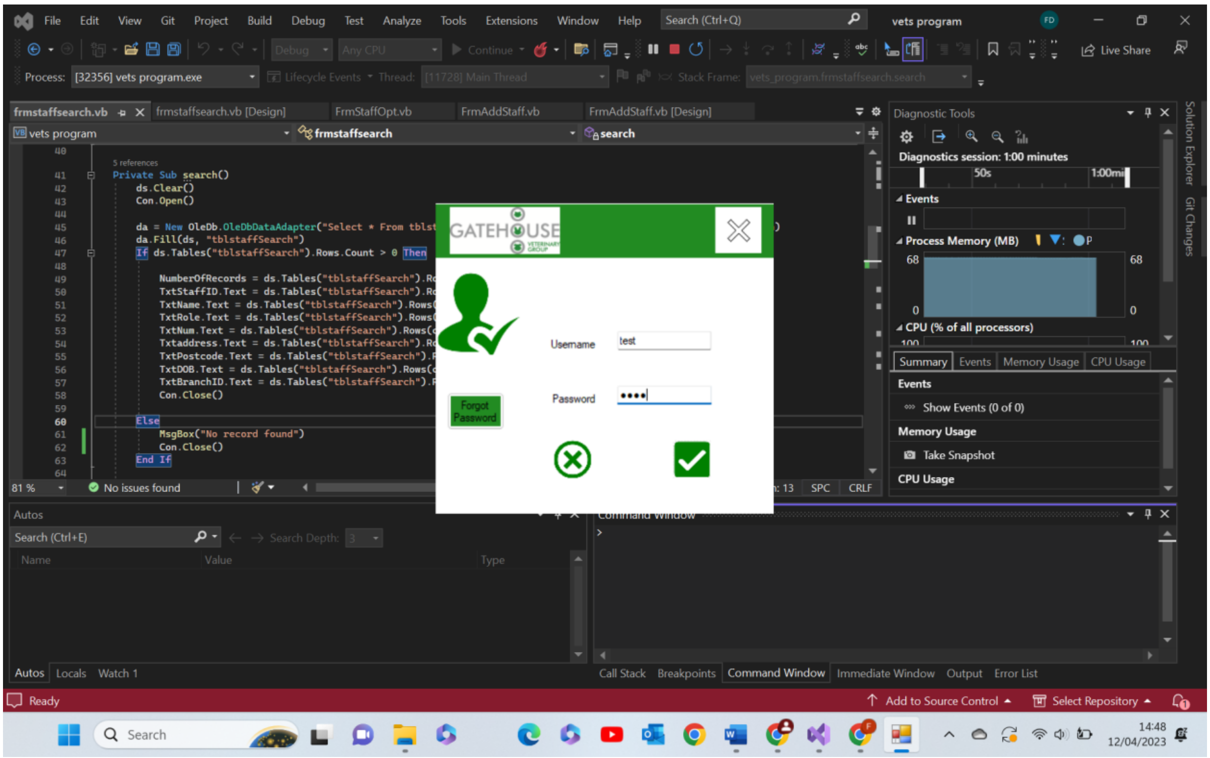
vets program

Incorrect username or password. You have 4 attempts remaining.

OK

Test 1.4 comments- as you can see above, when an extreme test is ran, no data entered, the program acts as though the password or username has just been entered incorrectly which is as expected. Pass

1.5-

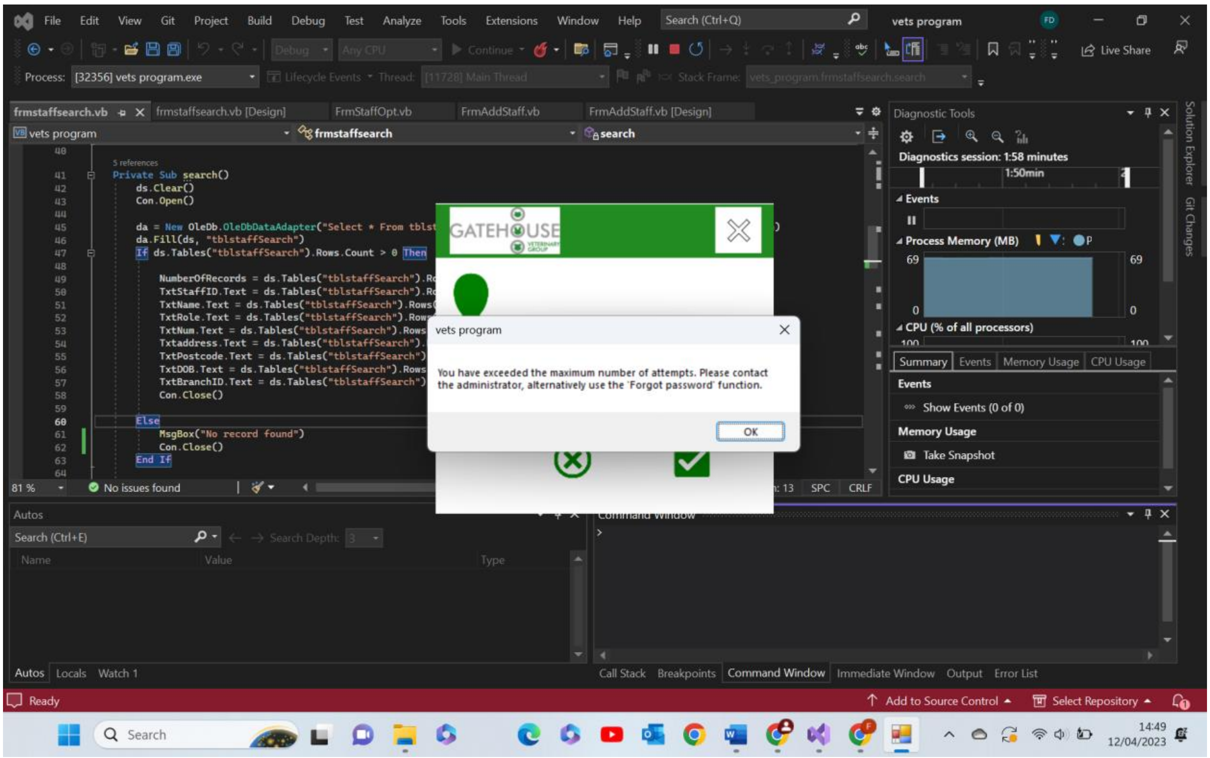


Process: [32356] vets program.exe

```
        5 references
        Private Sub search()
            ds.Clear()
            Con.Open()

            da = New OleDb.OleDbDataAdapter("Select * From tblst
            da.Fill(ds, "tblstaffSearch")
            If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

                NumberOfRecords = ds.Tables("tblstaffSearch").Ro
                TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
                TxtName.Text = ds.Tables("tblstaffSearch").Rows(
                TxtRole.Text = ds.Tables("tblstaffSearch").Rows(
                TxtNum.Text = ds.Tables("tblstaffSearch").Rows(c
                Txtaddress.Text = ds.Tables("tblstaffSearch").Ro
                TxtPostcode.Text = ds.Tables("tblstaffSearch").R
                TxtDOB.Text = ds.Tables("tblstaffSearch").Rows(c
                TxtBranchID.Text = ds.Tables("tblstaffSearch").R
                Con.Close()

            Else
                MsgBox("No record found")
                Con.Close()
            End If
```

Username: test

Password: ••••

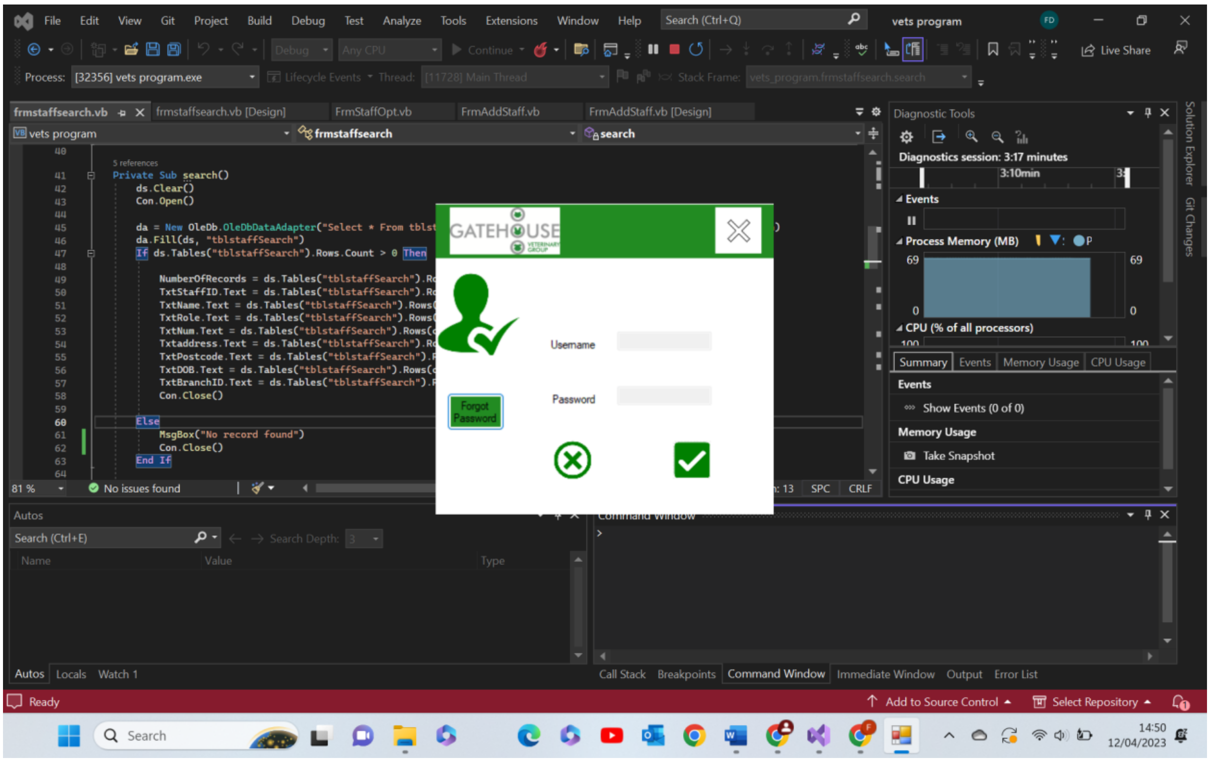


```
5 references
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * From tblst
    da.Fill(ds, "tblstaffSearch")
    If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

        NumberOfRecords = ds.Tables("tblstaffSearch").Ro
        TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
        TxtName.Text = ds.Tables("tblstaffSearch").Rows(
        TxtRole.Text = ds.Tables("tblstaffSearch").Rows
        TxtNum.Text = ds.Tables("tblstaffSearch").Rows
        Txtaddress.Text = ds.Tables("tblstaffSearch").
        TxtPostcode.Text = ds.Tables("tblstaffSearch")
        TxtDOB.Text = ds.Tables("tblstaffSearch").Rows
        TxtBranchID.Text = ds.Tables("tblstaffSearch")
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If
```

vets program

You have exceeded the maximum number of attempts. Please contact the administrator, alternatively use the 'Forgot password' function.

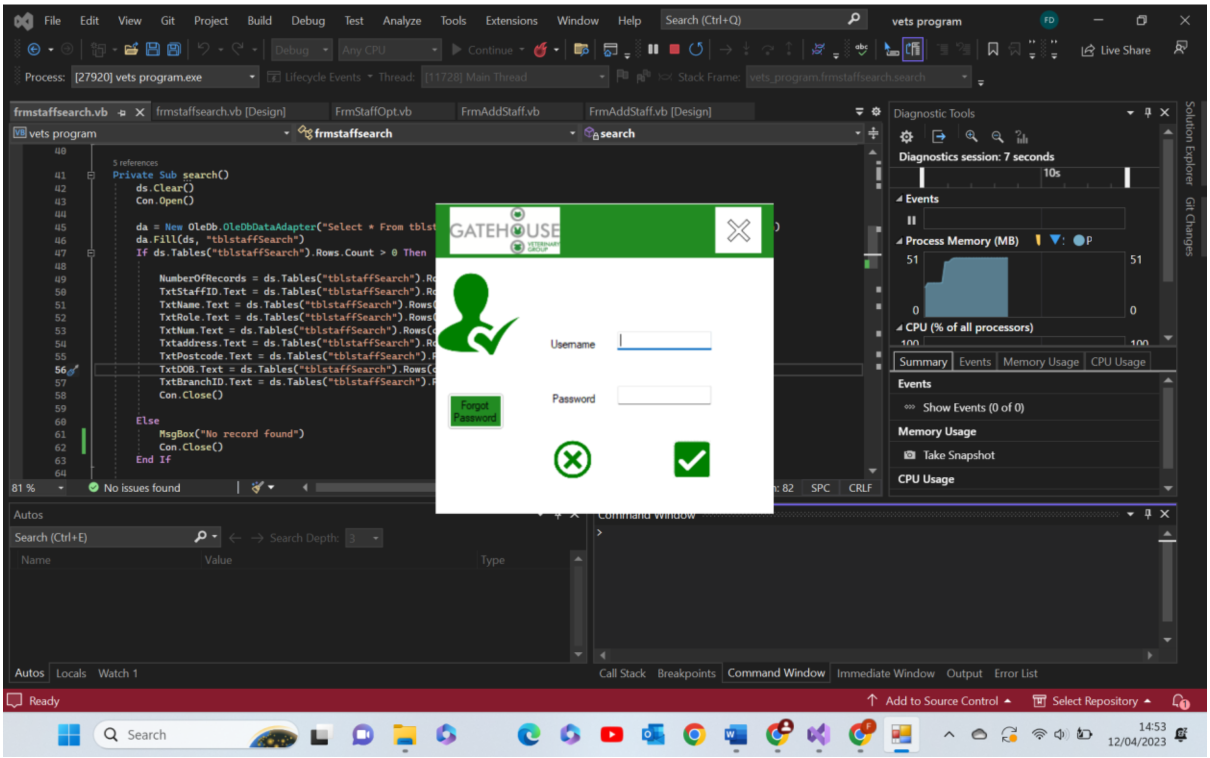
OK



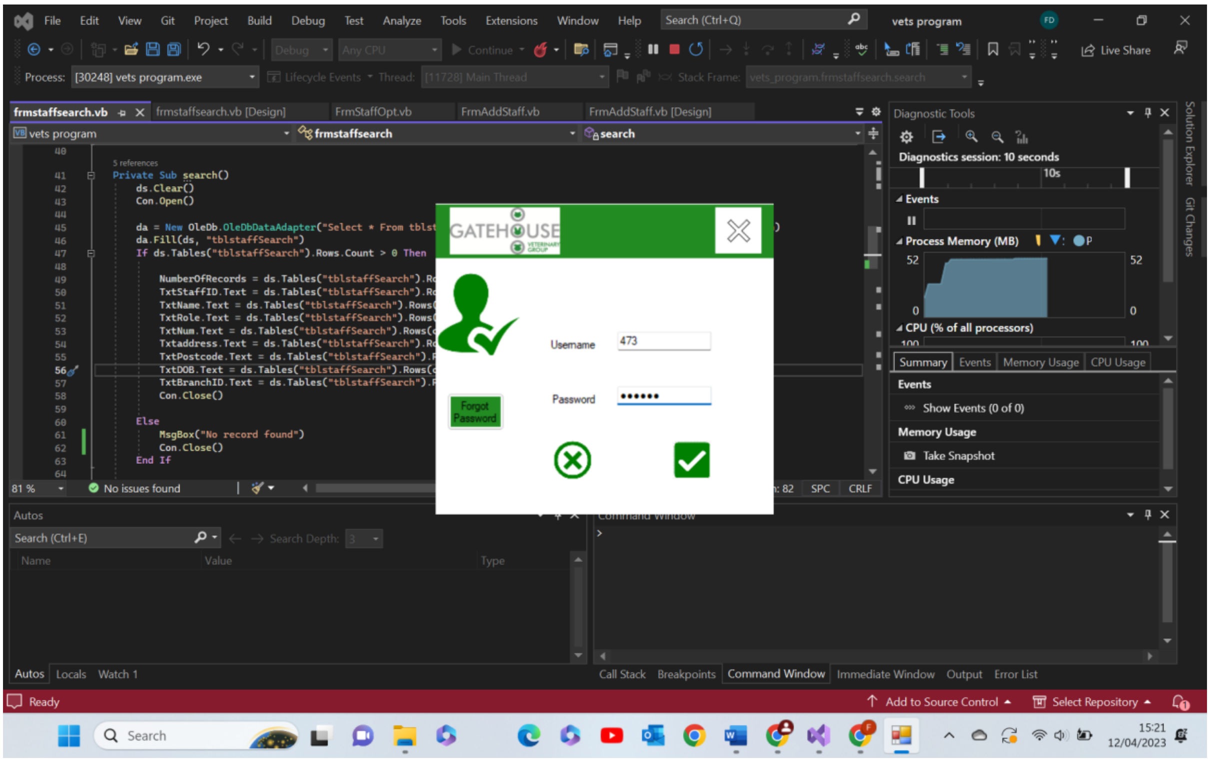
```
5 references
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * From tblst
    da.Fill(ds, "tblstaffSearch")
    If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

        NumberOfRecords = ds.Tables("tblstaffSearch").Ro
        TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
        TxtName.Text = ds.Tables("tblstaffSearch").Rows(
        TxtRole.Text = ds.Tables("tblstaffSearch").Rows
        TxtNum.Text = ds.Tables("tblstaffSearch").Rows
        Txtaddress.Text = ds.Tables("tblstaffSearch").
        TxtPostcode.Text = ds.Tables("tblstaffSearch")
        TxtDOB.Text = ds.Tables("tblstaffSearch").Rows
        TxtBranchID.Text = ds.Tables("tblstaffSearch")
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If
```

Test 1.5 comments- firstly I would like to state the above incorrect information was entered 5 times before this error message appeared and the text boxes became read only. For proof of this refer to test 1.3. That being said, the function performed exactly as was expected. A unique error message appeared and the text boxes became read only. Pass

1.6-


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
vets program
Process: [27920] vets program.exe
frmstaffsearch.vb
frmstaffsearch.vb [Design]
FrmStaffOpt.vb
FrmAddStaff.vb
FrmAddStaff.vb [Design]
Diagnostic Tools
Diagnostics session: 7 seconds
Process Memory (MB)
CPU (% of all processors)
GATEHOUSE
Username
Password
Forgot Password
No issues found
Ready

```
5 references
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * From tblst
    da.Fill(ds, "tblstaffSearch")
    If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

        NumberOfRecords = ds.Tables("tblstaffSearch").Ro
        TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
        TxtName.Text = ds.Tables("tblstaffSearch").Rows(
        TxtRole.Text = ds.Tables("tblstaffSearch").Rows(
        TxtNum.Text = ds.Tables("tblstaffSearch").Rows(c
        Txtaddress.Text = ds.Tables("tblstaffSearch").Ro
        TxtPostcode.Text = ds.Tables("tblstaffSearch").R
        TxtDOB.Text = ds.Tables("tblstaffSearch").Rows(c
        TxtBranchID.Text = ds.Tables("tblstaffSearch").R
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If
```


vets program
Process: [30248] vets program.exe
Diagnostics session: 10 seconds
GATEHOUSE
Username
Password
Forgot Password
Ready

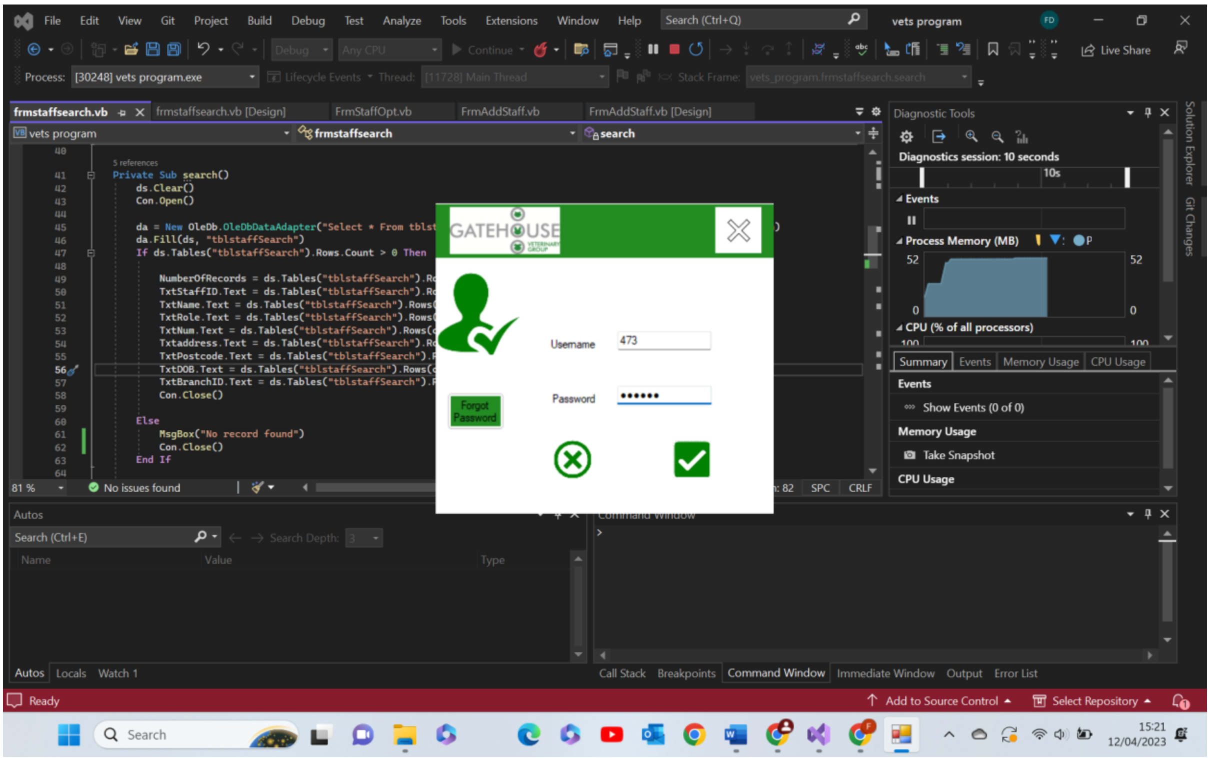
Username: 473

Password: ••••••

```
5 references
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * From tblst
    da.Fill(ds, "tblstaffSearch")
    If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

        NumberOfRecords = ds.Tables("tblstaffSearch").Ro
        TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
        TxtName.Text = ds.Tables("tblstaffSearch").Rows(
        TxtRole.Text = ds.Tables("tblstaffSearch").Rows(
        TxtNum.Text = ds.Tables("tblstaffSearch").Rows(c
        Txtaddress.Text = ds.Tables("tblstaffSearch").Ro
        TxtPostcode.Text = ds.Tables("tblstaffSearch").R
        TxtDOB.Text = ds.Tables("tblstaffSearch").Rows(c
        TxtBranchID.Text = ds.Tables("tblstaffSearch").R
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If
```

Test 1.6 comments- as shown above once the program recognises that data is being entered into the password text box it concerts it to an ASCII value in this case a large dot. This is exactly as expected. Pass

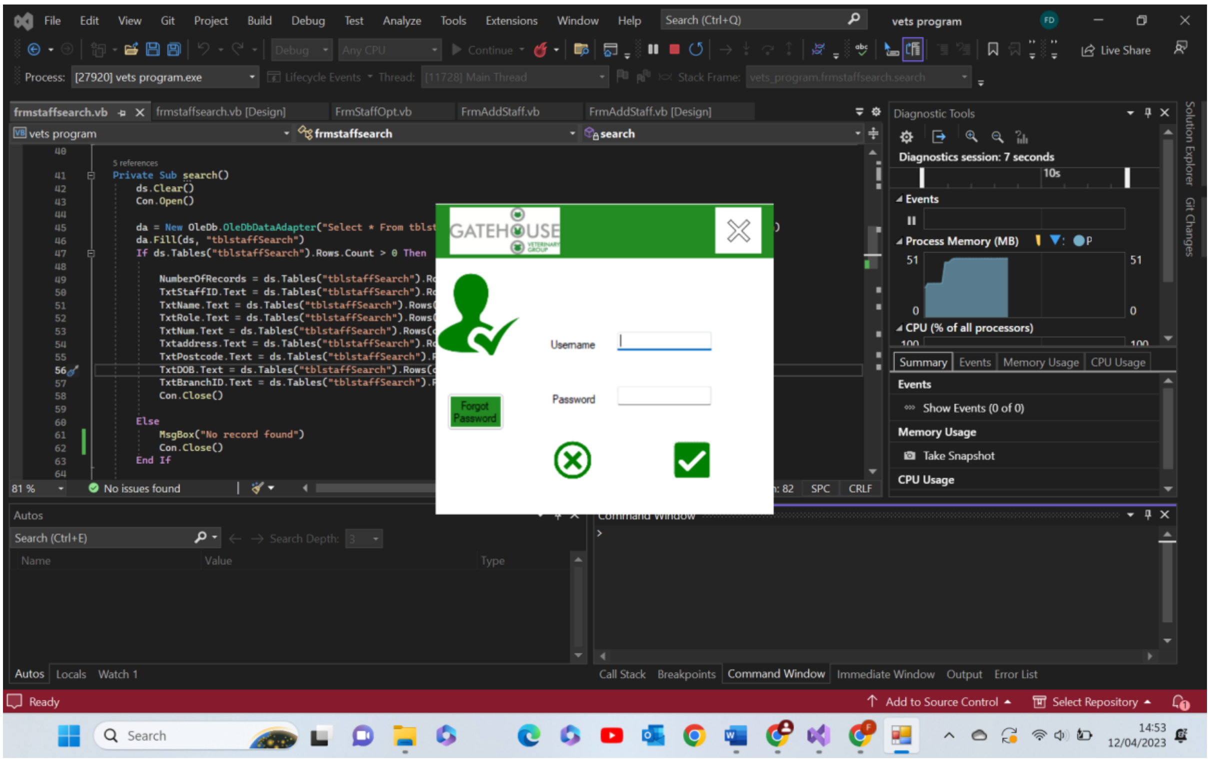
1.7-



```
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * From tblst
    da.Fill(ds, "tblstaffSearch")
    If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

        NumberOfRecords = ds.Tables("tblstaffSearch").Ro
        TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
        TxtName.Text = ds.Tables("tblstaffSearch").Rows(
        TxtRole.Text = ds.Tables("tblstaffSearch").Rows(
        TxtNum.Text = ds.Tables("tblstaffSearch").Rows(
        Txtaddress.Text = ds.Tables("tblstaffSearch").Ro
        TxtPostcode.Text = ds.Tables("tblstaffSearch").R
        TxtDOB.Text = ds.Tables("tblstaffSearch").Rows(
        TxtBranchID.Text = ds.Tables("tblstaffSearch").R
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If
```

Username 473

Password ••••••



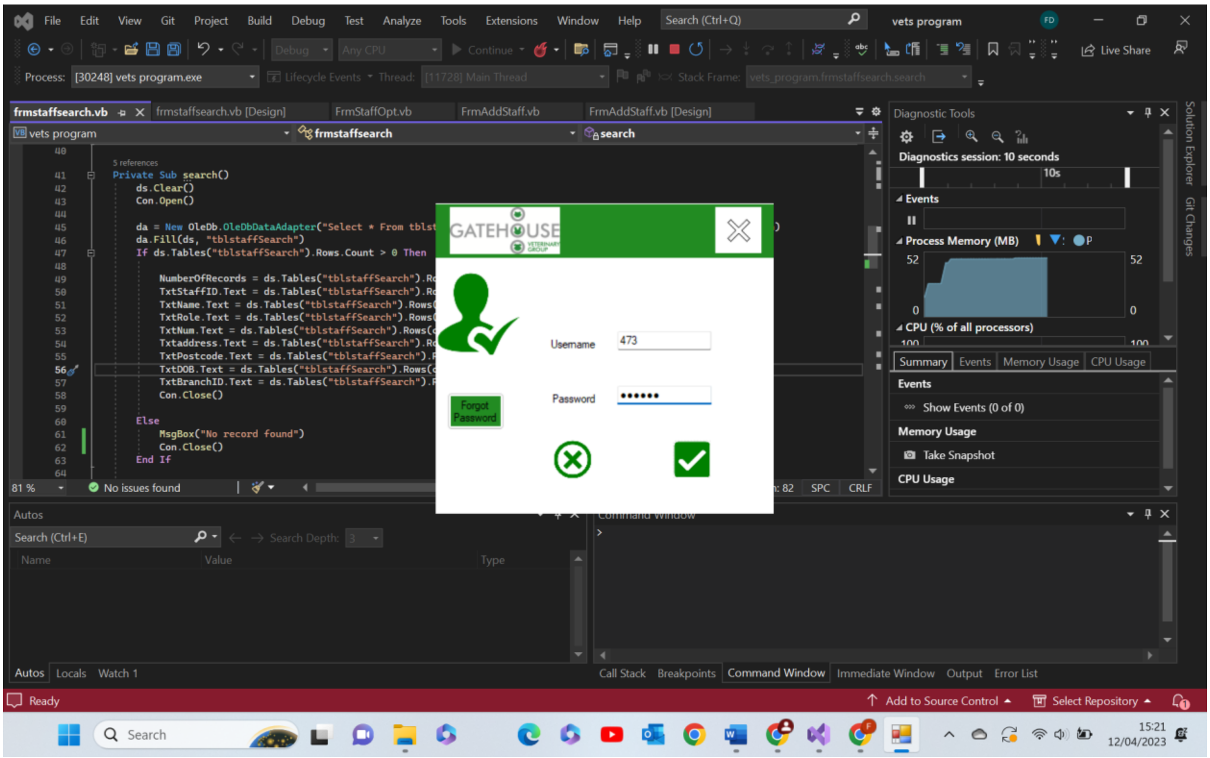
```
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * From tblst
    da.Fill(ds, "tblstaffSearch")
    If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

        NumberOfRecords = ds.Tables("tblstaffSearch").Ro
        TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
        TxtName.Text = ds.Tables("tblstaffSearch").Rows(
        TxtRole.Text = ds.Tables("tblstaffSearch").Rows(
        TxtNum.Text = ds.Tables("tblstaffSearch").Rows(
        Txtaddress.Text = ds.Tables("tblstaffSearch").Ro
        TxtPostcode.Text = ds.Tables("tblstaffSearch").R
        TxtDOB.Text = ds.Tables("tblstaffSearch").Rows(
        TxtBranchID.Text = ds.Tables("tblstaffSearch").R
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If
```

Username

Password

Test 1.7 comments- when the large green cross picture box is selected the text boxes are set = "" and so become void of data. This is for ease of use for the user. This works as expected so Pass

1.8-



Process: [30248] vets program.exe

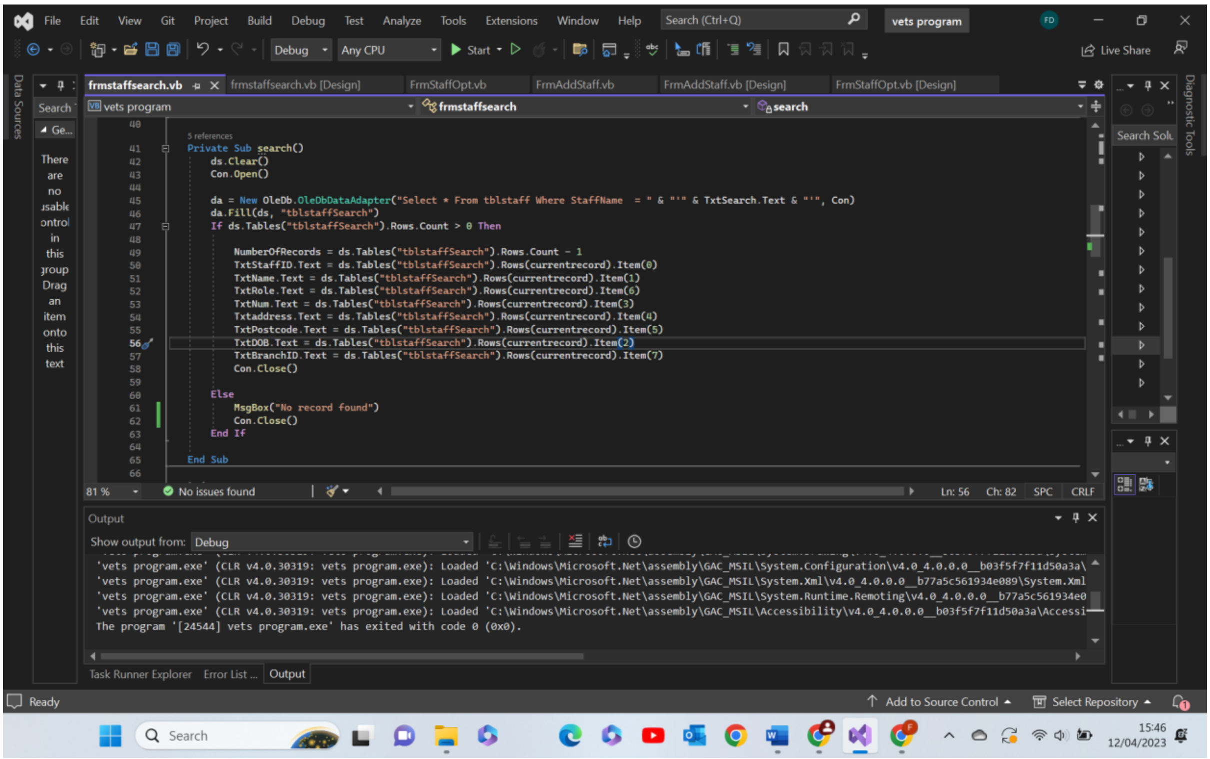
Thread: [11728] Main Thread

Diagnostics session: 10 seconds

```
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * From tblst
    da.Fill(ds, "tblstaffSearch")
    If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

        NumberOfRecords = ds.Tables("tblstaffSearch").Ro
        TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
        TxtName.Text = ds.Tables("tblstaffSearch").Rows(
        TxtRole.Text = ds.Tables("tblstaffSearch").Rows(
        TxtNum.Text = ds.Tables("tblstaffSearch").Rows(c
        Txtaddress.Text = ds.Tables("tblstaffSearch").Ro
        TxtPostcode.Text = ds.Tables("tblstaffSearch").R
        TxtDOB.Text = ds.Tables("tblstaffSearch").Rows(c
        TxtBranchID.Text = ds.Tables("tblstaffSearch").R
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If
```

Username 473

Password ••••••



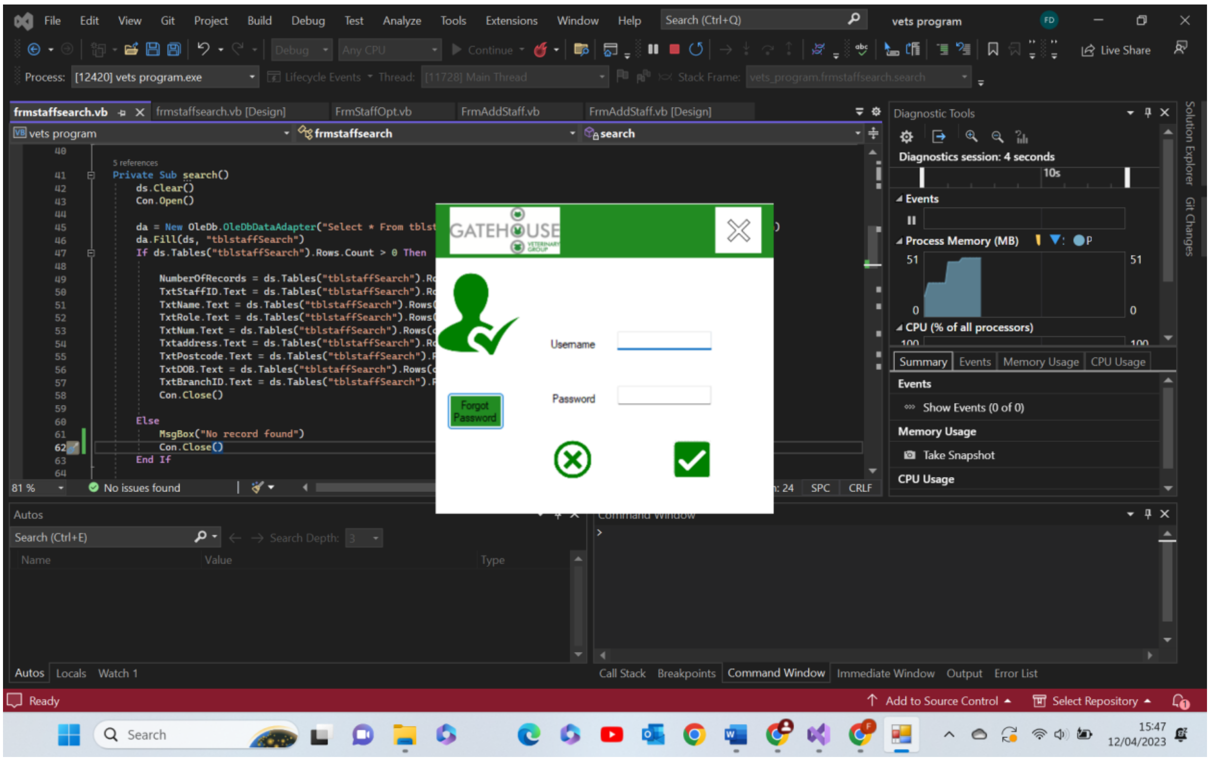
```
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * From tblstaff Where StaffName  = " & "'" & TxtSearch.Text & "'", Con)
    da.Fill(ds, "tblstaffSearch")
    If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

        NumberOfRecords = ds.Tables("tblstaffSearch").Rows.Count - 1
        TxtStaffID.Text = ds.Tables("tblstaffSearch").Rows(currentrecord).Item(0)
        TxtName.Text = ds.Tables("tblstaffSearch").Rows(currentrecord).Item(1)
        TxtRole.Text = ds.Tables("tblstaffSearch").Rows(currentrecord).Item(6)
        TxtNum.Text = ds.Tables("tblstaffSearch").Rows(currentrecord).Item(3)
        Txtaddress.Text = ds.Tables("tblstaffSearch").Rows(currentrecord).Item(4)
        TxtPostcode.Text = ds.Tables("tblstaffSearch").Rows(currentrecord).Item(5)
        TxtDOB.Text = ds.Tables("tblstaffSearch").Rows(currentrecord).Item(2)
        TxtBranchID.Text = ds.Tables("tblstaffSearch").Rows(currentrecord).Item(7)
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If

End Sub
```

Show output from: Debug

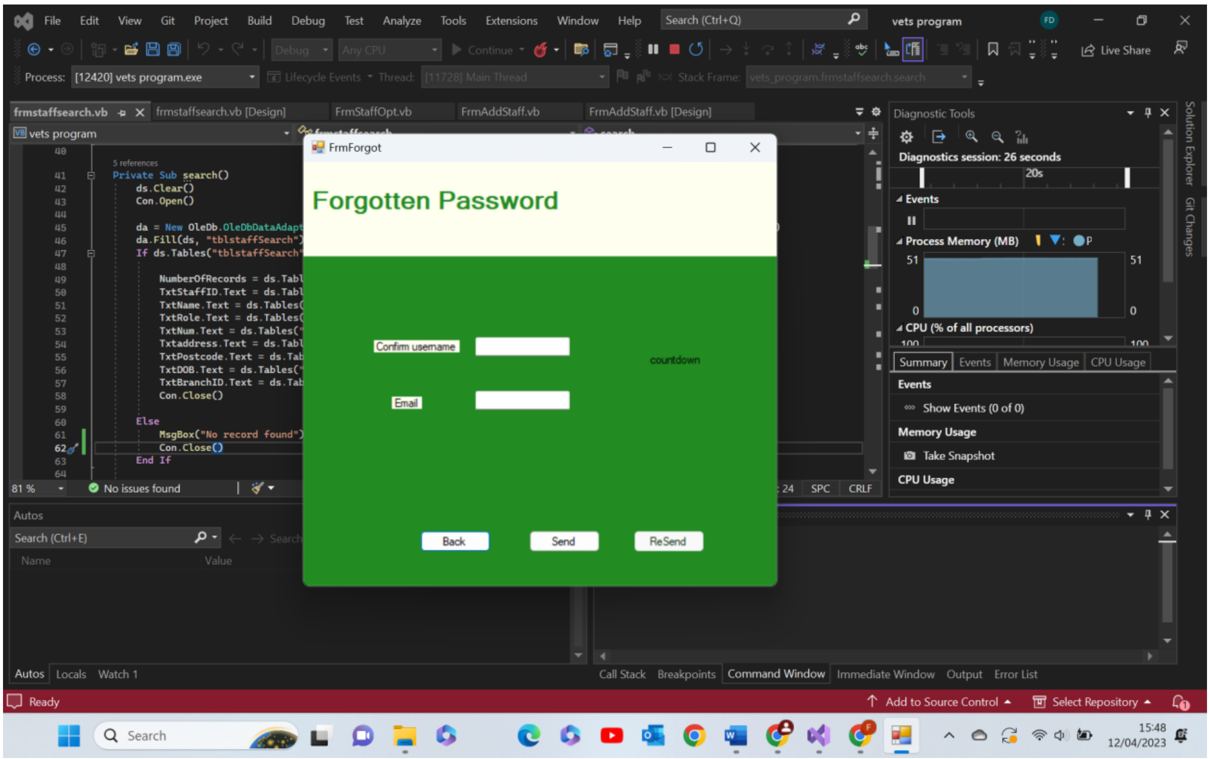
```
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_MSIL\System.Configuration\v4.0_4.0.0.0__b03f5f7f11d50a3a\
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_MSIL\System.Xml\v4.0_4.0.0.0__b77a5c561934e089\System.Xml
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_MSIL\System.Runtime.Remoting\v4.0_4.0.0.0__b77a5c561934e0
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_MSIL\Accessibility\v4.0_4.0.0.0__b03f5f7f11d50a3a\Accessi
The program '[24544] vets program.exe' has exited with code 0 (0x0).
```

Test 1.8 comments- when the white and black cross in the top right corner is selected the program shuts itself down again aimed for ease of use for user. This is as expected. Pass

1.9-



```
5 references
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * From tblst
    da.Fill(ds, "tblstaffSearch")
    If ds.Tables("tblstaffSearch").Rows.Count > 0 Then

        NumberOfRecords = ds.Tables("tblstaffSearch").Ro
        TxtStaffID.Text = ds.Tables("tblstaffSearch").Ro
        TxtName.Text = ds.Tables("tblstaffSearch").Rows(
        TxtRole.Text = ds.Tables("tblstaffSearch").Rows(
        TxtNum.Text = ds.Tables("tblstaffSearch").Rows(c
        Txtaddress.Text = ds.Tables("tblstaffSearch").Ro
        TxtPostcode.Text = ds.Tables("tblstaffSearch").R
        TxtDOB.Text = ds.Tables("tblstaffSearch").Rows(c
        TxtBranchID.Text = ds.Tables("tblstaffSearch").R
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If
```



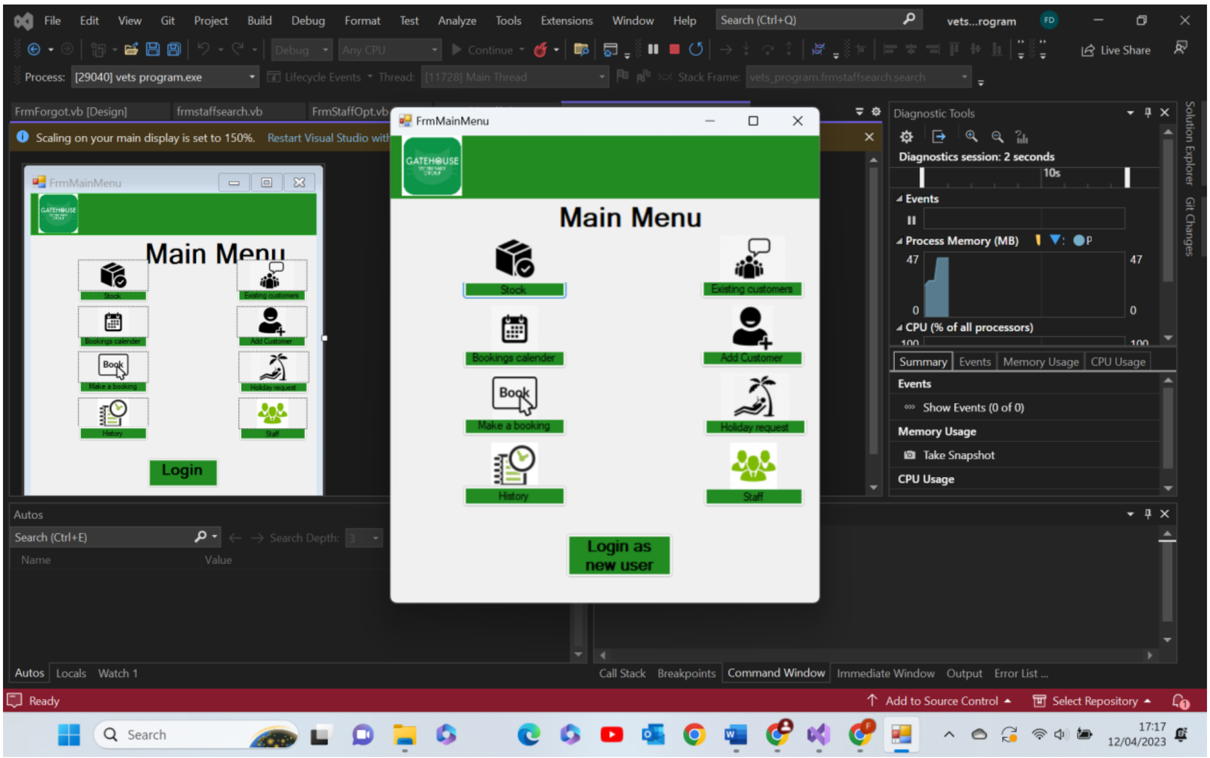
Test 1.9 comments- when the forgot password button is pressed the login form closes and the forgot password page appears. This is especially useful as it's the only button with any meaningful use available after the login textboxes become read only. This performs as expected. Pass

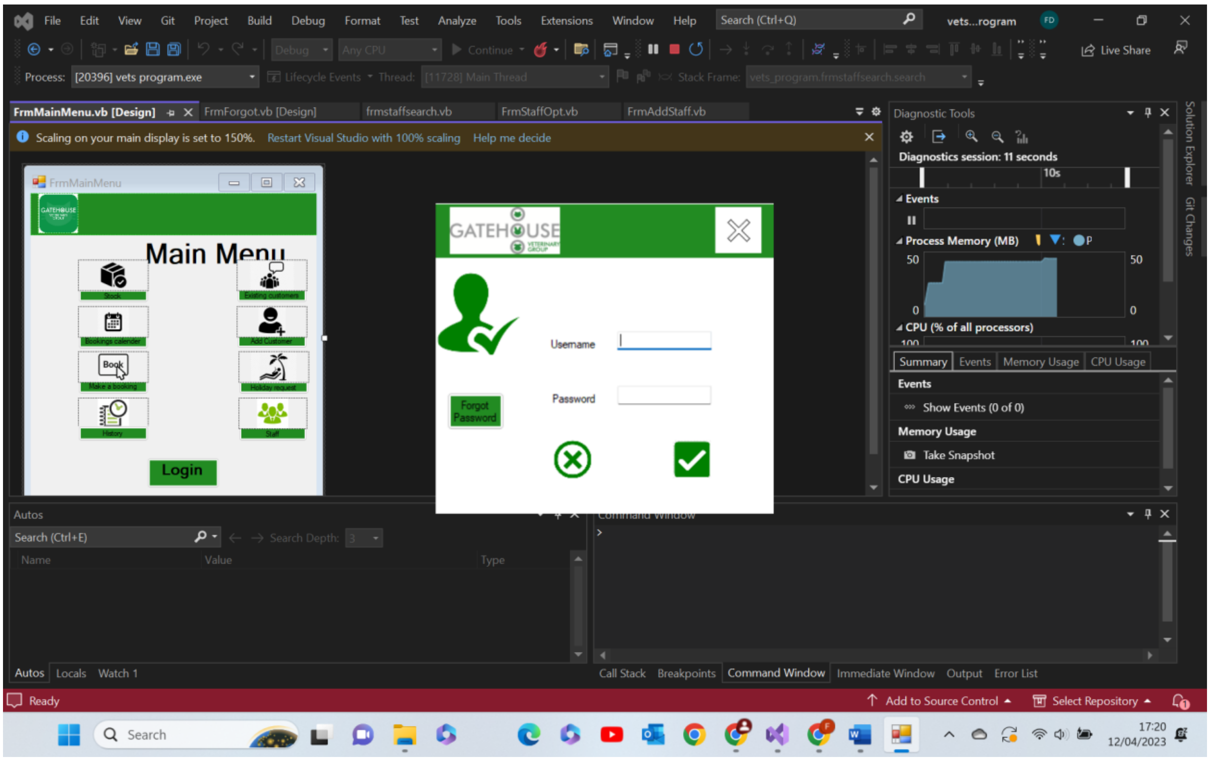
Test Group 2- Main Menu Page:

Test number	Test data used	Actual outcome	verdict	Comments

1	N/A Functional test	Expected outcome	Pass	N/A
2	N/A Functional test	Expected outcome	Pass	N/A
3	N/A Functional test	Expected outcome	Pass	N/A
4	N/A Functional test	Expected outcome	Pass	N/A

2.1-



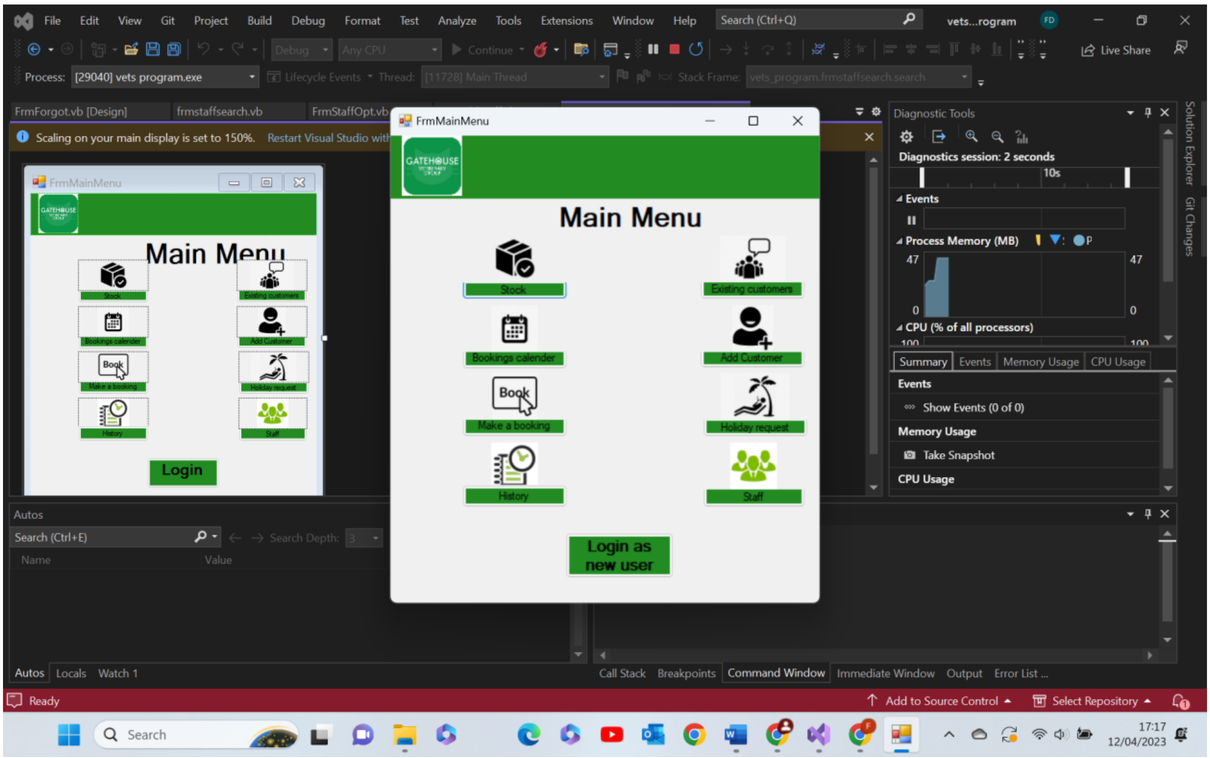


Process: [20396] vets program.exe

Scaling on your main display is set to 150%. Restart Visual Studio with 100% scaling Help me decide

Diagnostics session: 11 seconds

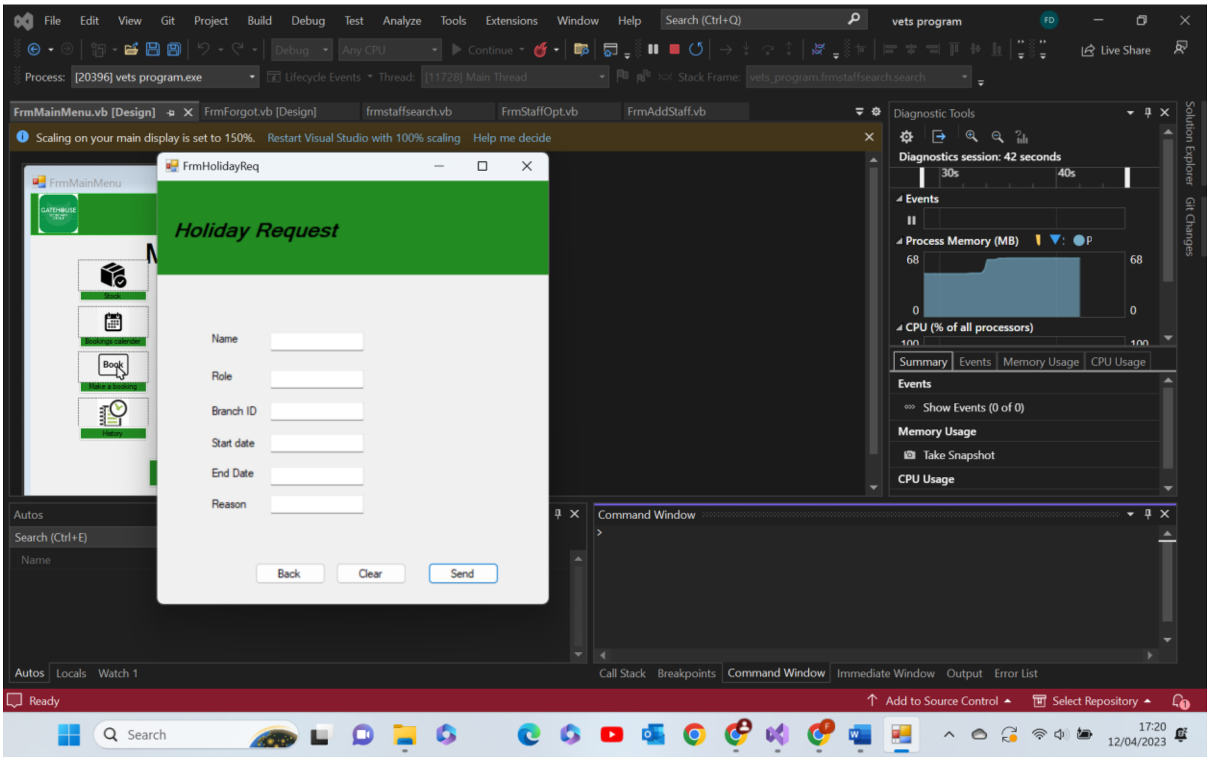
2.2-



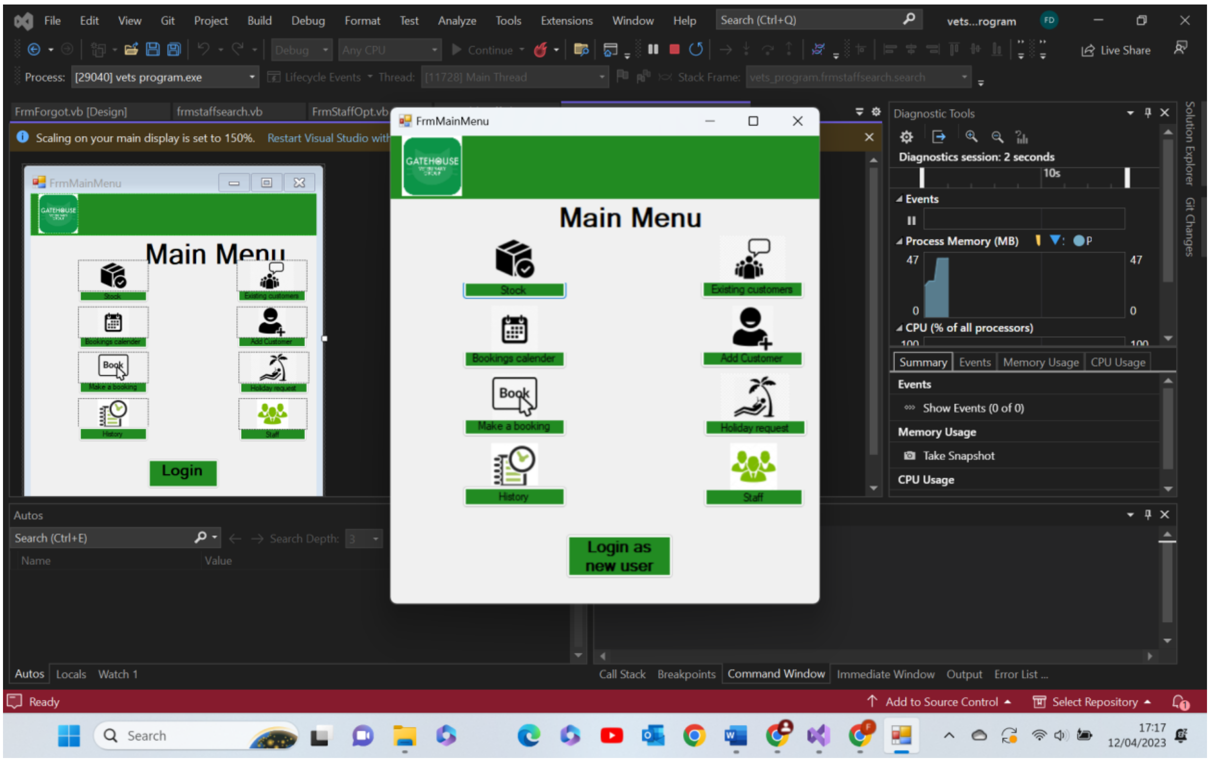
Process: [29040] vets program.exe

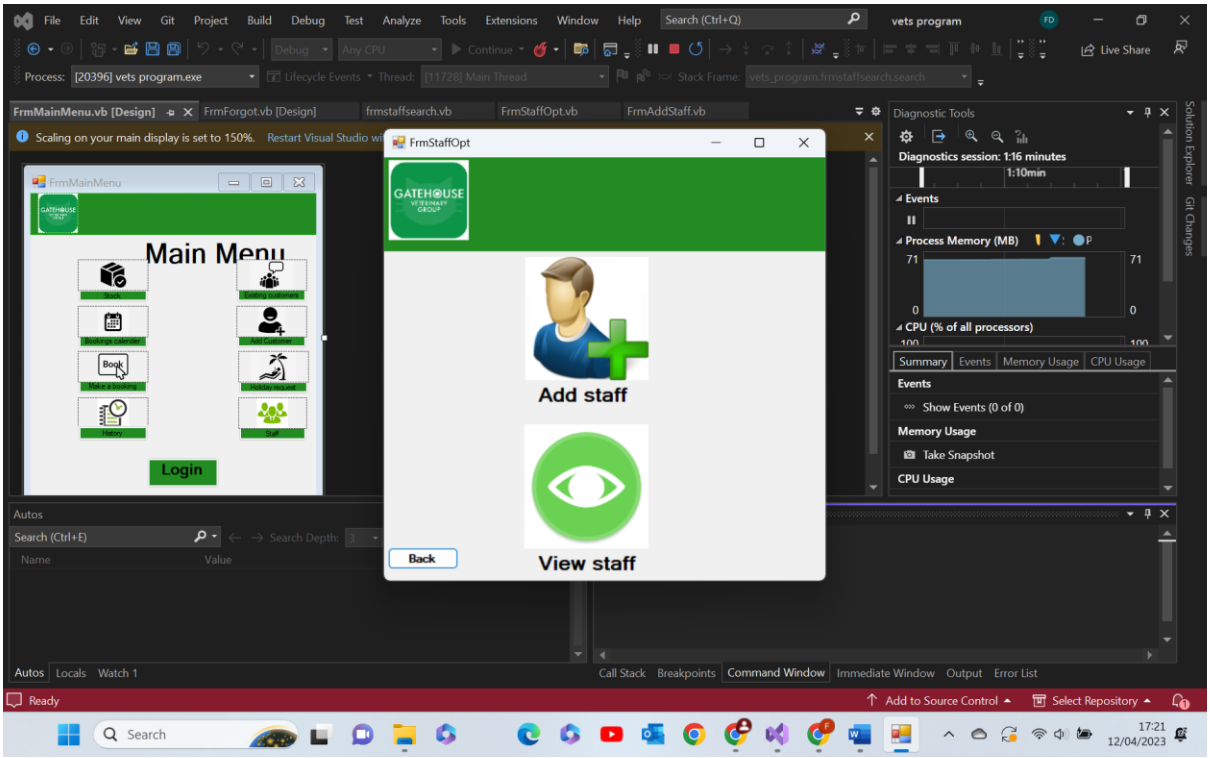
Scaling on your main display is set to 150%. Restart Visual Studio with

Diagnostics session: 2 seconds


File
Edit
View
Git
Project
Build
Debug
Test
Analyze
Tools
Extensions
Window
Help
Search (Ctrl+Q)
vets program
Live Share
Process: [20396] vets program.exe
Lifecycle Events
Thread: [11728] Main Thread
Stack Frame: vets_program.frmstaffsearch.search
FrmMainMenu.vb [Design]
FrmForgot.vb [Design]
frmstaffsearch.vb
FrmStaffOpt.vb
FrmAddStaff.vb
Scaling on your main display is set to 150%.
Restart Visual Studio with 100% scaling
Help me decide
FrmHolidayReq
Holiday Request
Name
Role
Branch ID
Start date
End Date
Reason
Back
Clear
Send
FrmMainMenu
Diagnostic Tools
Diagnostics session: 42 seconds
30s
40s
Events
Process Memory (MB)
68
0
CPU (% of all processors)
Summary
Events
Memory Usage
CPU Usage
Show Events (0 of 0)
Take Snapshot
Command Window
Autos
Search (Ctrl+E)
Name
Locals
Watch 1
Call Stack
Breakpoints
Immediate Window
Output
Error List
Ready
Add to Source Control
Select Repository
Search
17:20
12/04/2023

2.3-


File
Edit
View
Git
Project
Build
Debug
Format
Test
Analyze
Tools
Extensions
Window
Help
Search (Ctrl+Q)
vets...rogram
Live Share
Process: [29040] vets program.exe
Lifecycle Events
Thread: [11728] Main Thread
Stack Frame: vets_program.frmstaffsearch.search
FrmForgot.vb [Design]
frmstaffsearch.vb
FrmStaffOpt.vb
Scaling on your main display is set to 150%.
Restart Visual Studio wit
FrmMainMenu
Main Menu
Stock
Existing customers
Bookings calender
Add Customer
Make a booking
Holiday request
History
Staff
Login as new user
Login
Diagnostic Tools
Diagnostics session: 2 seconds
10s
Events
Process Memory (MB)
47
0
CPU (% of all processors)
Summary
Events
Memory Usage
CPU Usage
Show Events (0 of 0)
Take Snapshot
Autos
Search (Ctrl+E)
Search Depth: 3
Name
Value
Locals
Watch 1
Call Stack
Breakpoints
Command Window
Immediate Window
Output
Error List ...
Ready
Add to Source Control
Select Repository
Search
17:17
12/04/2023

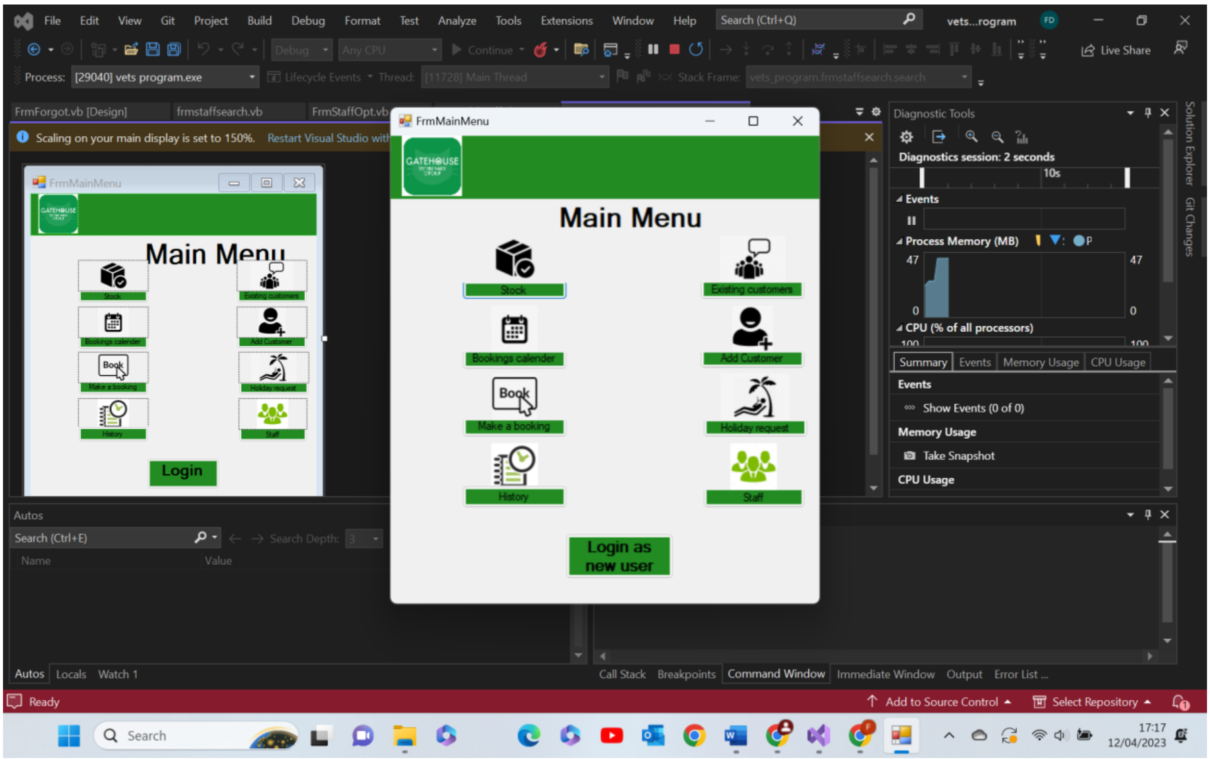


Scaling on your main display is set to 150%. Restart Visual Studio wi

Process: [20396] vets program.exe

Diagnostics session: 1:16 minutes

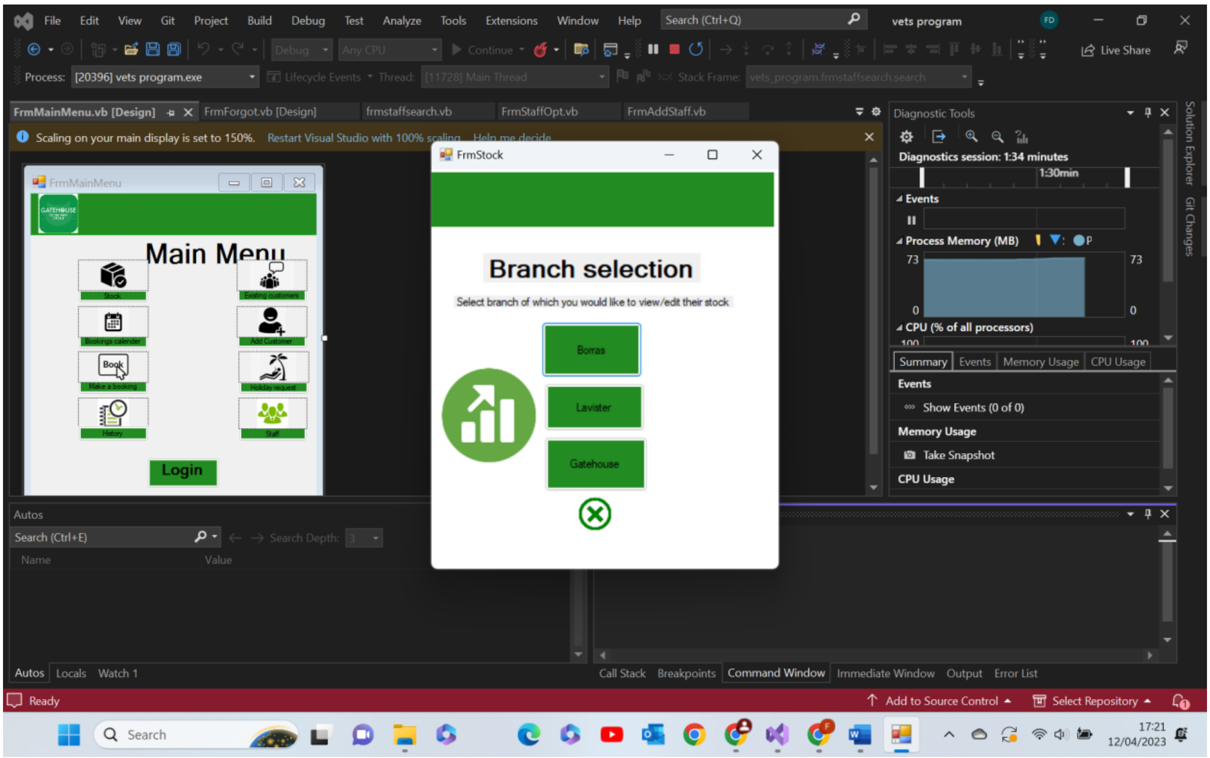
2.4-



Scaling on your main display is set to 150%. Restart Visual Studio wit

Process: [29040] vets program.exe

Diagnostics session: 2 seconds


Scaling on your main display is set to 150%. Restart Visual Studio with 100% scaling Help me decide

Branch selection

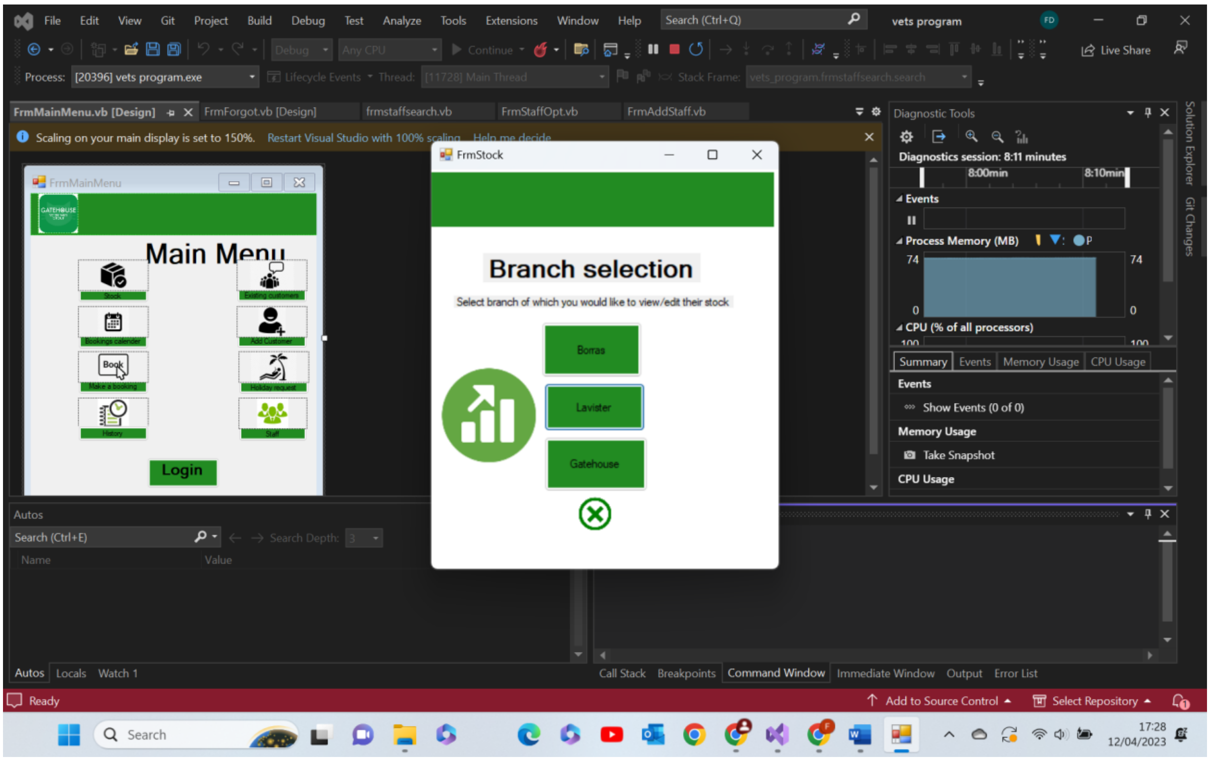
Select branch of which you would like to view/edit their stock

Test group 2 all encompassing comments- as shown above all forms and functions within said forms acted exactly as expected, the main menu page was closed and the form linked with the button was shown. As this works for 4 out of then 9 buttons this tests validity is maintained and we can fairly assume that these functional tests were a success and all worked. Pass

Test Group 3- Stock Selection Page

Test number	Test Data	Actual outcome	Verdict	Comment
1	N/A Functional test	Form closed proceeded by main menu form opening	Pass	N/A
2	N/A Functional test	Form closed proceeded by lavister stock form opening	Pass	N/A

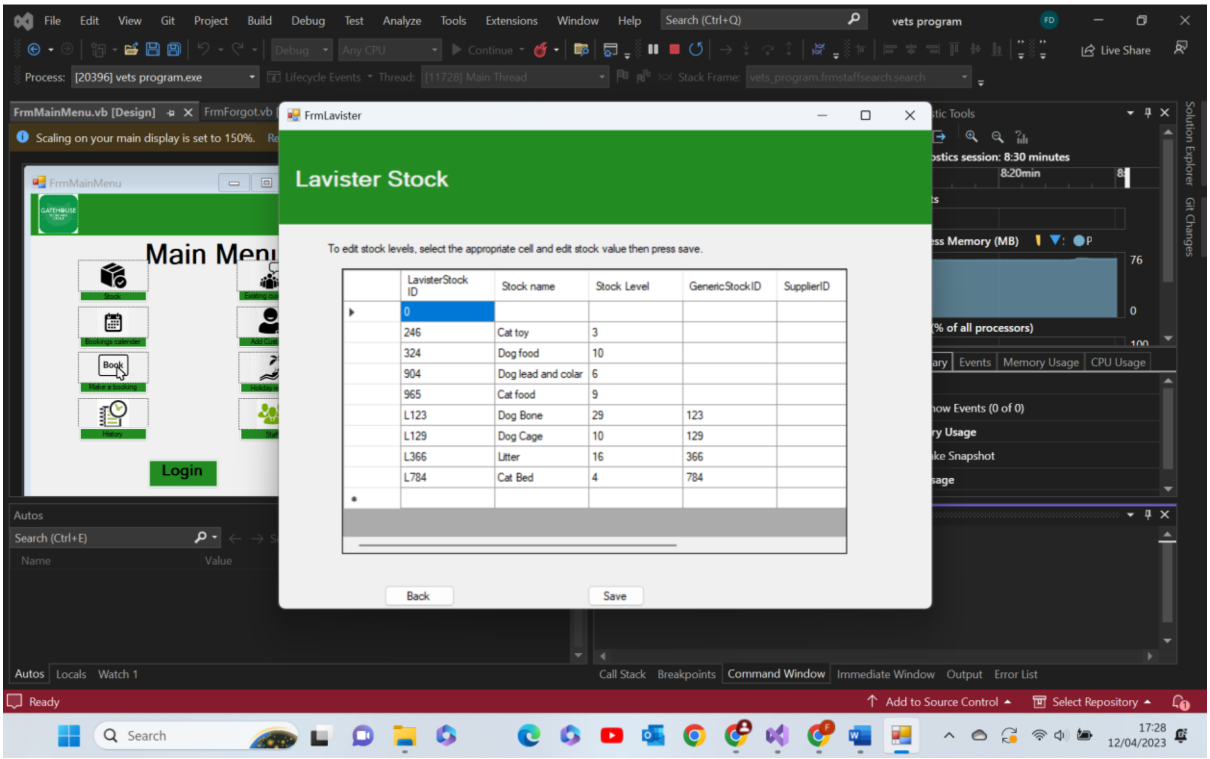
3.1-



FrmStock

Branch selection

Select branch of which you would like to view/edit their stock



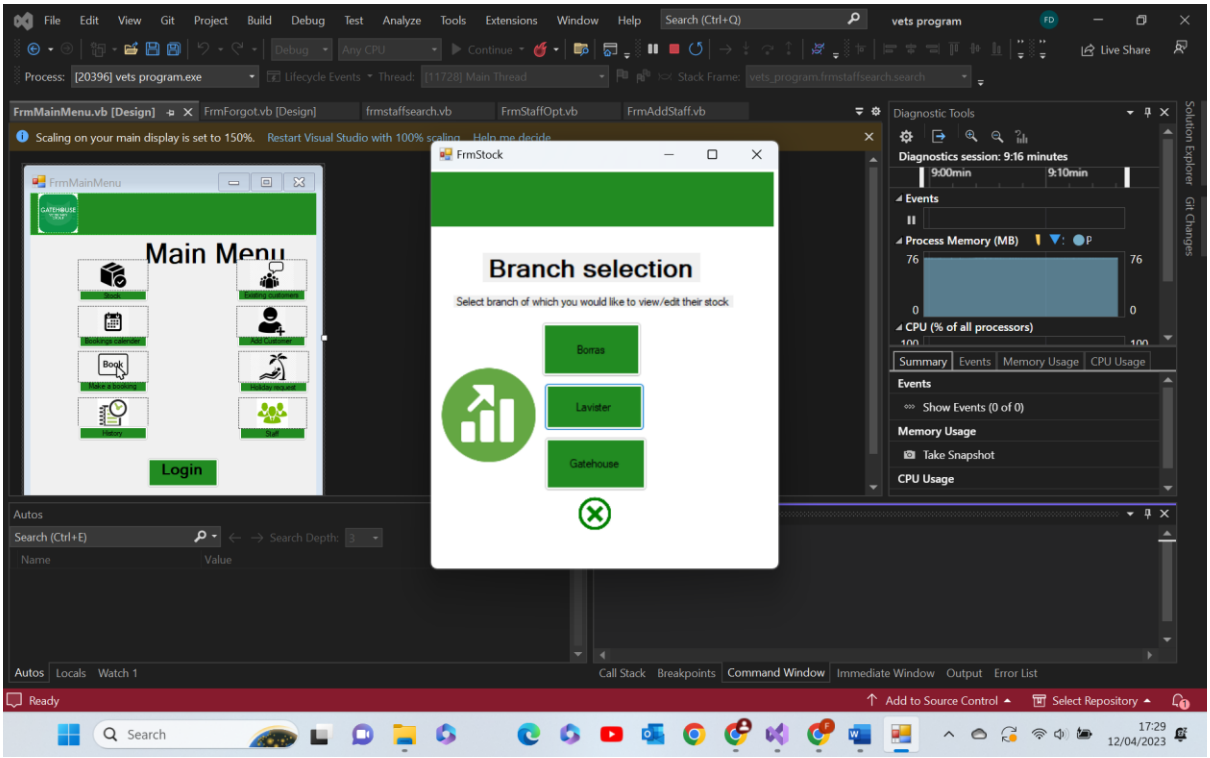
FrmLavister

Lavister Stock

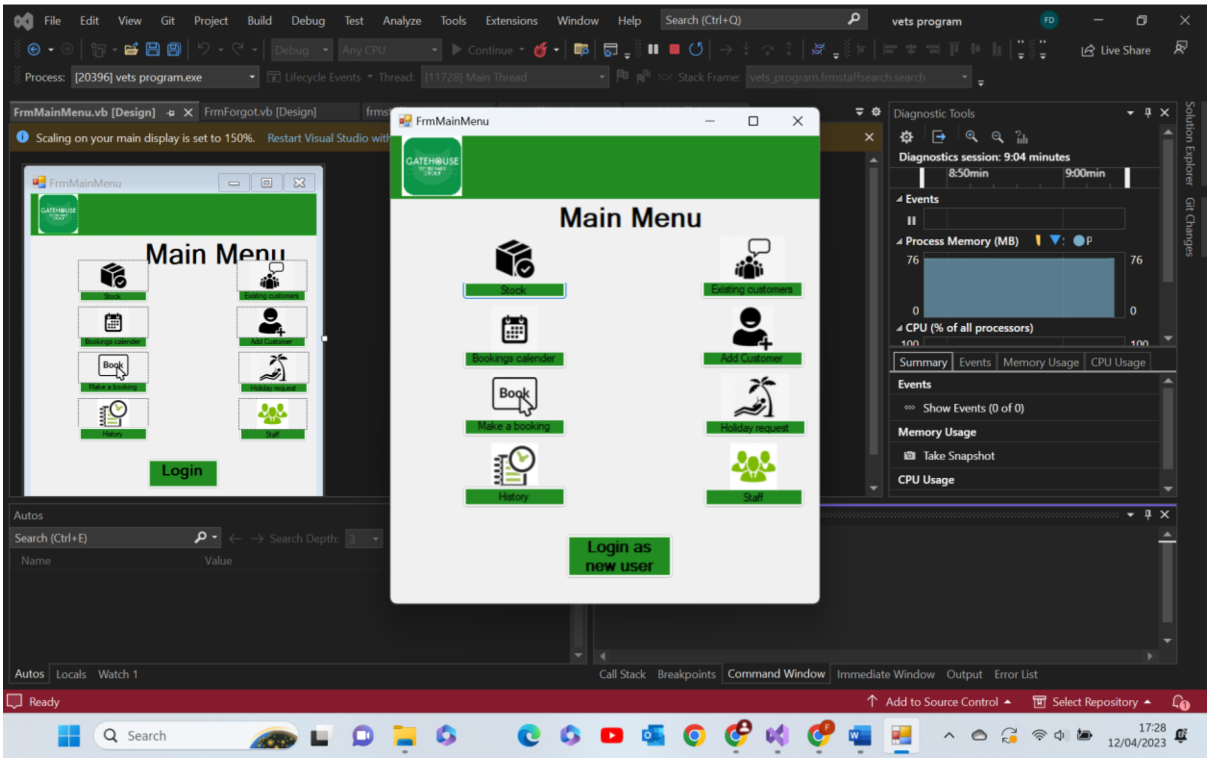
To edit stock levels, select the appropriate cell and edit stock value then press save.

	LavisterStock ID	Stock name	Stock Level	GenericStockID	SupplierID
▸	0				
	246	Cat toy	3		
	324	Dog food	10		
	904	Dog lead and colar	6		
	965	Cat food	9		
	L123	Dog Bone	29	123	
	L129	Dog Cage	10	129	
	L366	Litter	16	366	
	L784	Cat Bed	4	784	
*					

3.2-



FrmStock
Branch selection
Select branch of which you would like to view/edit their stock
Borras
Lavister
Gatehouse
Diagnostic Tools
Diagnostics session: 9:16 minutes
Ready
17:29
12/04/2023



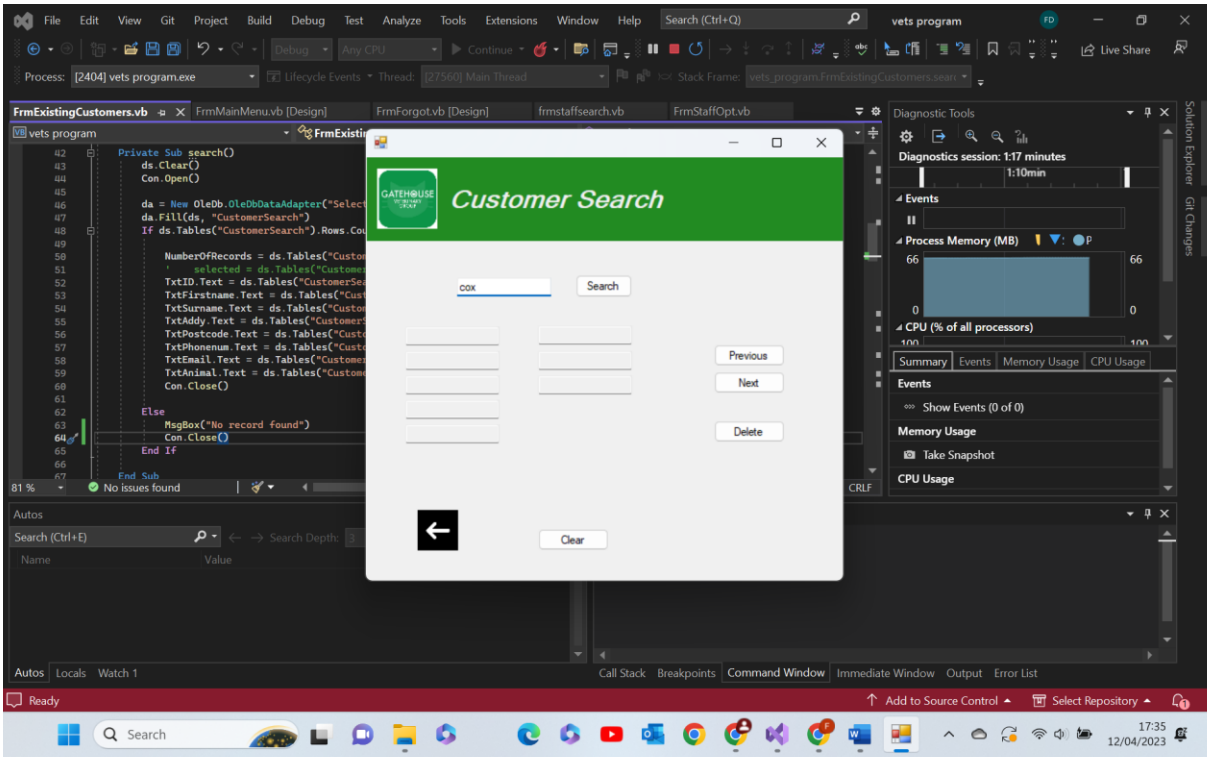
Test group 4 all-encompassing comments- as we can see above each functional test performed exactly as expected closing and opening the necessary forms. Pass

Test Group 4- Existing Customers:

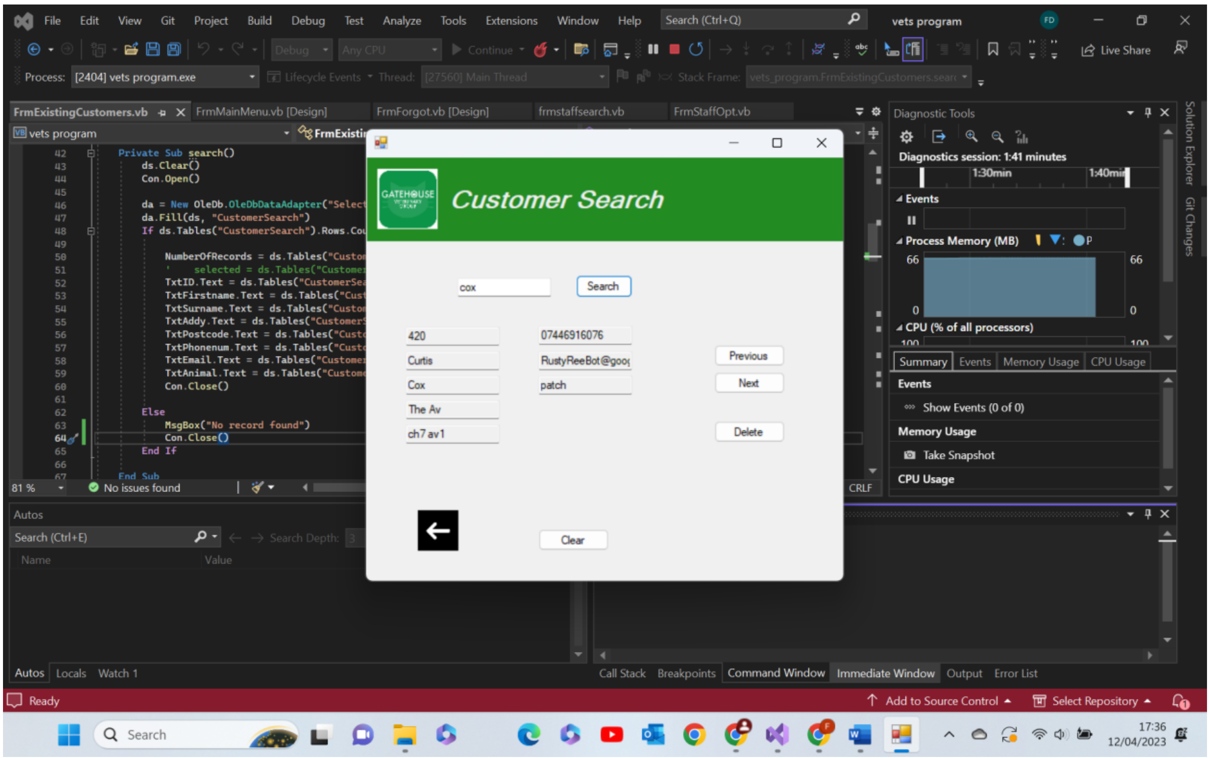
Test number	Test data	Actual outcome	Verdict	Comment
1	Valid test data type ‘Curtis Cox’ name searched	As expected, The text boxes were filled with the correlating data	Pass	N/A
2	Valid Name ‘Curtis Cox’ and ‘Dylan Cox’ used due to shared surname	Worked as expected cycling ‘forward’ through the table showing each name and information associated	Pass	Started with information on ‘Curtis Cox’ presumably due to ‘C’ being earlier alphabetically than ‘D’. May however, be a fluke result. I future could program a sort that ensures names appear and are cycled through alphabetically.
3	Valid Name ‘Curtis Cox’ and ‘Dylan Cox’ used due to shared surname	Worked as expected cycling ‘backward’ through the table showing each name and information associated	Pass	Same as above comment
4	Invalid test data type Used name ‘Cur1s C0x’	As expected a message box appeared alerting the user that the name does not appear in the database.	Pass	N/A
5	Valid	As expected a message box appears ensuring the users is certain. When ‘Ok’ is pressed the record is removed	Pass	N/A
6	Extreme	When button is pressed, the same thing happens as if there is valid data in the text boxes. Not what was expected	Fail	Not sure what if anything deletes when button is pressed. Need to add another ‘If’ statement for if there is no data in the textboxes.
7	Valid/extreme	Regardless of what was in the boxes they became clear, and remained clear if it had no data to begin with.	Pass	Could add a feature with a message box if no data is in the text boxes but I am not sure this is necessary.
8	N/A Functional test	Performs as expected	Pass	N/A

9	extreme	Performs as expected however uses same message box as was used in the invalid data type test	Pass	Could add another IF function with a different message box if no data is in it.

4.1-



```
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select
    da.Fill(ds, "CustomerSearch")
    If ds.Tables("CustomerSearch").Rows.Cou

        NumberOfRecords = ds.Tables("Custom
        '    selected = ds.Tables("Customer
        TxtID.Text = ds.Tables("CustomerSea
        TxtFirstname.Text = ds.Tables("Cust
        TxtSurname.Text = ds.Tables("Custom
        TxtAddy.Text = ds.Tables("CustomerS
        TxtPostcode.Text = ds.Tables("Custo
        TxtPhonenum.Text = ds.Tables("Custo
        TxtEmail.Text = ds.Tables("Customer
        TxtAnimal.Text = ds.Tables("Custome
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If

End Sub
```



```
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select
    da.Fill(ds, "CustomerSearch")
    If ds.Tables("CustomerSearch").Rows.Cou

        NumberOfRecords = ds.Tables("Custom
        '    selected = ds.Tables("Customer
        TxtID.Text = ds.Tables("CustomerSea
        TxtFirstname.Text = ds.Tables("Cust
        TxtSurname.Text = ds.Tables("Custom
        TxtAddy.Text = ds.Tables("CustomerS
        TxtPostcode.Text = ds.Tables("Custo
        TxtPhonenum.Text = ds.Tables("Custo
        TxtEmail.Text = ds.Tables("Customer
        TxtAnimal.Text = ds.Tables("Custome
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If

End Sub
```

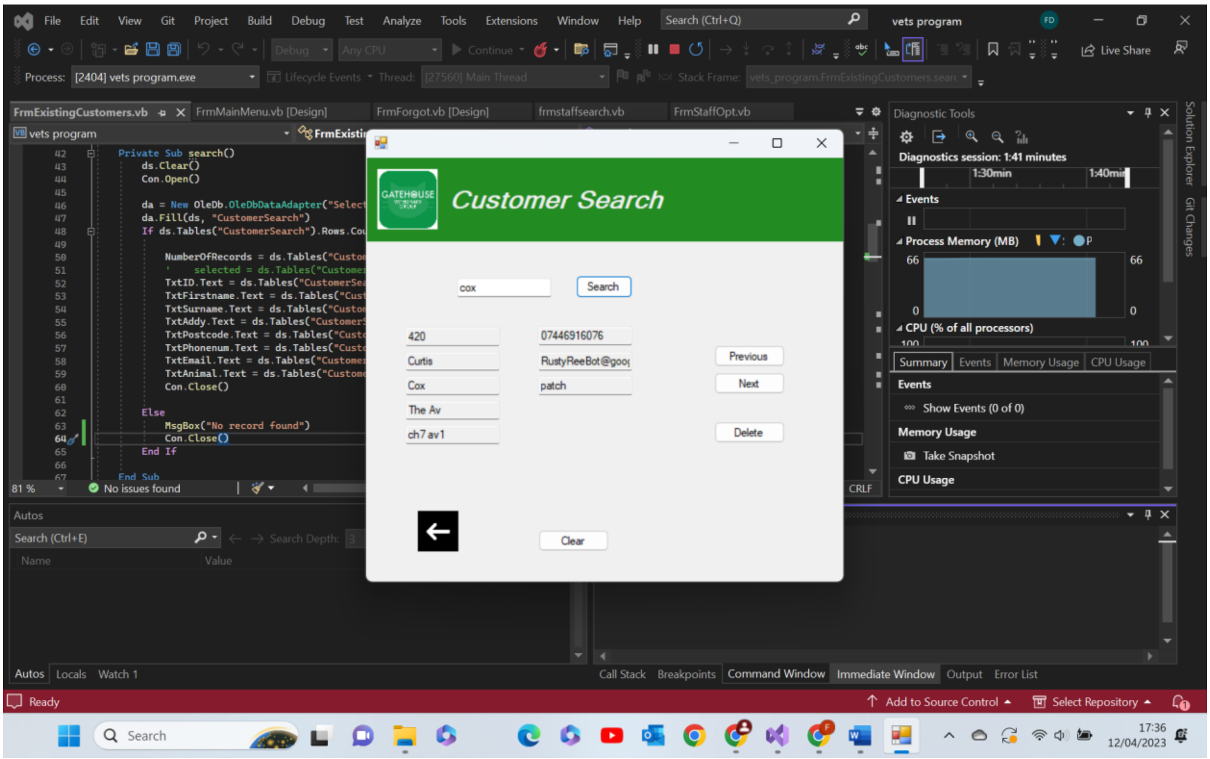
cox

420
Curtis
Cox
The Av
ch7 av1

07446916076
RustyReeBot@goo
patch

Test 4.1 comments- as shown above when a valid piece of data is searched for, such as the surname 'cox' the correlating results are shown within the text boxes. The info is checked against the database, if it exists it is then read and written into the text boxes shown. Pass

4.2-

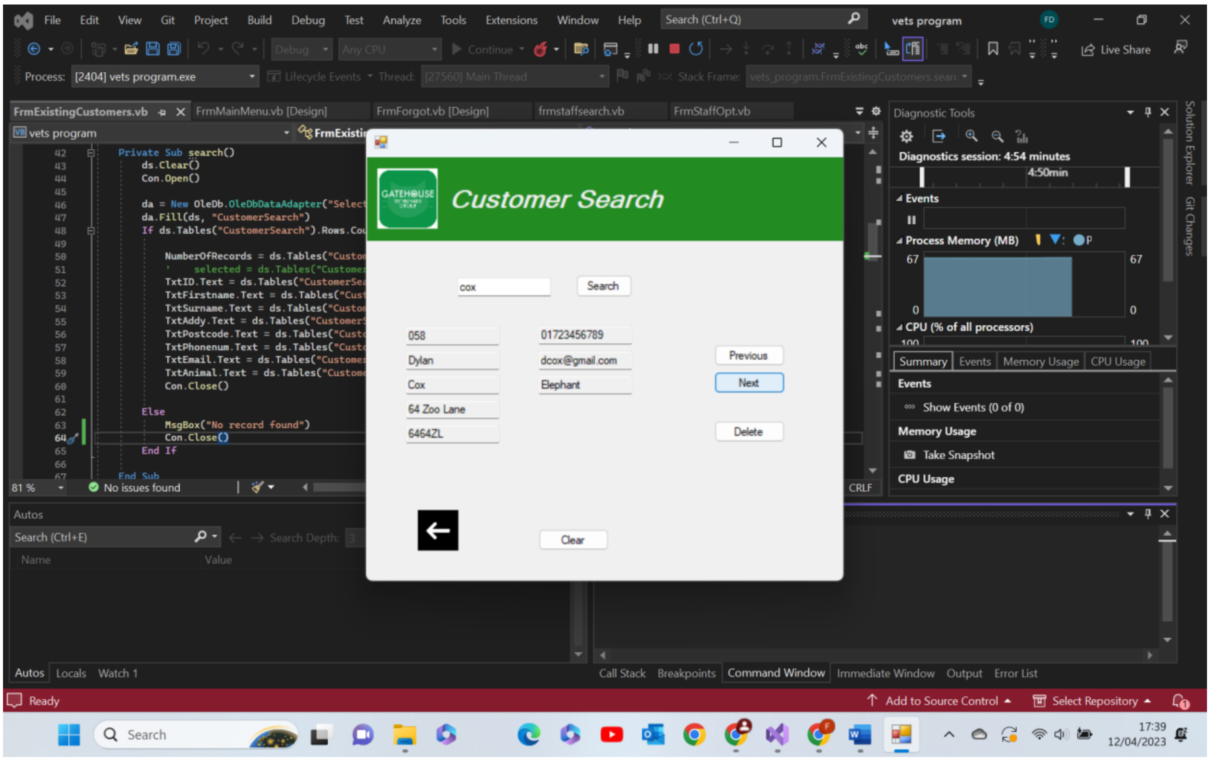


```
    Private Sub search()
        ds.Clear()
        Con.Open()

        da = New OleDb.OleDbDataAdapter("Select
        da.Fill(ds, "CustomerSearch")
        If ds.Tables("CustomerSearch").Rows.Cou

            NumberOfRecords = ds.Tables("Custom
            '    selected = ds.Tables("Customer
            TxtID.Text = ds.Tables("CustomerSea
            TxtFirstname.Text = ds.Tables("Cust
            TxtSurname.Text = ds.Tables("Custom
            TxtAddy.Text = ds.Tables("CustomerS
            TxtPostcode.Text = ds.Tables("Custo
            TxtPhonenum.Text = ds.Tables("Custo
            TxtEmail.Text = ds.Tables("Customer
            TxtAnimal.Text = ds.Tables("Custome
            Con.Close()

        Else
            MsgBox("No record found")
            Con.Close()
        End If

    End Sub
```

Customer Search

cox

420 | 07446916076
Curtis | RustyReeBot@goo(
Cox | patch
The Av
ch7 av1



```
    Private Sub search()
        ds.Clear()
        Con.Open()

        da = New OleDb.OleDbDataAdapter("Select
        da.Fill(ds, "CustomerSearch")
        If ds.Tables("CustomerSearch").Rows.Cou

            NumberOfRecords = ds.Tables("Custom
            '    selected = ds.Tables("Customer
            TxtID.Text = ds.Tables("CustomerSea
            TxtFirstname.Text = ds.Tables("Cust
            TxtSurname.Text = ds.Tables("Custom
            TxtAddy.Text = ds.Tables("CustomerS
            TxtPostcode.Text = ds.Tables("Custo
            TxtPhonenum.Text = ds.Tables("Custo
            TxtEmail.Text = ds.Tables("Customer
            TxtAnimal.Text = ds.Tables("Custome
            Con.Close()

        Else
            MsgBox("No record found")
            Con.Close()
        End If

    End Sub
```

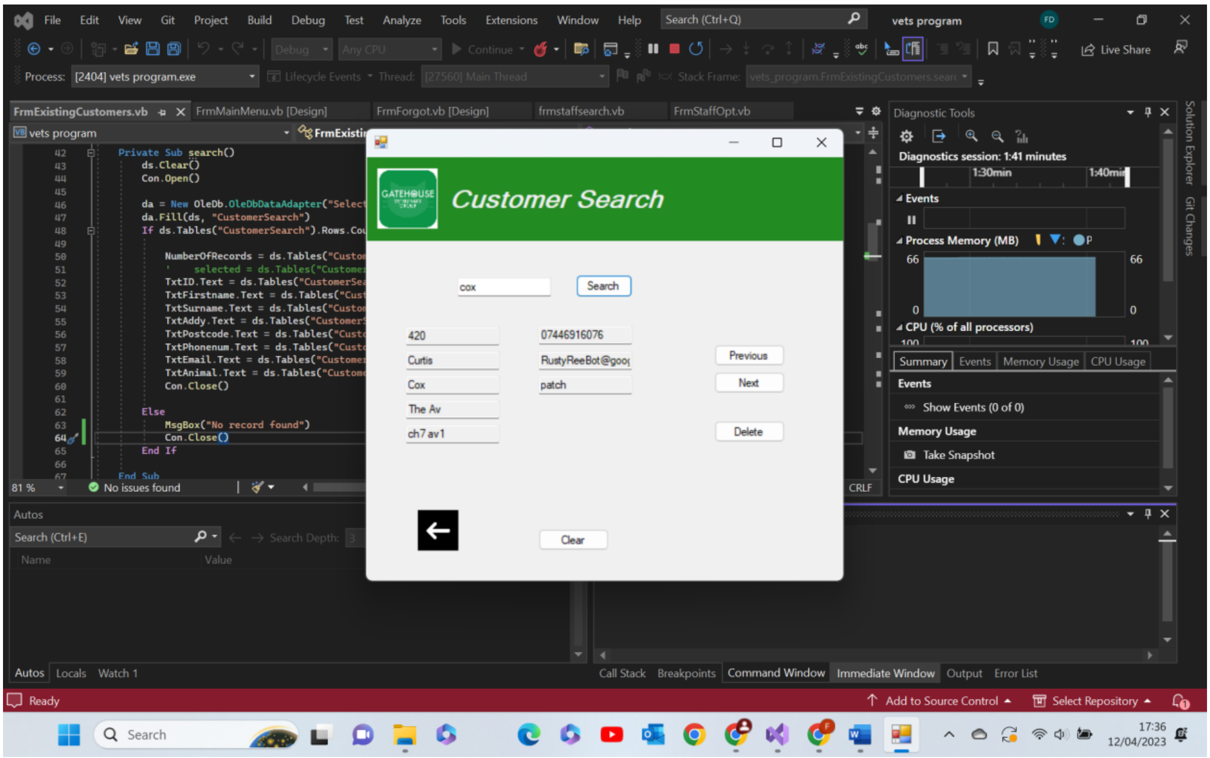
Customer Search

cox

058 | 01723456789
Dylan | dcox@gmail.com
Cox | Elephant
64 Zoo Lane
6464ZL

Test 4.2 comments- as expected the program has recognised that multiple people have the same surname in the database and the next button has allowed us to cycle through and view the other client with the same name and their details. Pass

4.3-



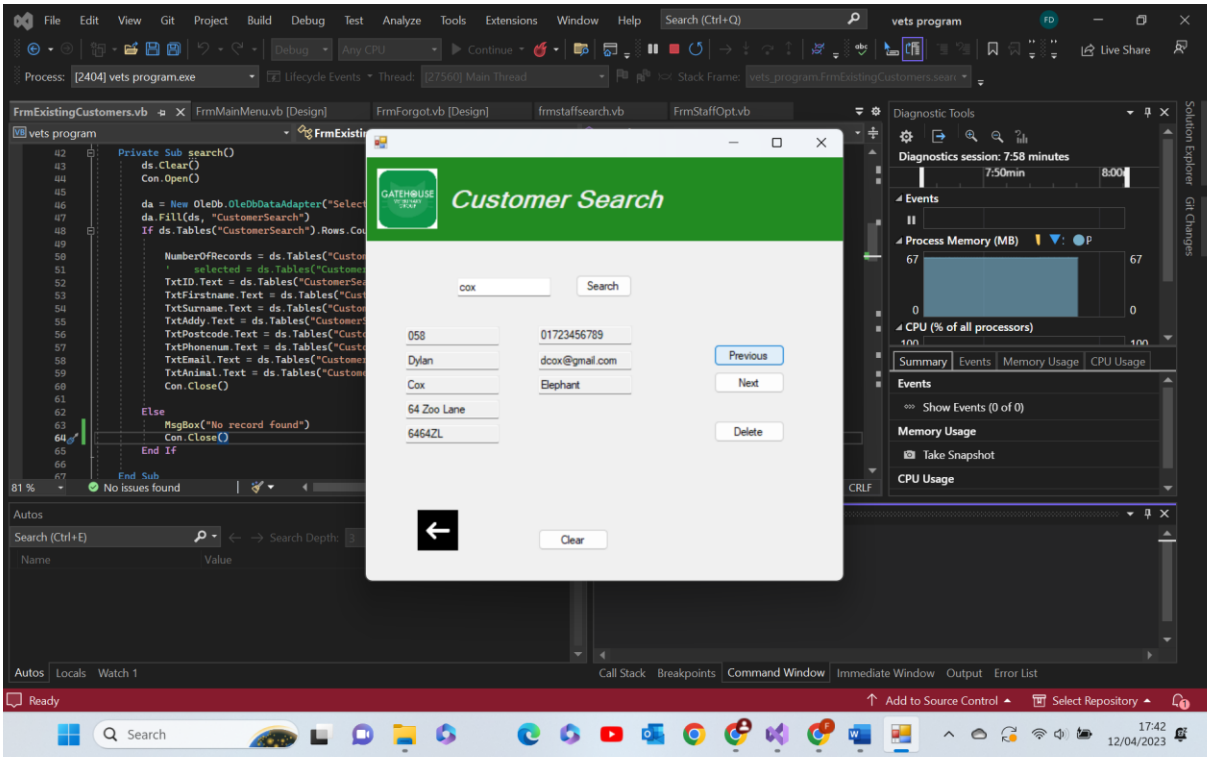
```
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select
    da.Fill(ds, "CustomerSearch")
    If ds.Tables("CustomerSearch").Rows.Cou

        NumberOfRecords = ds.Tables("Custon
        '   selected = ds.Tables("Custome
        TxtID.Text = ds.Tables("CustomerSea
        TxtFirstname.Text = ds.Tables("Cust
        TxtSurname.Text = ds.Tables("Custon
        TxtAddy.Text = ds.Tables("Customer
        TxtPostcode.Text = ds.Tables("Custo
        TxtPhonenum.Text = ds.Tables("Custo
        TxtEmail.Text = ds.Tables("Custome
        TxtAnimal.Text = ds.Tables("Custome
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If

End Sub
```

Customer Search

cox

420
Curtis
Cox
The Av
ch7 av1

07446916076
RustyReeBot@goo(
patch



```
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select
    da.Fill(ds, "CustomerSearch")
    If ds.Tables("CustomerSearch").Rows.Cou

        NumberOfRecords = ds.Tables("Custon
        '   selected = ds.Tables("Custome
        TxtID.Text = ds.Tables("CustomerSea
        TxtFirstname.Text = ds.Tables("Cust
        TxtSurname.Text = ds.Tables("Custon
        TxtAddy.Text = ds.Tables("Customer
        TxtPostcode.Text = ds.Tables("Custo
        TxtPhonenum.Text = ds.Tables("Custo
        TxtEmail.Text = ds.Tables("Custome
        TxtAnimal.Text = ds.Tables("Custome
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If

End Sub
```

Customer Search

cox

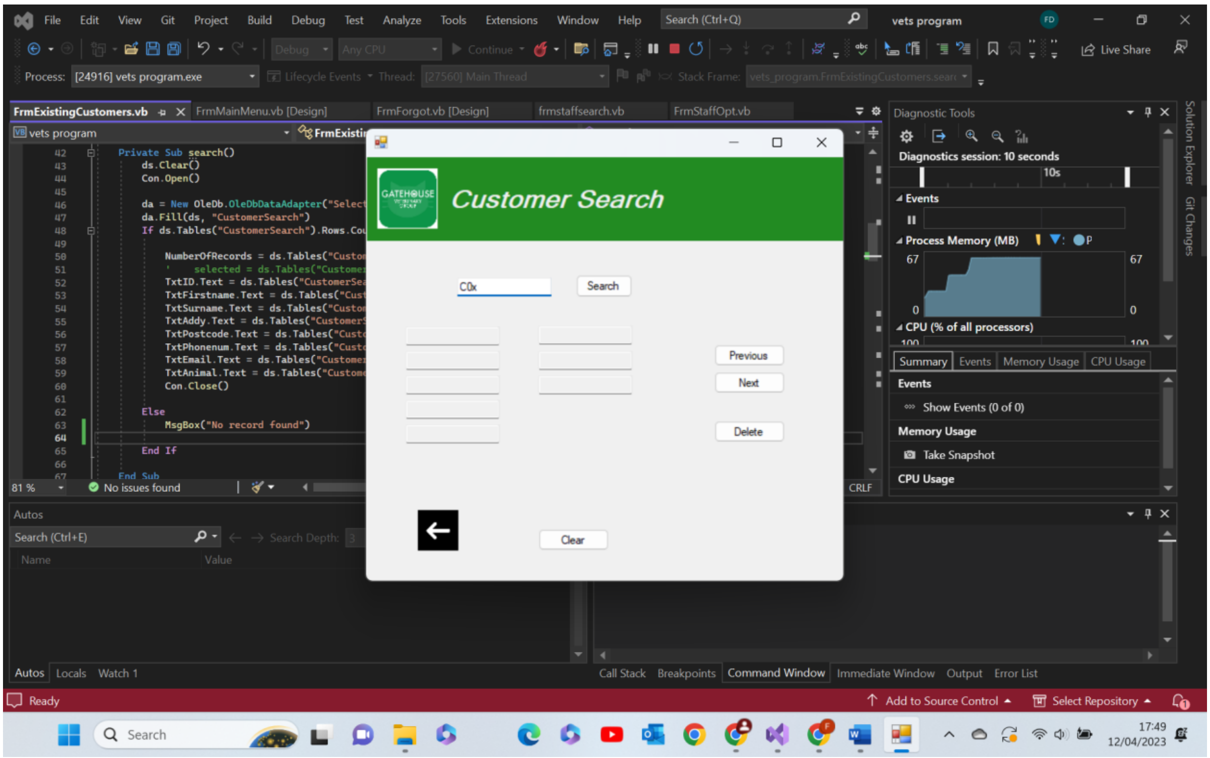
058
Dylan
Cox
64 Zoo Lane
6464ZL

01723456789
dcox@gmail.com
Elephant

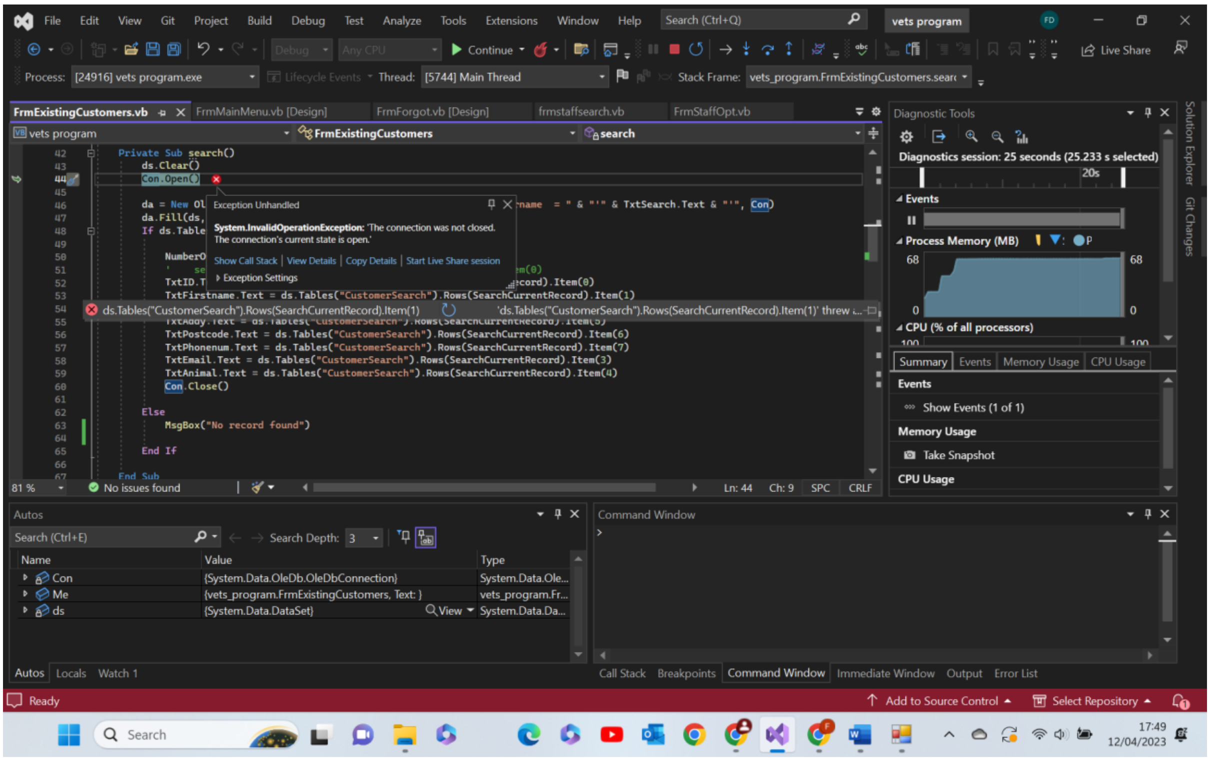
Test 4.3 comments- as expected the program has recognised that multiple people have the same surname in the database and the previous button has allowed us to cycle

through and view the other client with the same name and their details. The reason that this test appears identical to the last is because only two clients share a surname and so only two different records can be cycles through. Pass

4.4-



```
    Private Sub search()
        ds.Clear()
        Con.Open()

        da = New OleDb.OleDbDataAdapter("Select
        da.Fill(ds, "CustomerSearch")
        If ds.Tables("CustomerSearch").Rows.Cou

            NumberOfRecords = ds.Tables("Custom
            '    selected = ds.Tables("Customer
            TxtID.Text = ds.Tables("CustomerSea
            TxtFirstname.Text = ds.Tables("Cust
            TxtSurname.Text = ds.Tables("Custom
            TxtAddy.Text = ds.Tables("CustomerS
            TxtPostcode.Text = ds.Tables("Custo
            TxtPhonenum.Text = ds.Tables("Custo
            TxtEmail.Text = ds.Tables("Customer
            TxtAnimal.Text = ds.Tables("Custome
            Con.Close()

        Else
            MsgBox("No record found")

        End If

    End Sub
```



Diagnostics session: 25 seconds (25.233 s selected)
Process: [24916] vets program.exe
Thread: [5744] Main Thread
Stack Frame: vets_program.FrmExistingCustomers.searc
FrmExistingCustomers.vb
No issues found
Ln: 44 Ch: 9 SPC CRLF

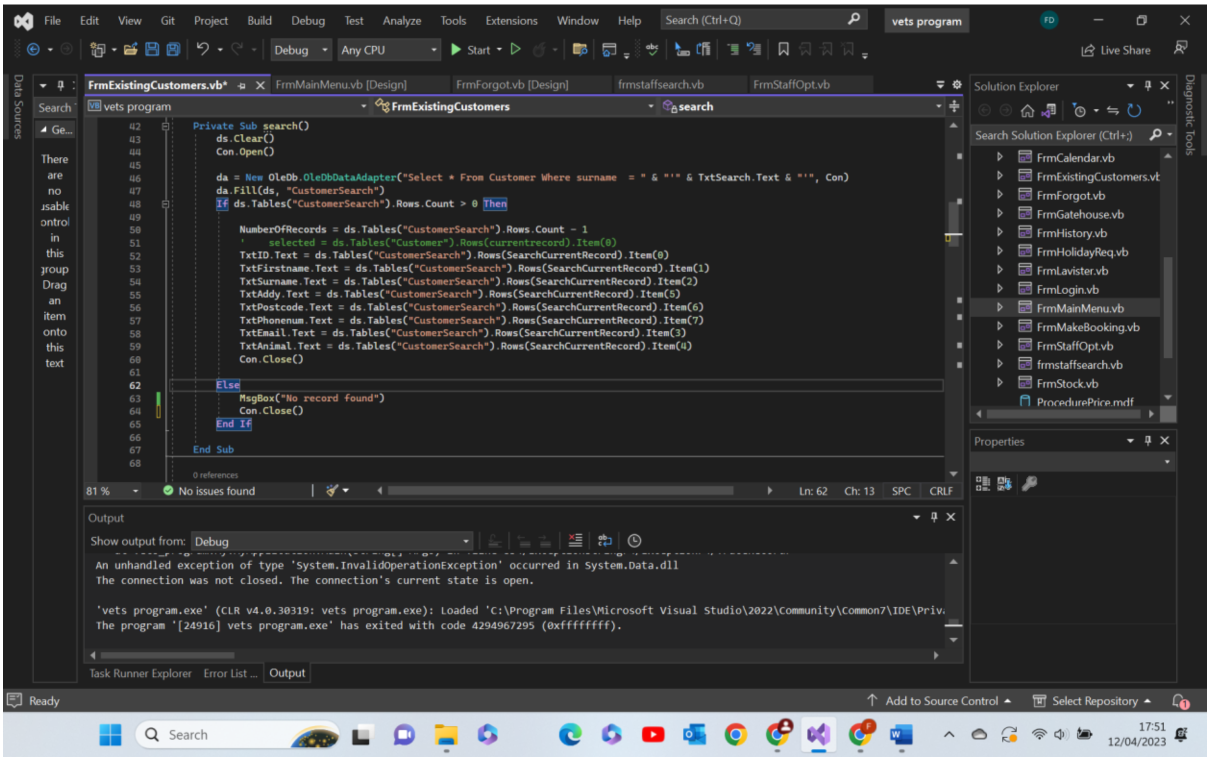
```
    Private Sub search()
        ds.Clear()
        Con.Open()

        da = New Ol                                   rname  = " & "'" & TxtSearch.Text & "'", Con)
        da.Fill(ds,
        If ds.Table

            NumberO                                   em(0)
            '    se
            TxtID.T                                   ecord).Item(0)
            TxtFirstname.Text = ds.Tables("CustomerSearch").Rows(SearchCurrentRecord).Item(1)
            TxtAddy.Text = ds.Tables("CustomerSearch").Rows(SearchCurrentRecord).Item(5)
            TxtPostcode.Text = ds.Tables("CustomerSearch").Rows(SearchCurrentRecord).Item(6)
            TxtPhonenum.Text = ds.Tables("CustomerSearch").Rows(SearchCurrentRecord).Item(7)
            TxtEmail.Text = ds.Tables("CustomerSearch").Rows(SearchCurrentRecord).Item(3)
            TxtAnimal.Text = ds.Tables("CustomerSearch").Rows(SearchCurrentRecord).Item(4)
            Con.Close()

        Else
            MsgBox("No record found")

        End If

    End Sub
```

```
Exception Unhandled

System.InvalidOperationException: 'The connection was not closed.
The connection's current state is open.'

Show Call Stack | View Details | Copy Details | Start Live Share session
Exception Settings
```

```
ds.Tables("CustomerSearch").Rows(SearchCurrentRecord).Item(1)    'ds.Tables("CustomerSearch").Rows(SearchCurrentRecord).Item(1)' threw ...
```

Name	Value	Type
Con	{System.Data.OleDb.OleDbConnection}	System.Data.Ole...
Me	{vets_program.FrmExistingCustomers, Text: }	vets_program.Fr...
ds	{System.Data.DataSet}	System.Data.Da...

This test has failed however since it is a quick fix I shall repair it.

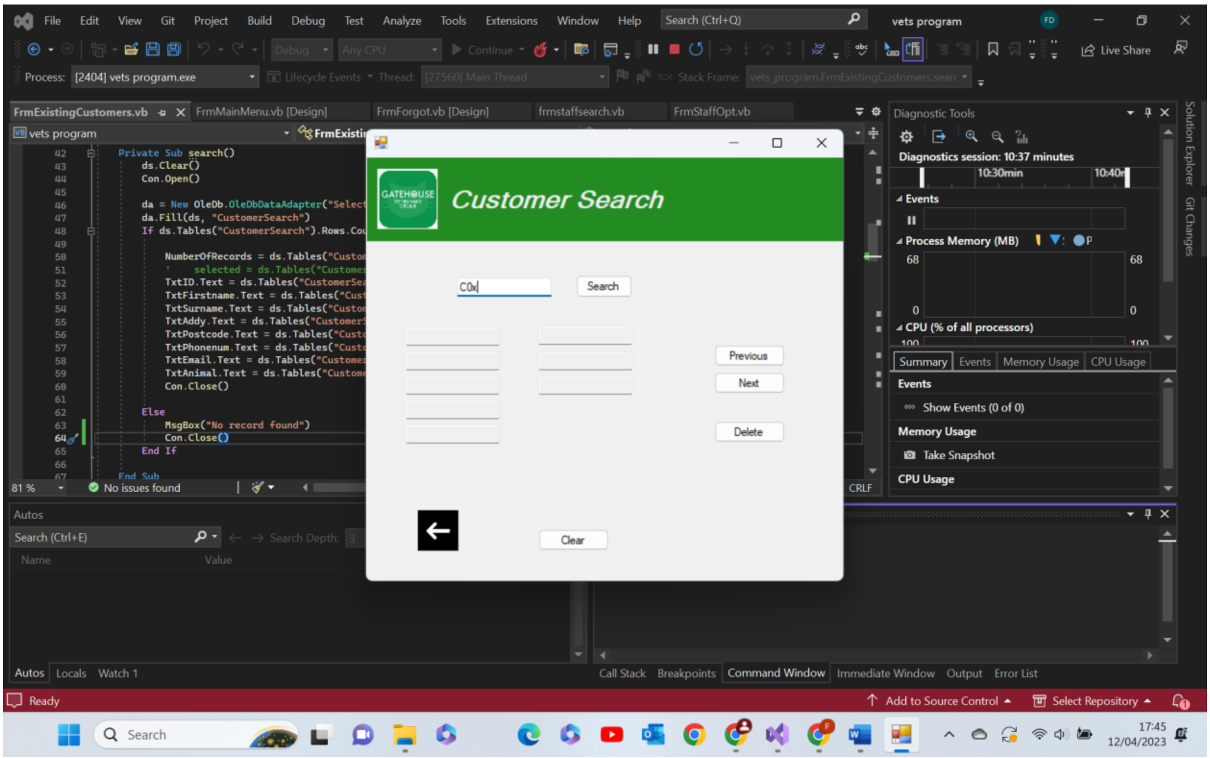


```
    Private Sub search()
        ds.Clear()
        Con.Open()

        da = New OleDb.OleDbDataAdapter("Select * From Customer Where surname  = " & "'" & TxtSearch.Text & "'", Con)
        da.Fill(ds, "CustomerSearch")
        If ds.Tables("CustomerSearch").Rows.Count > 0 Then

            NumberOfRecords = ds.Tables("CustomerSearch").Rows.Count - 1
            '    selected = ds.Tables("Customer").Rows(currentrecord).Item(0)
            TxtID.Text = ds.Tables("CustomerSearch").Rows(SearchCurrentRecord).Item(0)
            TxtFirstname.Text = ds.Tables("CustomerSearch").Rows(SearchCurrentRecord).Item(1)
            TxtSurname.Text = ds.Tables("CustomerSearch").Rows(SearchCurrentRecord).Item(2)
            TxtAddy.Text = ds.Tables("CustomerSearch").Rows(SearchCurrentRecord).Item(5)
            TxtPostcode.Text = ds.Tables("CustomerSearch").Rows(SearchCurrentRecord).Item(6)
            TxtPhonenum.Text = ds.Tables("CustomerSearch").Rows(SearchCurrentRecord).Item(7)
            TxtEmail.Text = ds.Tables("CustomerSearch").Rows(SearchCurrentRecord).Item(3)
            TxtAnimal.Text = ds.Tables("CustomerSearch").Rows(SearchCurrentRecord).Item(4)
            Con.Close()

        Else
            MsgBox("No record found")
            Con.Close()
        End If

    End Sub
```

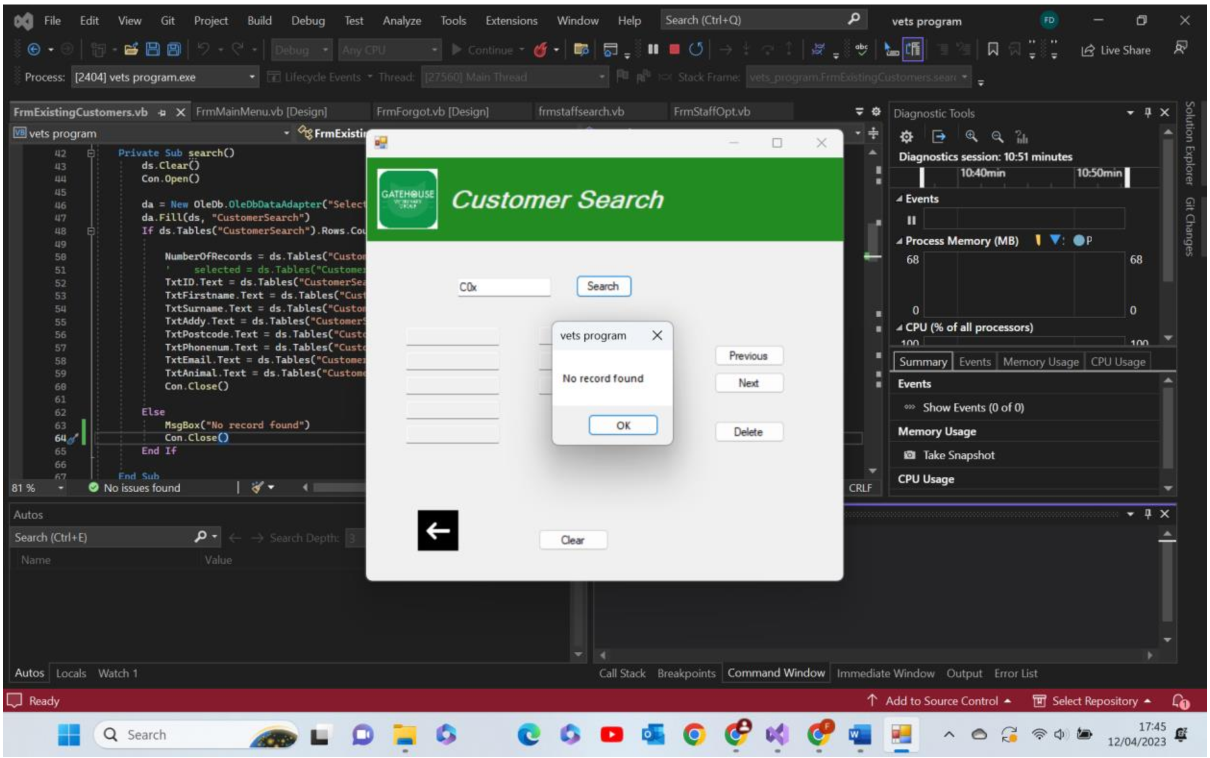
```
An unhandled exception of type 'System.InvalidOperationException' occurred in System.Data.dll
The connection was not closed. The connection's current state is open.

'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Program Files\Microsoft Visual Studio\2022\Community\Common7\IDE\Priv
The program '[24916] vets program.exe' has exited with code 4294967295 (0xffffffff).
```

Test 4.4 comments- as shown above, initially the code did not work as intended however I have reprimanded this by adding 'con.close()' in the 'Else' function. This should fix the issue and I will re test it. Failed

4.4 fixed-



```
    Private Sub search()
        ds.Clear()
        Con.Open()

        da = New OleDb.OleDbDataAdapter("Selec
        da.Fill(ds, "CustomerSearch")
        If ds.Tables("CustomerSearch").Rows.Cou

            NumberOfRecords = ds.Tables("Custon
            '    selected = ds.Tables("Customer
            TxtID.Text = ds.Tables("CustomerSea
            TxtFirstname.Text = ds.Tables("Cust
            TxtSurname.Text = ds.Tables("Custon
            TxtAddy.Text = ds.Tables("CustomerS
            TxtPostcode.Text = ds.Tables("Custc
            TxtPhonenum.Text = ds.Tables("Custc
            TxtEmail.Text = ds.Tables("Customer
            TxtAnimal.Text = ds.Tables("Custome
            Con.Close()

        Else
            MsgBox("No record found")
            Con.Close()
        End If

    End Sub
```



```
    Private Sub search()
        ds.Clear()
        Con.Open()

        da = New OleDb.OleDbDataAdapter("Select
        da.Fill(ds, "CustomerSearch")
        If ds.Tables("CustomerSearch").Rows.Cou

            NumberOfRecords = ds.Tables("Custon
            '    selected = ds.Tables("Customer
            TxtID.Text = ds.Tables("CustomerSea
            TxtFirstname.Text = ds.Tables("Cust
            TxtSurname.Text = ds.Tables("Custon
            TxtAddy.Text = ds.Tables("CustomerS
            TxtPostcode.Text = ds.Tables("Custo
            TxtPhonenum.Text = ds.Tables("Custo
            TxtEmail.Text = ds.Tables("Customer
            TxtAnimal.Text = ds.Tables("Custome
            Con.Close()

        Else
            MsgBox("No record found")
            Con.Close()
        End If

    End Sub
```

81 % No issues found

Customer Search

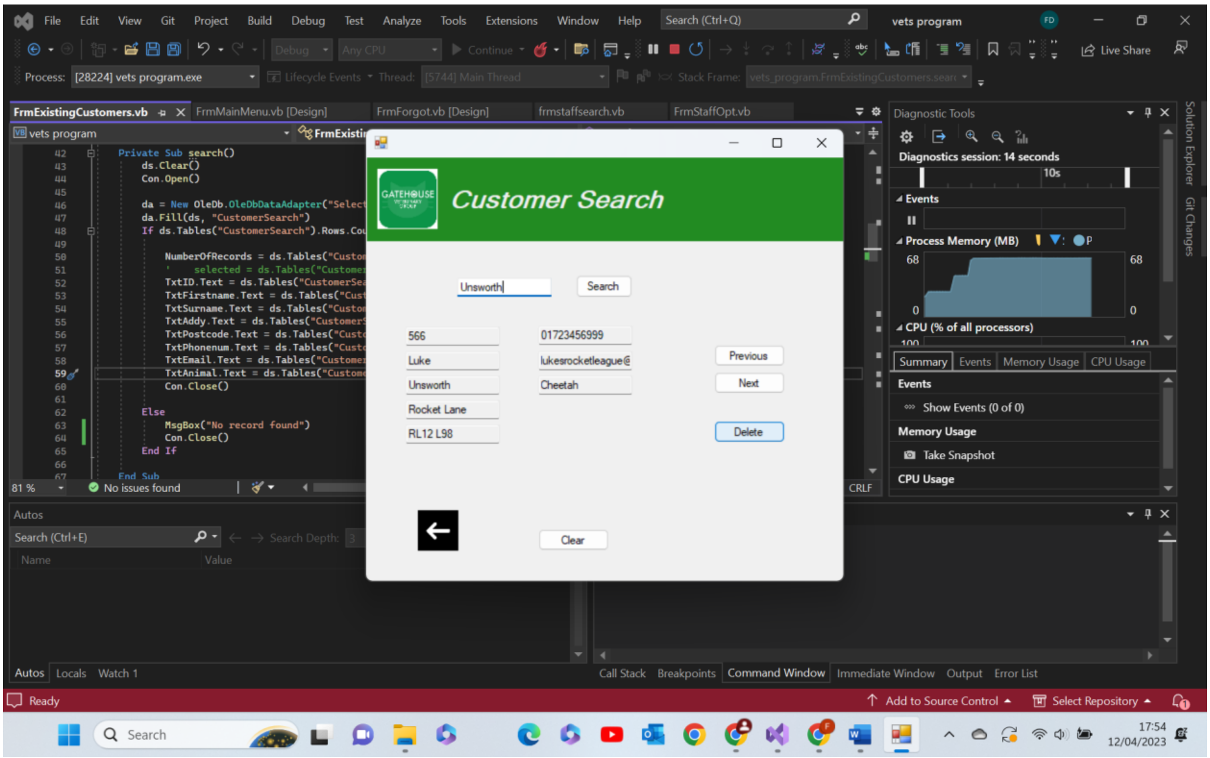
C0x

vets program

No record found

Test 4.4 comments- as shown above when an incorrect data is entered now It recognises that the data does not appear in the database and outputs a valid message box warning the user of the issue. Fixed, Pass

4.5-



```
    Private Sub search()
        ds.Clear()
        Con.Open()

        da = New OleDb.OleDbDataAdapter("Select
        da.Fill(ds, "CustomerSearch")
        If ds.Tables("CustomerSearch").Rows.Cou

            NumberOfRecords = ds.Tables("Custon
            '    selected = ds.Tables("Customer
            TxtID.Text = ds.Tables("CustomerSea
            TxtFirstname.Text = ds.Tables("Cust
            TxtSurname.Text = ds.Tables("Custon
            TxtAddy.Text = ds.Tables("CustomerS
            TxtPostcode.Text = ds.Tables("Custo
            TxtPhonenum.Text = ds.Tables("Custo
            TxtEmail.Text = ds.Tables("Customer
            TxtAnimal.Text = ds.Tables("Custome
            Con.Close()

        Else
            MsgBox("No record found")
            Con.Close()
        End If

    End Sub
```

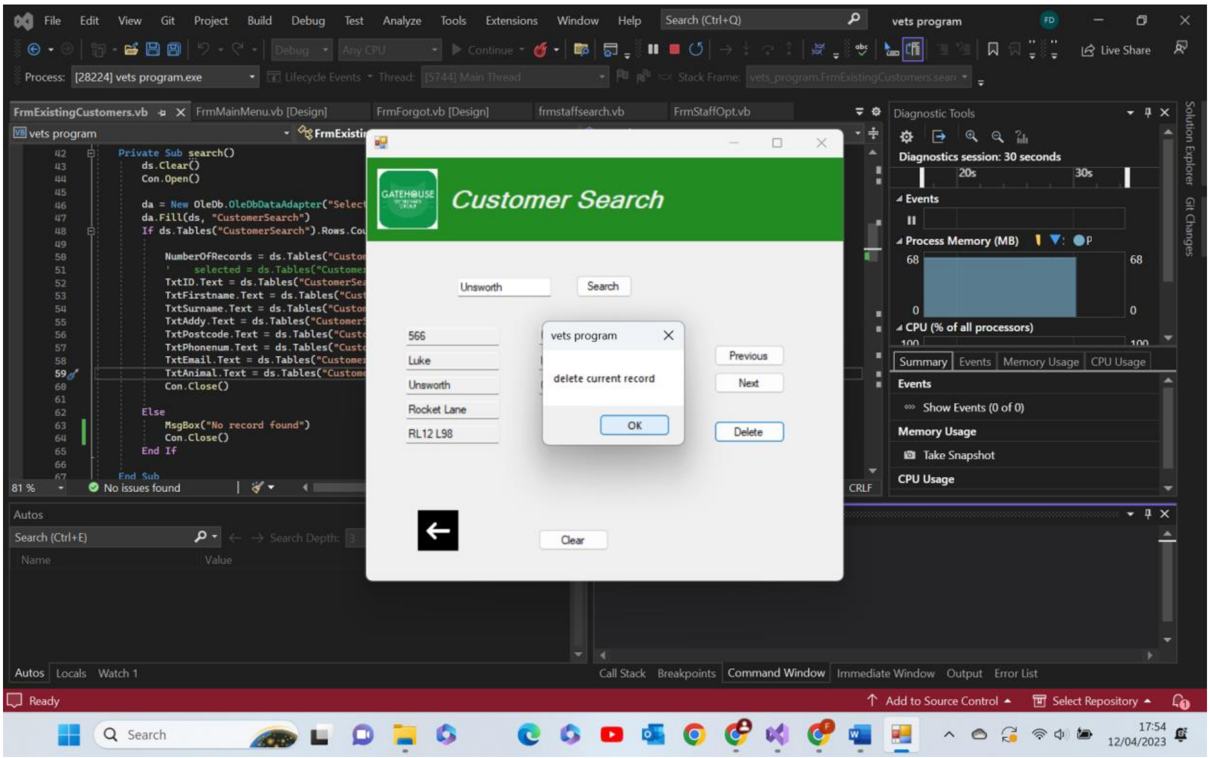
81 % No issues found

Customer Search

Unsworth

566
Luke
Unsworth
Rocket Lane
RL12 L98

01723456999
lukesrocketleague@
Cheetah



```
    Private Sub search()
        ds.Clear()
        Con.Open()

        da = New OleDb.OleDbDataAdapter("Select
        da.Fill(ds, "CustomerSearch")
        If ds.Tables("CustomerSearch").Rows.Cou

            NumberOfRecords = ds.Tables("Custon
            '    selected = ds.Tables("Customer
            TxtID.Text = ds.Tables("CustomerSea
            TxtFirstname.Text = ds.Tables("Cust
            TxtSurname.Text = ds.Tables("Custon
            TxtAddy.Text = ds.Tables("CustomerS
            TxtPostcode.Text = ds.Tables("Custo
            TxtPhonenum.Text = ds.Tables("Custo
            TxtEmail.Text = ds.Tables("Customer
            TxtAnimal.Text = ds.Tables("Custome
            Con.Close()

        Else
            MsgBox("No record found")
            Con.Close()
        End If

    End Sub
```

Customer Search

Unsworth

566

Luke

Unsworth

Rocket Lane

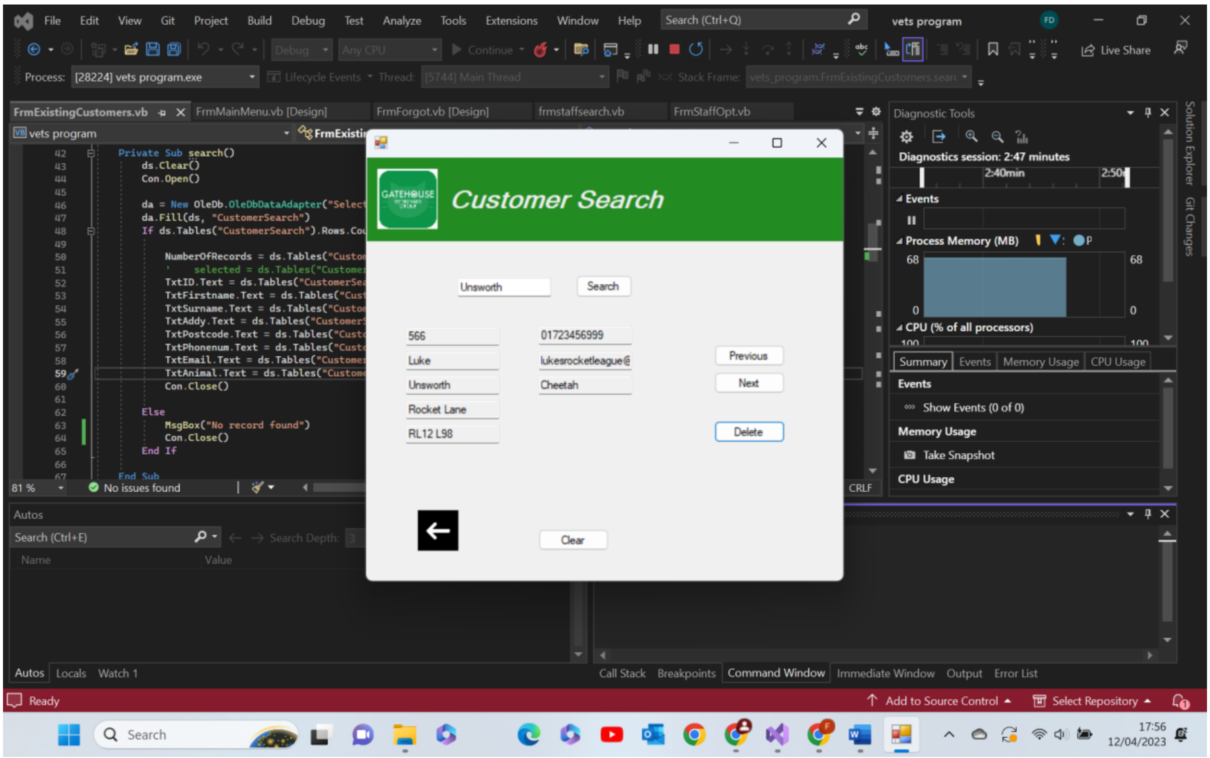
RL12 L98

vets program

delete current record

Test 4.5 comments- as expected before removing the record a message box appears ensuring that is what you want to do. If the close button is selected then the record does not delete. If the ok button is pressed the record is removed.

Close pressed-



```
    Private Sub search()
        ds.Clear()
        Con.Open()

        da = New OleDb.OleDbDataAdapter("Select
        da.Fill(ds, "CustomerSearch")
        If ds.Tables("CustomerSearch").Rows.Cou

            NumberOfRecords = ds.Tables("Custon
            '    selected = ds.Tables("Customer
            TxtID.Text = ds.Tables("CustomerSea
            TxtFirstname.Text = ds.Tables("Cust
            TxtSurname.Text = ds.Tables("Custon
            TxtAddy.Text = ds.Tables("CustomerS
            TxtPostcode.Text = ds.Tables("Custo
            TxtPhonenum.Text = ds.Tables("Custo
            TxtEmail.Text = ds.Tables("Customer
            TxtAnimal.Text = ds.Tables("Custome
            Con.Close()

        Else
            MsgBox("No record found")
            Con.Close()
        End If

    End Sub
```

Customer Search

Unsworth

566

Luke

Unsworth

Rocket Lane

RL12 L98

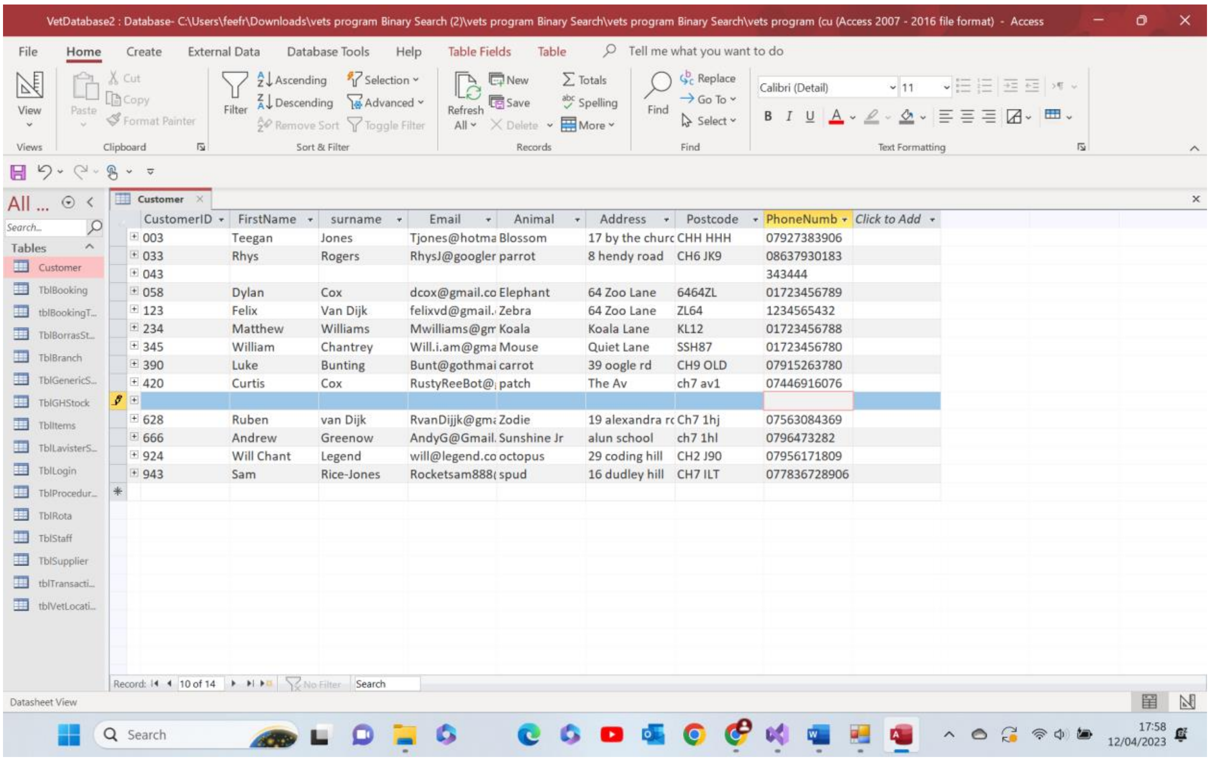
01723456999

lukesrocketleague@

Cheetah

The above is the result of the user changing their mind

‘ok’ pressed-



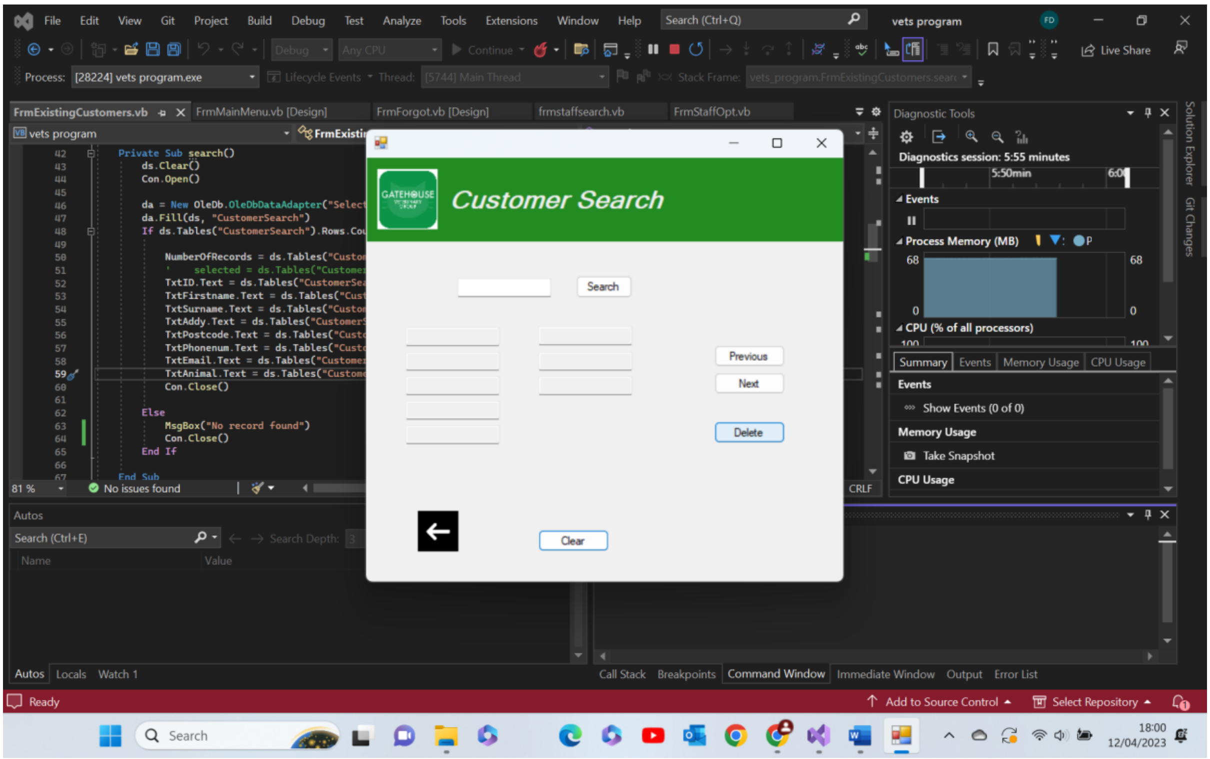
VetDatabase2 : Database- C:\Users\feefr\Downloads\vets program Binary Search (2)\vets program Binary Search\vets program Binary Search\vets program (cu (Access 2007 - 2016 file format) - Access

CustomerID	FirstName	surname	Email	Animal	Address	Postcode	PhoneNumb	Click to Add
003	Teegan	Jones	Tjones@hotma	Blossom	17 by the churc	CHH HHH	07927383906	
033	Rhys	Rogers	RhysJ@googler	parrot	8 hendy road	CH6 JK9	08637930183	
043							343444	
058	Dylan	Cox	dcox@gmail.co	Elephant	64 Zoo Lane	6464ZL	01723456789	
123	Felix	Van Dijk	felixvd@gmail.	Zebra	64 Zoo Lane	ZL64	1234565432	
234	Matthew	Williams	Mwilliams@gm	Koala	Koala Lane	KL12	01723456788	
345	William	Chantrey	Will.i.am@gma	Mouse	Quiet Lane	SSH87	01723456780	
390	Luke	Bunting	Bunt@gothmai	carrot	39 oogle rd	CH9 OLD	07915263780	
420	Curtis	Cox	RustyReeBot@	patch	The Av	ch7 av1	07446916076	
628	Ruben	van Dijk	RvanDijjk@gm	Zodie	19 alexandra r	Ch7 1hj	07563084369	
666	Andrew	Greenow	AndyG@Gmail.	Sunshine Jr	alun school	ch7 1hl	0796473282	
924	Will Chant	Legend	will@legend.co	octopus	29 coding hill	CH2 J90	07956171809	
943	Sam	Rice-Jones	Rocketsam888(	spud	16 dudley hill	CH7 ILT	077836728906	

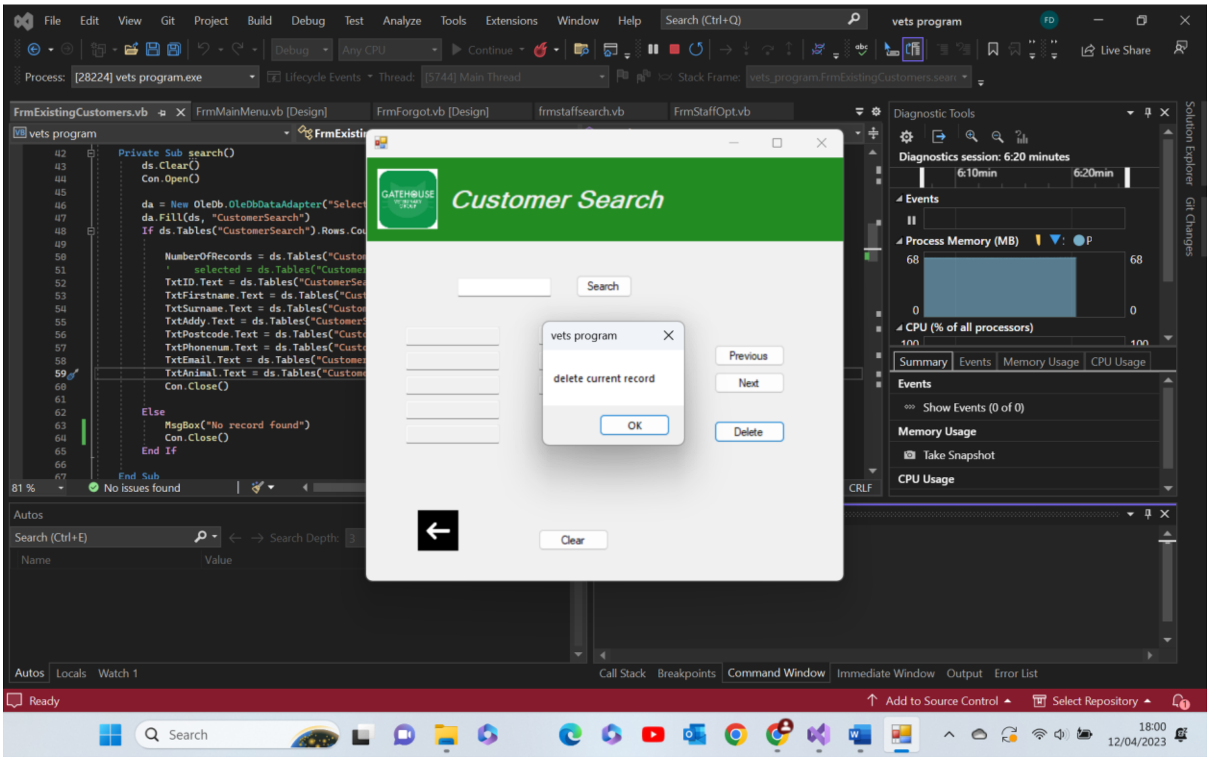
Record: 10 of 14

The above shows the result of the user deciding they want to delete the record. Note the lack of a 'Luke Unsworth' record.

4.6-



```
    Private Sub search()
        ds.Clear()
        Con.Open()

        da = New OleDb.OleDbDataAdapter("Select
        da.Fill(ds, "CustomerSearch")
        If ds.Tables("CustomerSearch").Rows.Cou

            NumberOfRecords = ds.Tables("Custon
            '    selected = ds.Tables("Customer
            TxtID.Text = ds.Tables("CustomerSea
            TxtFirstname.Text = ds.Tables("Cust
            TxtSurname.Text = ds.Tables("Custom
            TxtAddy.Text = ds.Tables("CustomerS
            TxtPostcode.Text = ds.Tables("Custo
            TxtPhonenum.Text = ds.Tables("Custo
            TxtEmail.Text = ds.Tables("Customer
            TxtAnimal.Text = ds.Tables("Custome
            Con.Close()

        Else
            MsgBox("No record found")
            Con.Close()
        End If

    End Sub
```



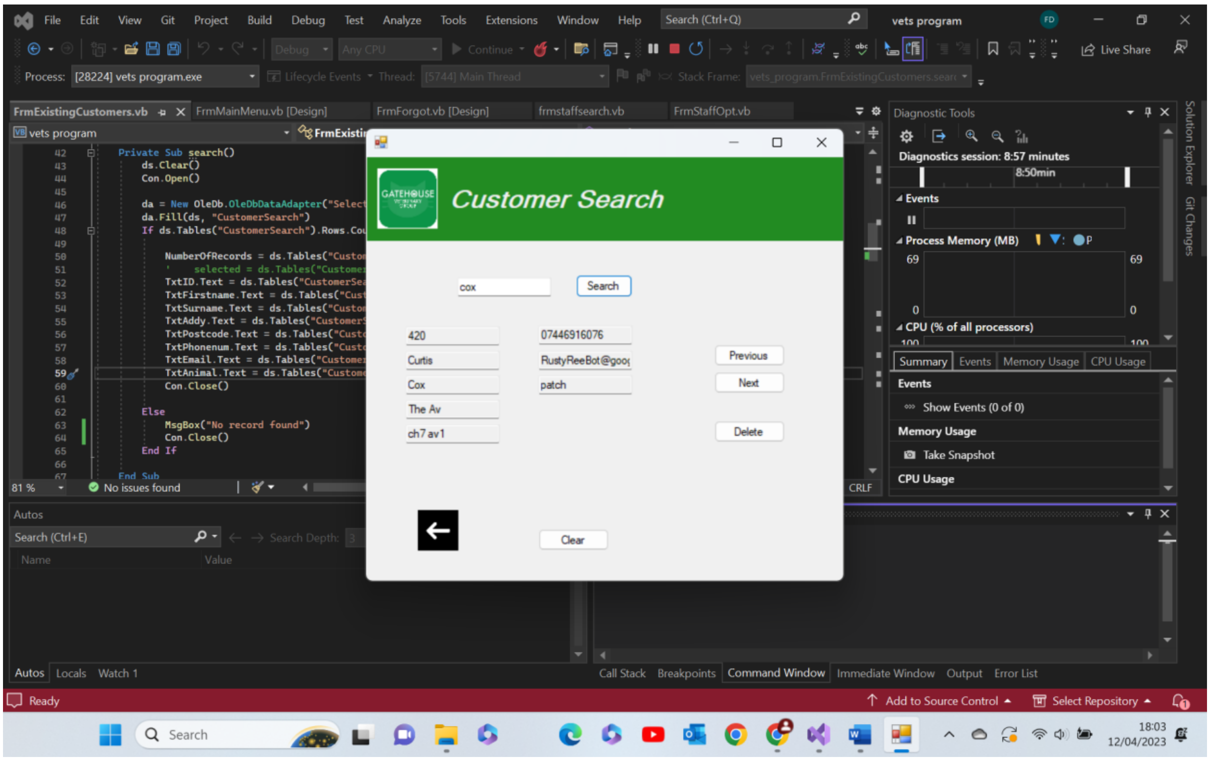
```
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select
    da.Fill(ds, "CustomerSearch")
    If ds.Tables("CustomerSearch").Rows.Cou

        NumberOfRecords = ds.Tables("Custom
        '    selected = ds.Tables("Customer
        TxtID.Text = ds.Tables("CustomerSea
        TxtFirstname.Text = ds.Tables("Cust
        TxtSurname.Text = ds.Tables("Custom
        TxtAddy.Text = ds.Tables("CustomerS
        TxtPostcode.Text = ds.Tables("Custo
        TxtPhonenum.Text = ds.Tables("Custo
        TxtEmail.Text = ds.Tables("Customer
        TxtAnimal.Text = ds.Tables("Custome
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If

End Sub
```

vets program

delete current record

Test 4.6 comments- the program has failed to recognise the lack of data in the text boxes and has still attempted to delete something. I am not sure what it is trying to delete. I imagine a fix would be an additional 'if' function relating to if the text boxes are blank or = ""

4.7-

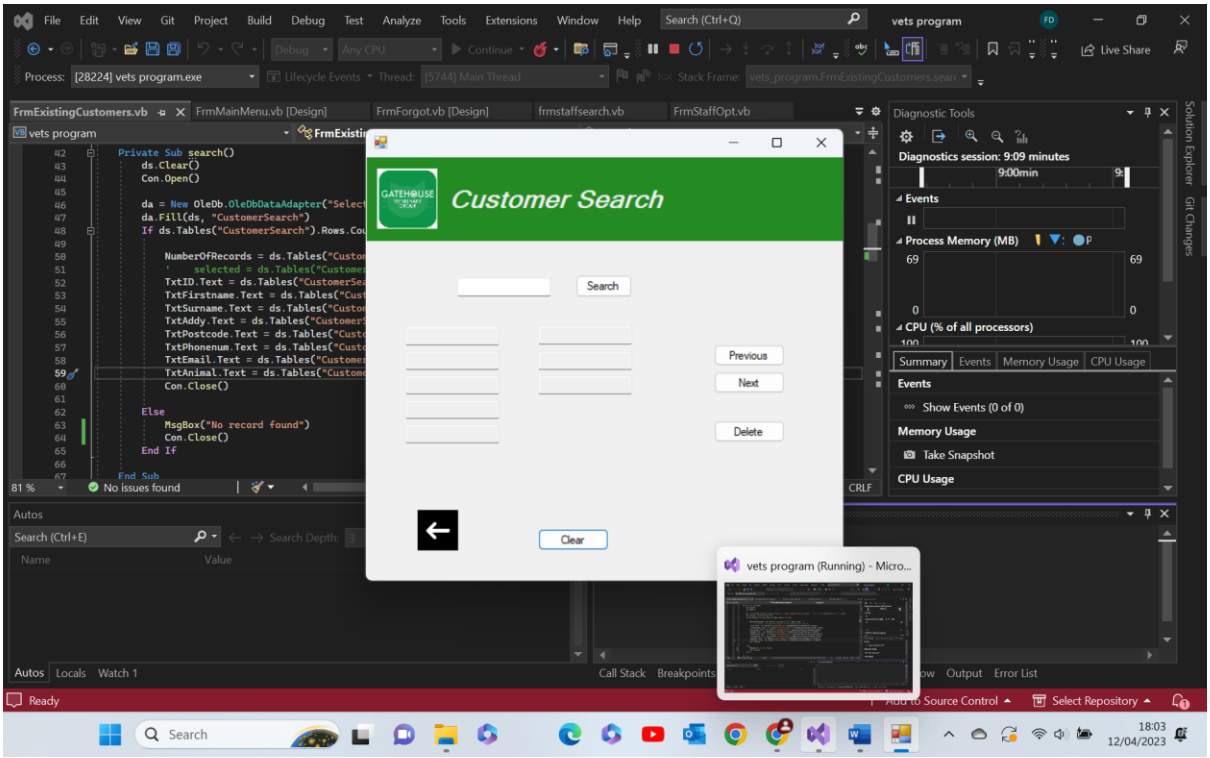


```
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select
    da.Fill(ds, "CustomerSearch")
    If ds.Tables("CustomerSearch").Rows.Cou

        NumberOfRecords = ds.Tables("Custom
        '    selected = ds.Tables("Customer
        TxtID.Text = ds.Tables("CustomerSea
        TxtFirstname.Text = ds.Tables("Cust
        TxtSurname.Text = ds.Tables("Custom
        TxtAddy.Text = ds.Tables("CustomerS
        TxtPostcode.Text = ds.Tables("Custo
        TxtPhonenum.Text = ds.Tables("Custo
        TxtEmail.Text = ds.Tables("Customer
        TxtAnimal.Text = ds.Tables("Custome
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If

End Sub
```

cox

420
Curtis
Cox
The Av
ch7 av1

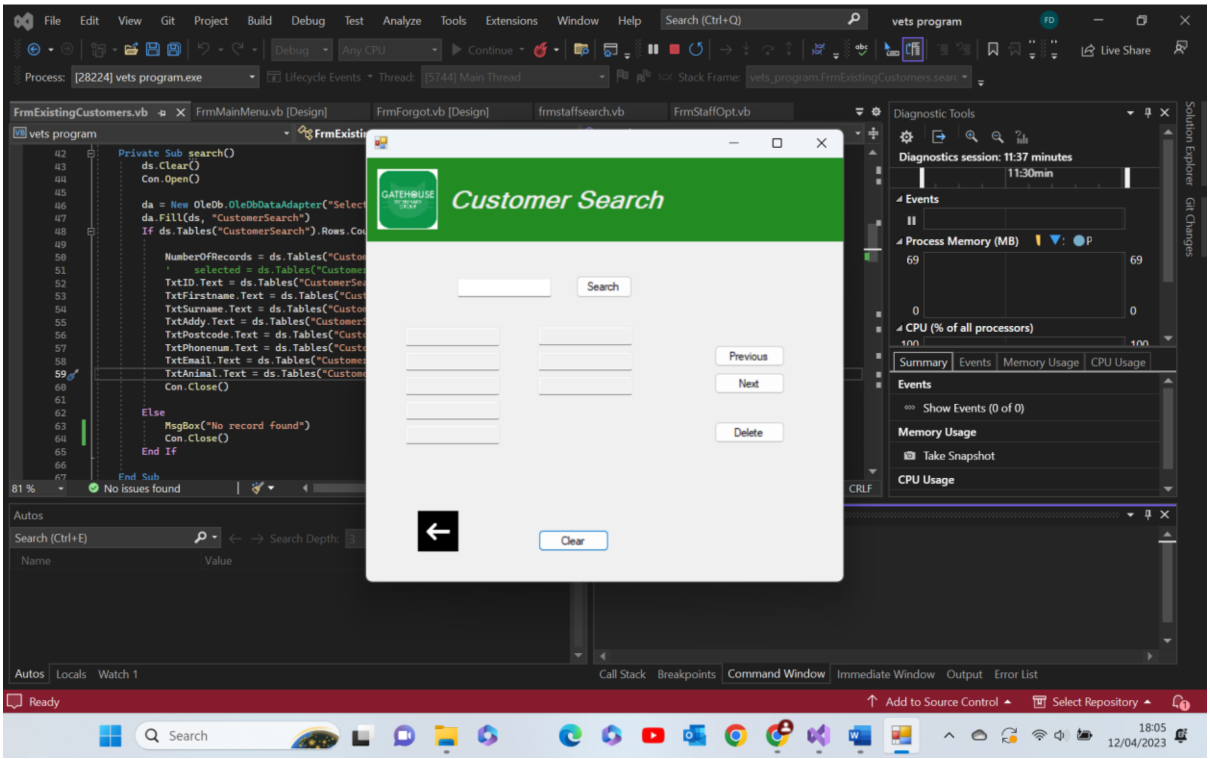
07446916076
RustyReeBot@goo(
patch



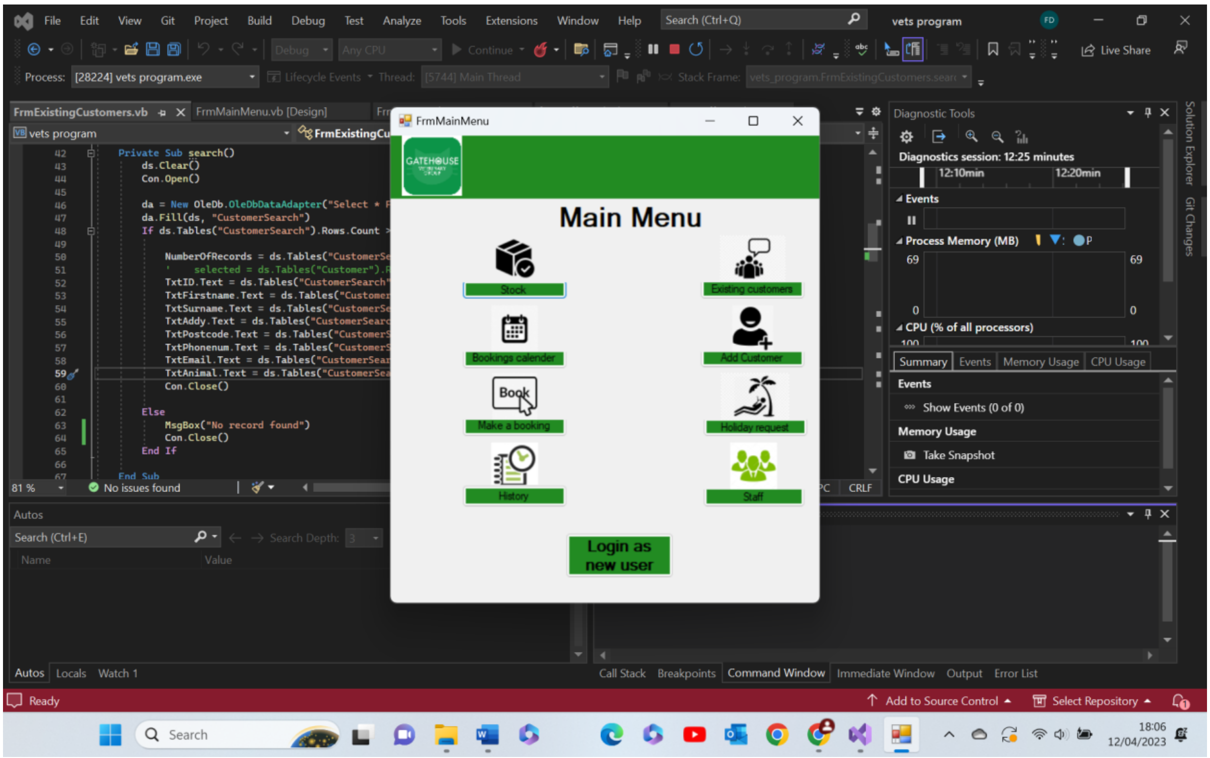
```
    Private Sub search()
        ds.Clear()
        Con.Open()

        da = New OleDb.OleDbDataAdapter("Select
        da.Fill(ds, "CustomerSearch")
        If ds.Tables("CustomerSearch").Rows.Cou

            NumberOfRecords = ds.Tables("Custom
            '    selected = ds.Tables("Customer
            TxtID.Text = ds.Tables("CustomerSea
            TxtFirstname.Text = ds.Tables("Cust
            TxtSurname.Text = ds.Tables("Custom
            TxtAddy.Text = ds.Tables("CustomerS
            TxtPostcode.Text = ds.Tables("Custo
            TxtPhonenum.Text = ds.Tables("Custo
            TxtEmail.Text = ds.Tables("Customer
            TxtAnimal.Text = ds.Tables("Custome
            Con.Close()

        Else
            MsgBox("No record found")
            Con.Close()
        End If

    End Sub
```

Test 4.7- above you can see the result of using the clear button. All text boxes are empty as they are set to “”. Pass

4.8-



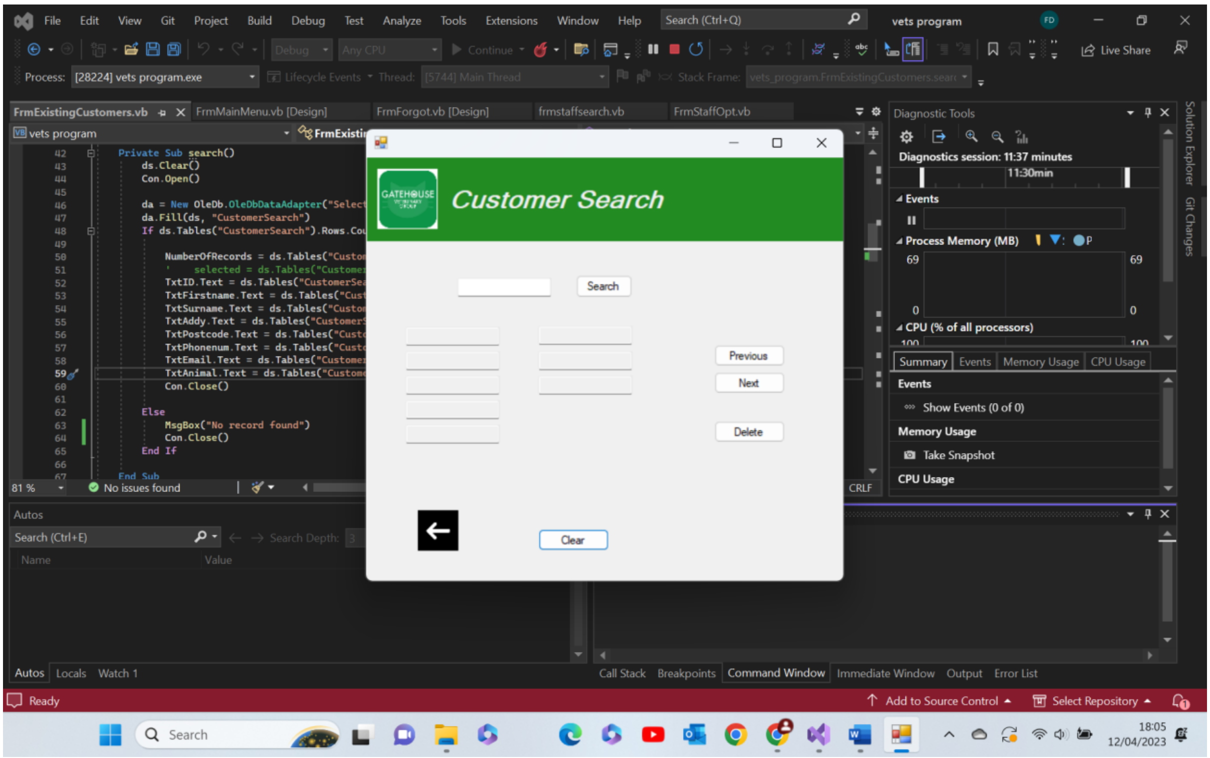
```
    Private Sub search()
        ds.Clear()
        Con.Open()

        da = New OleDb.OleDbDataAdapter("Select
        da.Fill(ds, "CustomerSearch")
        If ds.Tables("CustomerSearch").Rows.Cou

            NumberOfRecords = ds.Tables("Custom
            '    selected = ds.Tables("Customer
            TxtID.Text = ds.Tables("CustomerSea
            TxtFirstname.Text = ds.Tables("Cust
            TxtSurname.Text = ds.Tables("Custom
            TxtAddy.Text = ds.Tables("CustomerS
            TxtPostcode.Text = ds.Tables("Custo
            TxtPhonenum.Text = ds.Tables("Custo
            TxtEmail.Text = ds.Tables("Customer
            TxtAnimal.Text = ds.Tables("Custome
            Con.Close()

        Else
            MsgBox("No record found")
            Con.Close()
        End If

    End Sub
```



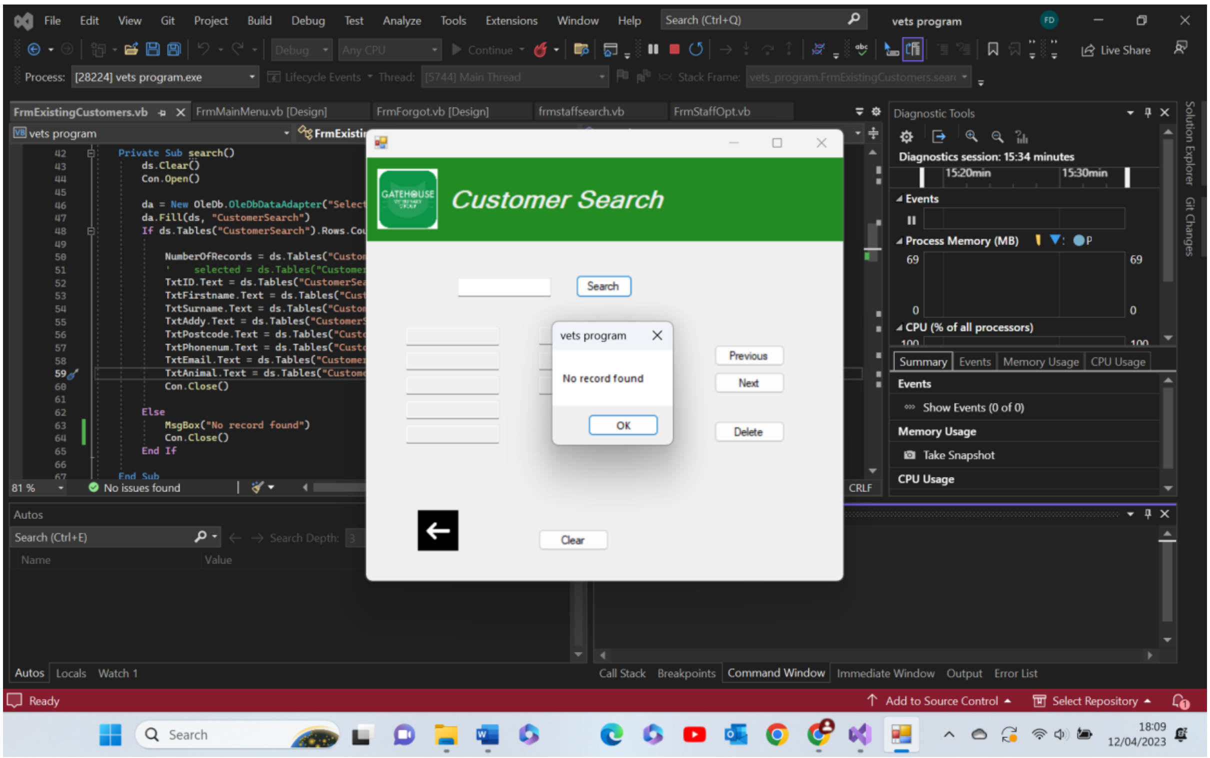
```
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select * F
    da.Fill(ds, "CustomerSearch")
    If ds.Tables("CustomerSearch").Rows.Count >

        NumberOfRecords = ds.Tables("CustomerSe
        '    selected = ds.Tables("Customer").R
        TxtID.Text = ds.Tables("CustomerSearch"
        TxtFirstname.Text = ds.Tables("Customer
        TxtSurname.Text = ds.Tables("CustomerSe
        TxtAddy.Text = ds.Tables("CustomerSearc
        TxtPostcode.Text = ds.Tables("CustomerS
        TxtPhonenum.Text = ds.Tables("CustomerS
        TxtEmail.Text = ds.Tables("CustomerSear
        TxtAnimal.Text = ds.Tables("CustomerSea
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If

End Sub
```

Test 4.8 comments- as expected the form is hidden and the main menu form opens. Pass

4.9-



```
Private Sub search()
    ds.Clear()
    Con.Open()

    da = New OleDb.OleDbDataAdapter("Select
    da.Fill(ds, "CustomerSearch")
    If ds.Tables("CustomerSearch").Rows.Cou

        NumberOfRecords = ds.Tables("Custom
        '    selected = ds.Tables("Customer
        TxtID.Text = ds.Tables("CustomerSea
        TxtFirstname.Text = ds.Tables("Cust
        TxtSurname.Text = ds.Tables("Custom
        TxtAddy.Text = ds.Tables("CustomerS
        TxtPostcode.Text = ds.Tables("Custo
        TxtPhonenum.Text = ds.Tables("Custo
        TxtEmail.Text = ds.Tables("Customer
        TxtAnimal.Text = ds.Tables("Custome
        Con.Close()

    Else
        MsgBox("No record found")
        Con.Close()
    End If

End Sub
```



```
    Private Sub search()
        ds.Clear()
        Con.Open()

        da = New OleDb.OleDbDataAdapter("Select
        da.Fill(ds, "CustomerSearch")
        If ds.Tables("CustomerSearch").Rows.Cou

            NumberOfRecords = ds.Tables("Custom
            '    selected = ds.Tables("Customer
            TxtID.Text = ds.Tables("CustomerSea
            TxtFirstname.Text = ds.Tables("Cust
            TxtSurname.Text = ds.Tables("Custom
            TxtAddy.Text = ds.Tables("CustomerS
            TxtPostcode.Text = ds.Tables("Custo
            TxtPhonenum.Text = ds.Tables("Custo
            TxtEmail.Text = ds.Tables("Customer
            TxtAnimal.Text = ds.Tables("Custome
            Con.Close()

        Else
            MsgBox("No record found")
            Con.Close()
        End If

    End Sub
```

Customer Search

vets program

No record found

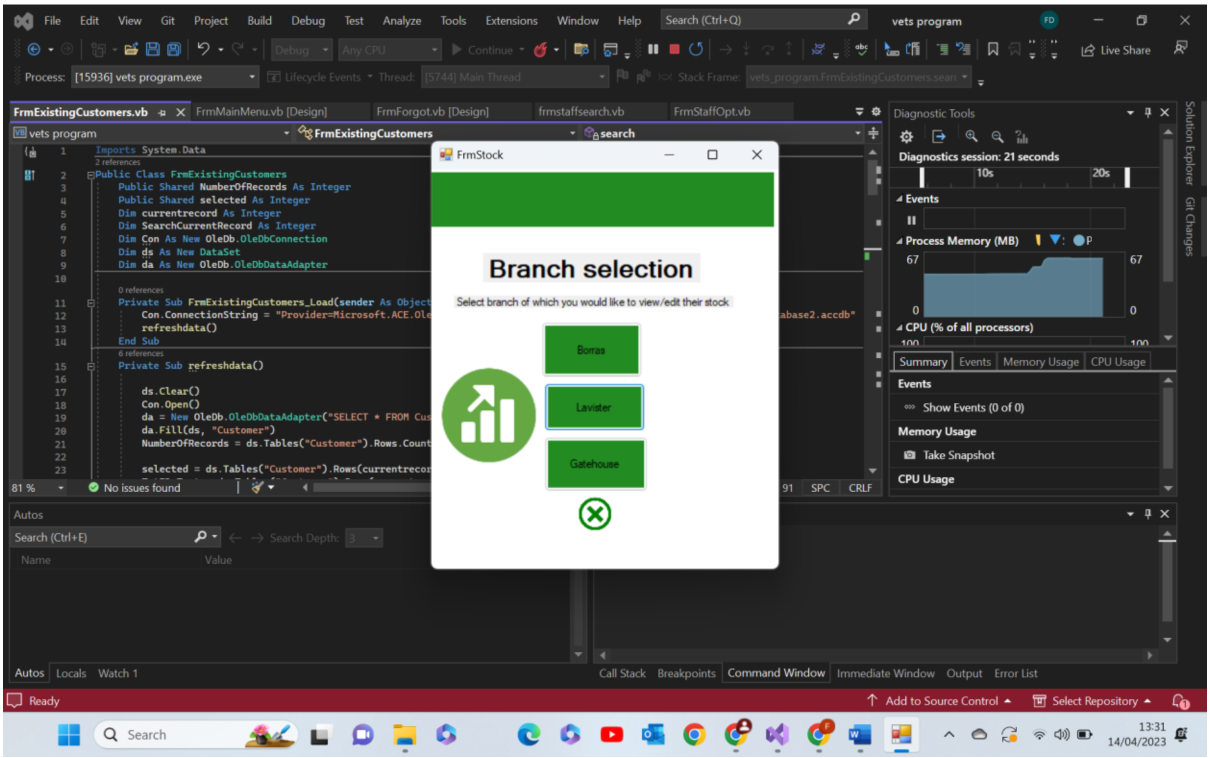
Test 4.9- when the user searches for an empty text box the program realises that the text box is empty and so there will be no correlating records in the database so outputs an appropriate message, however it is not the message I expected. Mayne in future repair this to display its own unique text box. Despite not being exactly what was expected the basic function is still here. Pass

Test group 5- Lavister stock

Test Number	Test data	Actual outcome	Verdict	Comment
1	Lavister stock table In access form. Functional test	When the form was loaded each piece of info was loaded into the correct columns and rows as expected.	Pass	N/A
2	Any value from stock level column Functional valid test	As expected when a cell was selected the user was able to edit the data integer value inside this cell.	Pass	N/A
3	Functional test using valid data, changed the value of any value in stock level column	As expected the data was edited and a text box appeared confirming this	Pass	N/A

4	Functional test Uses valid data same as test 3	As expected, not only was the data changed in the DGV but it was written into the appropriate places in the access database. This means that when the form is closed and re-opened the data most recently saved was still there.	Pass	N/A
5	Functional test	As expected the stock option form was selected	Pass	N/A
6	Invalid Negative integer Specifically '-4'	As expected the program recognised the negative value as invalid and output an appropriate message box warning the user of the issue	Pass	N/A
7	Invalid data Non integer Specifically '0.4'	As expected the program recognised the non-integer value as invalid and output an appropriate message box warning the user of the issue	Pass	N/A
8	Extreme test data type Extremely large intger, unrealistic Specifically '1000'	As expected the program recognised the large value as invalid and output an appropriate message box warning the user of the issue	Pass	N/A

5.1-



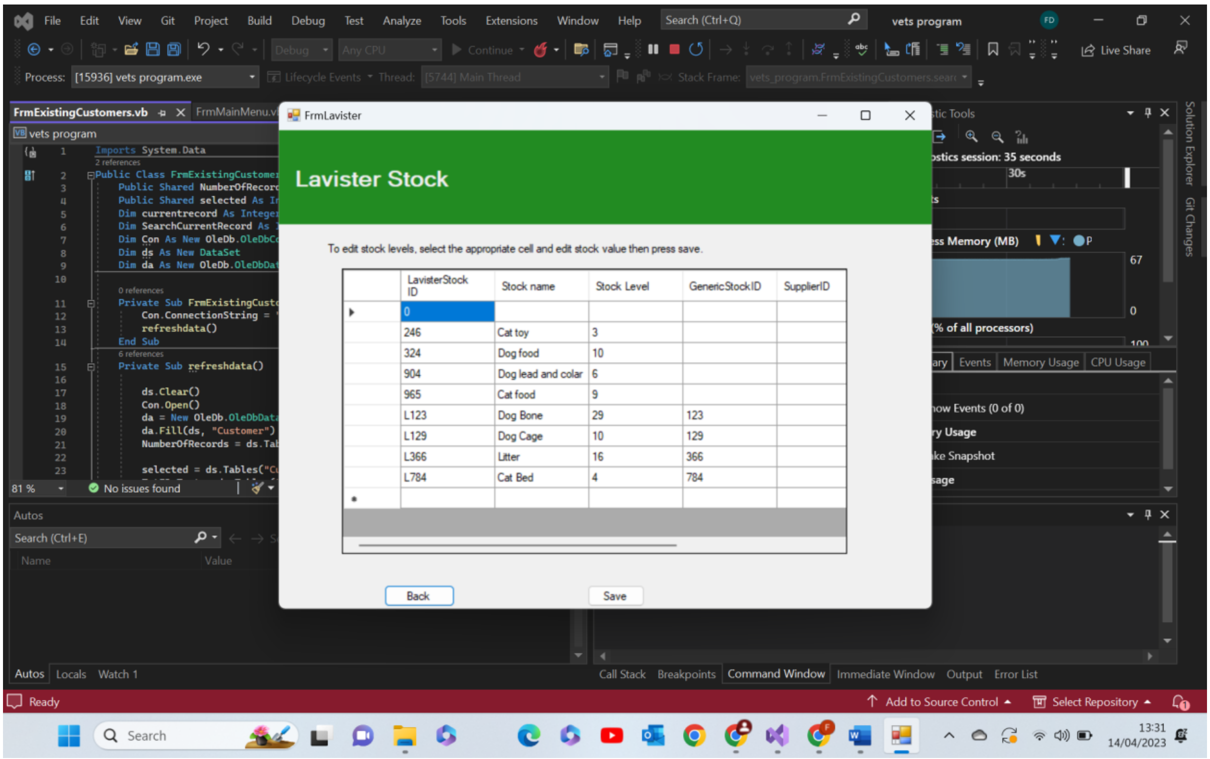
Process: [15936] vets program.exe

```
Imports System.Data
Public Class FrmExistingCustomers
    Public Shared NumberOfRecords As Integer
    Public Shared selected As Integer
    Dim currentrecord As Integer
    Dim SearchCurrentRecord As Integer
    Dim Con As New OleDb.OleDbConnection
    Dim ds As New DataSet
    Dim da As New OleDb.OleDbDataAdapter

    Private Sub FrmExistingCustomers_Load(sender As Object
        Con.ConnectionString = "Provider=Microsoft.ACE.Ole
        refreshdata()
    End Sub
    Private Sub refreshdata()

        ds.Clear()
        Con.Open()
        da = New OleDb.OleDbDataAdapter("SELECT * FROM Cus
        da.Fill(ds, "Customer")
        NumberOfRecords = ds.Tables("Customer").Rows.Count

        selected = ds.Tables("Customer").Rows(currentrecor
```

FrmStock

Branch selection

Select branch of which you would like to view/edit their stock



FrmLavister

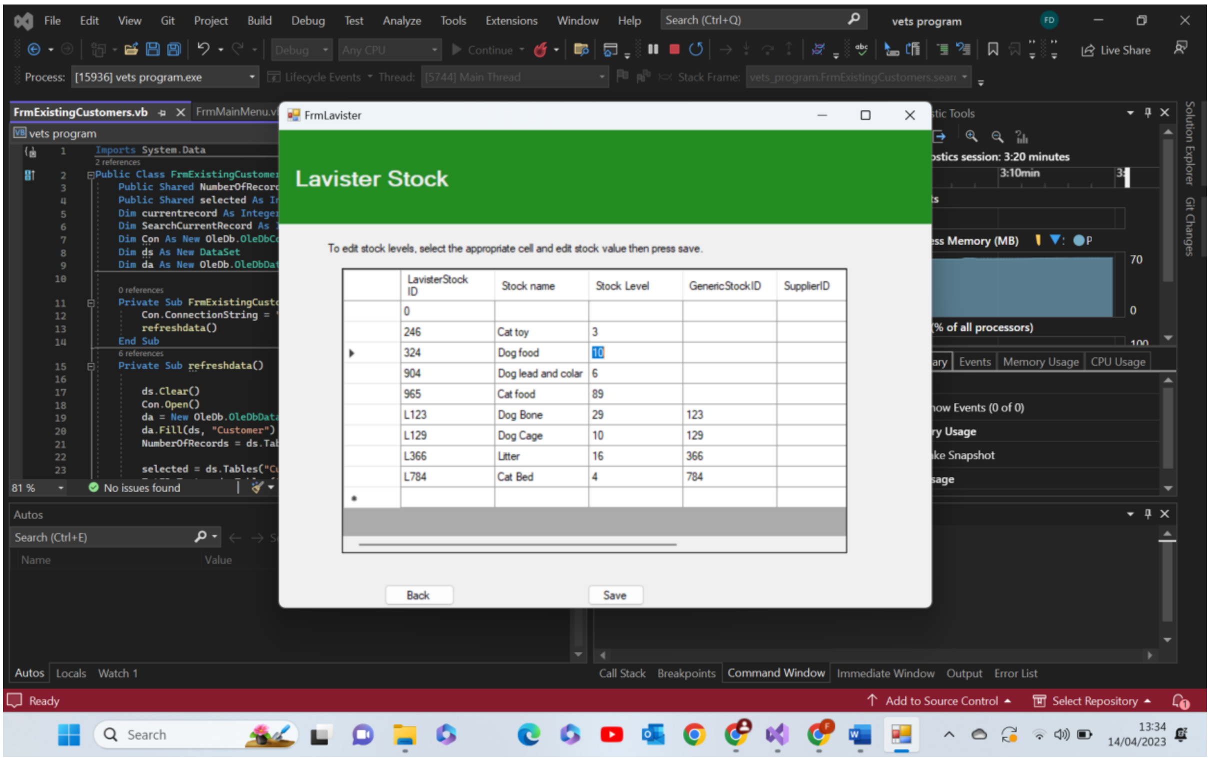
Lavister Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

LavisterStock ID	Stock name	Stock Level	GenericStockID	SupplierID
0				
246	Cat toy	3		
324	Dog food	10		
904	Dog lead and colar	6		
965	Cat food	9		
L123	Dog Bone	29	123	
L129	Dog Cage	10	129	
L366	Litter	16	366	
L784	Cat Bed	4	784	

Test 5.1 comments- as we can see above loading into form lavister from form stock option calls the private sub form load and loads all necessary values into the DGV. Pass

5.2-



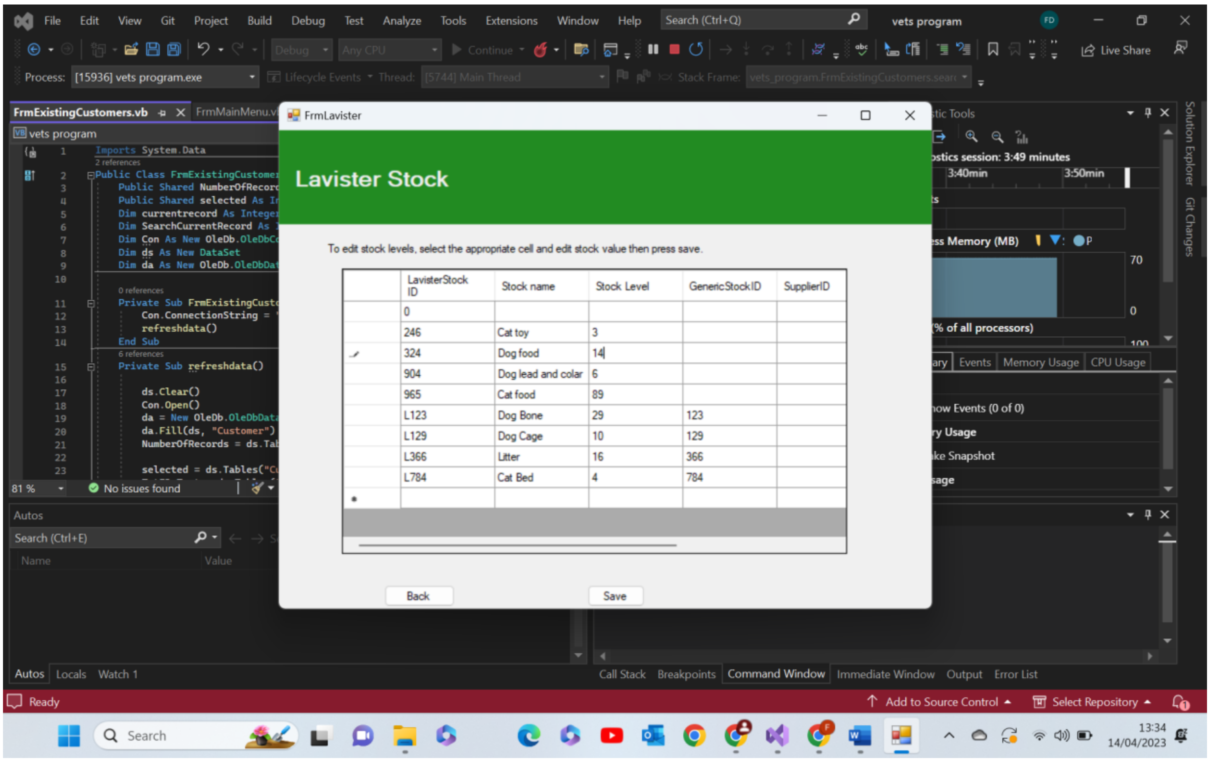
```
Imports System.Data
Public Class FrmExistingCustome
    Public Shared NumberOfRecor
    Public Shared selected As I
    Dim currentrecord As Intege
    Dim SearchCurrentRecord As
    Dim Con As New OleDb.OleDbC
    Dim ds As New DataSet
    Dim da As New OleDb.OleDbDat

    Private Sub FrmExistingCust
        Con.ConnectionString = "
        refreshdata()
    End Sub
    Private Sub refreshdata()

        ds.Clear()
        Con.Open()
        da = New OleDb.OleDbData
        da.Fill(ds, "Customer")
        NumberOfRecords = ds.Tab

        selected = ds.Tables("Cu
```

FrmLavister

Lavister Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

	LavisterStock ID	Stock name	Stock Level	GenericStockID	SupplierID
	0				
	246	Cat toy	3		
▶	324	Dog food	10		
	904	Dog lead and colar	6		
	965	Cat food	89		
	L123	Dog Bone	29	123	
	L129	Dog Cage	10	129	
	L366	Litter	16	366	
	L784	Cat Bed	4	784	
*					



```
Imports System.Data
Public Class FrmExistingCustome
    Public Shared NumberOfRecor
    Public Shared selected As I
    Dim currentrecord As Intege
    Dim SearchCurrentRecord As
    Dim Con As New OleDb.OleDbC
    Dim ds As New DataSet
    Dim da As New OleDb.OleDbDat

    Private Sub FrmExistingCust
        Con.ConnectionString = "
        refreshdata()
    End Sub
    Private Sub refreshdata()

        ds.Clear()
        Con.Open()
        da = New OleDb.OleDbData
        da.Fill(ds, "Customer")
        NumberOfRecords = ds.Tab

        selected = ds.Tables("Cu
```

FrmLavister

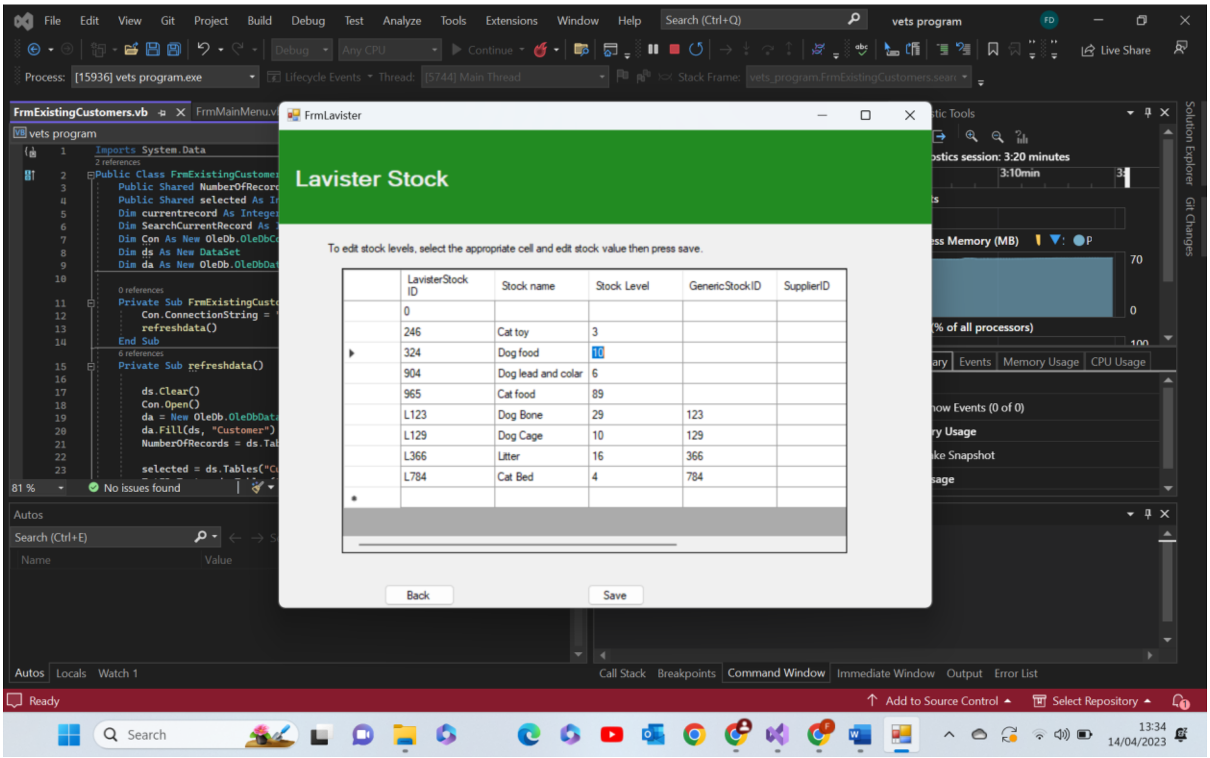
Lavister Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

	LavisterStock ID	Stock name	Stock Level	GenericStockID	SupplierID
	0				
	246	Cat toy	3		
✎	324	Dog food	14		
	904	Dog lead and colar	6		
	965	Cat food	89		
	L123	Dog Bone	29	123	
	L129	Dog Cage	10	129	
	L366	Litter	16	366	
	L784	Cat Bed	4	784	
*					

Test 5.2 comments- as we can see above the DataGrid view allows us to select a value and edit it within the form. Pass

5.3-



```
Imports System.Data
Public Class FrmExistingCustomer
    Public Shared NumberOfRecord
    Public Shared selected As In
    Dim currentrecord As Integer
    Dim SearchCurrentRecord As I
    Dim Con As New OleDb.OleDbCo
    Dim ds As New DataSet
    Dim da As New OleDb.OleDbDat

    Private Sub FrmExistingCusto
        Con.ConnectionString = '
        refreshdata()
    End Sub
    Private Sub refreshdata()

        ds.Clear()
        Con.Open()
        da = New OleDb.OleDbData
        da.Fill(ds, "Customer")
        NumberOfRecords = ds.Tab

        selected = ds.Tables("Cu
```

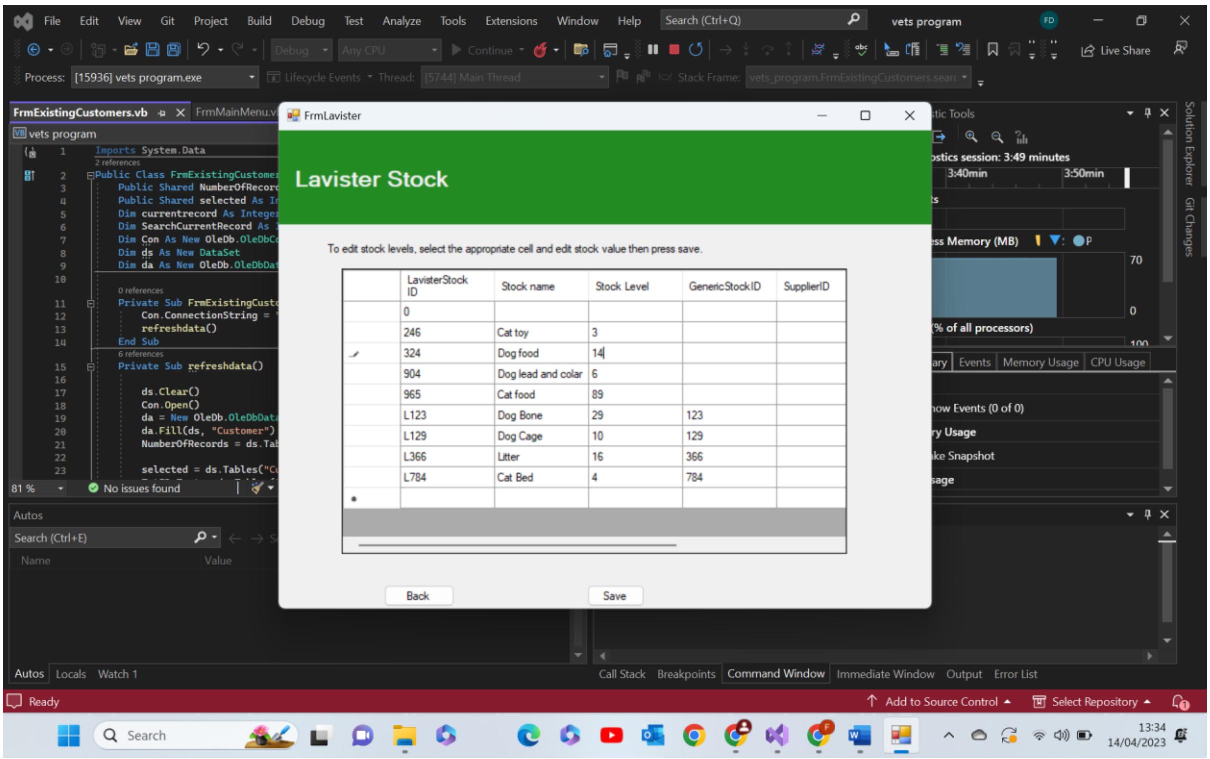
FrmLavister

Lavister Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

	LavisterStock ID	Stock name	Stock Level	GenericStockID	SupplierID
	0				
	246	Cat toy	3		
▶	324	Dog food	10		
	904	Dog lead and colar	6		
	965	Cat food	89		
	L123	Dog Bone	29	123	
	L129	Dog Cage	10	129	
	L366	Litter	16	366	
	L784	Cat Bed	4	784	
*					

Back Save



```
Imports System.Data
Public Class FrmExistingCustomer
    Public Shared NumberOfRecord
    Public Shared selected As In
    Dim currentrecord As Integer
    Dim SearchCurrentRecord As I
    Dim Con As New OleDb.OleDbCo
    Dim ds As New DataSet
    Dim da As New OleDb.OleDbDat

    Private Sub FrmExistingCusto
        Con.ConnectionString = '
        refreshdata()
    End Sub
    Private Sub refreshdata()

        ds.Clear()
        Con.Open()
        da = New OleDb.OleDbData
        da.Fill(ds, "Customer")
        NumberOfRecords = ds.Tab

        selected = ds.Tables("Cu
```

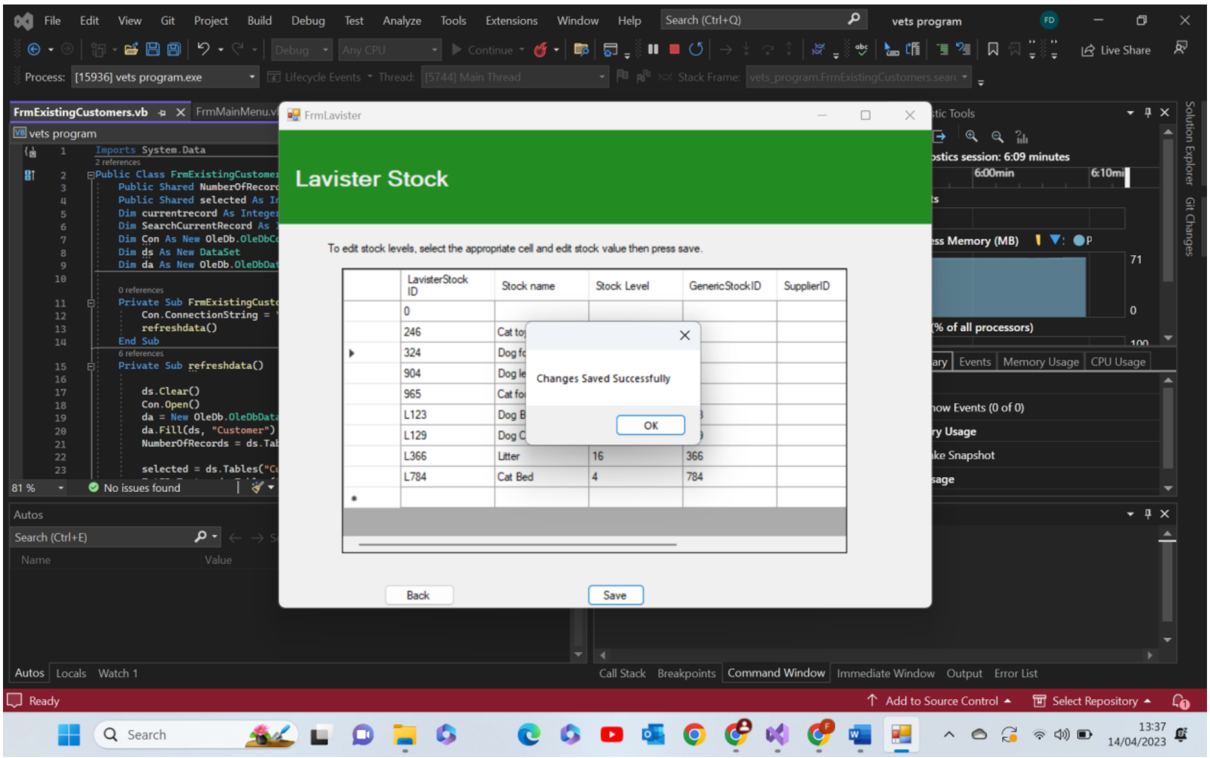
FrmLavister

Lavister Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

	LavisterStock ID	Stock name	Stock Level	GenericStockID	SupplierID
	0				
	246	Cat toy	3		
✎	324	Dog food	14		
	904	Dog lead and colar	6		
	965	Cat food	89		
	L123	Dog Bone	29	123	
	L129	Dog Cage	10	129	
	L366	Litter	16	366	
	L784	Cat Bed	4	784	
*					

Back Save



FrmLavister

Lavister Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

	LavisterStock ID	Stock name	Stock Level	GenericStockID	SupplierID
	0				
	246	Cat to			
▶	324	Dog fo			
	904	Dog le			
	965	Cat fo			
	L123	Dog B		3	
	L129	Dog C		9	
	L366	Litter	16	366	
	L784	Cat Bed	4	784	
*					

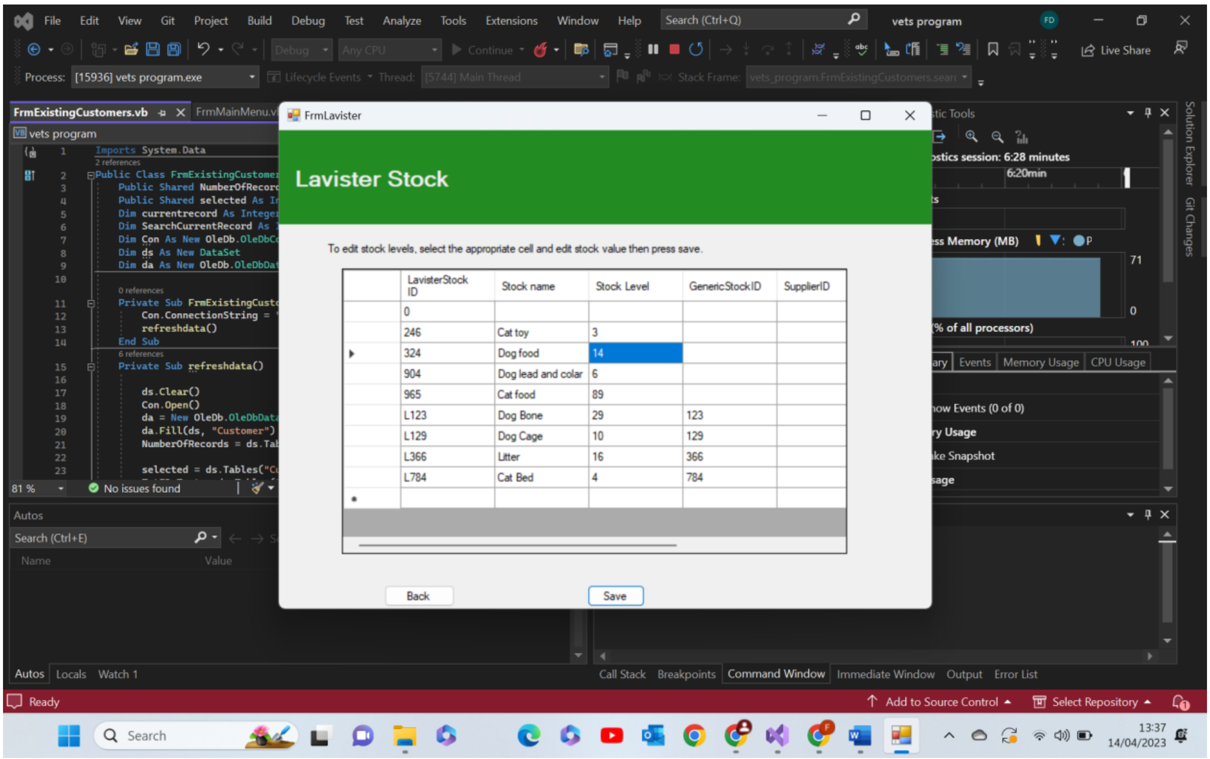
Changes Saved Successfully

OK

Back Save

```
Imports System.Data
2 references
Public Class FrmExistingCustome
    Public Shared NumberOfRecor
    Public Shared selected As I
    Dim currentrecord As Intege
    Dim SearchCurrentRecord As
    Dim Con As New OleDb.OleDbC
    Dim ds As New DataSet
    Dim da As New OleDb.OleDbDat

    0 references
    Private Sub FrmExistingCusto
        Con.ConnectionString =
        refreshdata()
    End Sub
    6 references
    Private Sub refreshdata()

        ds.Clear()
        Con.Open()
        da = New OleDb.OleDbData
        da.Fill(ds, "Customer")
        NumberOfRecords = ds.Tab

        selected = ds.Tables("C
```

File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
vets program
Process: [15936] vets program.exe
FrmExistingCustomers.vb
FrmMainMenu.v
Diagnostics session: 6:09 minutes
Memory (MB)
% of all processors)
81 %
No issues found
Autos
Autos Locals Watch 1
Call Stack Breakpoints Command Window Immediate Window Output Error List
Ready
Add to Source Control
Select Repository
13:37
14/04/2023



FrmLavister

Lavister Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

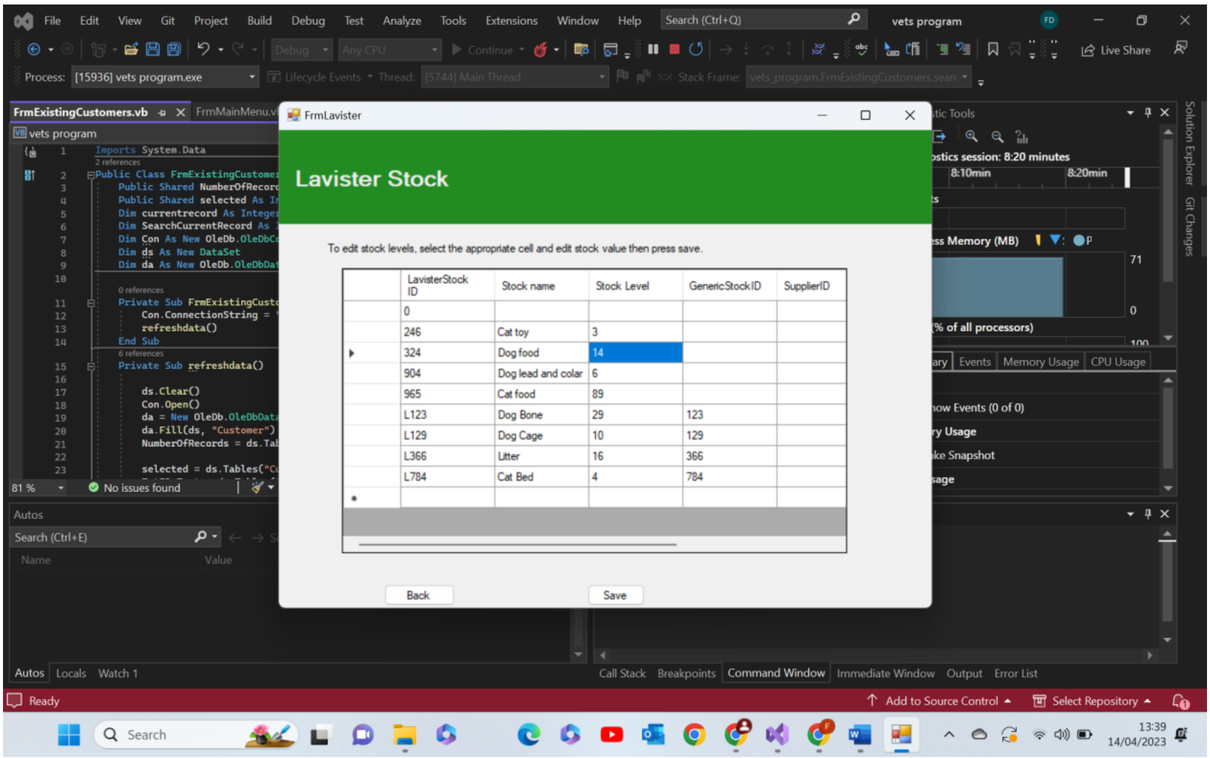
	LavisterStock ID	Stock name	Stock Level	GenericStockID	SupplierID
	0				
	246	Cat toy	3		
▶	324	Dog food	14		
	904	Dog lead and colar	6		
	965	Cat food	89		
	L123	Dog Bone	29	123	
	L129	Dog Cage	10	129	
	L366	Litter	16	366	
	L784	Cat Bed	4	784	
*					

Back Save

```
Imports System.Data
2 references
Public Class FrmExistingCustome
    Public Shared NumberOfRecor
    Public Shared selected As I
    Dim currentrecord As Intege
    Dim SearchCurrentRecord As
    Dim Con As New OleDb.OleDbC
    Dim ds As New DataSet
    Dim da As New OleDb.OleDbDat

    0 references
    Private Sub FrmExistingCusto
        Con.ConnectionString =
        refreshdata()
    End Sub
    6 references
    Private Sub refreshdata()

        ds.Clear()
        Con.Open()
        da = New OleDb.OleDbData
        da.Fill(ds, "Customer")
        NumberOfRecords = ds.Tab

        selected = ds.Tables("C
```

Test 5.3 comments- as we can see above we have used the same data as in test 5.4, the difference being that in this test we have used the save button to write the new value over the old in the database

5.4-



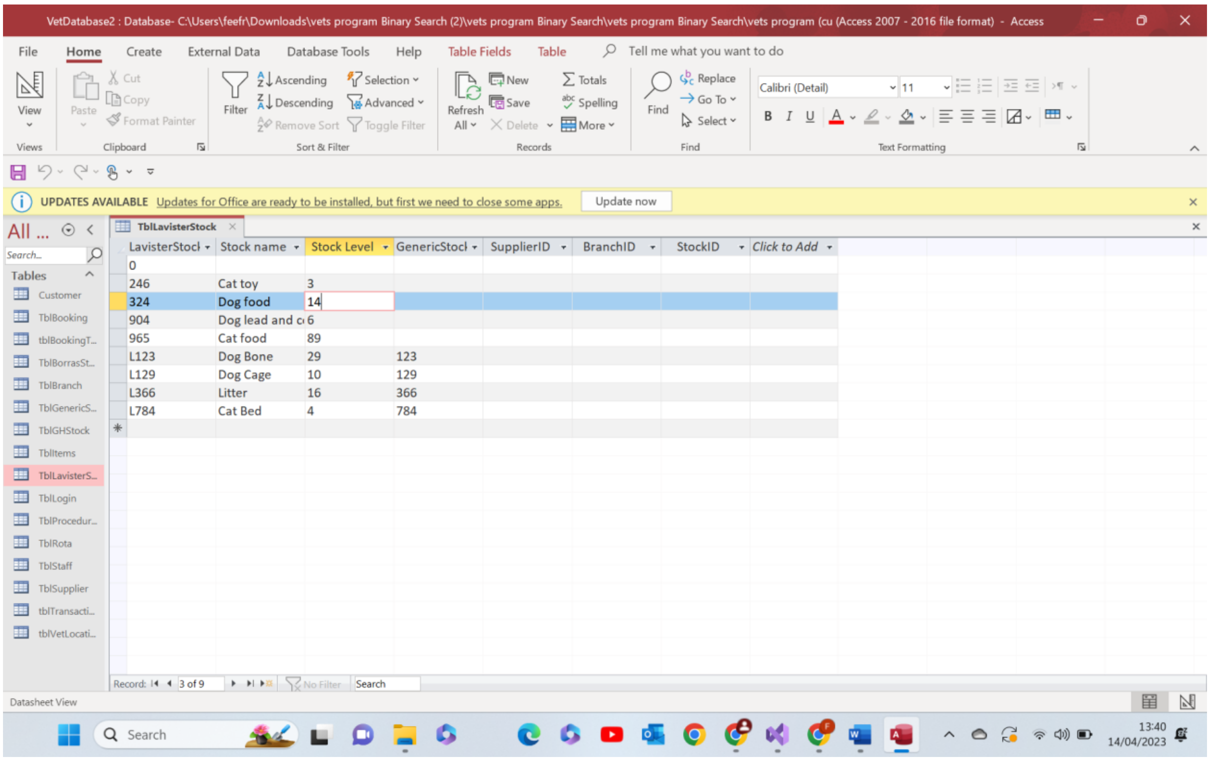
```
Imports System.Data
Public Class FrmExistingCustome
    Public Shared NumberOfRecord
    Public Shared selected As I
    Dim currentrecord As Intege
    Dim SearchCurrentRecord As
    Dim Con As New OleDb.OleDbC
    Dim ds As New DataSet
    Dim da As New OleDb.OleDbDat

    Private Sub FrmExistingCusto
        Con.ConnectionString = '
        refreshdata()
    End Sub
    Private Sub refreshdata()

        ds.Clear()
        Con.Open()
        da = New OleDb.OleDbData
        da.Fill(ds, "Customer")
        NumberOfRecords = ds.Tab

        selected = ds.Tables("Cu
```

Lavister Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

LavisterStock ID	Stock name	Stock Level	GenericStockID	SupplierID
0				
246	Cat toy	3		
324	Dog food	14		
904	Dog lead and colar	6		
965	Cat food	89		
L123	Dog Bone	29	123	
L129	Dog Cage	10	129	
L366	Litter	16	366	
L784	Cat Bed	4	784	

The above screenshot was taken after leaving the form and re opening in an attempt to prove it retains the info



VetDatabase2 : Database- C:\Users\feefr\Downloads\vets program Binary Search (2)\vets program Binary Search\vets program Binary Search\vets program (cu (Access 2007 - 2016 file format) - Access

UPDATES AVAILABLE Updates for Office are ready to be installed, but first we need to close some apps.

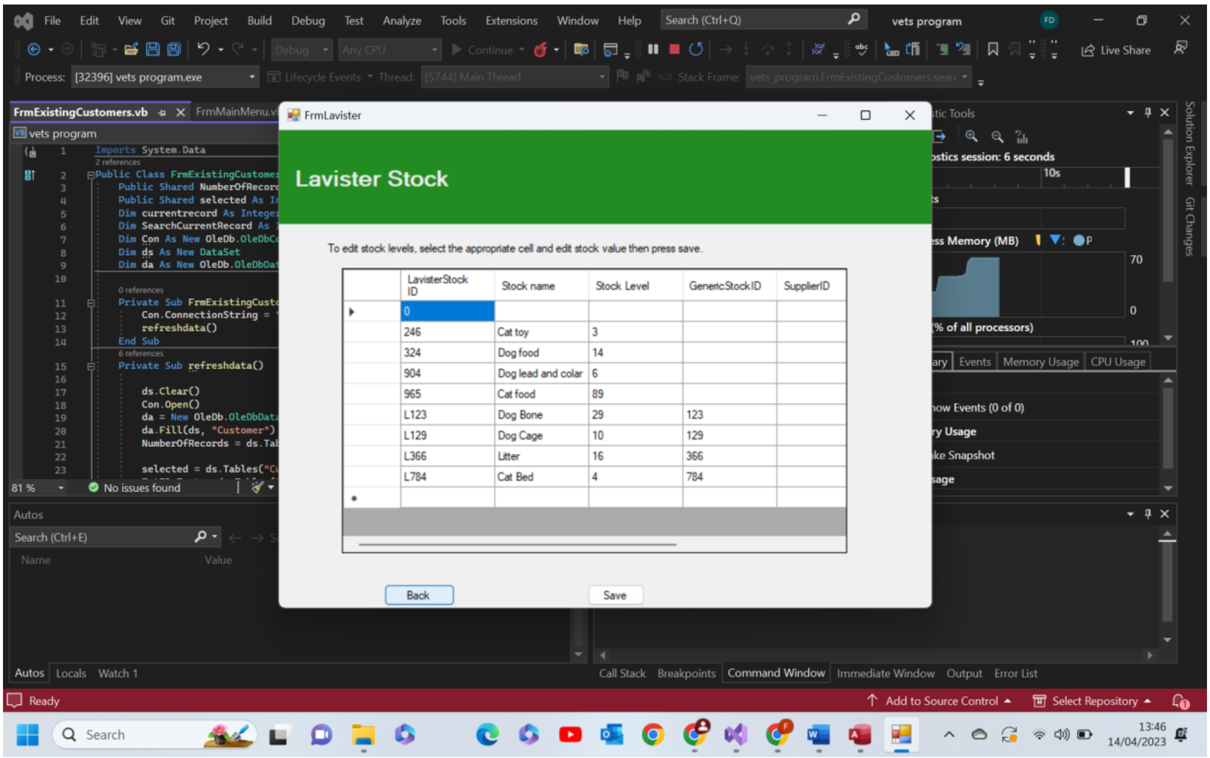
TblLavisterStock

LavisterStocl	Stock name	Stock Level	GenericStocl	SupplierID	BranchID	StockID	Click to Add
0							
246	Cat toy	3					
324	Dog food	14					
904	Dog lead and c	6					
965	Cat food	89					
L123	Dog Bone	29	123				
L129	Dog Cage	10	129				
L366	Litter	16	366				
L784	Cat Bed	4	784				

Record: 3 of 9

Test 5.4 comments- as we can see above the program has run as expected, the value for stock level of dog food I the database has been altered meaning the program has changed the value from within itself. The purpose of these images is an attempt to prove the data has actually been changed. Pass

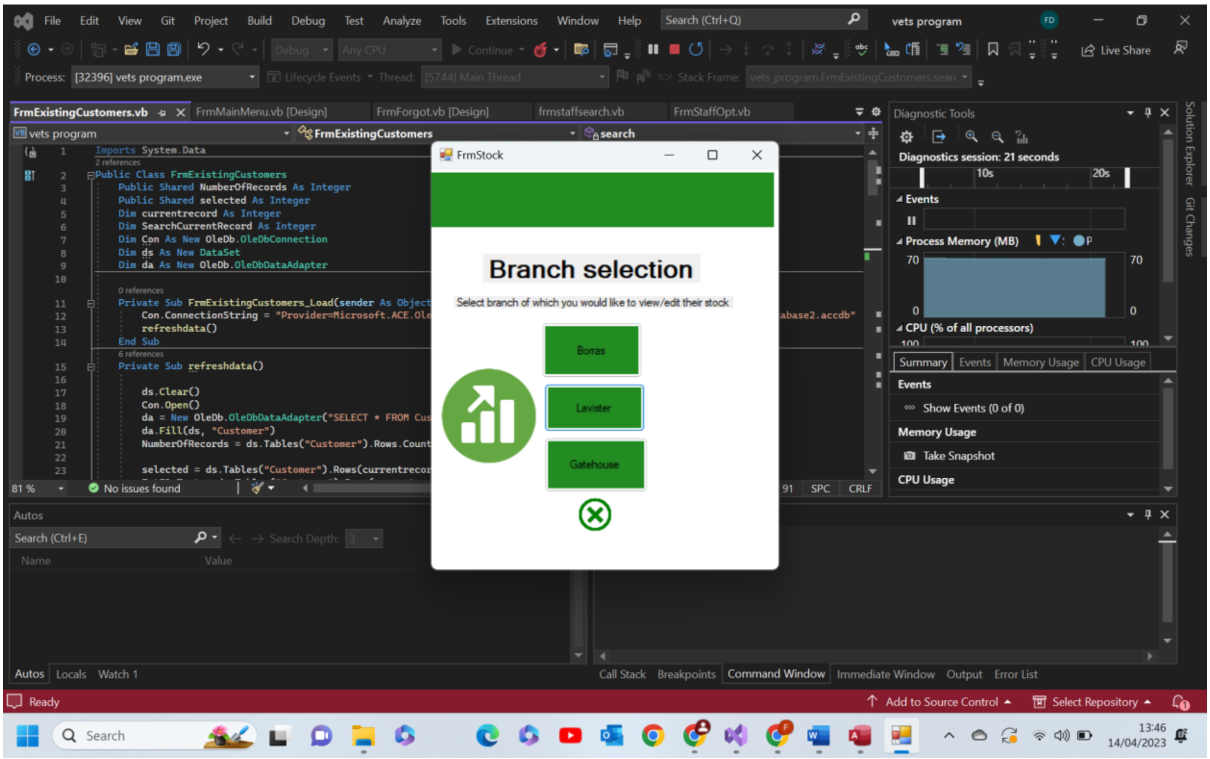
5.5-



Lavister Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

LavisterStock ID	Stock name	Stock Level	GenericStockID	SupplierID
0				
246	Cat toy	3		
324	Dog food	14		
904	Dog lead and colar	6		
965	Cat food	89		
L123	Dog Bone	29	123	
L129	Dog Cage	10	129	
L366	Litter	16	366	
L784	Cat Bed	4	784	



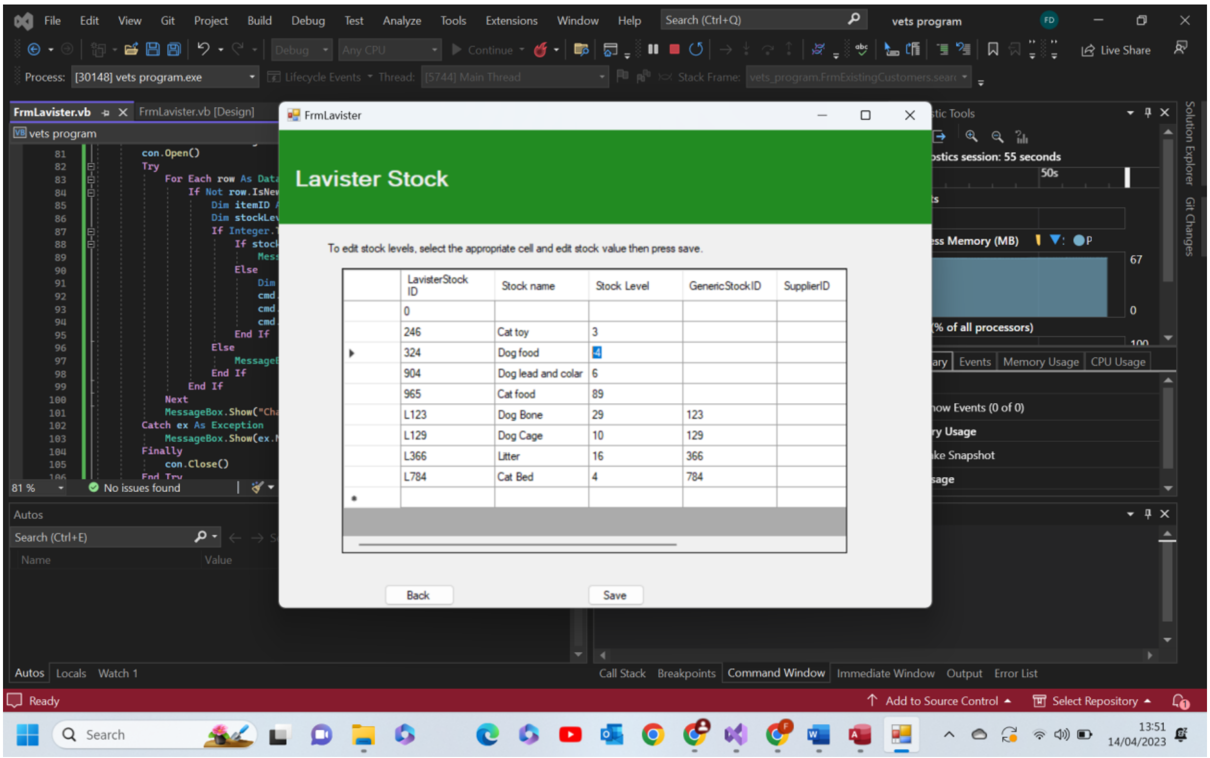
Branch selection

Select branch of which you would like to view/edit their stock

```
Imports System.Data
Public Class FrmExistingCustomers
    Public Shared NumberOfRecords As Integer
    Public Shared selected As Integer
    Dim currentrecord As Integer
    Dim SearchCurrentRecord As Integer
    Dim Con As New OleDb.OleDbConnection
    Dim ds As New DataSet
    Dim da As New OleDb.OleDbDataAdapter

    Private Sub FrmExistingCustomers_Load(sender As Object
        Con.ConnectionString = "Provider=Microsoft.ACE.Ole
        refreshdata()
    End Sub
    Private Sub refreshdata()

        ds.Clear()
        Con.Open()
        da = New OleDb.OleDbDataAdapter("SELECT * FROM Cus
        da.Fill(ds, "Customer")
        NumberOfRecords = ds.Tables("Customer").Rows.Count

        selected = ds.Tables("Customer").Rows(currentrecor
```

Test 5.5 comments- as shown above this works exactly as expected. Pass

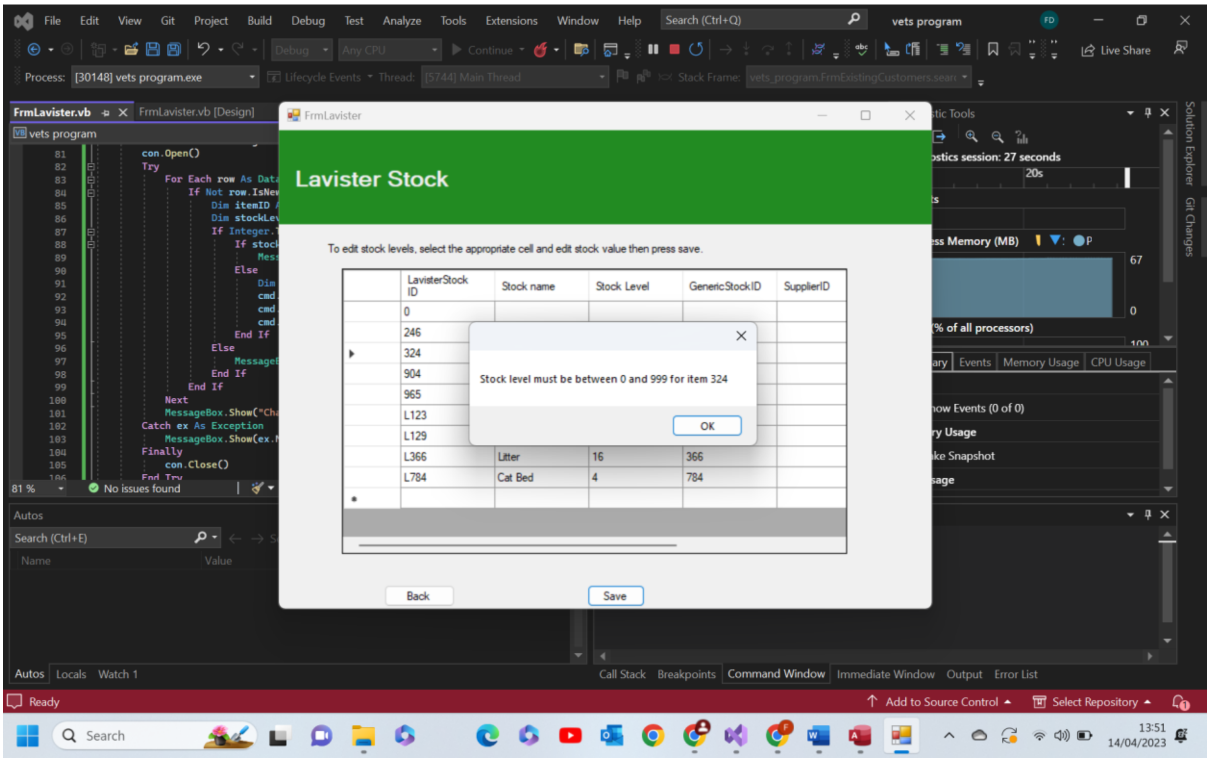
5.6-



Lavister Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

	LavisterStock ID	Stock name	Stock Level	GenericStockID	SupplierID
	0				
	246	Cat toy	3		
▸	324	Dog food	-4		
	904	Dog lead and colar	6		
	965	Cat food	89		
	L123	Dog Bone	29	123	
	L129	Dog Cage	10	129	
	L366	Litter	16	366	
	L784	Cat Bed	4	784	
*					



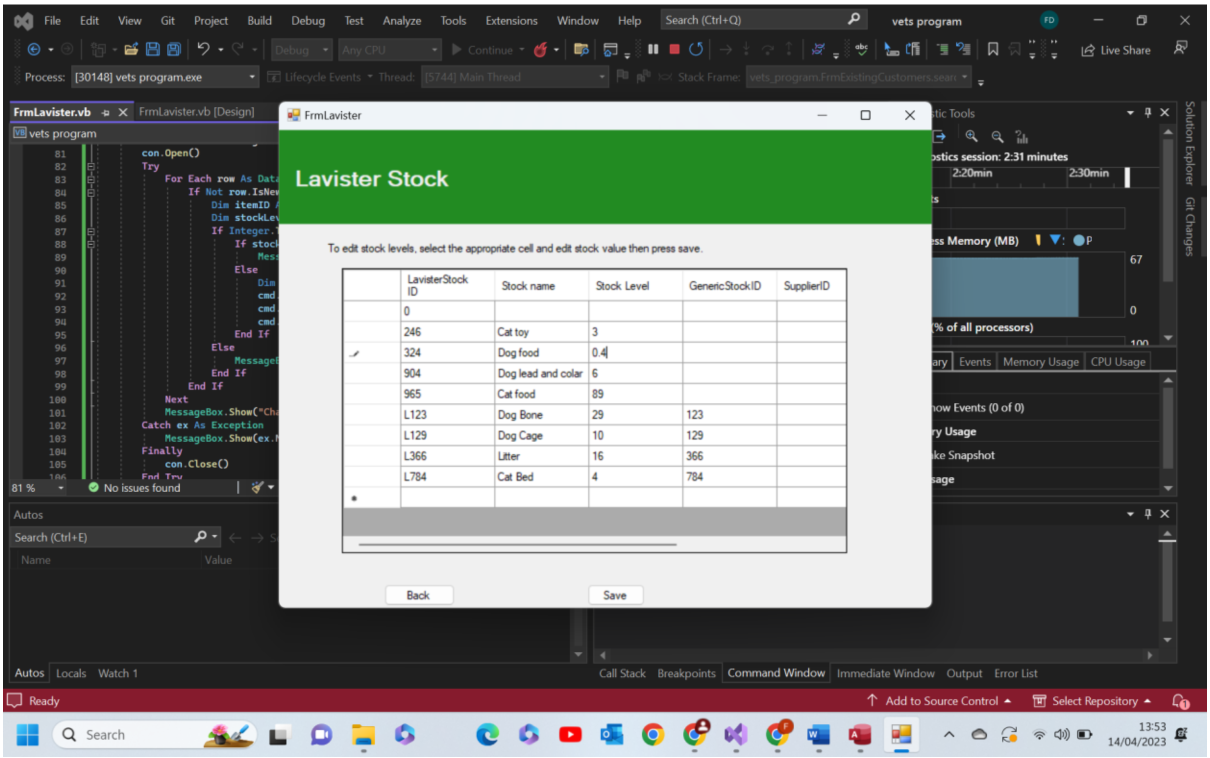
Lavister Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

Stock level must be between 0 and 999 for item 324

Test 5.6 comments- as shown above when the user attempts to enter a negative value the program displays suitable message box and does not save the invalid entered value. Pass

5.7-

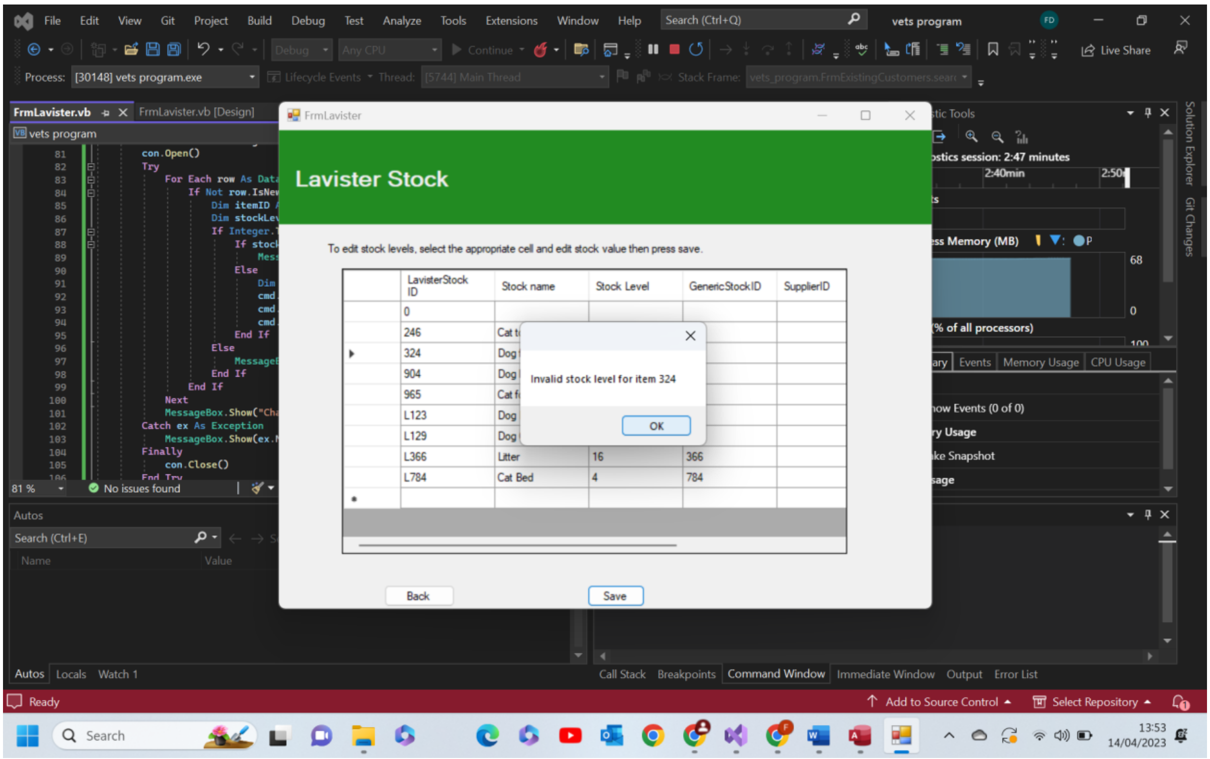


FrmLavister

Lavister Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

	LavisterStock ID	Stock name	Stock Level	GenericStockID	SupplierID
	0				
	246	Cat toy	3		
	324	Dog food	0.4		
	904	Dog lead and colar	6		
	965	Cat food	89		
	L123	Dog Bone	29	123	
	L129	Dog Cage	10	129	
	L366	Litter	16	366	
	L784	Cat Bed	4	784	



FrmLavister

Lavister Stock

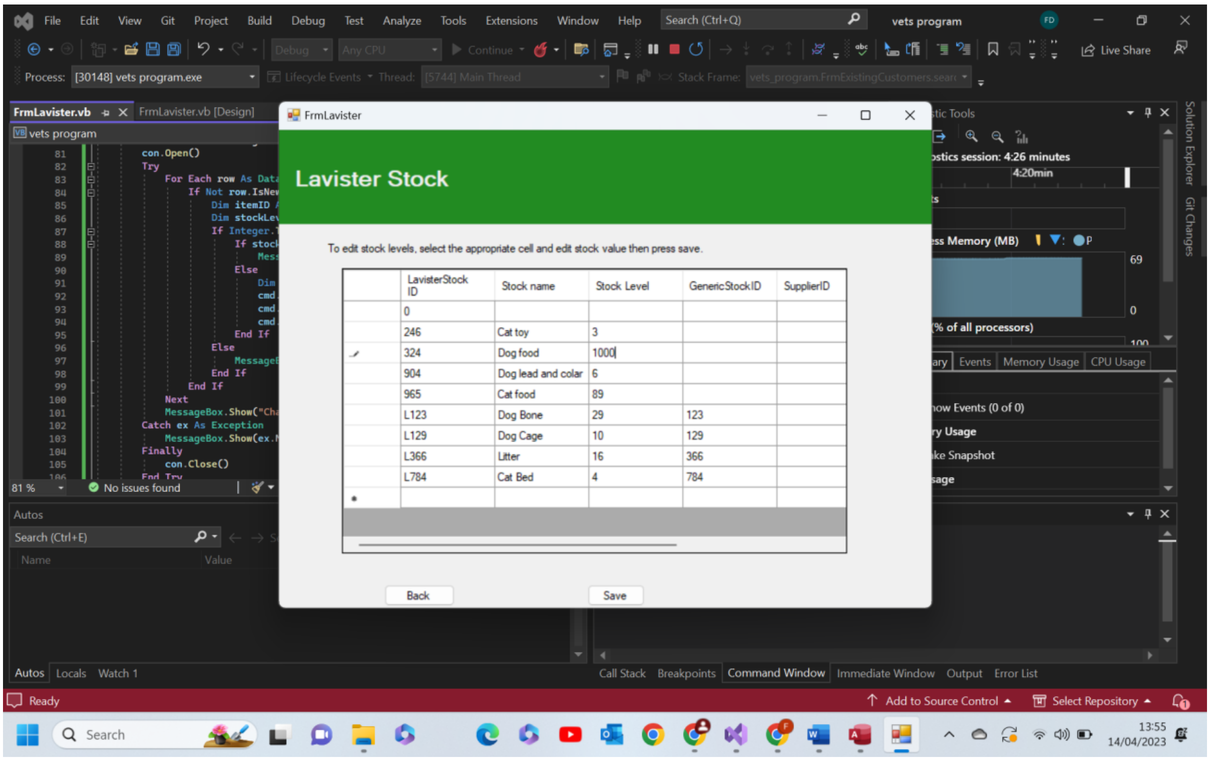
To edit stock levels, select the appropriate cell and edit stock value then press save.

	LavisterStock ID	Stock name	Stock Level	GenericStockID	SupplierID
	0				
	246	Cat t			
	324	Dog			
	904	Dog			
	965	Cat f			
	L123	Dog			
	L129	Dog			
	L366	Litter	16	366	
	L784	Cat Bed	4	784	

Invalid stock level for item 324

Test 5.7 comments- as shown above when the user attempts to enter a non-integer value the program recognises this as does not allows the program to save the new value. Pass

5.8-

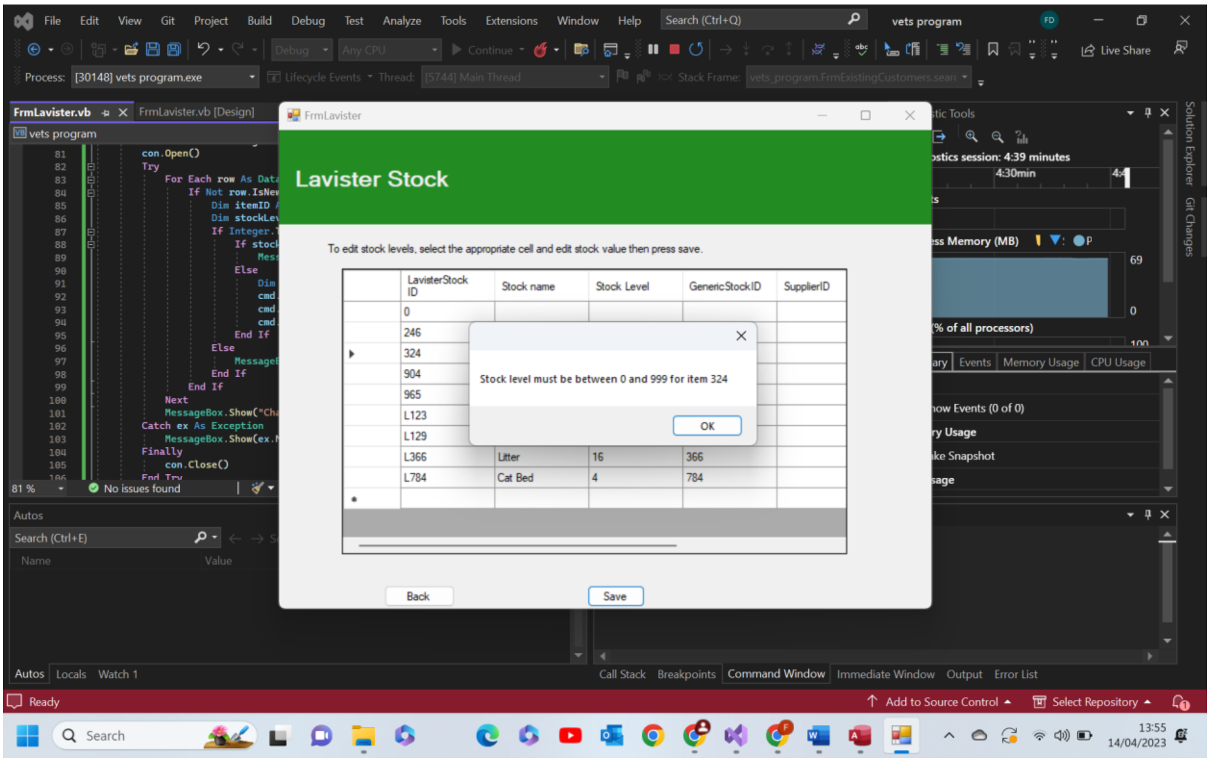


```
con.Open()
Try
    For Each row As Data
        If Not row.IsNew
            Dim itemID A
            Dim stockLev
            If Integer.
                If stock
                    Mess
                Else
                    Dim
                    cmd.
                    cmd.
                    cmd.
                End If
            Else
                Message
            End If
        End If
    Next
    MessageBox.Show("Cha
Catch ex As Exception
    MessageBox.Show(ex.M
Finally
    con.Close()
End Try
```

Lavister Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

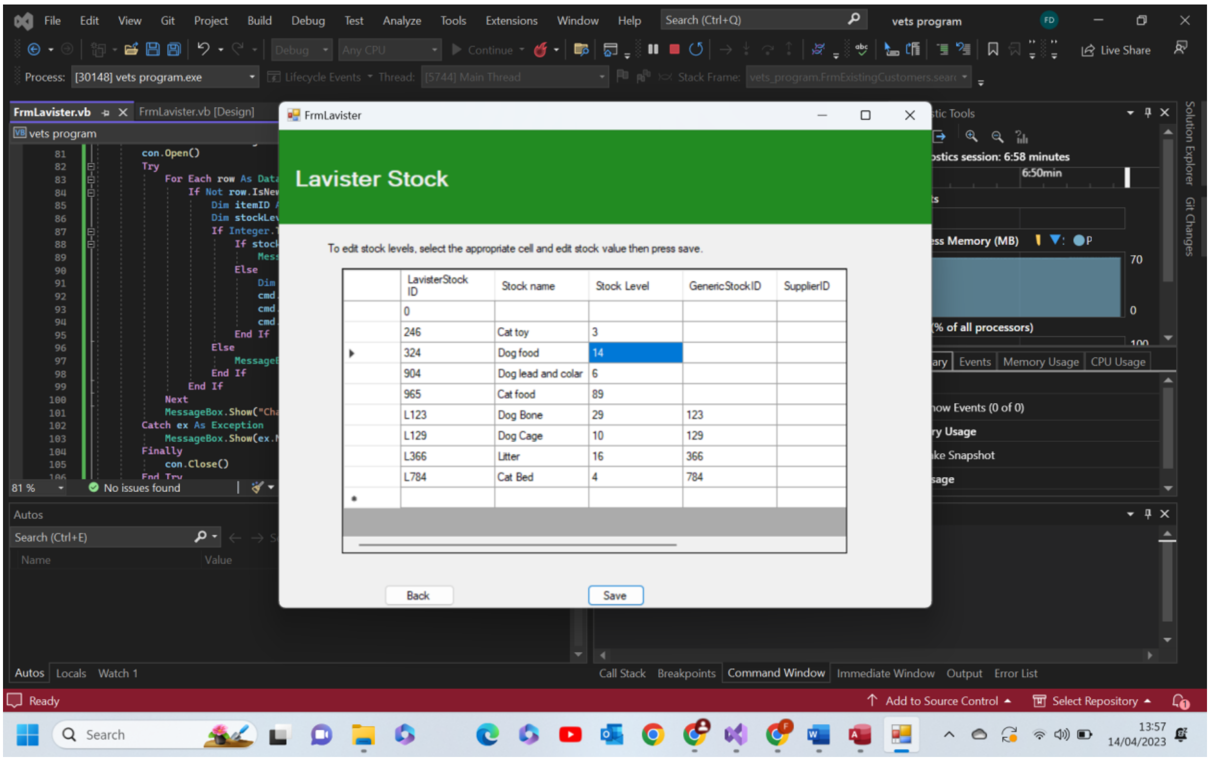
LavisterStock ID	Stock name	Stock Level	GenericStockID	SupplierID
0				
246	Cat toy	3		
324	Dog food	1000		
904	Dog lead and colar	6		
965	Cat food	89		
L123	Dog Bone	29	123	
L129	Dog Cage	10	129	
L366	Litter	16	366	
L784	Cat Bed	4	784	



Stock level must be between 0 and 999 for item 324

Test 5.8 comments- as shown above when a value deemed to be unrealistic in entered, in this case I have set that value as 999, the program recognises this extreme, invalid data and outputs a suitable message box. Pass

Validation tests aftermath-



```
con.Open()
Try
    For Each row As Data
        If Not row.IsNew
            Dim itemID A
            Dim stockLev
            If Integer.T
                If stock
                    Mess
                Else
                    Dim
                    cmd.
                    cmd.
                    cmd.
                End If
            Else
                MessageB
            End If
        End If
    Next
    MessageBox.Show("Cha
Catch ex As Exception
    MessageBox.Show(ex.M
Finally
    con.Close()
End Try
```

Lavister Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

	LavisterStock ID	Stock name	Stock Level	GenericStockID	SupplierID
	0				
	246	Cat toy	3		
▶	324	Dog food	14		
	904	Dog lead and colar	6		
	965	Cat food	89		
	L123	Dog Bone	29	123	
	L129	Dog Cage	10	129	
	L366	Litter	16	366	
	L784	Cat Bed	4	784	
*					

Back Save

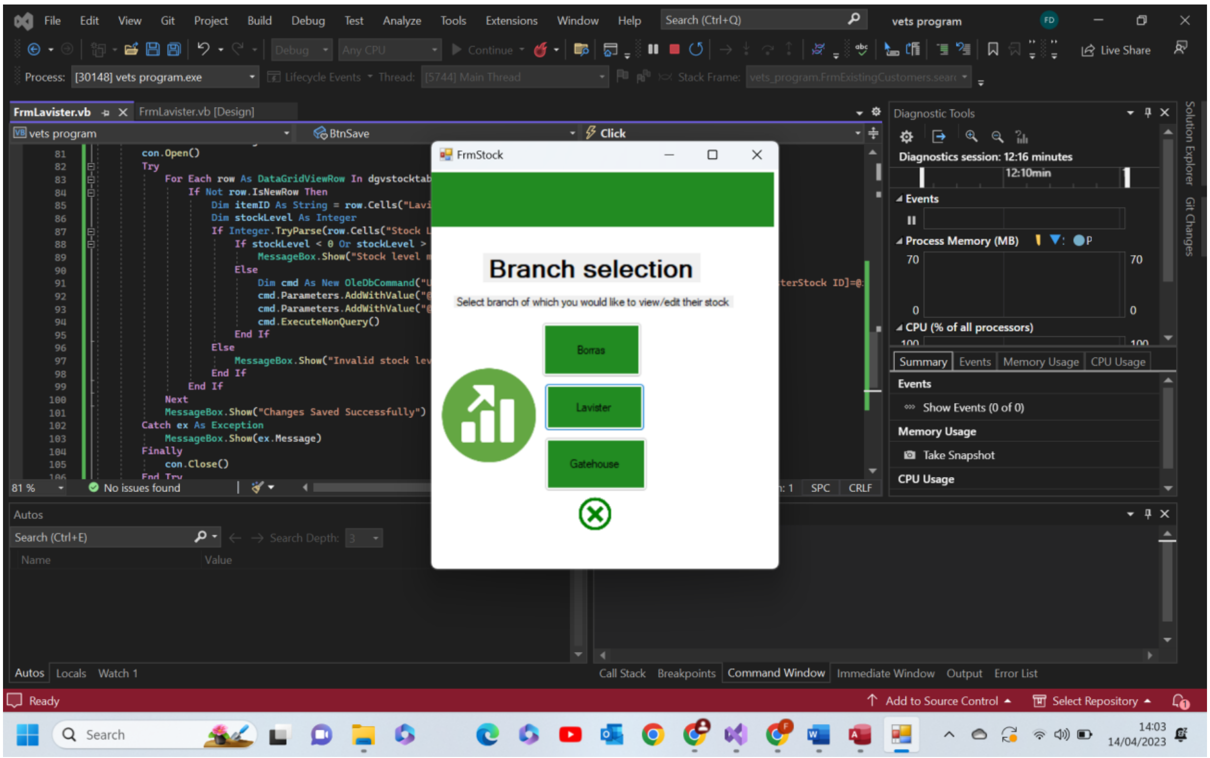
As we can clearly see despite all the invalid and extreme values entered the program has kept its original value of 14, further proof of the validity of the checks.

Test group 6- Borras stock edit form:

Test Number	Test data	Actual outcome	Verdict	Comment
1	Lavister stock table In access form. Functional test	When the form was loaded each piece of info was loaded into the correct columns and rows as expected.	Pass	N/A
2	Any value from stock level column Functional valid test	As expected when a cell was selected the user was able to edit the data integer value inside this cell.	Pass	N/A
3	Functional test using valid data, changed the value of any value in stock level column	As expected the data was edited and a text box appeared confirming this	Pass	N/A
4	Functional test Uses valid data same as test 3	As expected, not only was the data changed in the DGV but it was	Pass	N/A

		written into the appropriate places in the access database. This means that when the form is closed and re-opened the data most recently saved was still there.		
5	Functional test	As expected the stock option form was selected	Pass	N/A
6	Invalid Negative integer Specifically ‘-4’	As expected the program recognised the negative value as invalid and output an appropriate message box warning the user of the issue	Pass	N/A
7	Invalid data Non integer Specifically ‘0.4’	As expected the program recognised the non-integer value as invalid and output an appropriate message box warning the user of the issue	Pass	N/A
8	Extreme test data type Extremely large intger, unrealistic Specifically ‘1000’	As expected the program recognised the large value as invalid and output an appropriate message box warning the user of the issue	Pass	N/A

6.1-

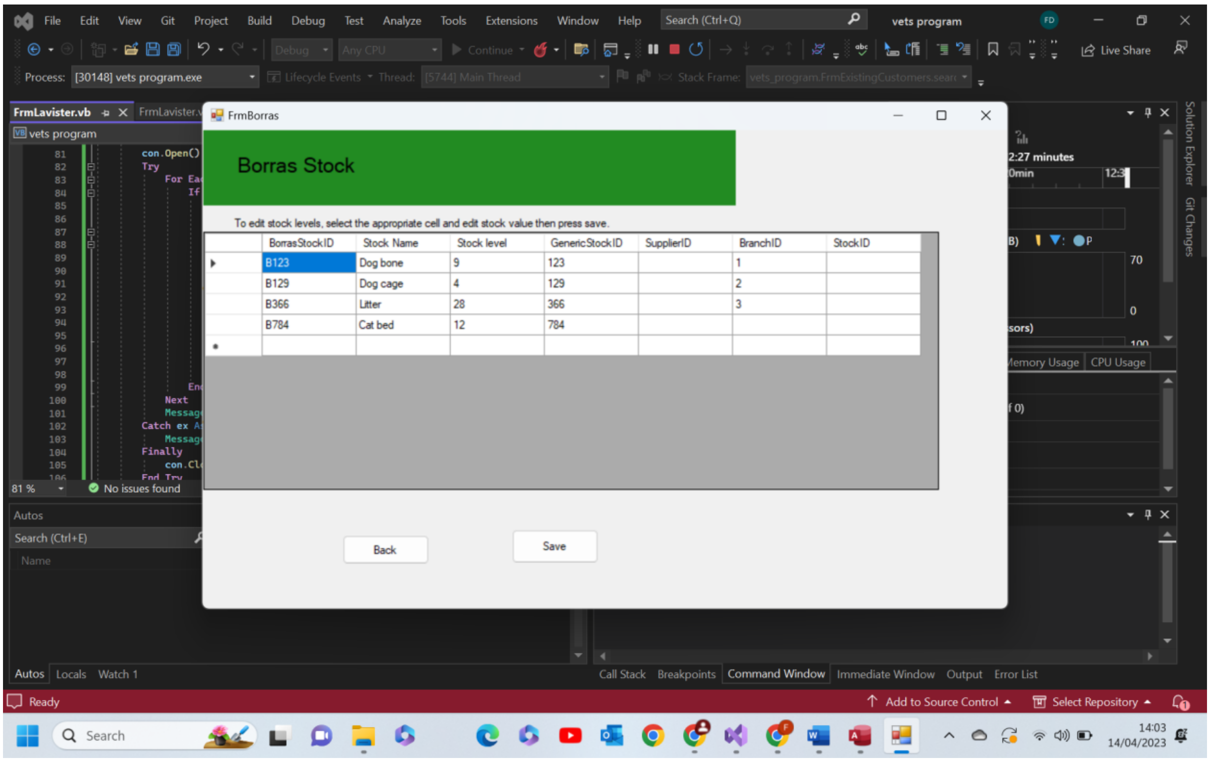


```
con.Open()
Try
    For Each row As DataGridViewRow In dgvstocktab
        If Not row.IsNewRow Then
            Dim itemID As String = row.Cells("Lavi
            Dim stockLevel As Integer
            If Integer.TryParse(row.Cells("Stock L
                If stockLevel < 0 Or stockLevel >
                    MessageBox.Show("Stock level m
                Else
                    Dim cmd As New OleDbCommand("U
                    cmd.Parameters.AddWithValue("@
                    cmd.Parameters.AddWithValue("@
                    cmd.ExecuteNonQuery()
                End If
            Else
                MessageBox.Show("Invalid stock lev
            End If
        End If
    Next
    MessageBox.Show("Changes Saved Successfully")
Catch ex As Exception
    MessageBox.Show(ex.Message)
Finally
    con.Close()
End Try
```

FrmStock

Branch selection

Select branch of which you would like to view/edit their stock



FrmBorras

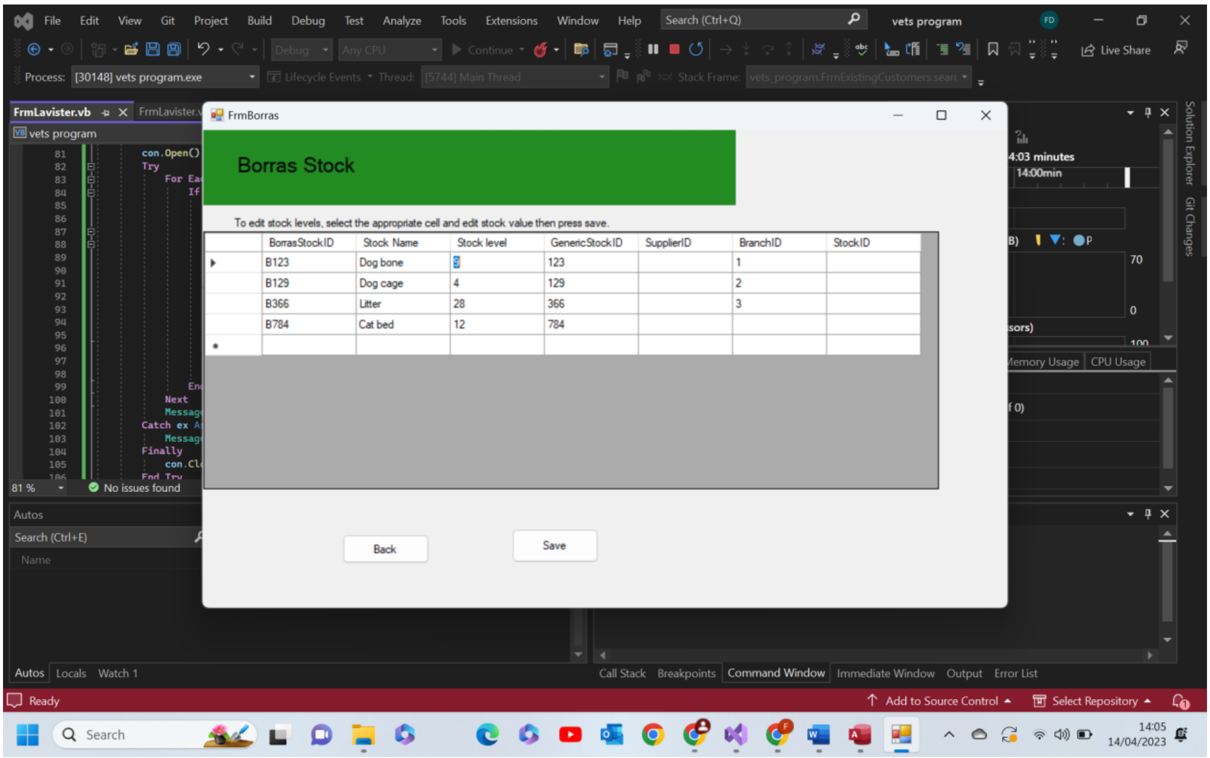
Borras Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

BorrasStockID	Stock Name	Stock level	GenericStockID	SupplierID	BranchID	StockID
B123	Dog bone	9	123		1	
B129	Dog cage	4	129		2	
B366	Litter	28	366		3	
B784	Cat bed	12	784			

Test 6.1 comments- as is evident above, as expected the data from the borras stock table in the database is loaded into the DGV as soon as the form loads. Pass

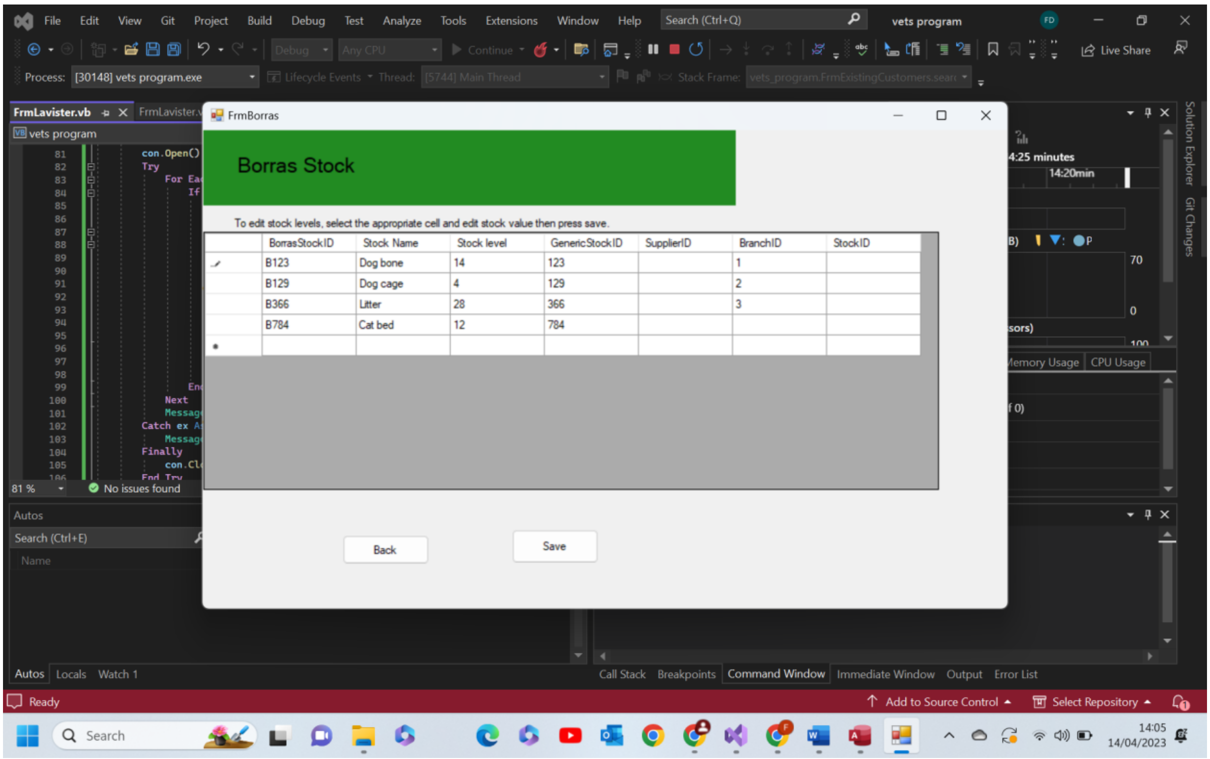
6.2-



Borras Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

	BorrasStockID	Stock Name	Stock level	GenericStockID	SupplierID	BranchID	StockID
▶	B123	Dog bone	9	123		1	
	B129	Dog cage	4	129		2	
	B366	Litter	28	366		3	
	B784	Cat bed	12	784			
*							



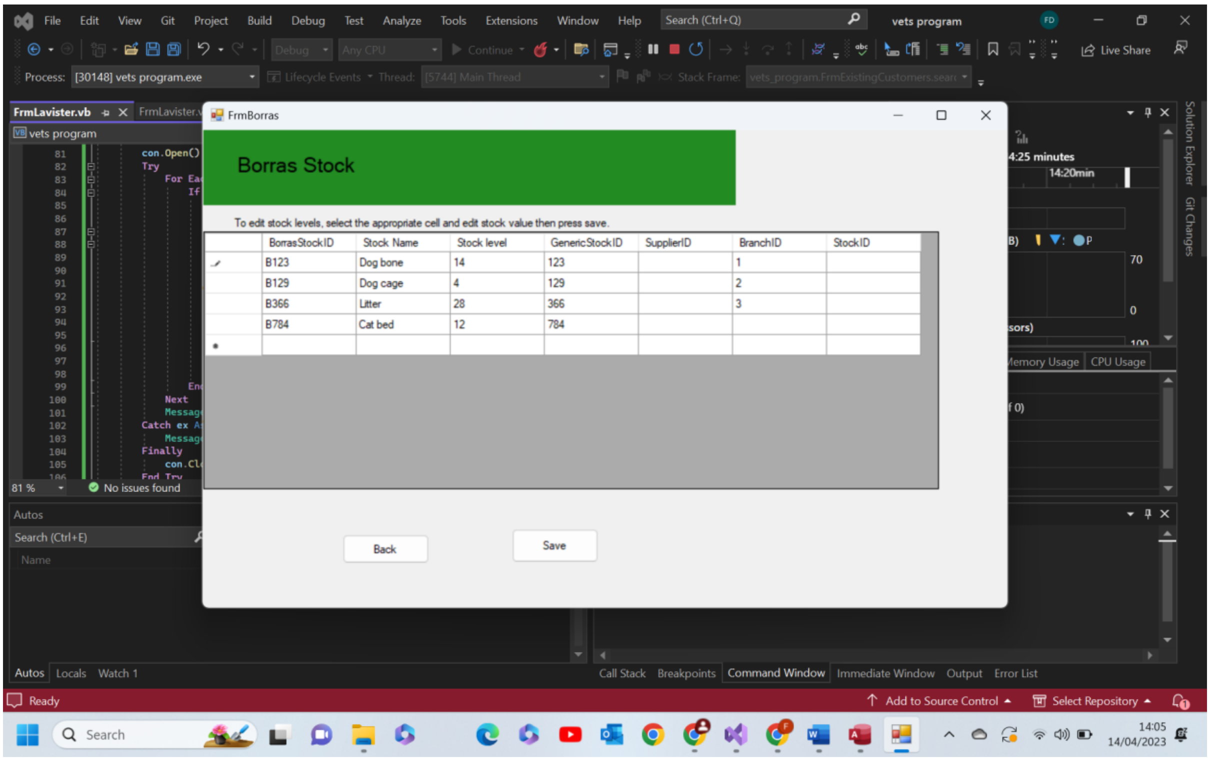
Borras Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

	BorrasStockID	Stock Name	Stock level	GenericStockID	SupplierID	BranchID	StockID
✎	B123	Dog bone	14	123		1	
	B129	Dog cage	4	129		2	
	B366	Litter	28	366		3	
	B784	Cat bed	12	784			
*							

Test 6.2 comments- as is shown above, when the user selects a cell within the stock level column the user is able to edit the value inside of it. Pass

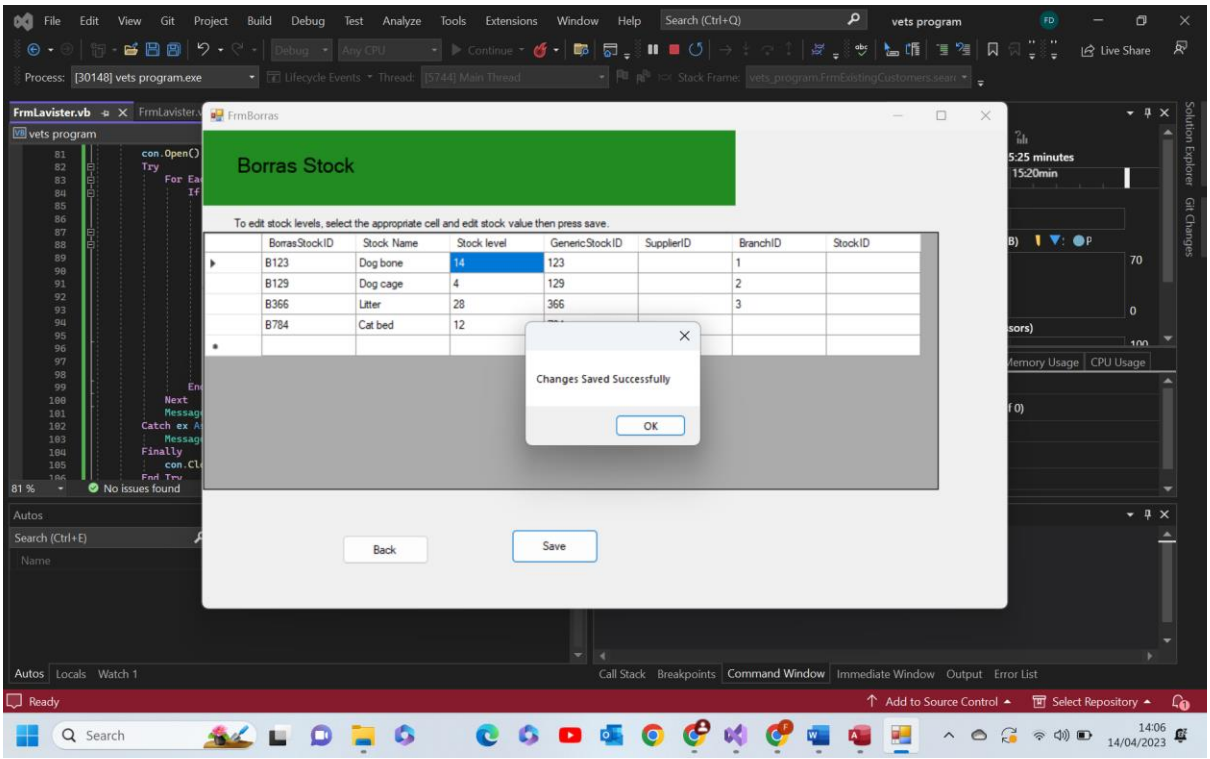
6.3-


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
vets program
Live Share
Process: [30148] vets program.exe
FrmLavister.vb
FrmBorras
Back
Save
Autos Locals Watch 1
Call Stack Breakpoints Command Window Immediate Window Output Error List
Ready
Add to Source Control
Select Repository
14:05
14/04/2023

Borras Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

	BorrasStockID	Stock Name	Stock level	GenericStockID	SupplierID	BranchID	StockID
	B123	Dog bone	14	123		1	
	B129	Dog cage	4	129		2	
	B366	Litter	28	366		3	
	B784	Cat bed	12	784			
*							


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
vets program
Live Share
Process: [30148] vets program.exe
FrmLavister.vb
FrmBorras
OK
Back
Save
Autos Locals Watch 1
Call Stack Breakpoints Command Window Immediate Window Output Error List
Ready
Add to Source Control
Select Repository
14:06
14/04/2023

Borras Stock

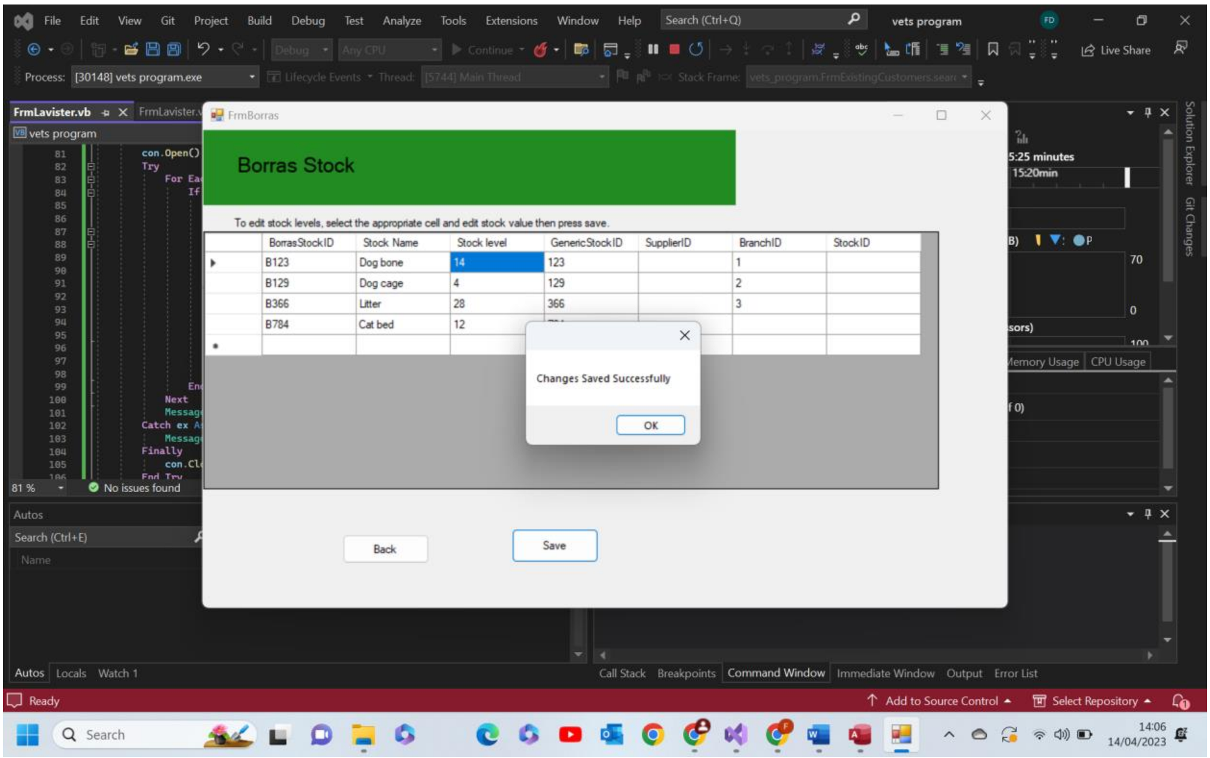
To edit stock levels, select the appropriate cell and edit stock value then press save.

	BorrasStockID	Stock Name	Stock level	GenericStockID	SupplierID	BranchID	StockID
▸	B123	Dog bone	14	123		1	
	B129	Dog cage	4	129		2	
	B366	Litter	28	366		3	
	B784	Cat bed	12				
*							

Changes Saved Successfully

Test 6.3 comments- this test is similar to test 6.2 with the only difference being the use of the save button. As expected a message box appears and informs the user of the changes that have been made and that the changes were successful. Pass

6.4-



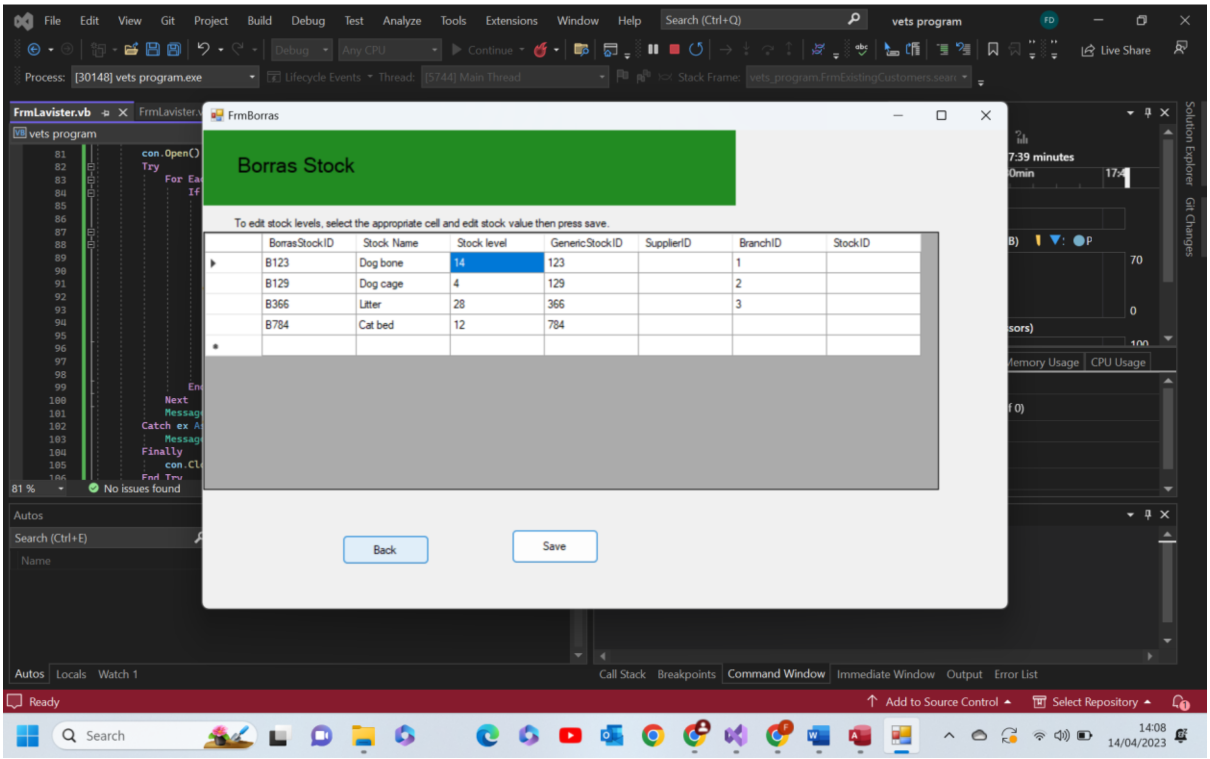
FrmBorras

Borras Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

	BorrasStockID	Stock Name	Stock level	GenericStockID	SupplierID	BranchID	StockID
▸	B123	Dog bone	14	123		1	
	B129	Dog cage	4	129		2	
	B366	Litter	28	366		3	
	B784	Cat bed	12	784			
*							

Changes Saved Successfully



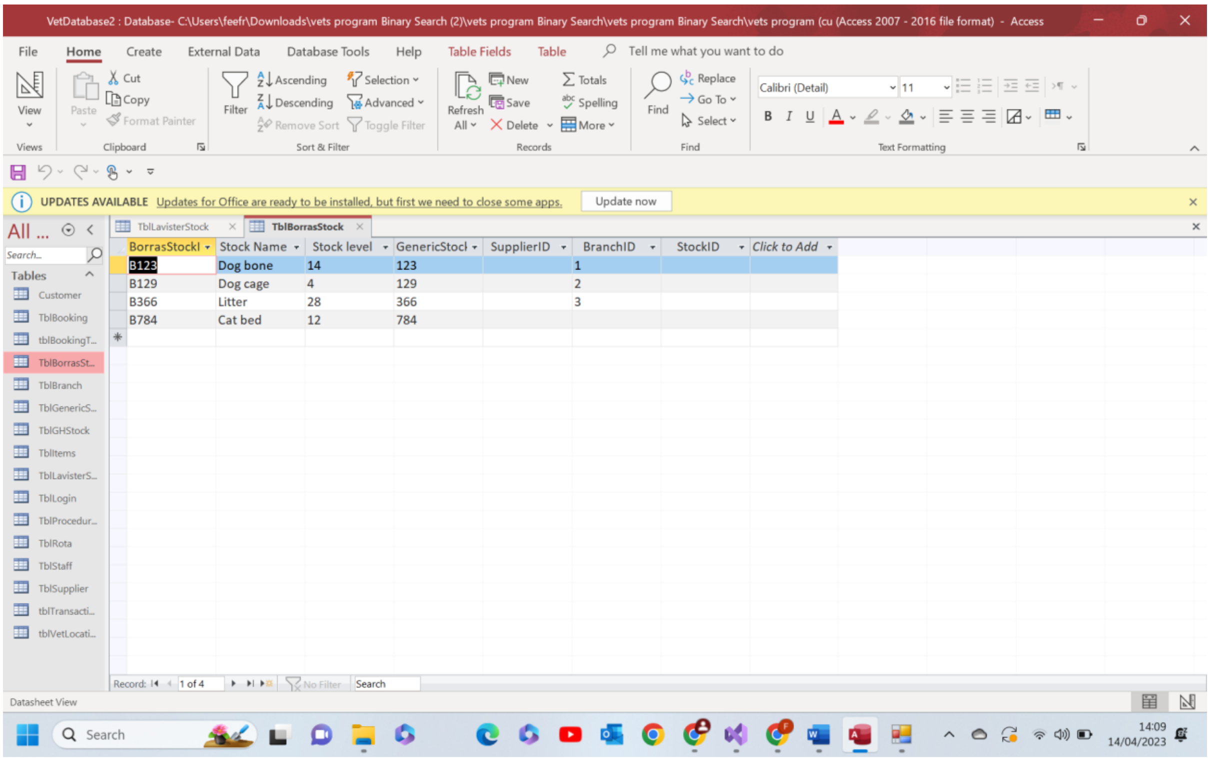
FrmBorras

Borras Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

	BorrasStockID	Stock Name	Stock level	GenericStockID	SupplierID	BranchID	StockID
▸	B123	Dog bone	14	123		1	
	B129	Dog cage	4	129		2	
	B366	Litter	28	366		3	
	B784	Cat bed	12	784			
*							

Thos second screenshot is after closing and re-opening the form to prove the value remains.



VetDatabase2 : Database- C:\Users\feefr\Downloads\vets program Binary Search (2)\vets program Binary Search\vets program Binary Search\vets program (cu (Access 2007 - 2016 file format) - Access

TblBorrasStock

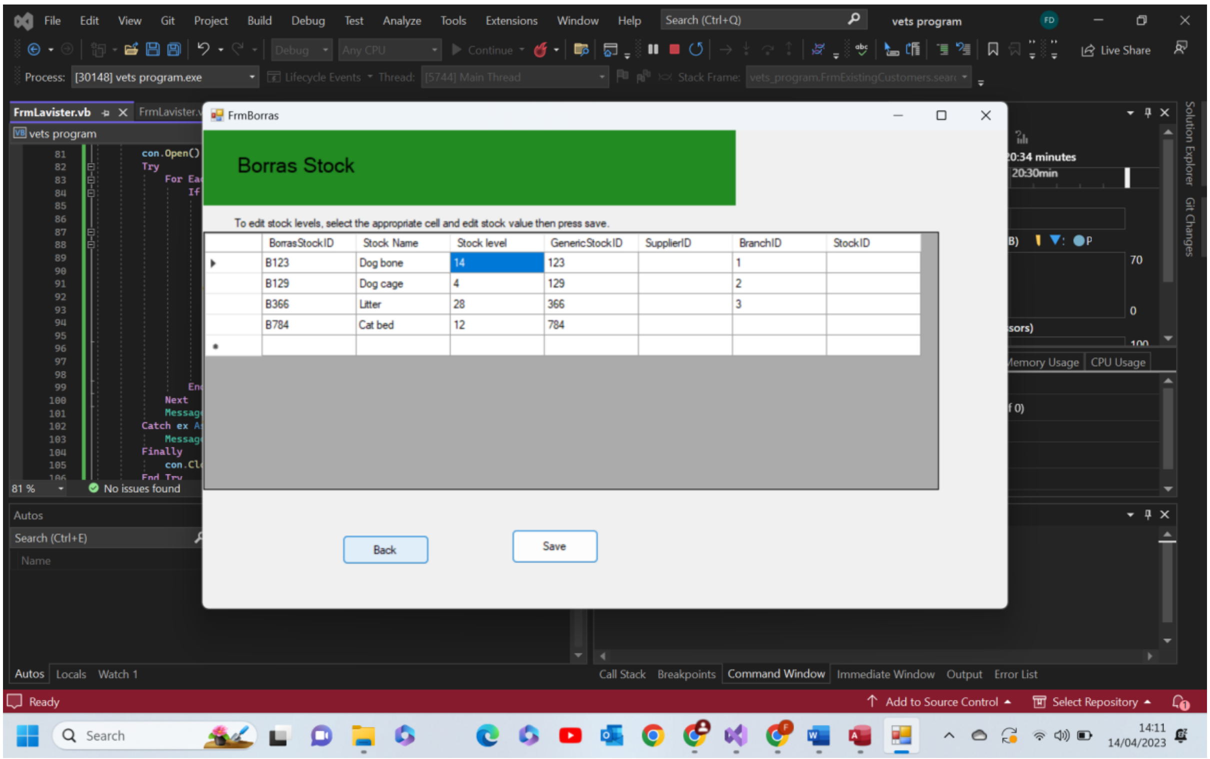
BorrasStockI	Stock Name	Stock level	GenericStocl	SupplierID	BranchID	StockID	Click to Add
B123	Dog bone	14	123		1		
B129	Dog cage	4	129		2		
B366	Litter	28	366		3		
B784	Cat bed	12	784				

Record: 1 of 4

Test 6.4 comments- in this test I have included screen shots of all aspects of the save. The second is to prove that the value remains once the program has been closed and re-opened and the third is to prove the value has actually been written into the database.

Pass

6.5-



FrmBorras

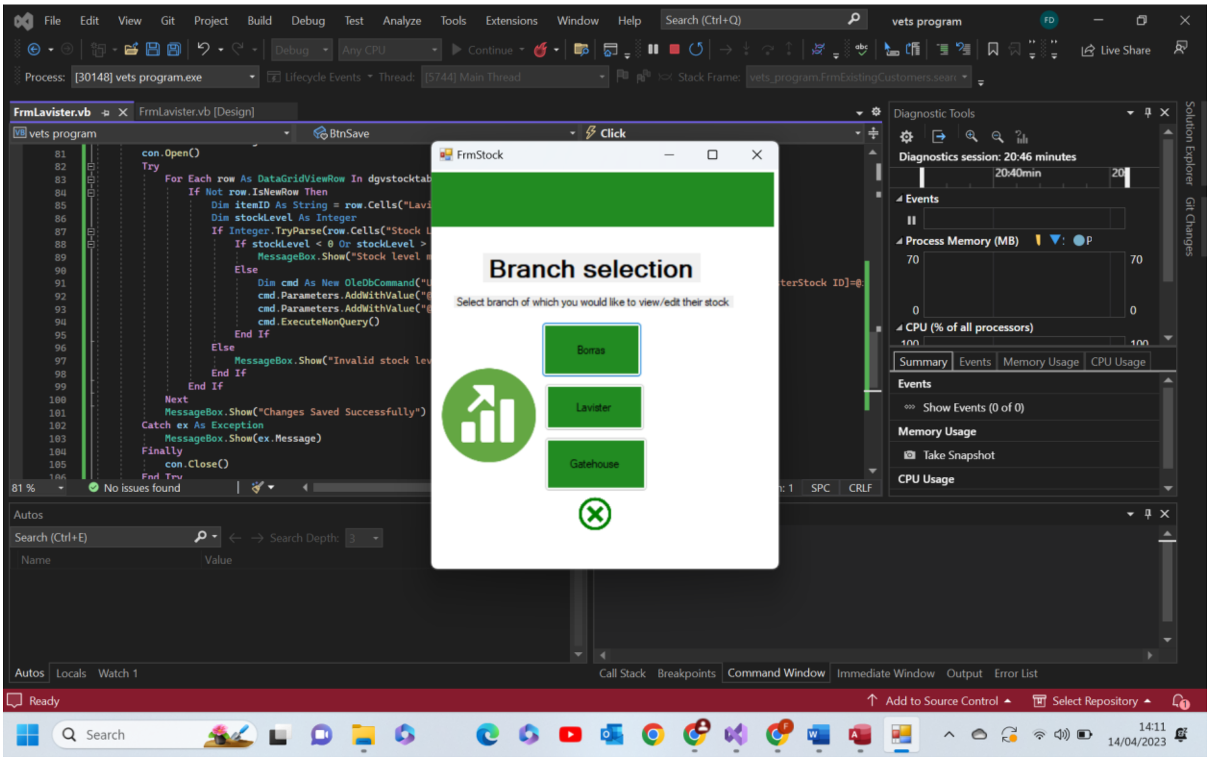
Borras Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

BorrasStockID	Stock Name	Stock level	GenericStockID	SupplierID	BranchID	StockID
B123	Dog bone	14	123		1	
B129	Dog cage	4	129		2	
B366	Litter	28	366		3	
B784	Cat bed	12	784			

Back

Save



```
con.Open()
Try
    For Each row As DataGridViewRow In dgvstocktab
        If Not row.IsNewRow Then
            Dim itemID As String = row.Cells("Lavi
            Dim stockLevel As Integer
            If Integer.TryParse(row.Cells("Stock L
                If stockLevel < 0 Or stockLevel >
                    MessageBox.Show("Stock level m
                Else
                    Dim cmd As New OleDbCommand("U
                    cmd.Parameters.AddWithValue("@
                    cmd.Parameters.AddWithValue("@
                    cmd.ExecuteNonQuery()
                End If
            Else
                MessageBox.Show("Invalid stock lev
            End If
        End If
    Next
    MessageBox.Show("Changes Saved Successfully")
Catch ex As Exception
    MessageBox.Show(ex.Message)
Finally
    con.Close()
End Try
```

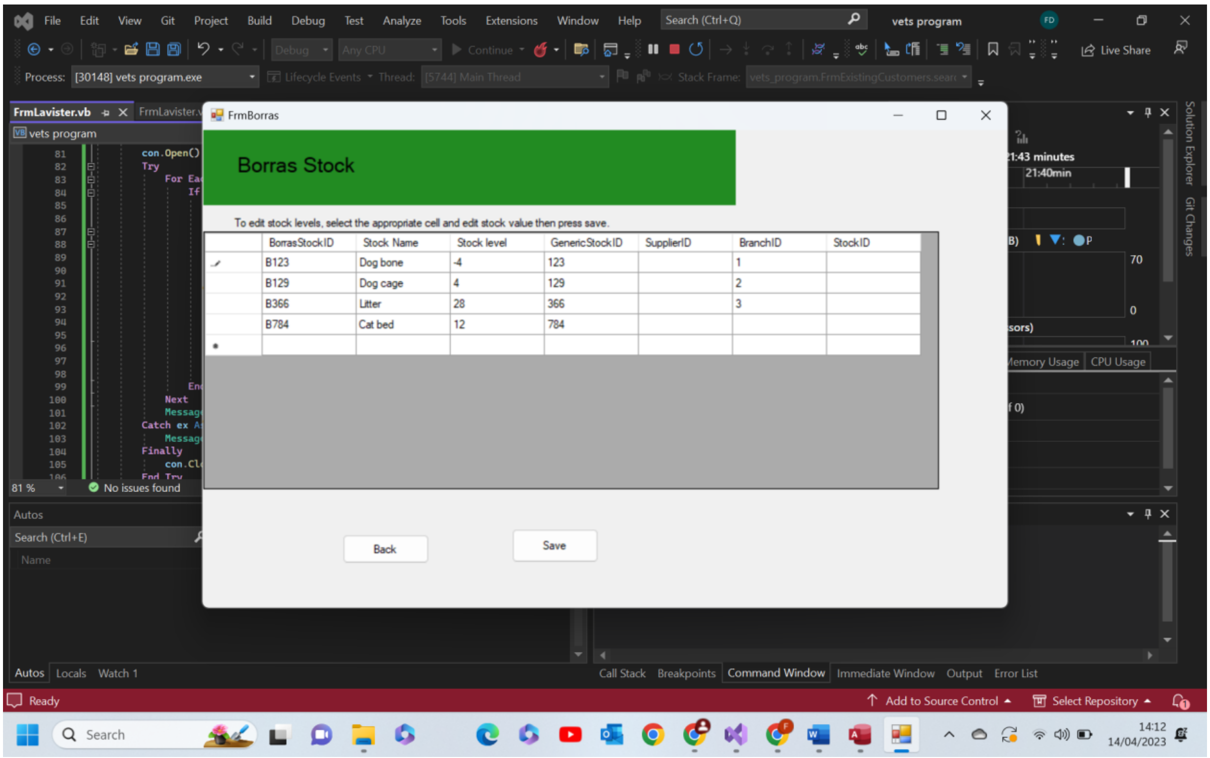
FrmStock

Branch selection

Select branch of which you would like to view/edit their stock

Test 6.5 comments- as shown above the back button works as expected. Pass

6.6-

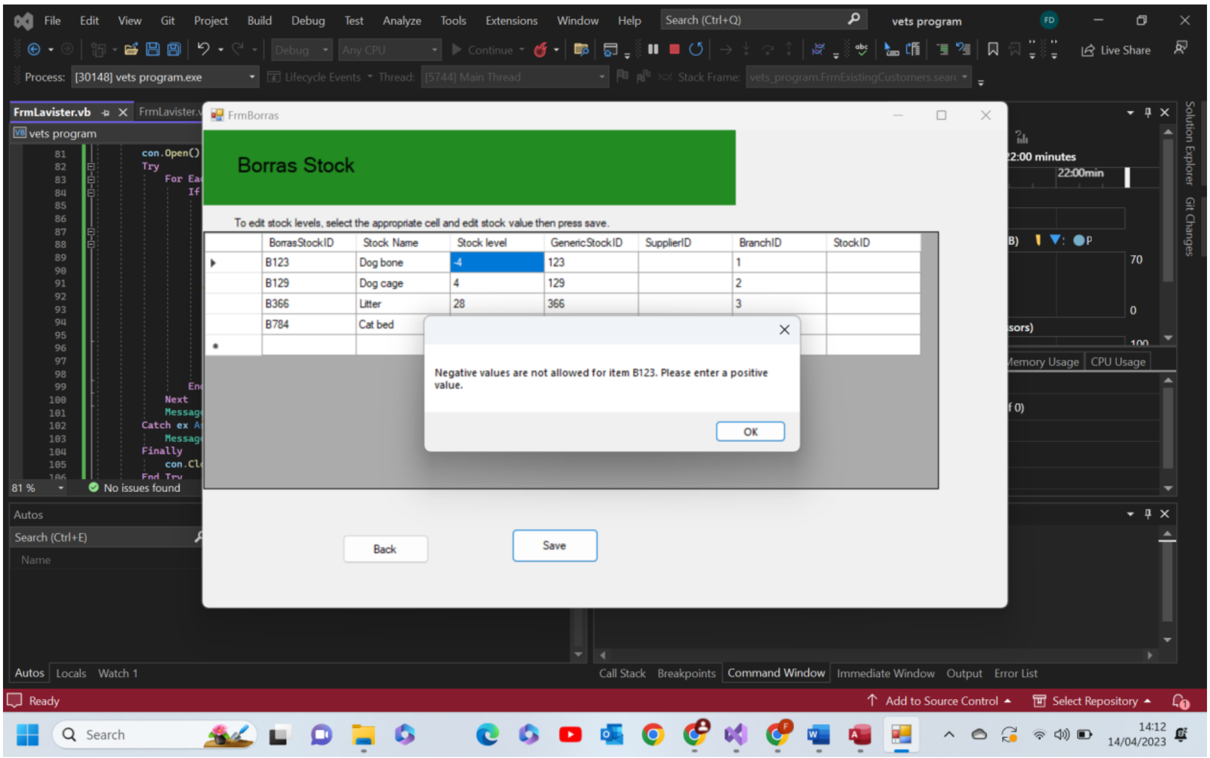


FrmBorras

Borras Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

	BorrasStockID	Stock Name	Stock level	GenericStockID	SupplierID	BranchID	StockID
✎	B123	Dog bone	-4	123		1	
	B129	Dog cage	4	129		2	
	B366	Litter	28	366		3	
	B784	Cat bed	12	784			
*							



Borras Stock

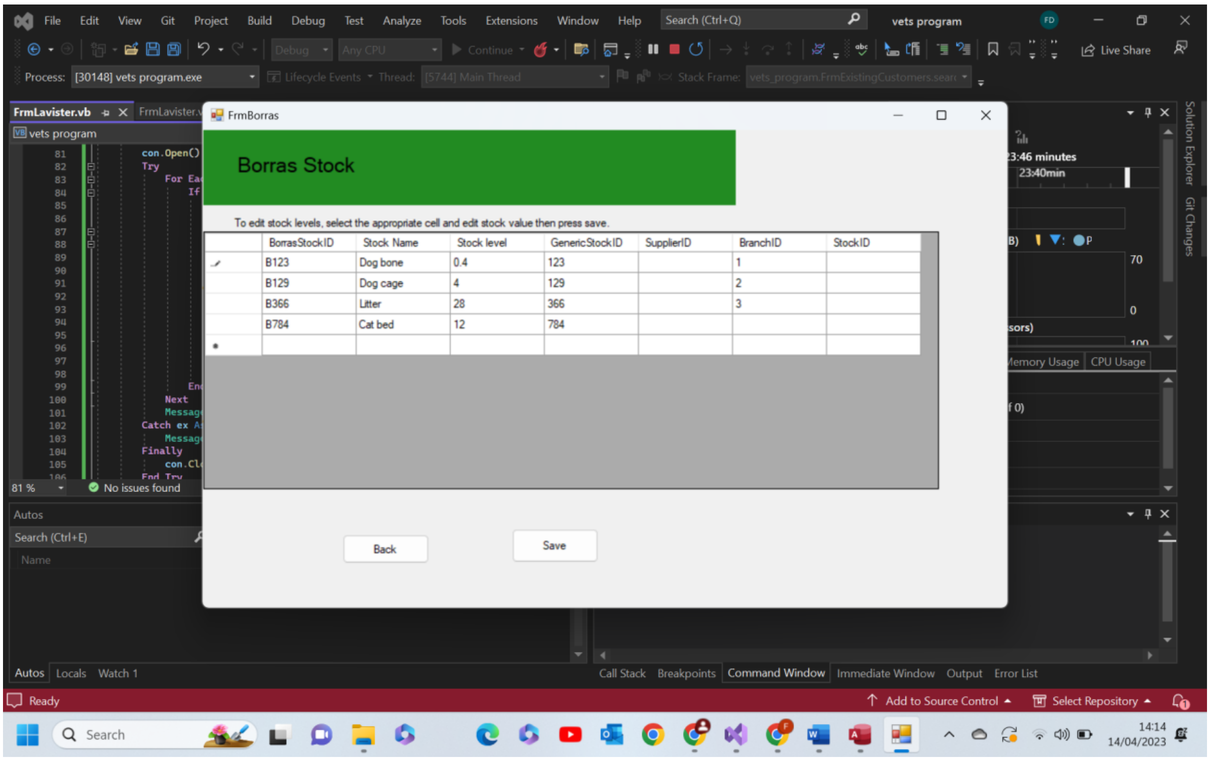
To edit stock levels, select the appropriate cell and edit stock value then press save.

BorrasStockID	Stock Name	Stock level	GenericStockID	SupplierID	BranchID	StockID
B123	Dog bone	-4	123		1	
B129	Dog cage	4	129		2	
B366	Litter	28	366		3	
B784	Cat bed					

Negative values are not allowed for item B123. Please enter a positive value.

Test 6.6 comments- as shown above the program recognises that the value entered does not comply with those I have coded to be valid and is so invalid. The program then outputs an appropriate message box. Pass

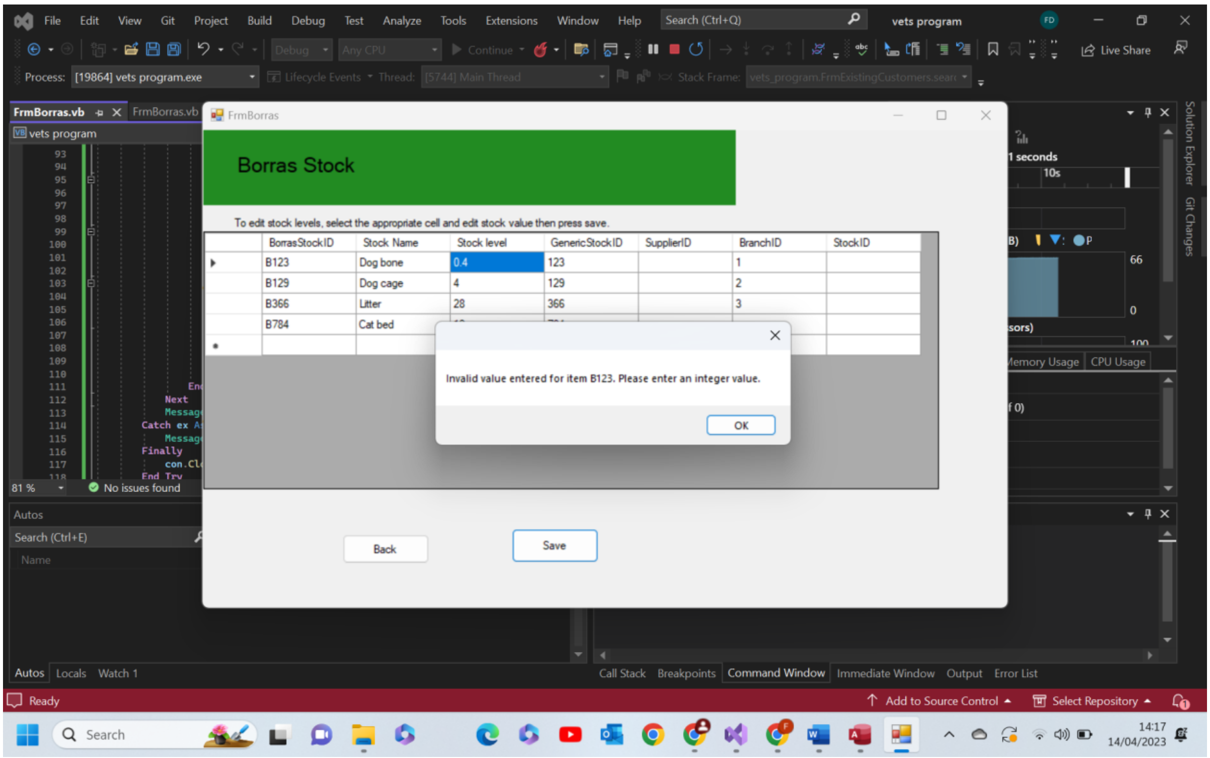
6.7-



Borras Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

BorrasStockID	Stock Name	Stock level	GenericStockID	SupplierID	BranchID	StockID
B123	Dog bone	0.4	123		1	
B129	Dog cage	4	129		2	
B366	Litter	28	366		3	
B784	Cat bed	12	784			



Borras Stock

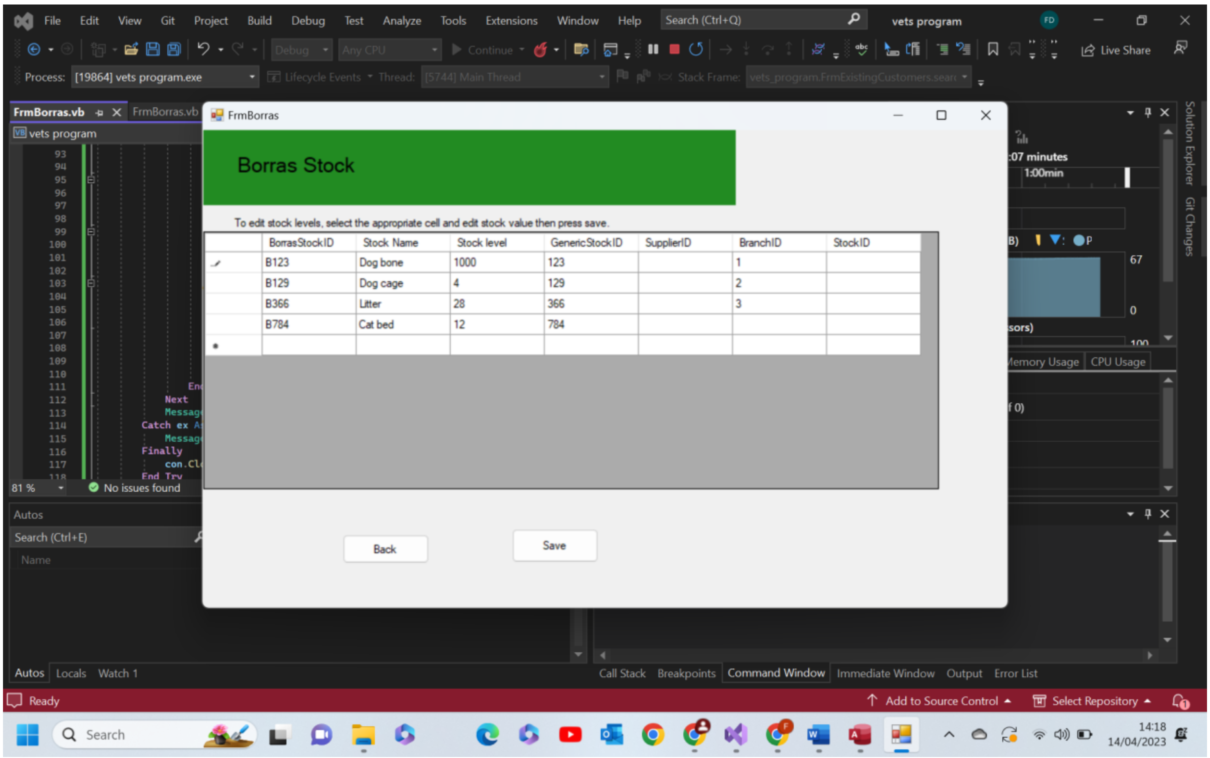
To edit stock levels, select the appropriate cell and edit stock value then press save.

	BorrasStockID	Stock Name	Stock level	GenericStockID	SupplierID	BranchID	StockID
▶	B123	Dog bone	0.4	123		1	
	B129	Dog cage	4	129		2	
	B366	Litter	28	366		3	
	B784	Cat bed					
*							

Invalid value entered for item B123. Please enter an integer value.

Test 6.7 comments- as shown above the program recognises that the value entered does not comply with those I have coded to be valid and is so invalid. The program then outputs an appropriate message box. Pass

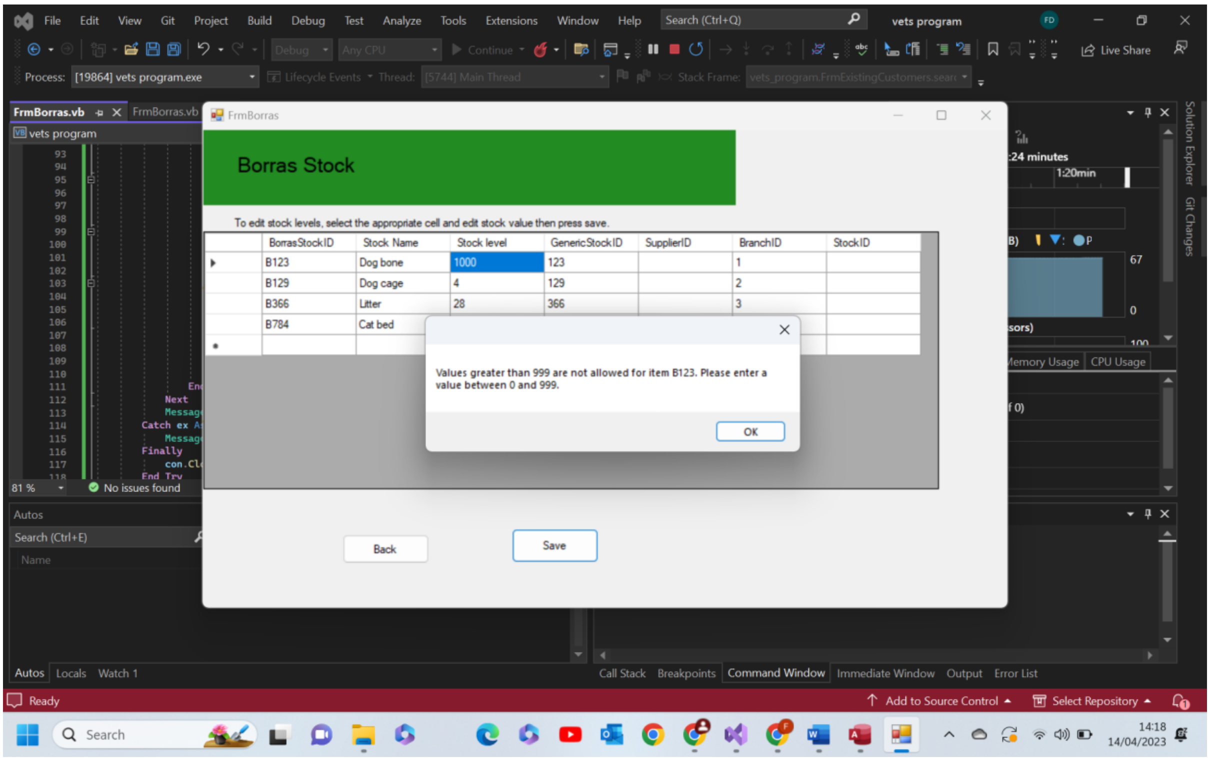
6.8-



Borras Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

	BorrasStockID	Stock Name	Stock level	GenericStockID	SupplierID	BranchID	StockID
✎	B123	Dog bone	1000	123		1	
	B129	Dog cage	4	129		2	
	B366	Litter	28	366		3	
	B784	Cat bed	12	784			
*							



Borras Stock

To edit stock levels, select the appropriate cell and edit stock value then press save.

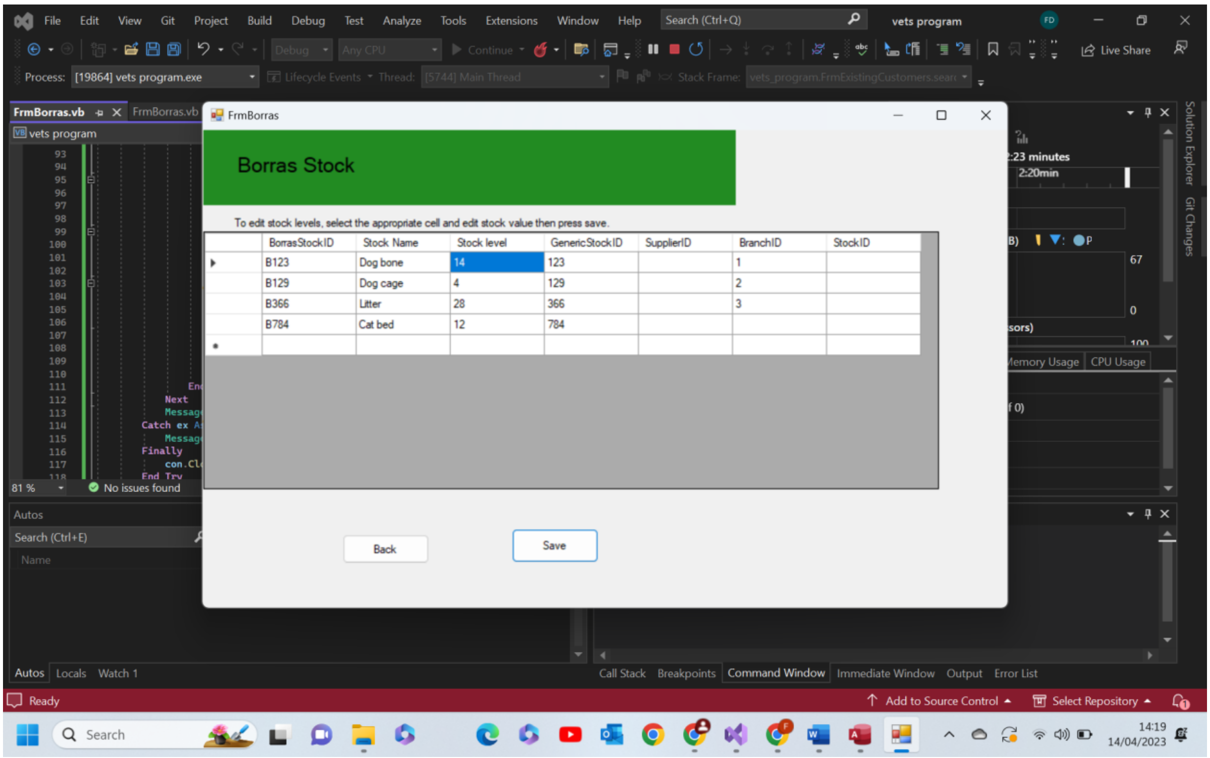
	BorrasStockID	Stock Name	Stock level	GenericStockID	SupplierID	BranchID	StockID
▸	B123	Dog bone	1000	123		1	
	B129	Dog cage	4	129		2	
	B366	Litter	28	366		3	
	B784	Cat bed					
*							

Values greater than 999 are not allowed for item B123. Please enter a value between 0 and 999.

Test 6.8 comments –

as shown above the program recognises that the value entered does not comply with those I have coded to be valid and is so invalid. The program then outputs an appropriate message box. Pass

validation test aftermath-



To edit stock levels, select the appropriate cell and edit stock value then press save.

	BorrasStockID	Stock Name	Stock level	GenericStockID	SupplierID	BranchID	StockID
▶	B123	Dog bone	14	123		1	
	B129	Dog cage	4	129		2	
	B366	Litter	28	366		3	
	B784	Cat bed	12	784			
*							

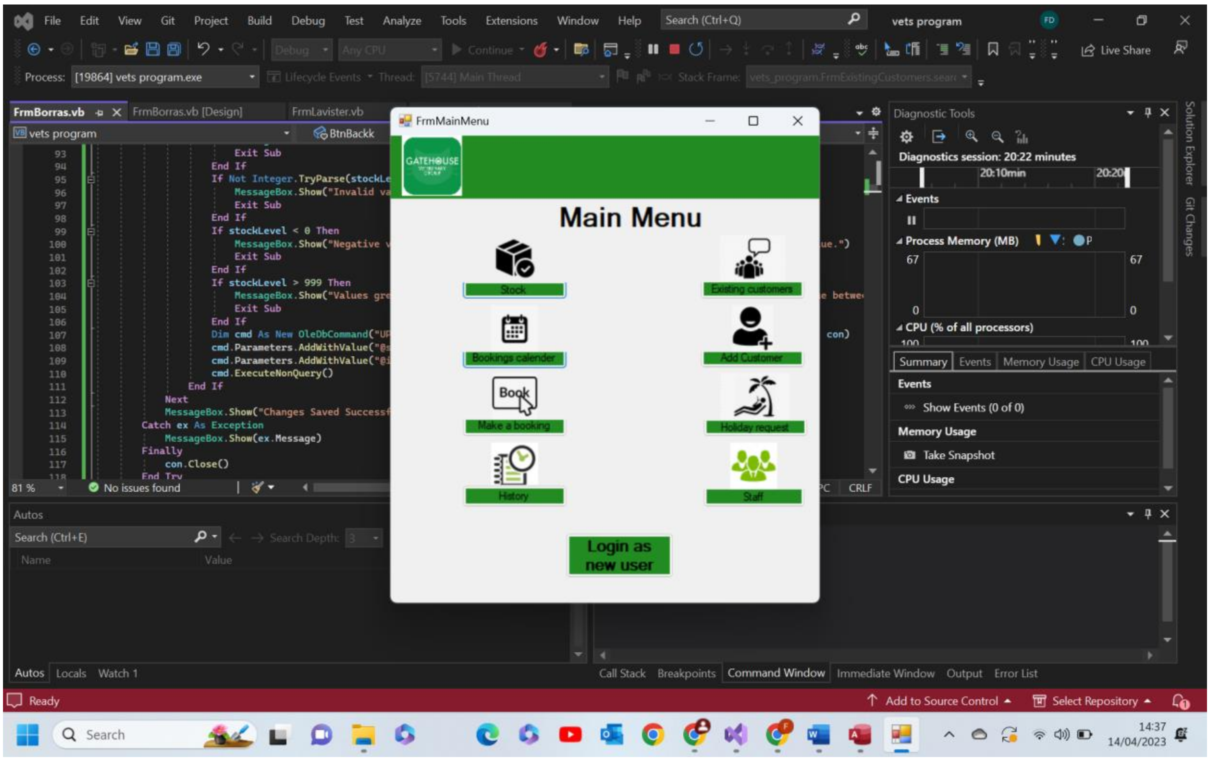
As shown above despite all the invalid and extreme data the program still stores the originally stored value of 14. This proves the validations actually work and are not just message boxes.

Test group 7- Booking calendar form:

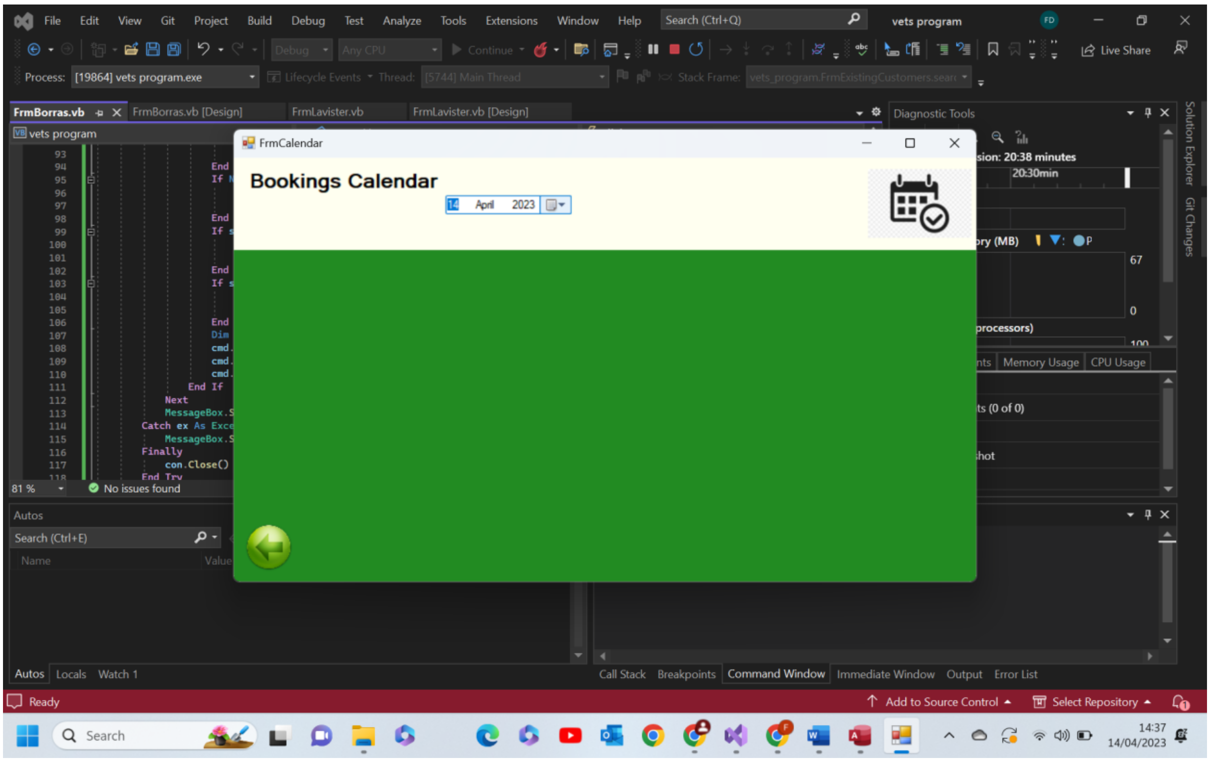
Test Number	Test data	Actual outcome	Verdict	comment
1	Functional test	As expected the date time picker was loaded and worked as expected	Pass	N/A
2	Invalid data type Date with no bookings Date used: 03/03/2025	No buttons generated and page left blank as expected	Pass	N/A
3	Valid data type used Date with bookings Date used:01/01/2024	Buttons generated dependant on number of booking times associated with booking date.	Pass	N/A
4	Functional test Valid date type Programmatically loaded button selected	When a generated button pressed a smaller form loads showing additional info of that booking.	Pass	Addition of extra buttons would definitely improve the usefulness of this form. Namely edit

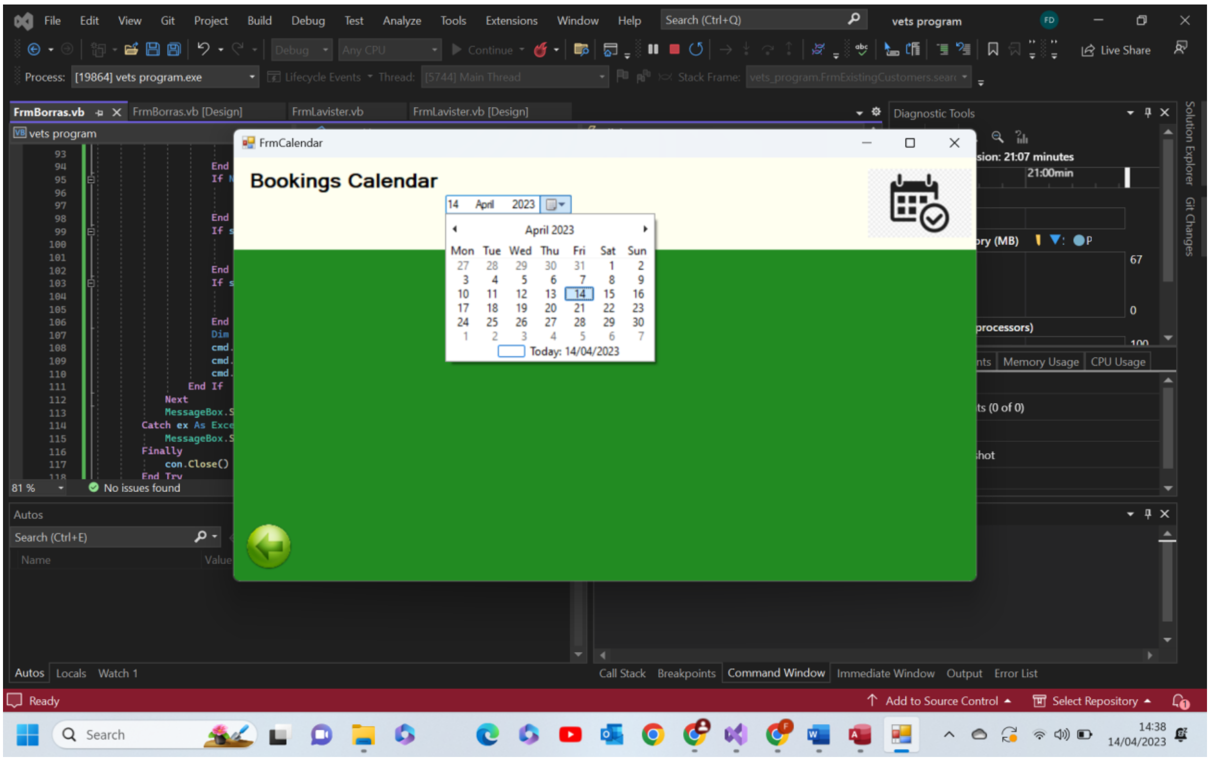
				and delete buttons. This would increase the productivity and ease of use for the user.
5	Functional test ‘back’ button on booking information form	When the small ‘back’ button on the generated form is pressed the smaller form closes and the calendar form appeared	Pass	N/A
6	Functional test Form back button	Small programmatically generated form closed and calendar form appears on its own	Pass	N/A
7	Functional test Varying number of bookings and so buttons Valid test data type used Date used 03/03/2024	Size of buttons altered themselves via the equation I coded to ensure all buttons were able to fit on the page.	Pass	N/A

7.1-



```
                Exit Sub
            End If
            If Not Integer.TryParse(stockLe
                MessageBox.Show("Invalid va
                Exit Sub
            End If
            If stockLevel < 0 Then
                MessageBox.Show("Negative v
                Exit Sub
            End If
            If stockLevel > 999 Then
                MessageBox.Show("Values gre
                Exit Sub
            End If
            Dim cmd As New OleDbCommand("UP
            cmd.Parameters.AddWithValue("@s
            cmd.Parameters.AddWithValue("@i
            cmd.ExecuteNonQuery()
        End If
    Next
    MessageBox.Show("Changes Saved Successf
Catch ex As Exception
    MessageBox.Show(ex.Message)
Finally
    con.Close()
End Try
```





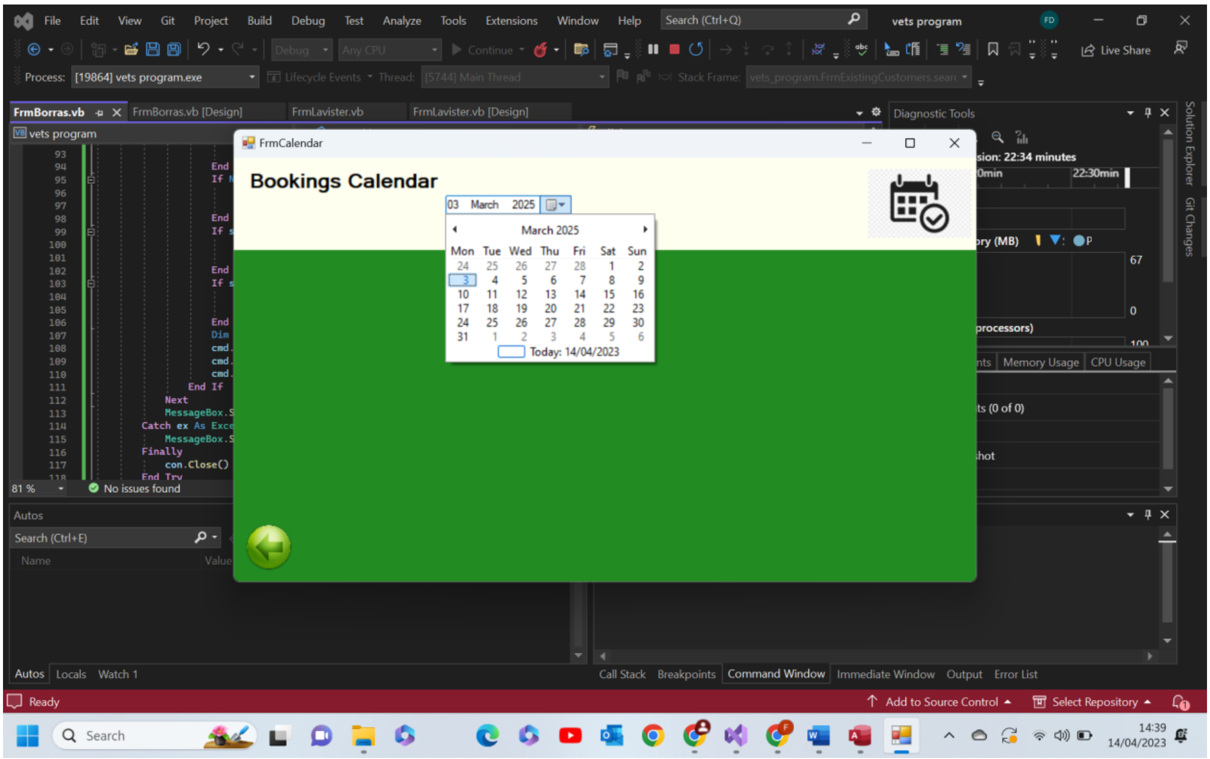
14 April 2023

April 2023

Mon	Tue	Wed	Thu	Fri	Sat	Sun
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
1	2	3	4	5	6	7

Test 7.1 comments- as shown above the date time picker works as expected and appears when the form is loaded. Pass

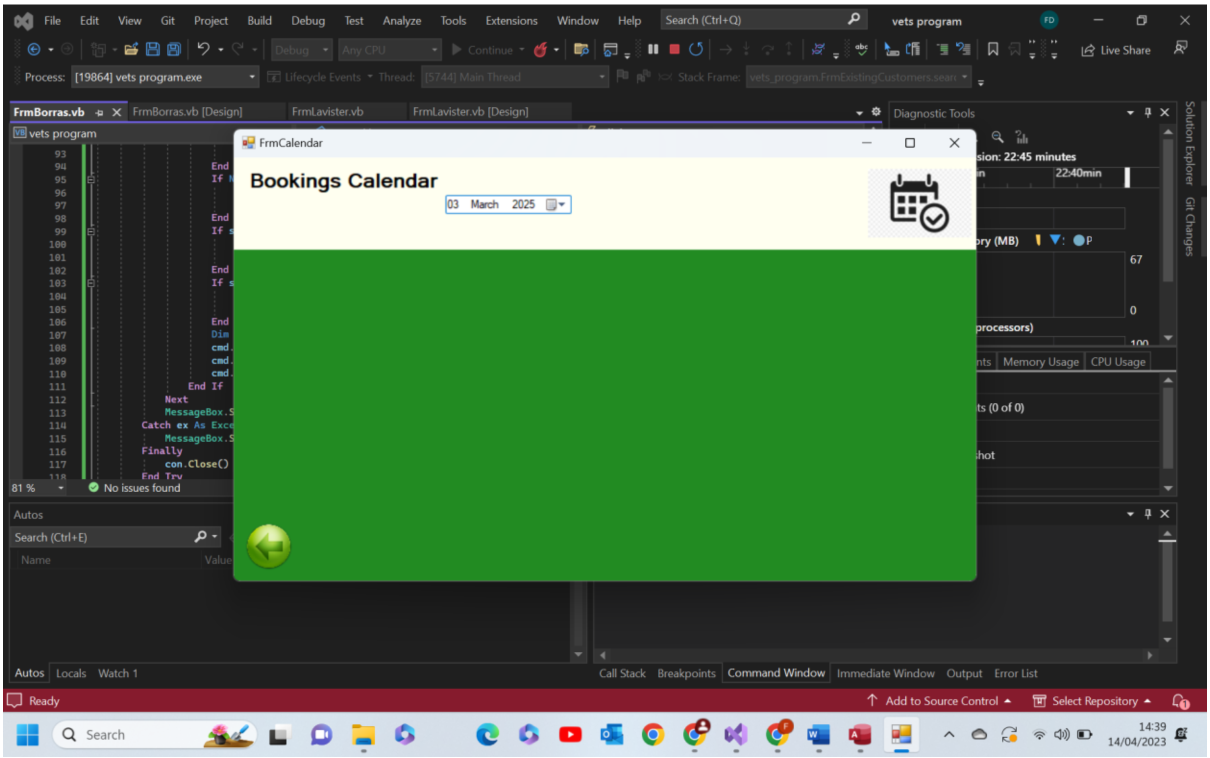
7.2-



03 March 2025

March 2025

Mon	Tue	Wed	Thu	Fri	Sat	Sun
24	25	26	27	28	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6



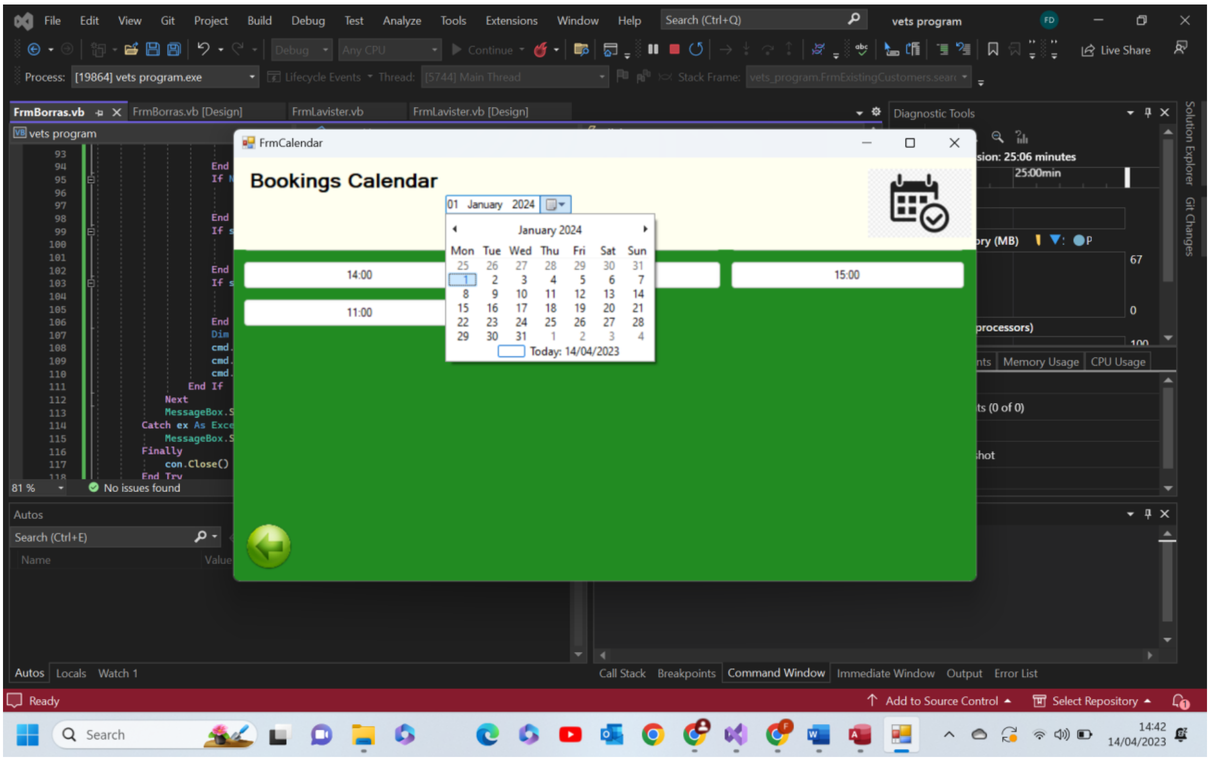
FrmCalendar

Bookings Calendar

03 March 2025

Test 7.2 comments- as we can see above when a invalid date, a date with n o bookings is entered, the program checks the date against those saved in the database, realises that no bookings are saved on that day and so doesn't generate any buttons. Pass

7.3-



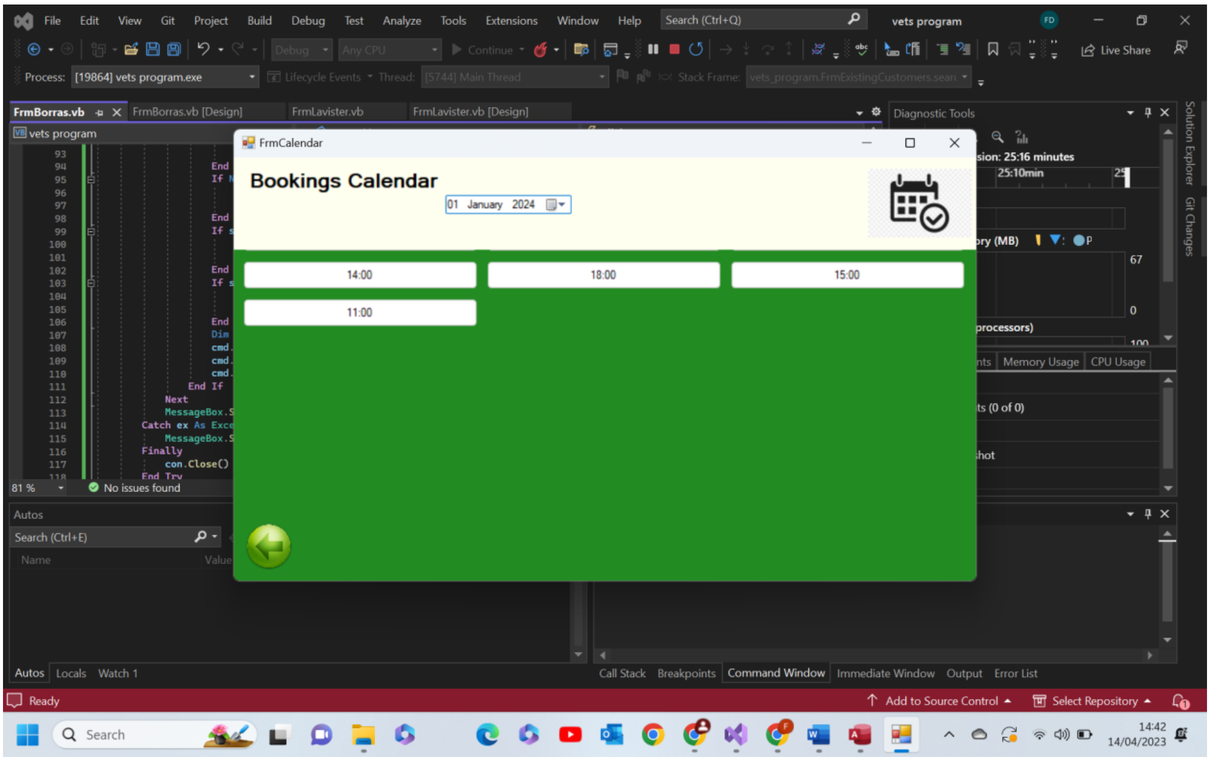
FrmCalendar

Bookings Calendar

01 January 2024

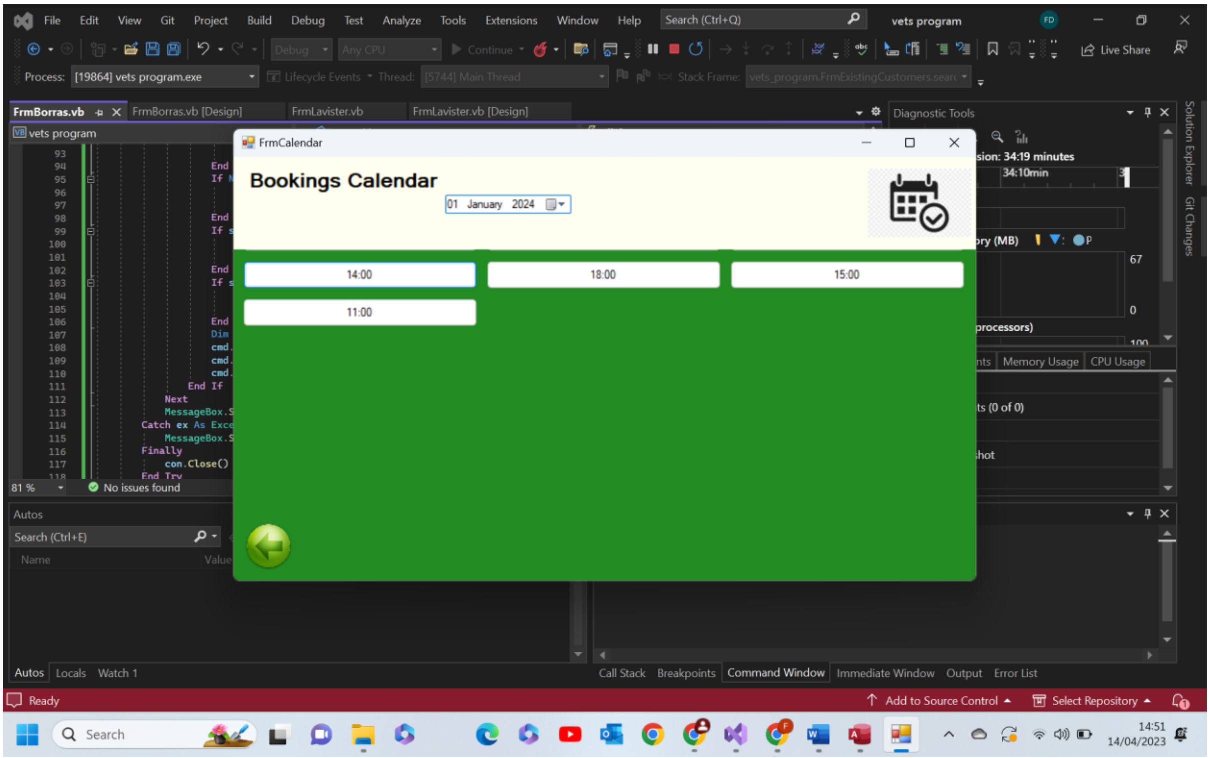
Mon	Tue	Wed	Thu	Fri	Sat	Sun
25	26	27	28	29	30	31
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

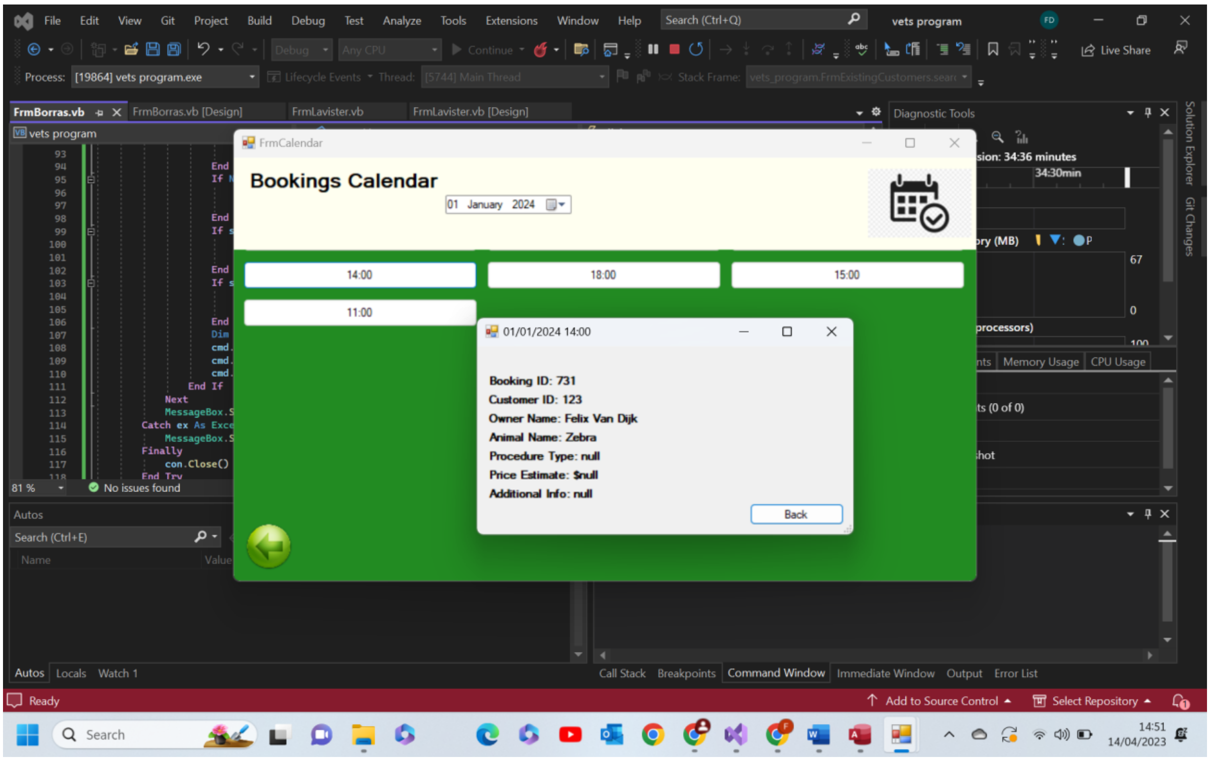
Today: 14/04/2023



Test 7.3 comments- as we can see above when a valid date is entered the program checks this date against those saved in the database and recognises that there are bookings on this day. It then checks how many booking dates are associated with this day and proceeds to output that many buttons with the booking time as the text within the button. Pass

7.4-

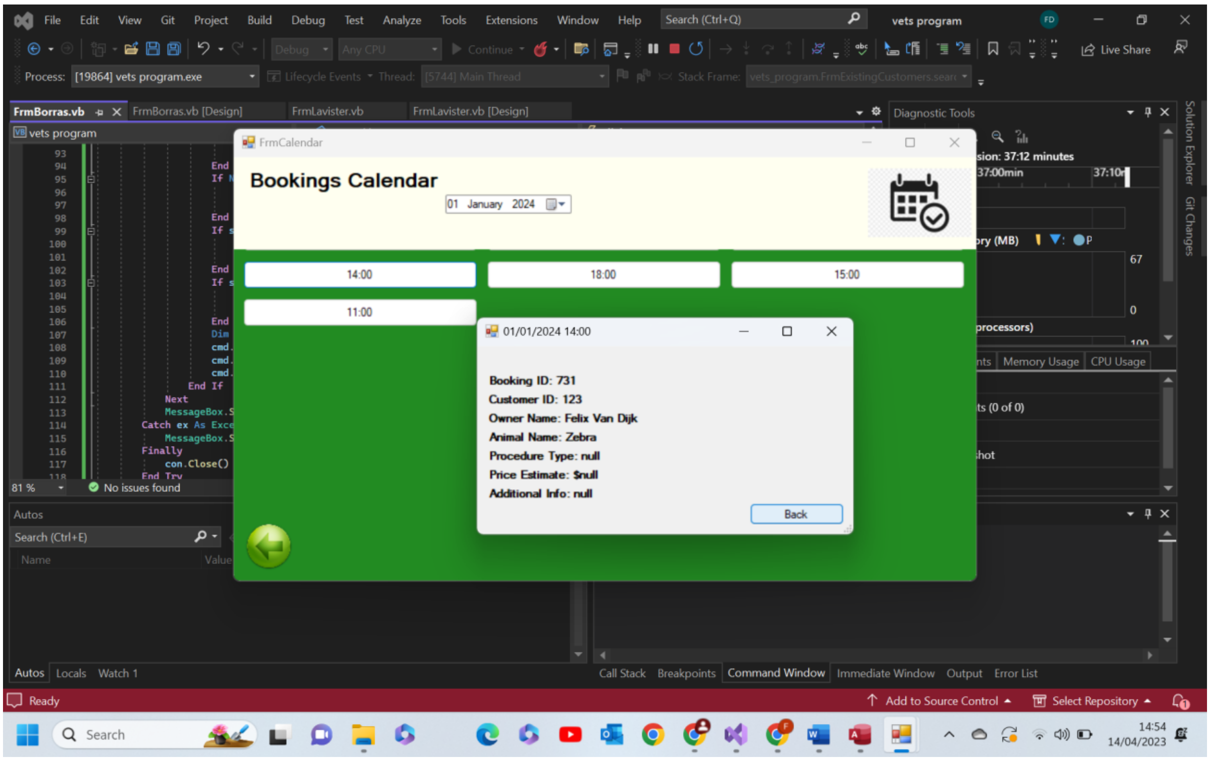




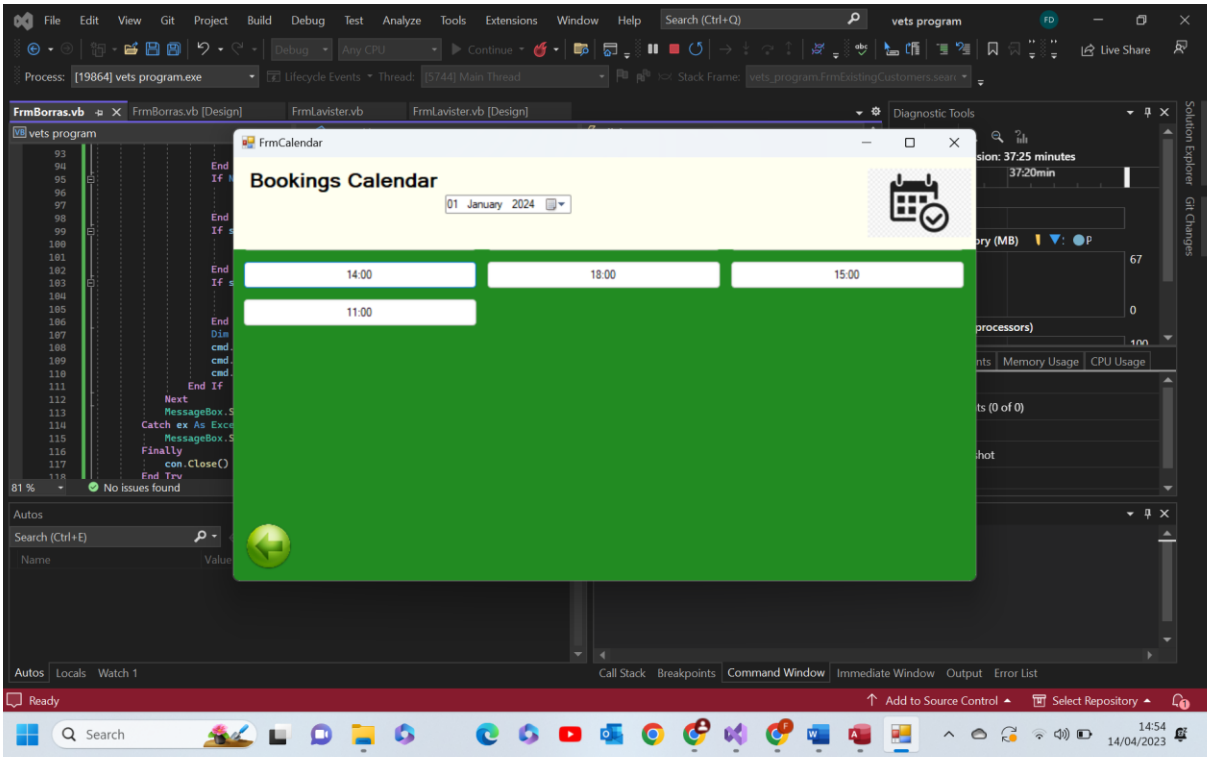
Booking ID: 731
Customer ID: 123
Owner Name: Felix Van Dijk
Animal Name: Zebra
Procedure Type: null
Price Estimate: $null
Additional Info: null

Test 7.4 comments- as shown above when we select a programmatically generated button a smaller form is generated that includes all the other information to do with that booking. The generation of an extra form is to ensure that the original calendar form does not become over crowded with bookings and remains a sleek design. Pass

7.5-

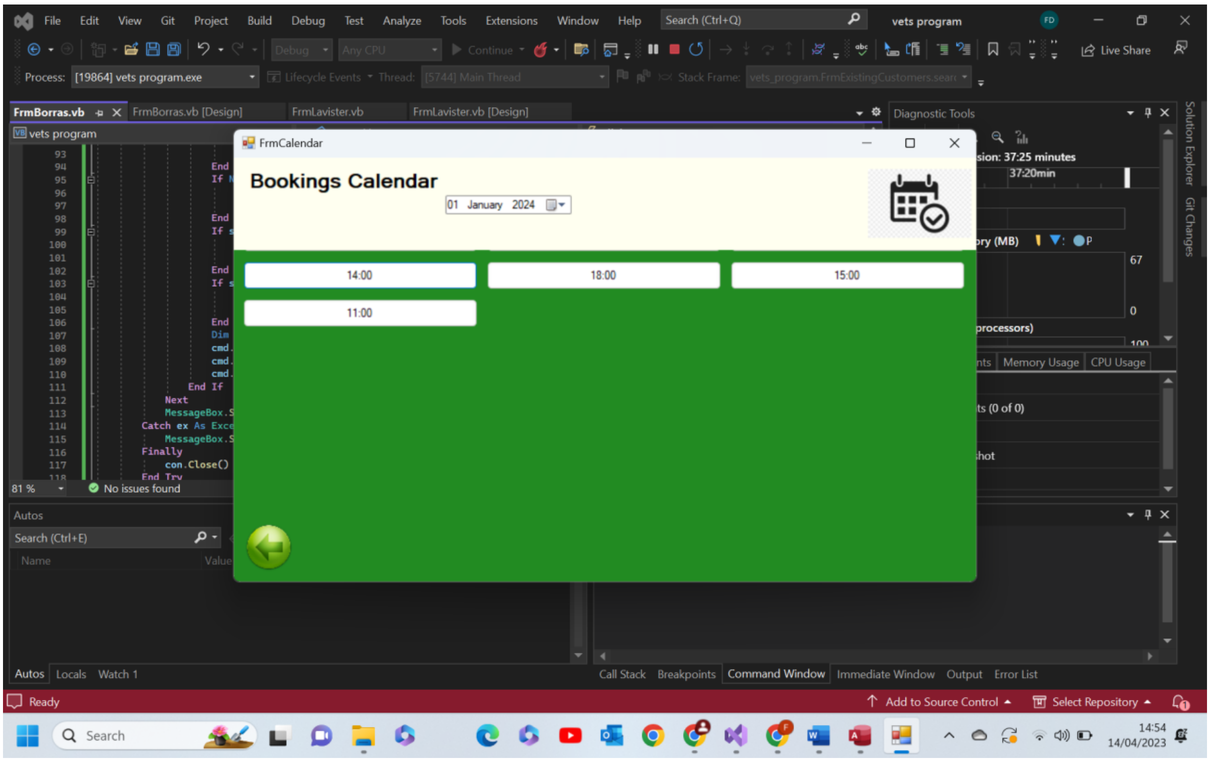


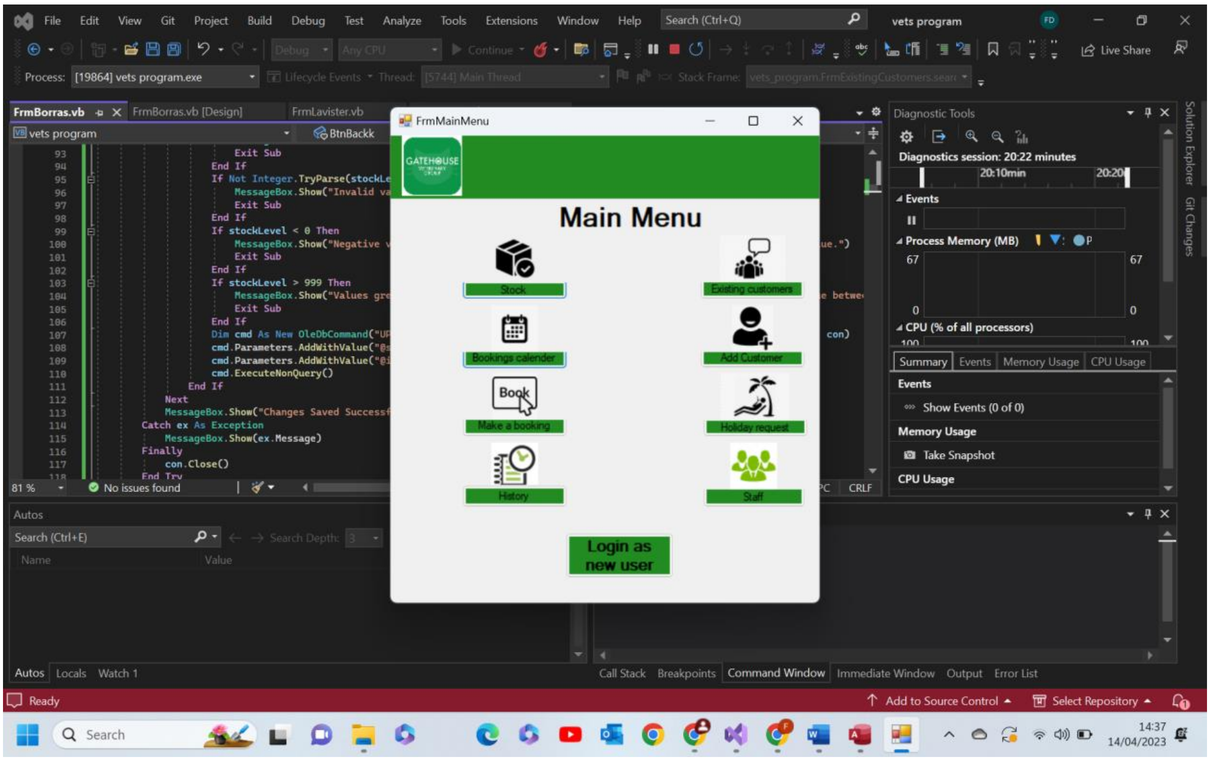
Booking ID: 731
Customer ID: 123
Owner Name: Felix Van Dijk
Animal Name: Zebra
Procedure Type: null
Price Estimate: $null
Additional Info: null



Test 7.5 comments- as we can see above when the back button is pressed the smaller for is closed leaving just the calendar form. Pass

7.6-

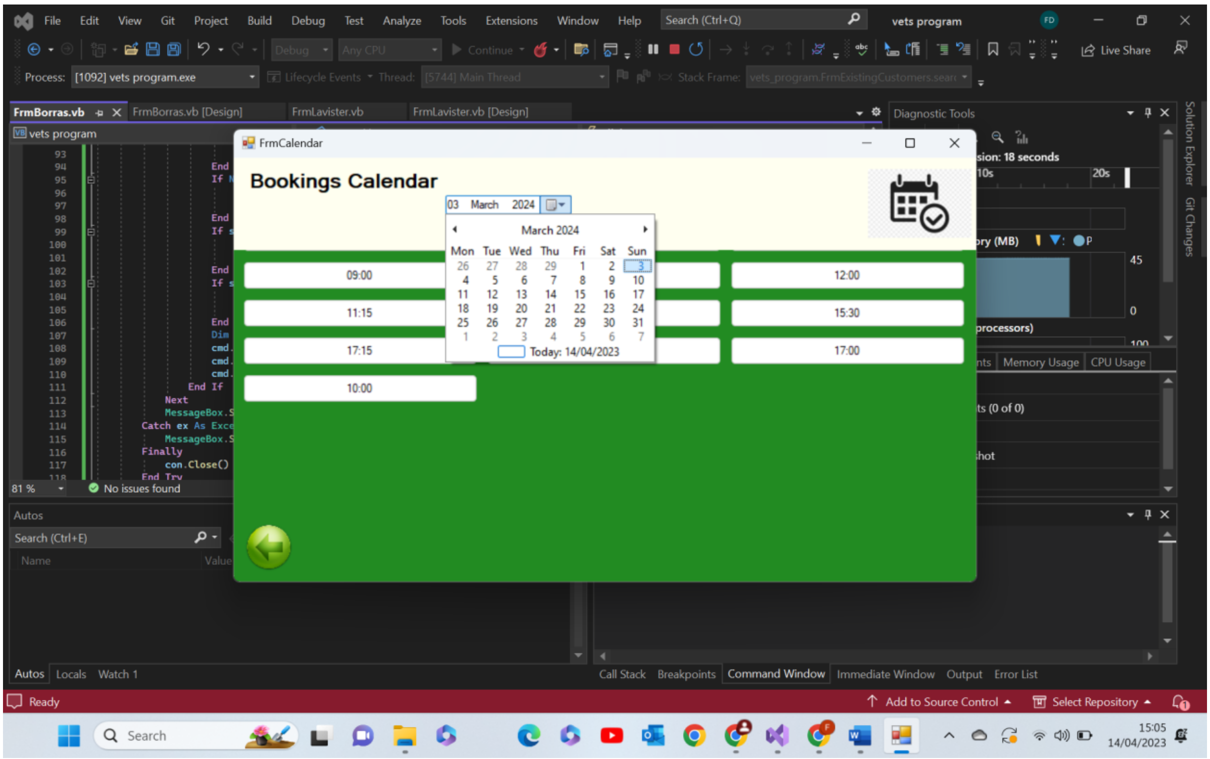


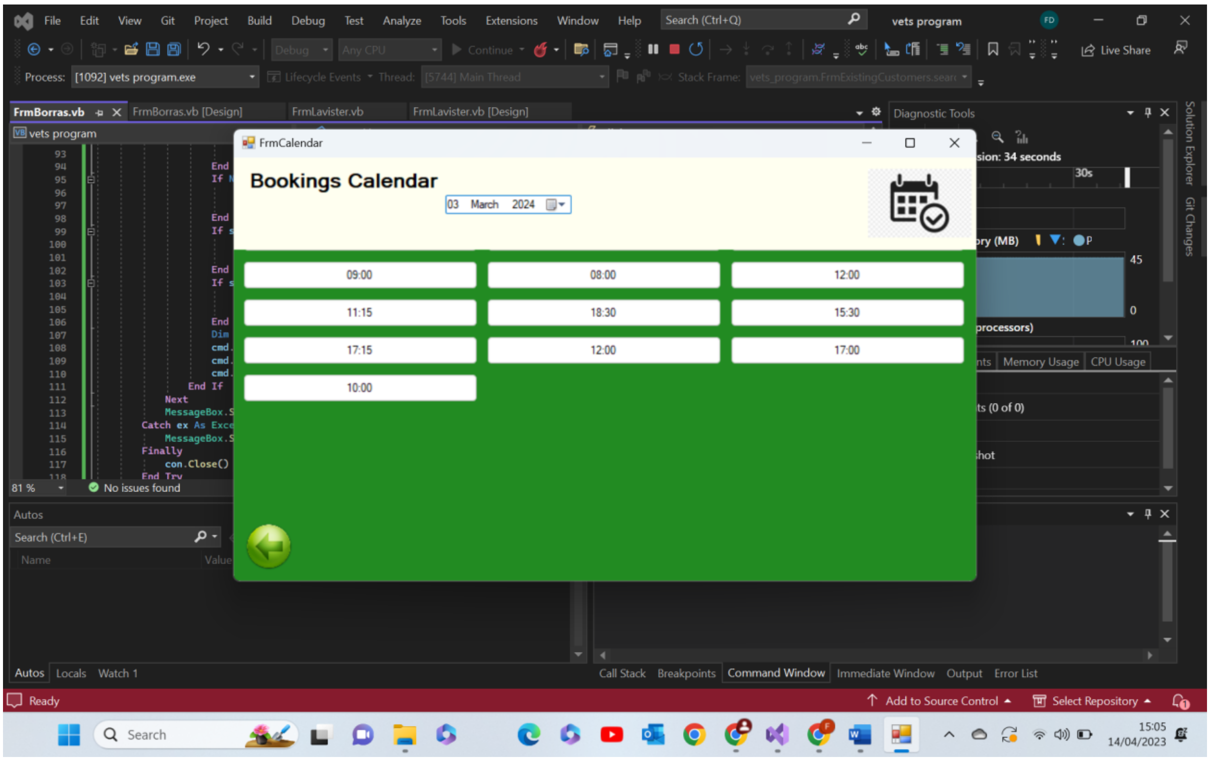


```
            Exit Sub
        End If
        If Not Integer.TryParse(stockLe
            MessageBox.Show("Invalid va
            Exit Sub
        End If
        If stockLevel < 0 Then
            MessageBox.Show("Negative v
            Exit Sub
        End If
        If stockLevel > 999 Then
            MessageBox.Show("Values gre
            Exit Sub
        End If
        Dim cmd As New OleDbCommand("UP
        cmd.Parameters.AddWithValue("@s
        cmd.Parameters.AddWithValue("@i
        cmd.ExecuteNonQuery()
    End If
Next
MessageBox.Show("Changes Saved Successf
Catch ex As Exception
    MessageBox.Show(ex.Message)
Finally
    con.Close()
End Try
```

Test 7.6 comment- as we can see above when the green back arrow picture box is selected the calendar form closes leaving the main menu form shown. Pass

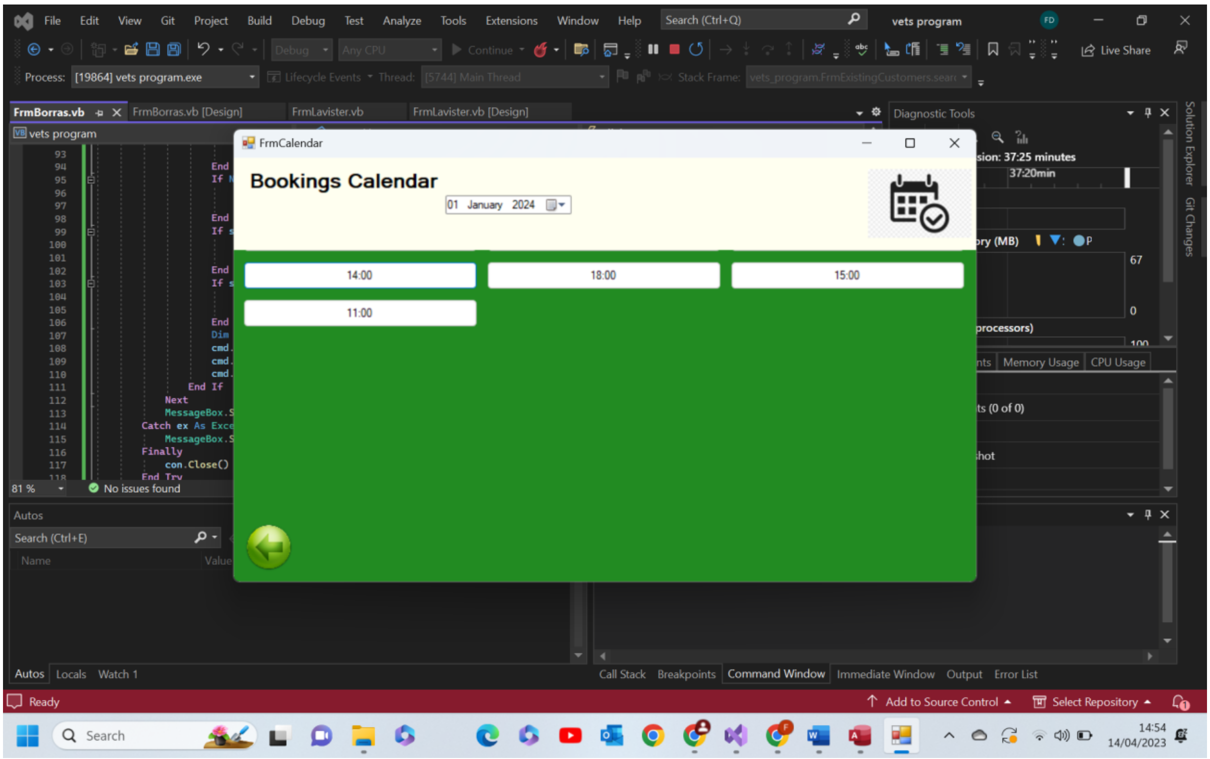
7.7-



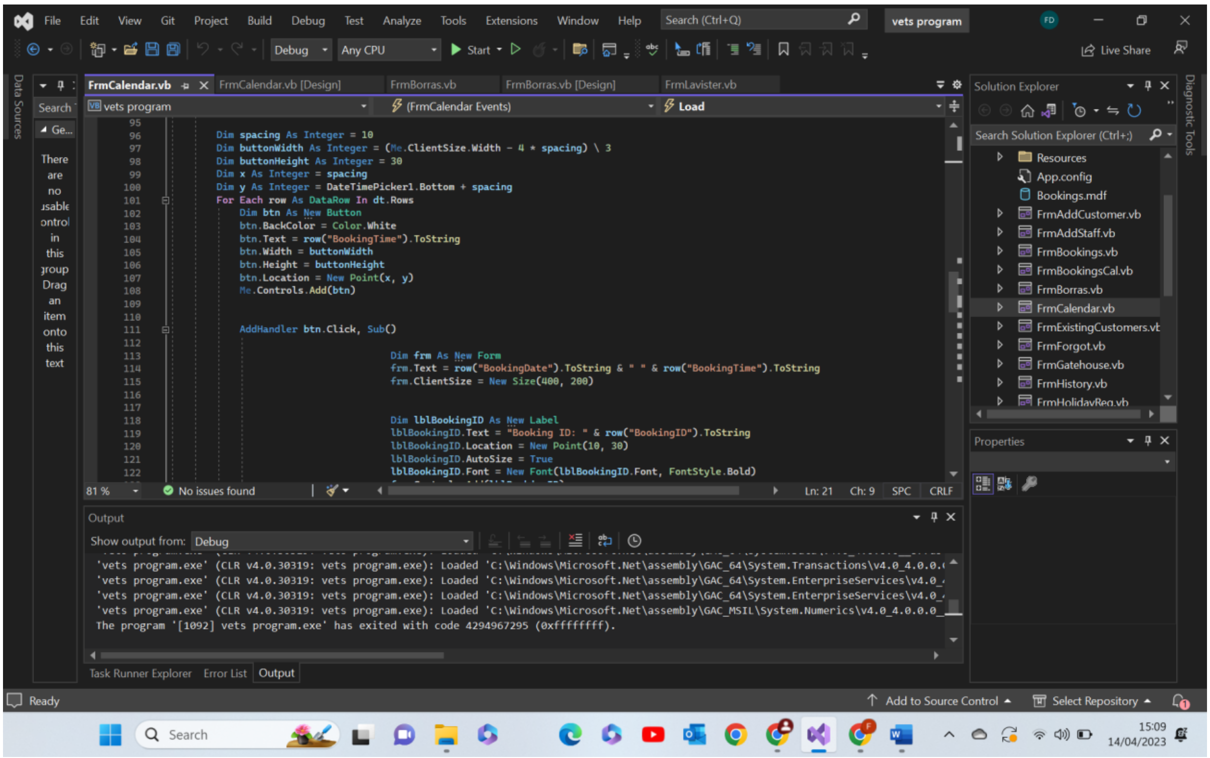


As we can see when comparing them to the next screenshot, the buttons have become smaller in order to accommodate them all on the page

Comparison:

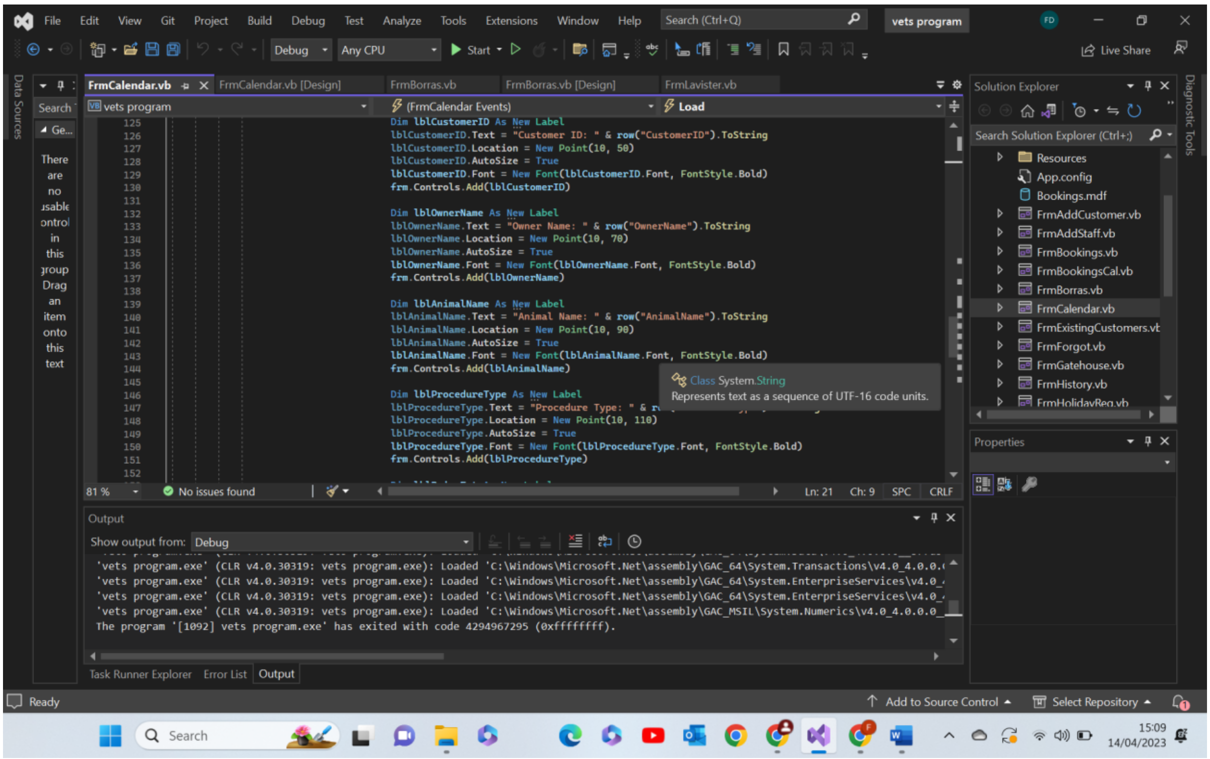


Test 7.7 comments- as we can see above the size of the buttons alters dependant on how many need to be generated. This is in order to make sure they all fit nicely on one page. This is done via the equation in the code shown below. Pass



```
        Dim spacing As Integer = 10
        Dim buttonWidth As Integer = (Me.ClientSize.Width - 4 * spacing) \ 3
        Dim buttonHeight As Integer = 30
        Dim x As Integer = spacing
        Dim y As Integer = DateTimePicker1.Bottom + spacing
        For Each row As DataRow In dt.Rows
            Dim btn As New Button
            btn.BackColor = Color.White
            btn.Text = row("BookingTime").ToString
            btn.Width = buttonWidth
            btn.Height = buttonHeight
            btn.Location = New Point(x, y)
            Me.Controls.Add(btn)


            AddHandler btn.Click, Sub()

                                      Dim frm As New Form
                                      frm.Text = row("BookingDate").ToString & " " & row("BookingTime").ToString
                                      frm.ClientSize = New Size(400, 200)


                                      Dim lblBookingID As New Label
                                      lblBookingID.Text = "Booking ID: " & row("BookingID").ToString
                                      lblBookingID.Location = New Point(10, 30)
                                      lblBookingID.AutoSize = True
                                      lblBookingID.Font = New Font(lblBookingID.Font, FontStyle.Bold)
```

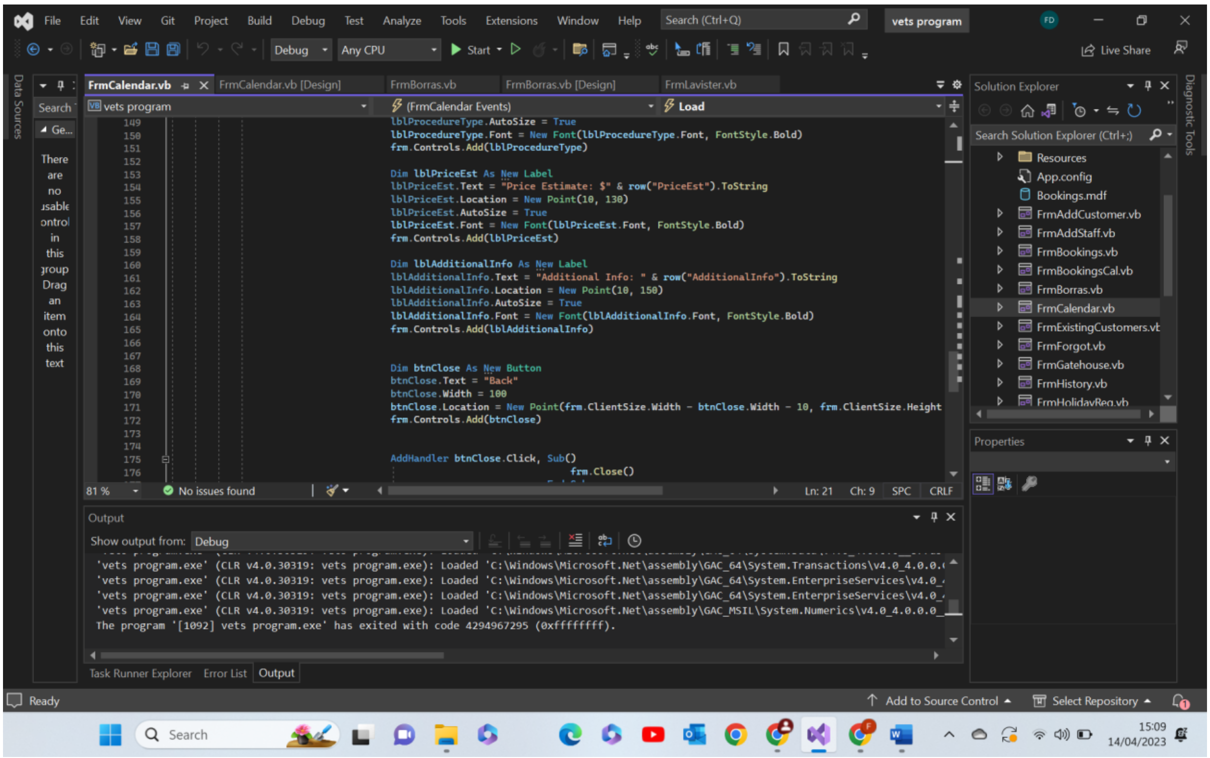
```
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_64\System.Transactions\v4.0_4.0.0.
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_64\System.EnterpriseServices\v4.0_
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_64\System.EnterpriseServices\v4.0_
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_MSIL\System.Numerics\v4.0_4.0.0.0_
The program '[1092] vets program.exe' has exited with code 4294967295 (0xffffffff).
```



```
                                      Dim lblCustomerID As New Label
                                      lblCustomerID.Text = "Customer ID: " & row("CustomerID").ToString
                                      lblCustomerID.Location = New Point(10, 50)
                                      lblCustomerID.AutoSize = True
                                      lblCustomerID.Font = New Font(lblCustomerID.Font, FontStyle.Bold)
                                      frm.Controls.Add(lblCustomerID)

                                      Dim lblOwnerName As New Label
                                      lblOwnerName.Text = "Owner Name: " & row("OwnerName").ToString
                                      lblOwnerName.Location = New Point(10, 70)
                                      lblOwnerName.AutoSize = True
                                      lblOwnerName.Font = New Font(lblOwnerName.Font, FontStyle.Bold)
                                      frm.Controls.Add(lblOwnerName)

                                      Dim lblAnimalName As New Label
                                      lblAnimalName.Text = "Animal Name: " & row("AnimalName").ToString
                                      lblAnimalName.Location = New Point(10, 90)
                                      lblAnimalName.AutoSize = True
                                      lblAnimalName.Font = New Font(lblAnimalName.Font, FontStyle.Bold)
                                      frm.Controls.Add(lblAnimalName)

                                      Dim lblProcedureType As New Label
                                      lblProcedureType.Text = "Procedure Type: " & r
                                      lblProcedureType.Location = New Point(10, 110)
                                      lblProcedureType.AutoSize = True
                                      lblProcedureType.Font = New Font(lblProcedureType.Font, FontStyle.Bold)
                                      frm.Controls.Add(lblProcedureType)
```

Class System.String
Represents text as a sequence of UTF-16 code units.

```
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_64\System.Transactions\v4.0_4.0.0.
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_64\System.EnterpriseServices\v4.0_
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_64\System.EnterpriseServices\v4.0_
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_MSIL\System.Numerics\v4.0_4.0.0.0_
The program '[1092] vets program.exe' has exited with code 4294967295 (0xffffffff).
```



```
lblProcedureType.AutoSize = True
lblProcedureType.Font = New Font(lblProcedureType.Font, FontStyle.Bold)
frm.Controls.Add(lblProcedureType)

Dim lblPriceEst As New Label
lblPriceEst.Text = "Price Estimate: $" & row("PriceEst").ToString
lblPriceEst.Location = New Point(10, 130)
lblPriceEst.AutoSize = True
lblPriceEst.Font = New Font(lblPriceEst.Font, FontStyle.Bold)
frm.Controls.Add(lblPriceEst)

Dim lblAdditionalInfo As New Label
lblAdditionalInfo.Text = "Additional Info: " & row("AdditionalInfo").ToString
lblAdditionalInfo.Location = New Point(10, 150)
lblAdditionalInfo.AutoSize = True
lblAdditionalInfo.Font = New Font(lblAdditionalInfo.Font, FontStyle.Bold)
frm.Controls.Add(lblAdditionalInfo)


Dim btnClose As New Button
btnClose.Text = "Back"
btnClose.Width = 100
btnClose.Location = New Point(frm.ClientSize.Width - btnClose.Width - 10, frm.ClientSize.Height
frm.Controls.Add(btnClose)


AddHandler btnClose.Click, Sub()
                               frm.Close()
```

```
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_64\System.Transactions\v4.0_4.0.0.
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_64\System.EnterpriseServices\v4.0_
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_64\System.EnterpriseServices\v4.0_
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_MSIL\System.Numerics\v4.0_4.0.0.0_
The program '[1092] vets program.exe' has exited with code 4294967295 (0xffffffff).
```

Test group 8 – Make a booking form

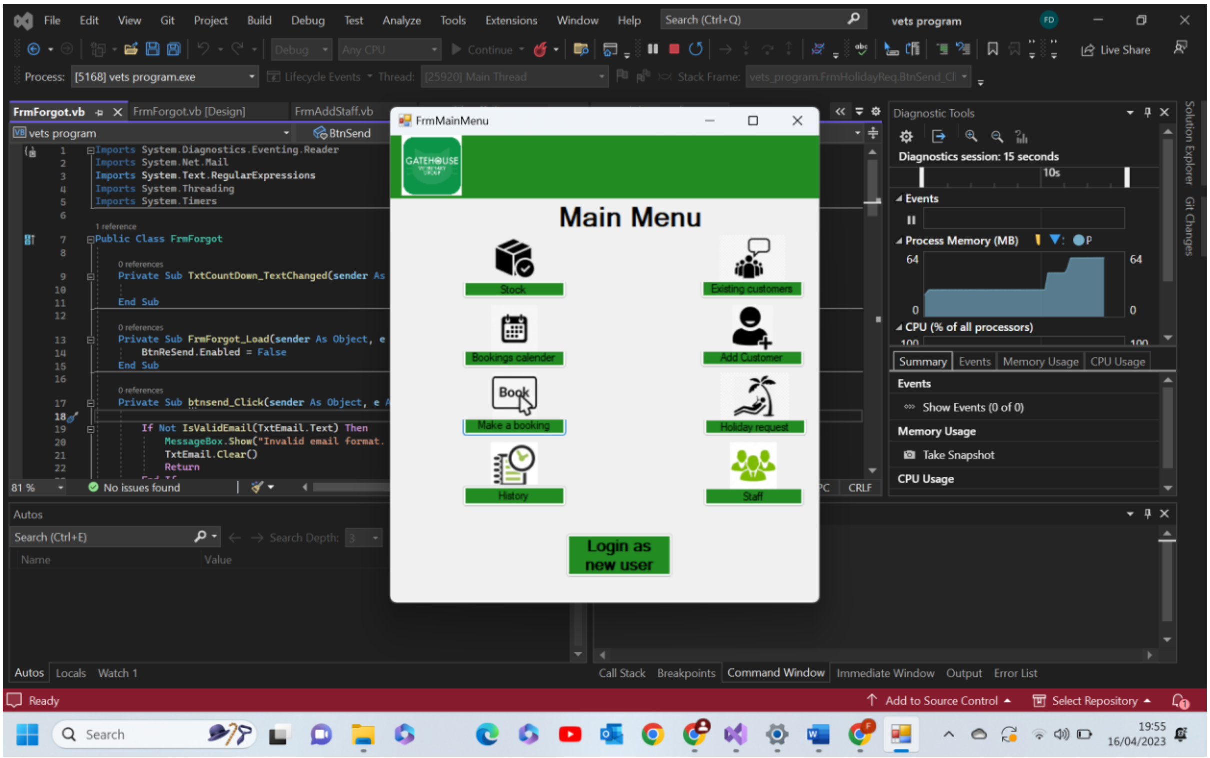
Disclaimer- for all tests that need the 'Customer ID' text box to be filled we will be using the data '123' as that is a valid customer ID.

Test number	Test data	Actual outcome	Verdict	Comment
1	Functional test Valid circumstances Form loaded	As expected a random three digit number appeared in the text box on loading of form	Pass	N/A
2	Functional test New ID button pressed	As expected a new three digit number appeared in the text box, if a number was already in there it was written over, if not a number appeared in the blank text box	Pass	Possibly leave the new ID button as read only unless the original programmatically generated ID has been cleared to avoid mistakes or confusion
3	Valid circumstances Form loaded	As expected when the form was loaded the Booking ID was read only.	Pass	N/A
4	Extreme as box was left empty	As expected an appropriate message box appeared warning the	Pass	N/A

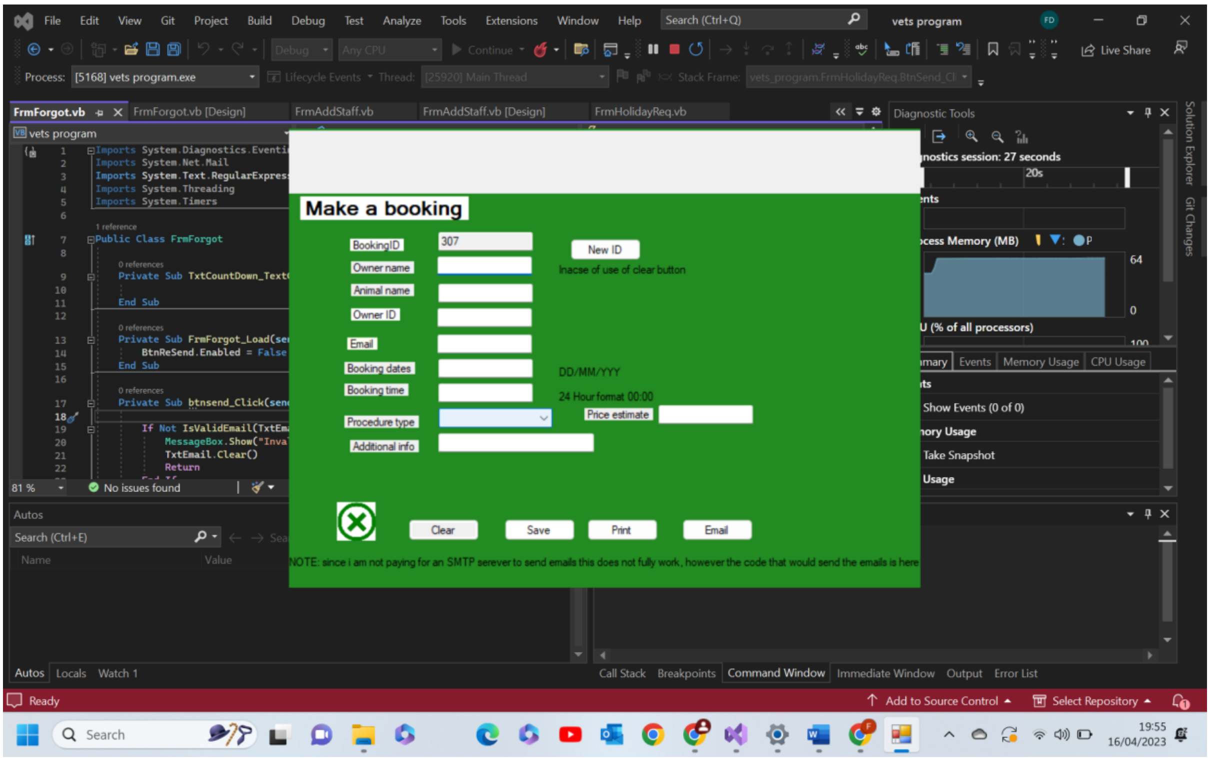
		user of the issue with instructions for its correction		
5	Extreme as box was left empty	As expected an appropriate message box appeared warning the user of the issue with instructions for its correction	Pass	N/A
6	Extreme as box was left empty	As expected an appropriate message box appeared warning the user of the issue with instructions for its correction	Pass	N/A
7	Invalid data used Specifically 2003-2001;09	As expected an appropriate message box appeared warning the user of the issue with instructions for its correction	Pass	A additional presence check for these two may have been beneficial
8	Invalid data used Specifically 900-00	As expected an appropriate message box appeared warning the user of the issue with instructions for its correction	Pass	A additional presence check for these two may have been beneficial
9	Functional test	As expected as the program loads it reads the pre-determined procedures from the access database and writes them to separate rows of the combo box	Pass	N/A
10	Functional test with valid data Data used is the word 'Test' in each box where that is	As expected, if all the text boxes passed their respective validation checks, the	Pass	N/A

	accepted. In the dates and time 03/03/2025 and 12:00 respectively have been chosen	program reads the info and writes it all to a new row In the appropriate table in the access database		
11	Functional test with valid data	As expected a smaller form appeared letting the user select the printer they wished to use and how many copies ext.	Pass	N/A
12	Physical test of outputted matter	The form was printed in the expected format as shown below in the screenshots for test 8.12	Pass	The recipe could have been modelled to look closer to an actual recipe however its good enough for our purposes.
13	Functional test with valid data	As expected a message box appeared explain the lack of a paid server has stopped it from being able to complete its function however it would work if the server was paid for	Pass	N/A
14	Functional test	All text boxes became void of data	Pass	N/A
15	Functional test	The current from closed and the main menu form appeared	Pass	N/A
16	Functional test	As expected when a procedure was selected in the combo box a corresponding price estimate appeared in the text box parallel to it	Pass	N/A

8.1-



```
Imports System.Diagnostics.Eventing.Reader
Imports System.Net.Mail
Imports System.Text.RegularExpressions
Imports System.Threading
Imports System.Timers

Public Class FrmForgot

    Private Sub TxtCountDown_TextChanged(sender As
    End Sub

    Private Sub FrmForgot_Load(sender As Object, e
        BtnReSend.Enabled = False
    End Sub

    Private Sub btnsend_Click(sender As Object, e A
        If Not IsValidEmail(TxtEmail.Text) Then
            MessageBox.Show("Invalid email format.
            TxtEmail.Clear()
            Return
```



Make a booking

BookingID	307
Owner name	
Animal name	
Owner ID	
Email	
Booking dates	
Booking time	
Procedure type	
Additional info	
Price estimate	

New ID

Inacse of use of clear button

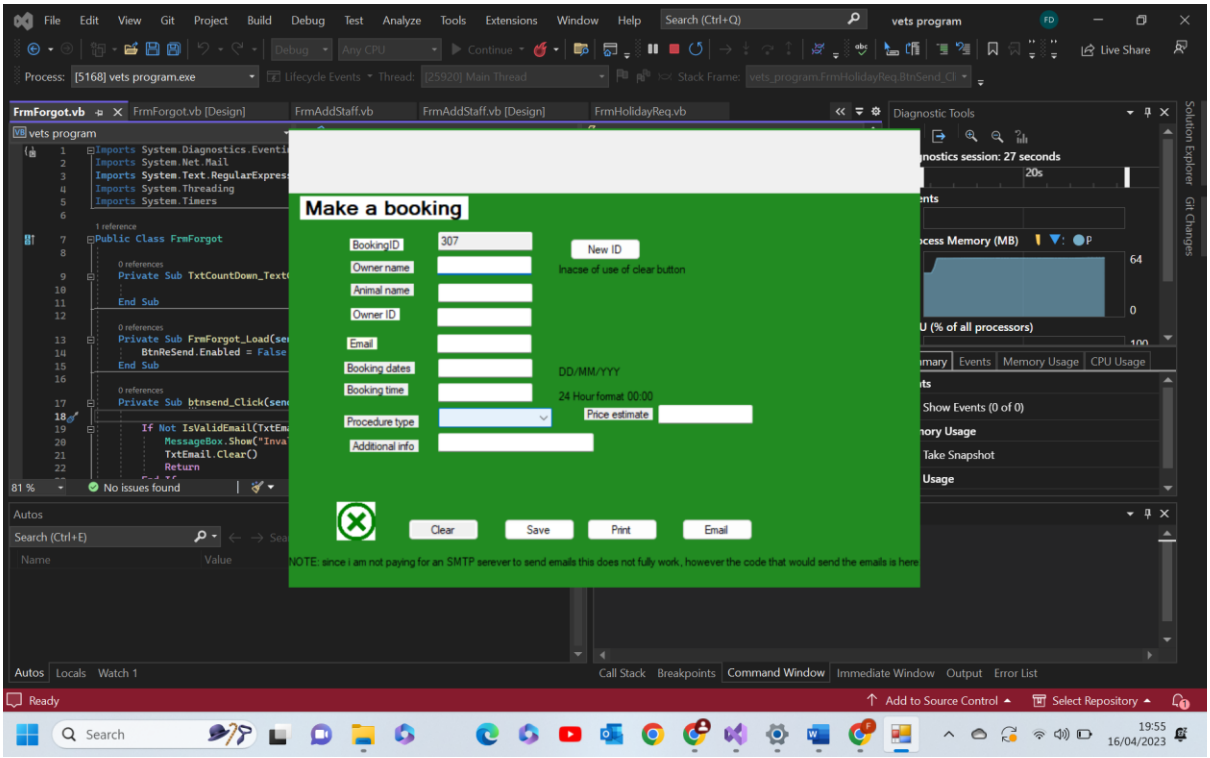
DD/MM/YYY

24 Hour format 00:00

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here

Test 8.1 comments- as we can see above when the make a booking picture box or button is selected on the main menu page and the make a booking form is loaded a random ID is generated. Pass

8.2-



Process: [5168] vets program.exe

Thread: [25920] Main Thread

Stack Frame: vets_program.FrmHolidayReq.BtnSend_Cl

```
Imports System.Diagnostics.Eventi
Imports System.Net.Mail
Imports System.Text.RegularExpres
Imports System.Threading
Imports System.Timers

1 reference
Public Class FrmForgot

    0 references
    Private Sub TxtCountDown_Text(

    End Sub

    0 references
    Private Sub FrmForgot_Load(se
        BtnReSend.Enabled = False
    End Sub

    0 references
    Private Sub btnsend_Click(send

        If Not IsValidEmail(TxtEma
            MessageBox.Show("Inva
            TxtEmail.Clear()
            Return
```

81 % No issues found

Make a booking

BookingID	307
Owner name	
Animal name	
Owner ID	
Email	
Booking dates	
Booking time	
Procedure type	
Additional info	

New ID

Inacse of use of clear button

DD/MM/YYY

24 Hour format 00:00

Price estimate

Clear Save Print Email

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here

Diagnostics session: 27 seconds

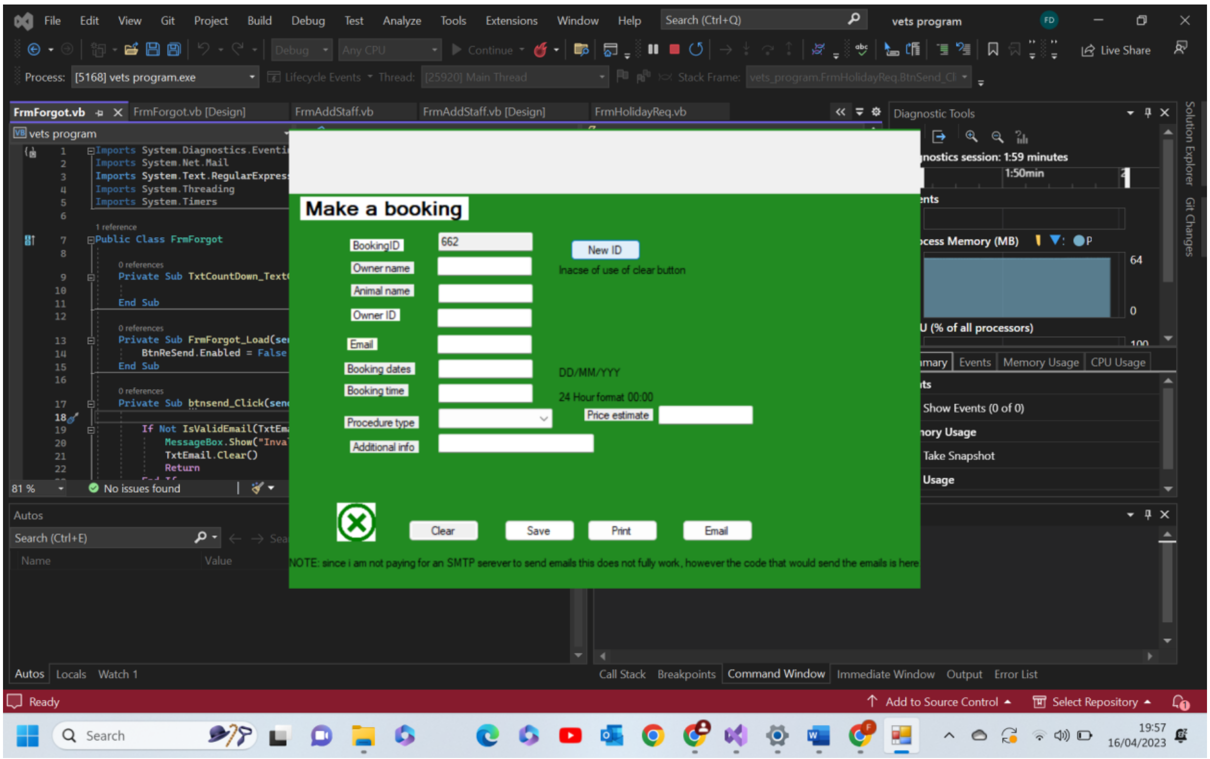
Process Memory (MB)

CPU (% of all processors)

Show Events (0 of 0)

Take Snapshot

19:55
16/04/2023



Process: [5168] vets program.exe

Thread: [25920] Main Thread

Stack Frame: vets_program.FrmHolidayReq.BtnSend_Cl

```
Imports System.Diagnostics.Eventi
Imports System.Net.Mail
Imports System.Text.RegularExpres
Imports System.Threading
Imports System.Timers

1 reference
Public Class FrmForgot

    0 references
    Private Sub TxtCountDown_Text(

    End Sub

    0 references
    Private Sub FrmForgot_Load(se
        BtnReSend.Enabled = False
    End Sub

    0 references
    Private Sub btnsend_Click(send

        If Not IsValidEmail(TxtEma
            MessageBox.Show("Inva
            TxtEmail.Clear()
            Return
```

81 % No issues found

Make a booking

BookingID	662
Owner name	
Animal name	
Owner ID	
Email	
Booking dates	
Booking time	
Procedure type	
Additional info	

New ID

Inacse of use of clear button

DD/MM/YYY

24 Hour format 00:00

Price estimate

Clear Save Print Email

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here

Diagnostics session: 1:59 minutes

Process Memory (MB)

CPU (% of all processors)

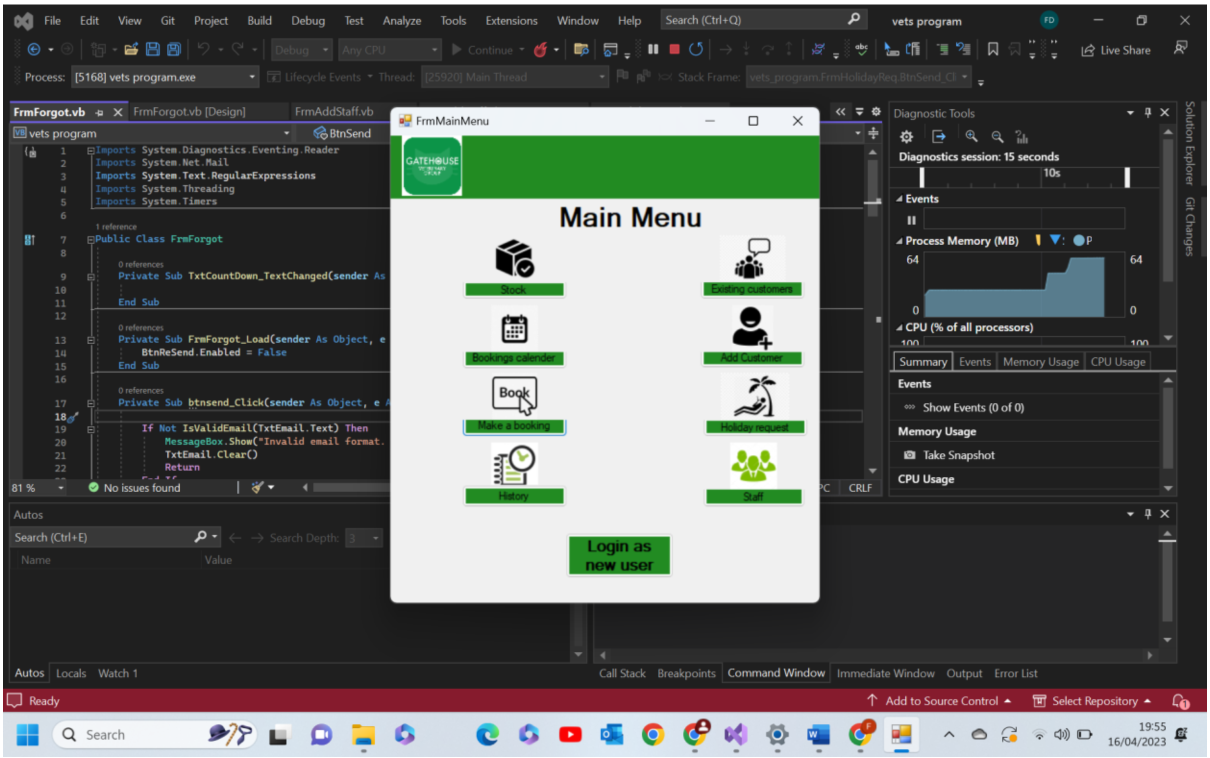
Show Events (0 of 0)

Take Snapshot

19:57
16/04/2023

Test 8.2 comments- In the above I have pressed the new ID button. As we can see it has changed the ID from 307 to 662, one random three digit number to a new random three digit number. Pass

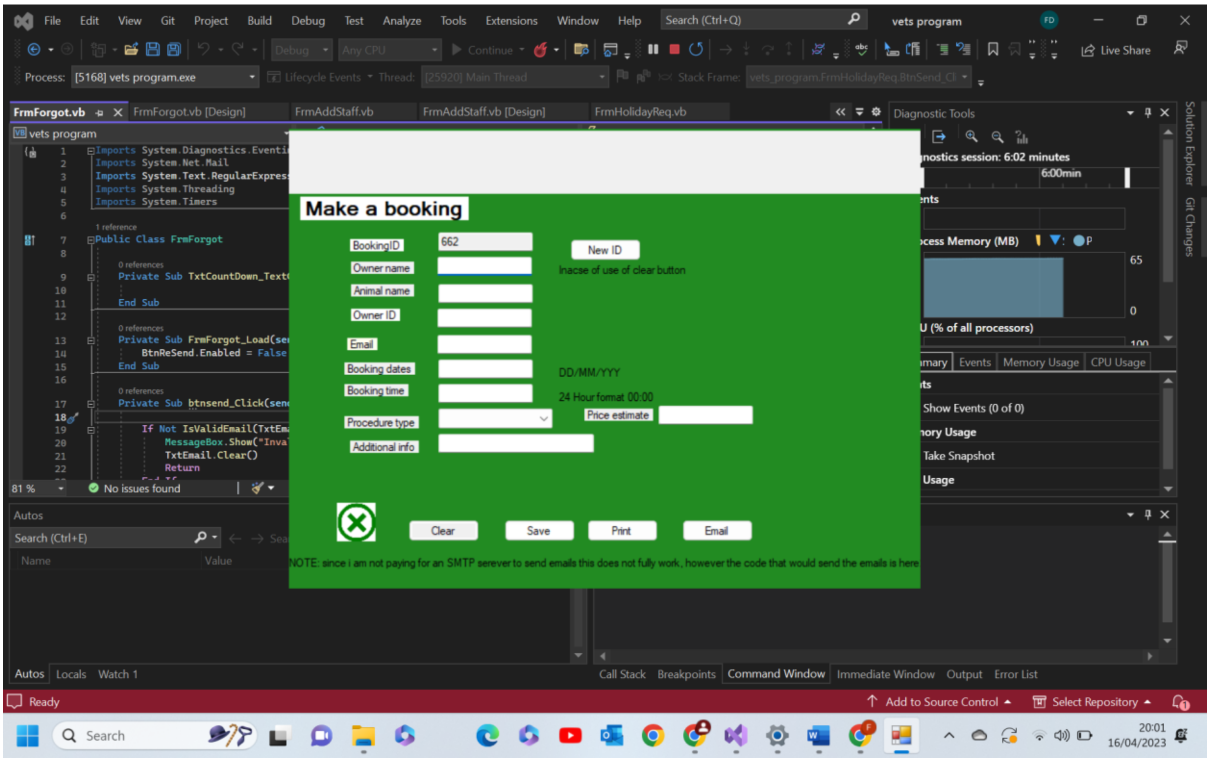
8.3-



Process: [5168] vets program.exe

```
Imports System.Diagnostics.Eventing.Reader
Imports System.Net.Mail
Imports System.Text.RegularExpressions
Imports System.Threading
Imports System.Timers

Public Class FrmForgot

    Private Sub TxtCountDown_TextChanged(sender As

    End Sub

    Private Sub FrmForgot_Load(sender As Object, e
        BtnReSend.Enabled = False
    End Sub

    Private Sub btnsend_Click(sender As Object, e A

        If Not IsValidEmail(TxtEmail.Text) Then
            MessageBox.Show("Invalid email format.
            TxtEmail.Clear()
            Return
```

81 % No issues found



Make a booking

BookingID 662

Owner name

Animal name

Owner ID

Email

Booking dates DD/MM/YYY

Booking time 24 Hour format 00:00

Procedure type

Price estimate

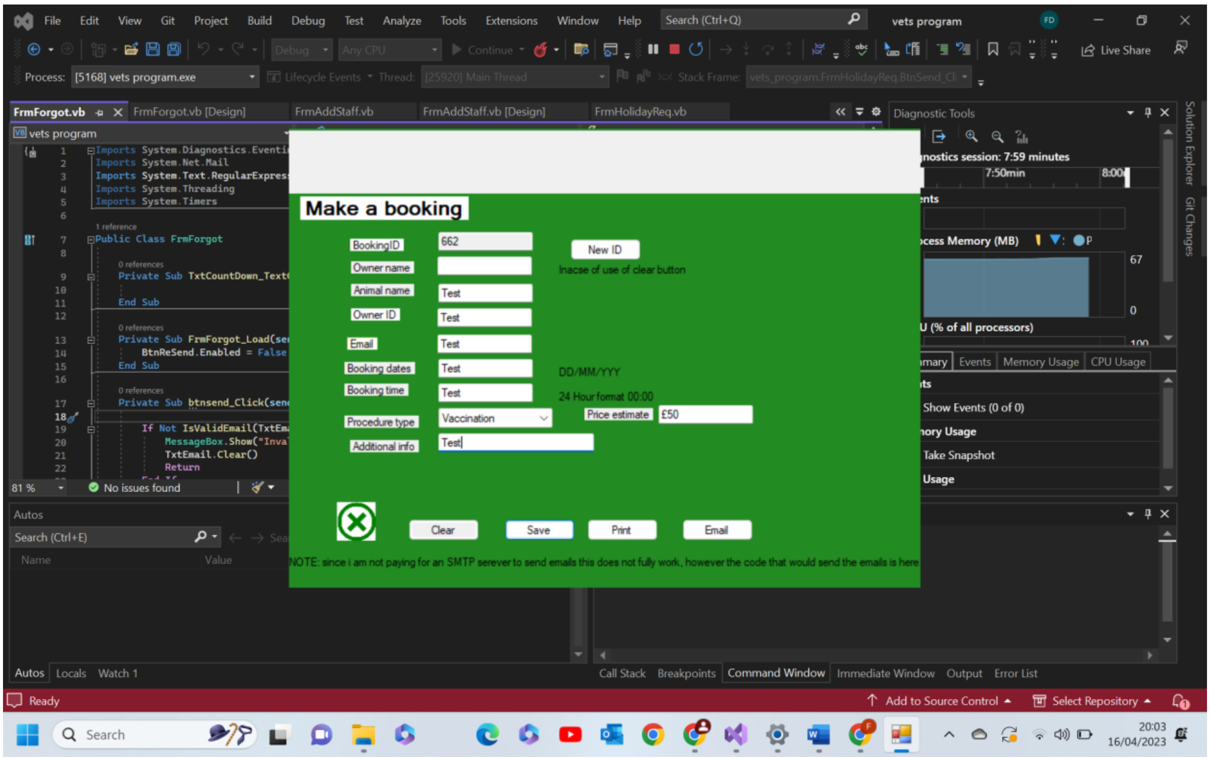
Additional info

Inacse of use of clear button

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here

Test 8.3 comments- as we can see as the form loads the booking ID text box is a slightly darker shade of grey. This indicates that it is in fact read only, ensuring no one can tamper with the Booking ID. Pass

8.4-



```
Imports System.Diagnostics.Eventi
Imports System.Net.Mail
Imports System.Text.RegularExpres
Imports System.Threading
Imports System.Timers

Public Class FrmForgot

    Private Sub TxtCountDown_Text(

    End Sub

    Private Sub FrmForgot_Load(se
        BtnReSend.Enabled = False
    End Sub

    Private Sub btnsend_Click(send

        If Not IsValidEmail(TxtEma
            MessageBox.Show("Inva
            TxtEmail.Clear()
            Return
```

Make a booking

BookingID	662
Owner name	
Animal name	Test
Owner ID	Test
Email	Test
Booking dates	Test
Booking time	Test
Procedure type	Vaccination
Additional info	Test
Price estimate	£50

New ID

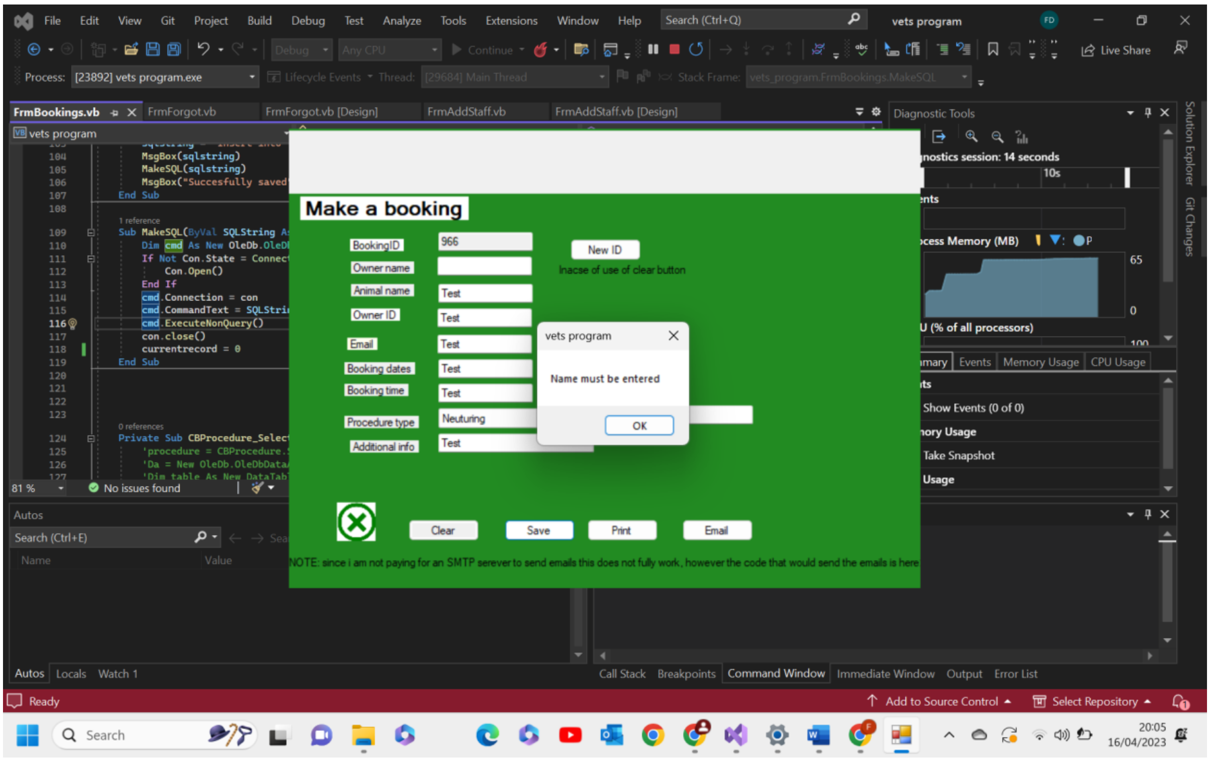
Inacse of use of clear button

DD/MM/YYY

24 Hour format 00:00

Clear Save Print Email

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here



```
        MsgBox(sqlstring)
        MakeSQL(sqlstring)
        MsgBox("Succesfully saved
    End Sub

    Sub MakeSQL(ByVal SQLString A
        Dim cmd As New OleDb.OleD
        If Not Con.State = Connec
            Con.Open()
        End If
        cmd.Connection = con
        cmd.CommandText = SQLStri
        cmd.ExecuteNonQuery()
        con.close()
        currentrecord = 0
    End Sub

    Private Sub CBProcedure_Selec
        'procedure = CBProcedure.
        'Da = New OleDb.OleDbData
        'Dim table As New DataTab
```

Make a booking

BookingID	966
Owner name	
Animal name	Test
Owner ID	Test
Email	Test
Booking dates	Test
Booking time	Test
Procedure type	Neutuing
Additional info	Test

vets program

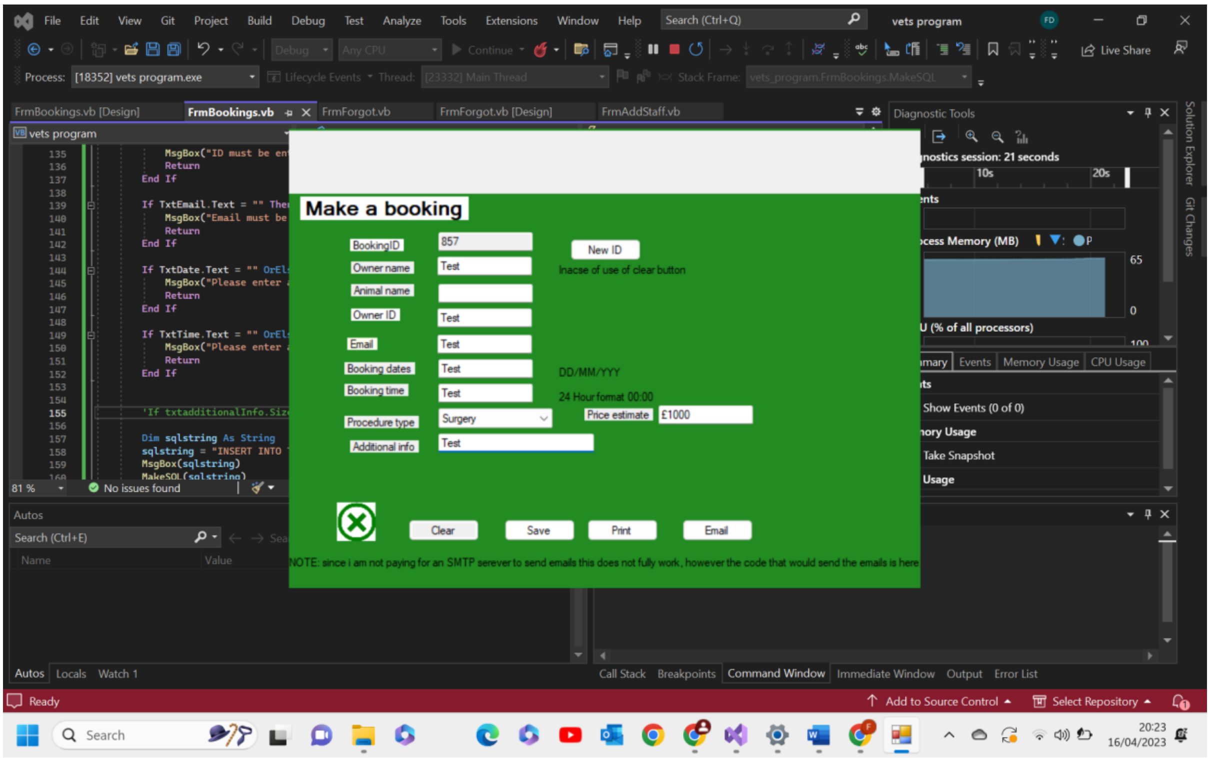
Name must be entered

OK

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here

Test 8.4 comments- as expected the program recognises the lack of data and outputs an appropriate message box and doesn't allow for the data to be saved. Pass

8.5-



```
        MsgBox("ID must be en
        Return
    End If

    If TxtEmail.Text = "" The
        MsgBox("Email must be
        Return
    End If

    If TxtDate.Text = "" OrEl
        MsgBox("Please enter 
        Return
    End If

    If TxtTime.Text = "" OrEl
        MsgBox("Please enter 
        Return
    End If

    'If txtadditionalInfo.Siz

    Dim sqlstring As String
    sqlstring = "INSERT INTO
    MsgBox(sqlstring)
    MakeSQL(sqlstring)
```

Make a booking

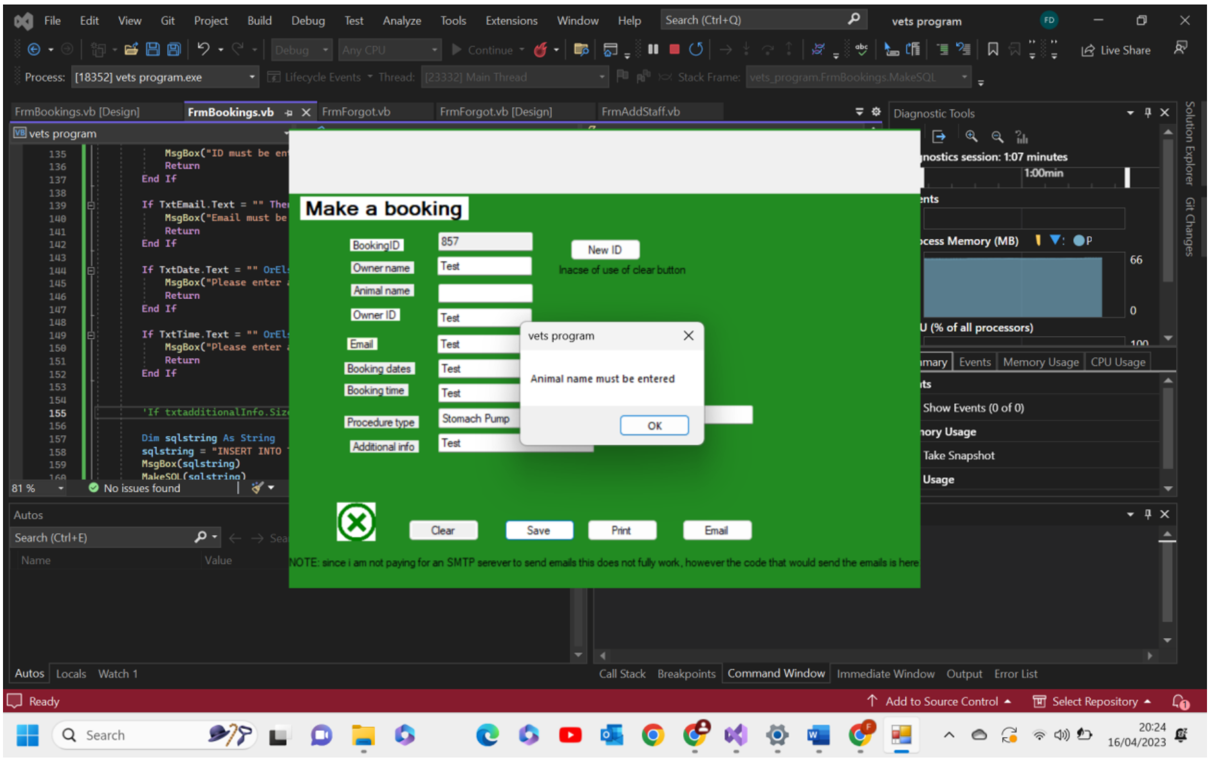
BookingID: 857
Owner name: Test
Animal name:
Owner ID: Test
Email: Test
Booking dates: Test
Booking time: Test
Procedure type: Surgery
Additional info: Test
Price estimate: £1000

Inacse of use of clear button

DD/MM/YYY

24 Hour format 00:00

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here



Make a booking

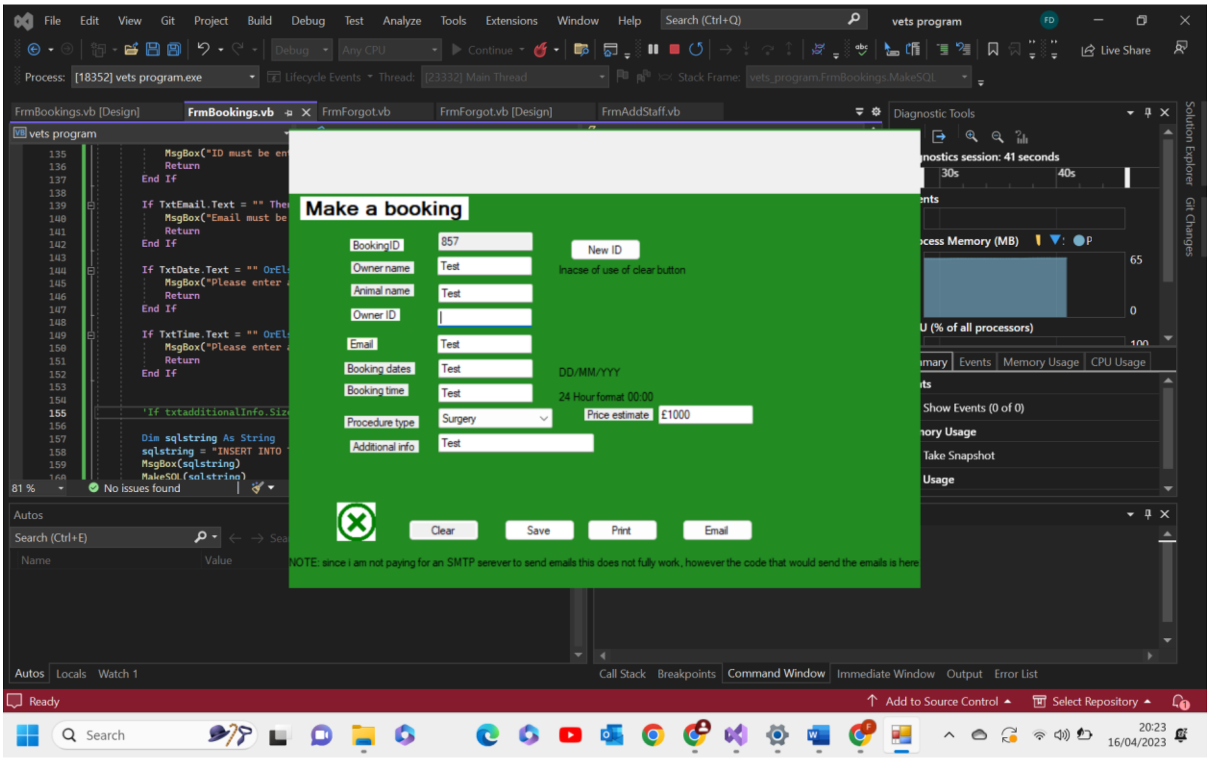
BookingID: 857
Owner name: Test
Animal name:
Owner ID: Test
Email: Test
Booking dates: Test
Booking time: Test
Procedure type: Stomach Pump
Additional info: Test

vets program

Animal name must be entered

Test 8.5 comments- as expected the program recognises the lack of data and outputs an appropriate message box and doesn’t allow for the data to be saved. Pass

8.6-



```
MsgBox("ID must be en
Return
End If

If TxtEmail.Text = "" The
    MsgBox("Email must be
    Return
End If

If TxtDate.Text = "" OrEl
    MsgBox("Please enter
    Return
End If

If TxtTime.Text = "" OrEl
    MsgBox("Please enter
    Return
End If


'If txtadditionalInfo.Siz

Dim sqlstring As String
sqlstring = "INSERT INTO
MsgBox(sqlstring)
MakeSQL(solstring)
```

Make a booking

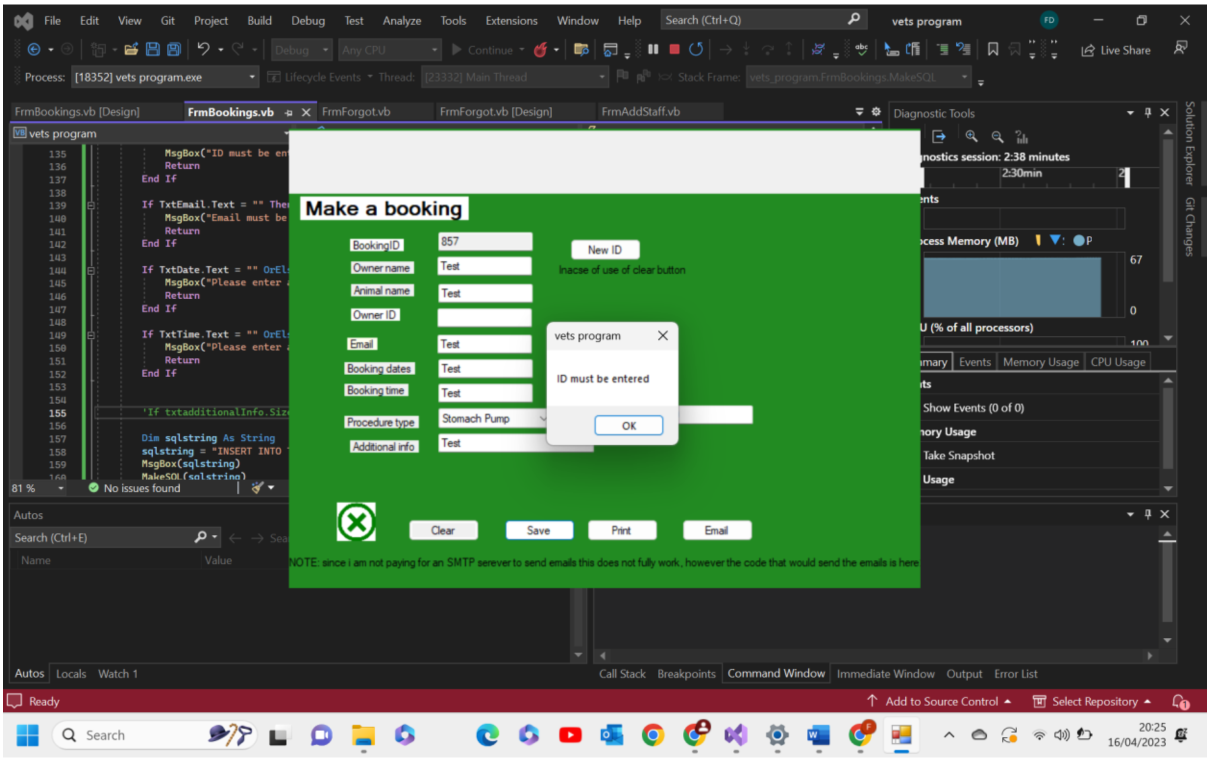
BookingID	857
Owner name	Test
Animal name	Test
Owner ID	
Email	Test
Booking dates	Test
Booking time	Test
Procedure type	Surgery
Additional info	Test
Price estimate	£1000

Inacse of use of clear button

DD/MM/YYY

24 Hour format 00:00

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here



```
MsgBox("ID must be en
Return
End If

If TxtEmail.Text = "" The
    MsgBox("Email must be
    Return
End If

If TxtDate.Text = "" OrEl
    MsgBox("Please enter
    Return
End If

If TxtTime.Text = "" OrEl
    MsgBox("Please enter
    Return
End If


'If txtadditionalInfo.Siz

Dim sqlstring As String
sqlstring = "INSERT INTO
MsgBox(sqlstring)
MakeSQL(solstring)
```

Make a booking

BookingID	857
Owner name	Test
Animal name	Test
Owner ID	
Email	Test
Booking dates	Test
Booking time	Test
Procedure type	Stomach Pump
Additional info	Test

Inacse of use of clear button

vets program

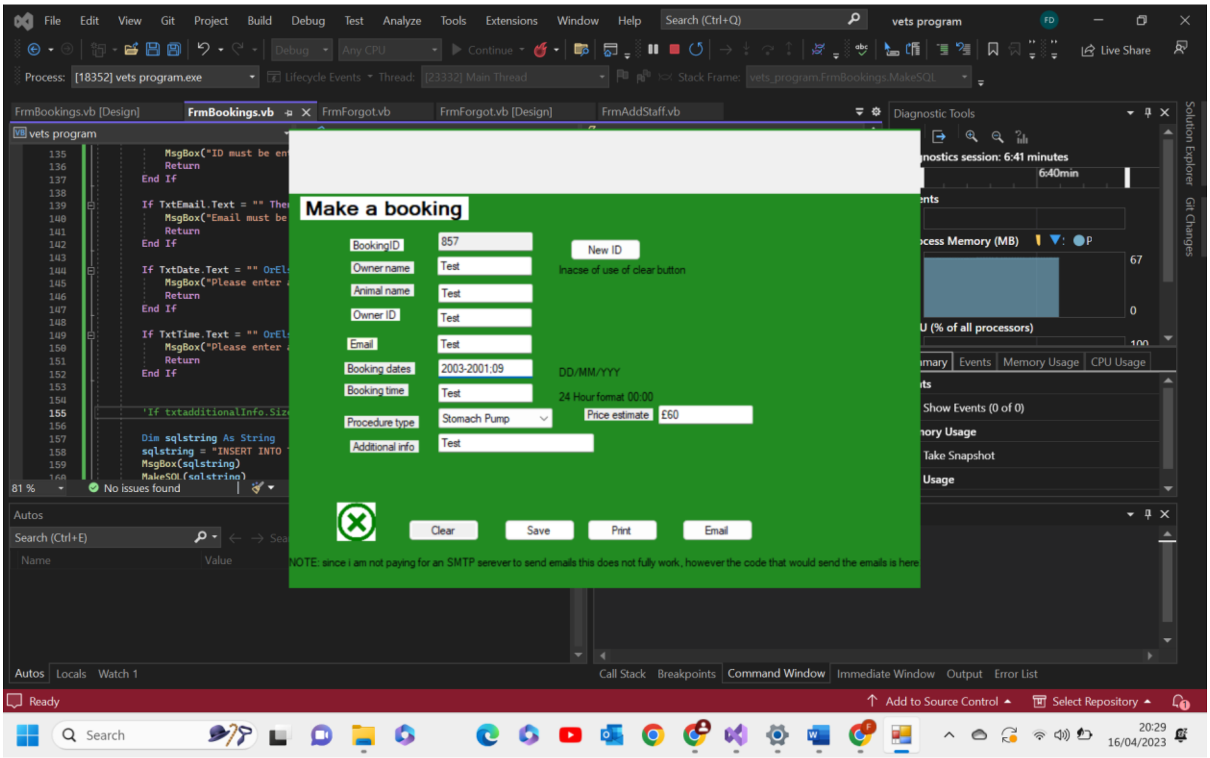
ID must be entered

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here

File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Process: [18352] vets program.exe
Diagnostic Tools
OK
New ID
Clear
Save
Print
Email
Ready
20:25
16/04/2023

Test 8.6 comments- - as expected the program recognises the lack of data and outputs an appropriate message box and doesn't allow for the data to be saved. Pass

8.7-



```
        MsgBox("ID must be en
        Return
    End If

    If TxtEmail.Text = "" The
        MsgBox("Email must be
        Return
    End If

    If TxtDate.Text = "" OrEl
        MsgBox("Please enter
        Return
    End If

    If TxtTime.Text = "" OrEl
        MsgBox("Please enter
        Return
    End If


    'If txtadditionalInfo.Siz

    Dim sqlstring As String
    sqlstring = "INSERT INTO
    MsgBox(sqlstring)
    MakeSQL(sqlstring)
```

Make a booking

BookingID: 857

Owner name: Test

Animal name: Test

Owner ID: Test

Email: Test

Booking dates: 2003-2001;09

Booking time: Test

Procedure type: Stomach Pump

Price estimate: £60

Additional info: Test

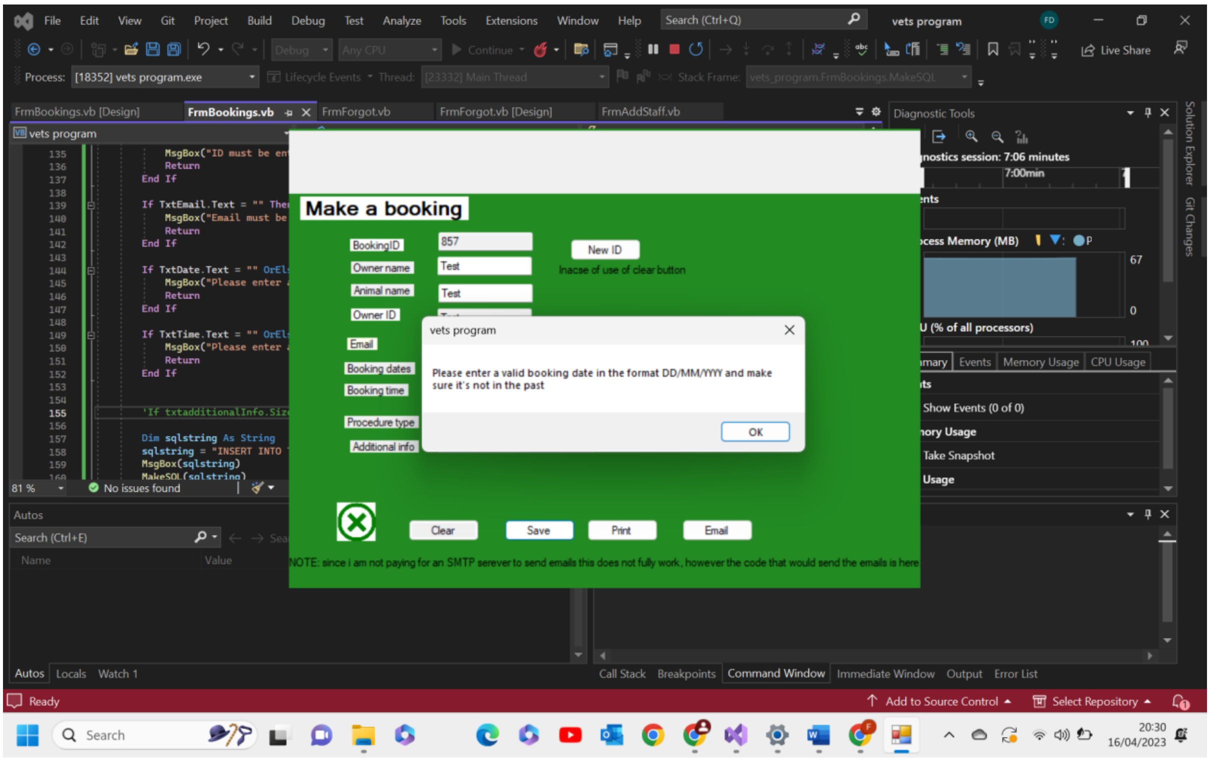
Inacse of use of clear button

DD/MM/YYY

24 Hour format 00:00

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here

New ID
Clear
Save
Print
Email
File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
vets program
Process: [18352] vets program.exe
FrmBookings.vb [Design]
FrmBookings.vb
FrmForgot.vb
FrmForgot.vb [Design]
FrmAddStaff.vb
Diagnostic Tools
No issues found
Autos
Call Stack Breakpoints Command Window Immediate Window Output Error List
Ready
20:29
16/04/2023

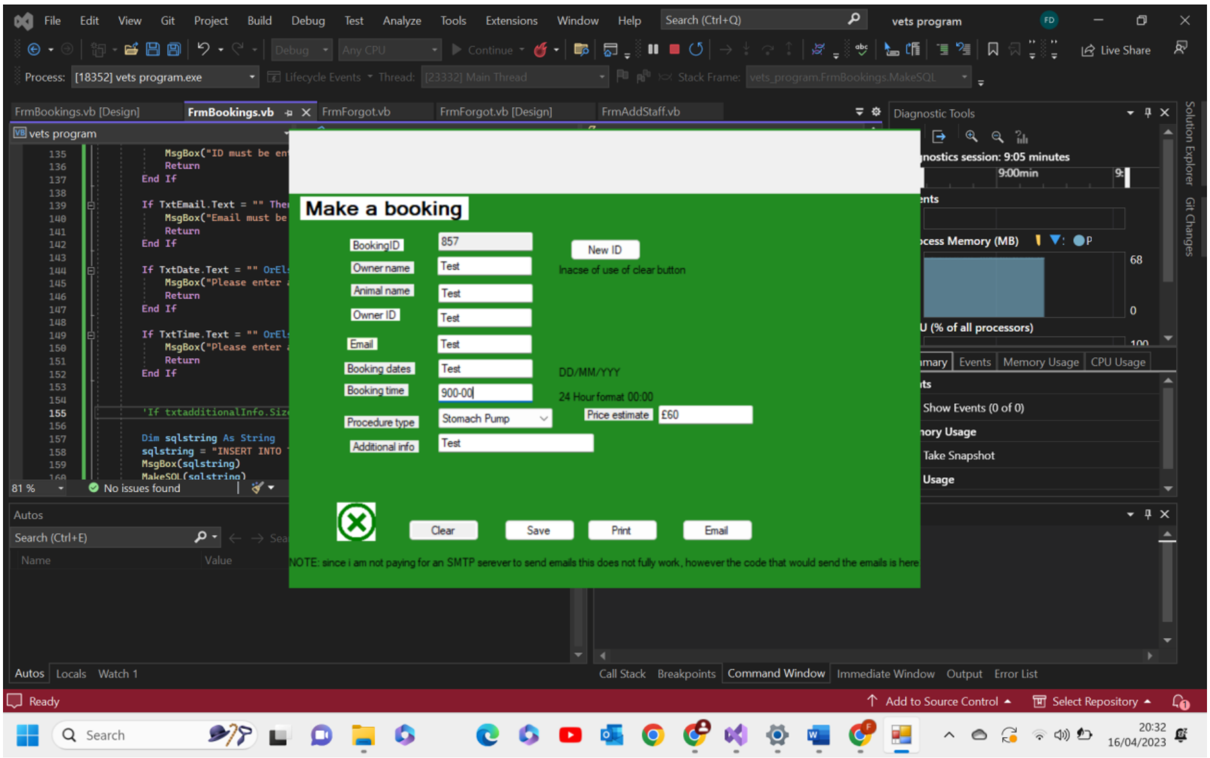


vets program

Please enter a valid booking date in the format DD/MM/YYYY and make sure it's not in the past

Test 8.7 comments- as expected the program recognised it did not follow the DD/MM/YYYY format and so that date failed its format check validation type, a message box was outputted by the program and the data was not saved. Pass

8.8-



```
            MsgBox("ID must be en
            Return
        End If

        If TxtEmail.Text = "" The
            MsgBox("Email must be
            Return
        End If

        If TxtDate.Text = "" OrEl
            MsgBox("Please enter
            Return
        End If

        If TxtTime.Text = "" OrEl
            MsgBox("Please enter
            Return
        End If


        'If txtadditionalInfo.Siz

        Dim sqlstring As String
        sqlstring = "INSERT INTO
        MsgBox(sqlstring)
        MakeSQL(sqlstring)
```

Make a booking

BookingID 857
Owner name Test
Animal name Test
Owner ID Test
Email Test
Booking dates Test
Booking time 900-00
Procedure type Stomach Pump
Additional info Test
Price estimate £60

New ID

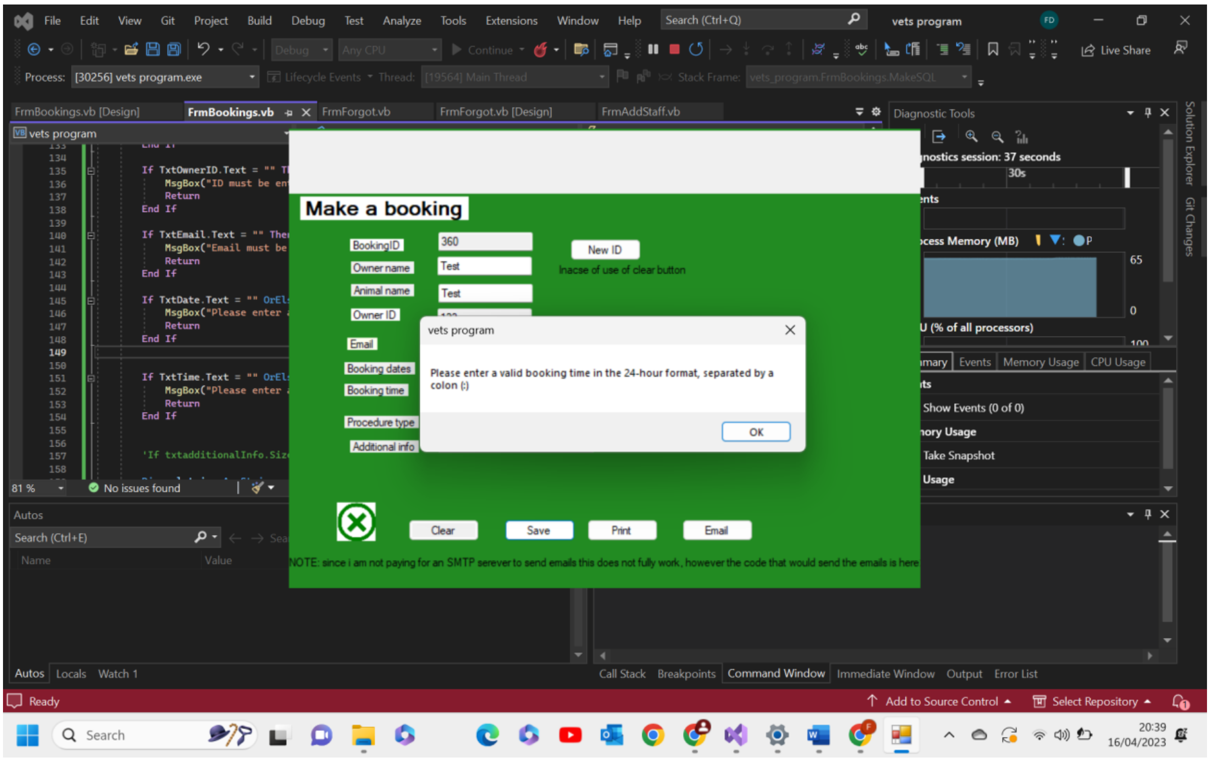
Inacse of use of clear button

DD/MM/YYY

24 Hour format 00:00

Clear Save Print Email

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here



```
        If TxtOwnerID.Text = "" T
            MsgBox("ID must be en
            Return
        End If

        If TxtEmail.Text = "" The
            MsgBox("Email must be
            Return
        End If

        If TxtDate.Text = "" OrEl
            MsgBox("Please enter
            Return
        End If


        If TxtTime.Text = "" OrEl
            MsgBox("Please enter
            Return
        End If


        'If txtadditionalInfo.Siz
```

Make a booking

BookingID 360
Owner name Test
Animal name Test
Owner ID

New ID

Inacse of use of clear button

vets program

Please enter a valid booking time in the 24-hour format, separated by a colon (:)

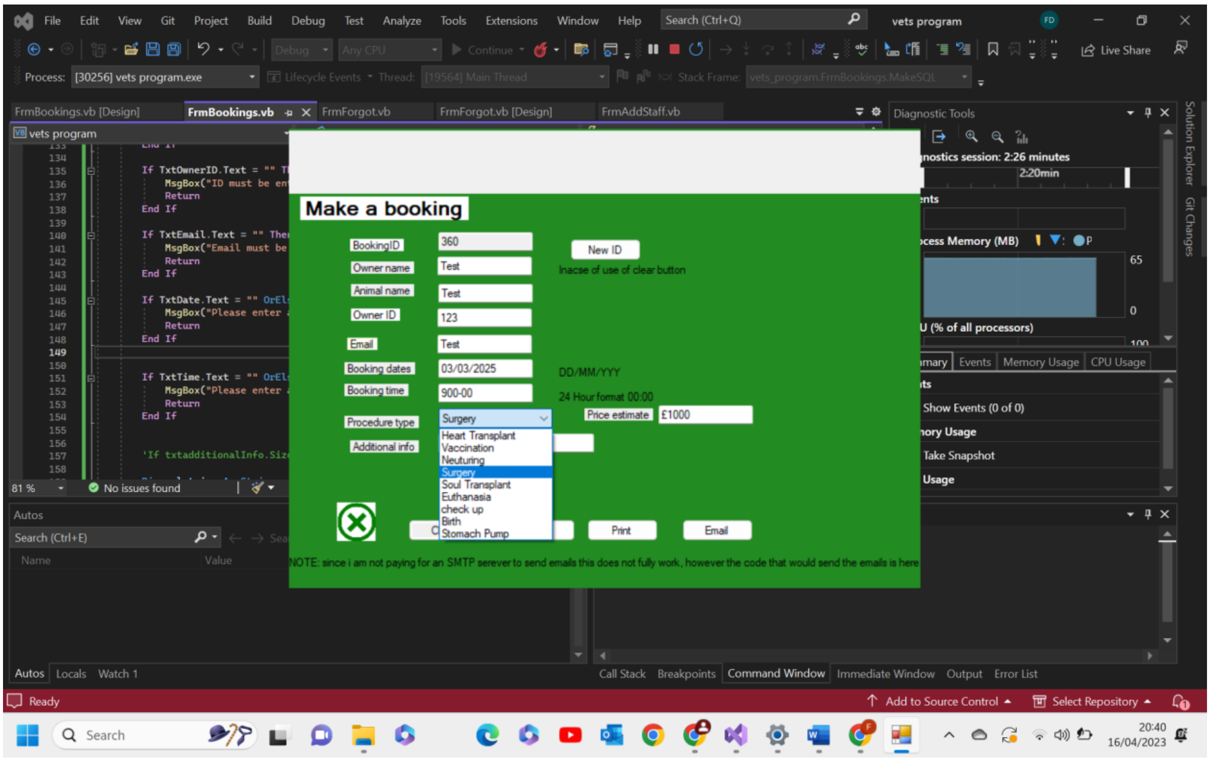
OK

Clear Save Print Email

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here

Test 8.8 comments- as we can see above the format check was not passed due to the invalid data, as a result of this the program did not allow for the data to be saved and outputted a message box warning. Pass

8.9-



```
If TxtOwnerID.Text = "" T
    MsgBox("ID must be en
    Return
End If

If TxtEmail.Text = "" Then
    MsgBox("Email must be
    Return
End If

If TxtDate.Text = "" OrEl
    MsgBox("Please enter
    Return
End If

If TxtTime.Text = "" OrEl
    MsgBox("Please enter
    Return
End If

'If txtadditionalInfo.Siz
```

Make a booking

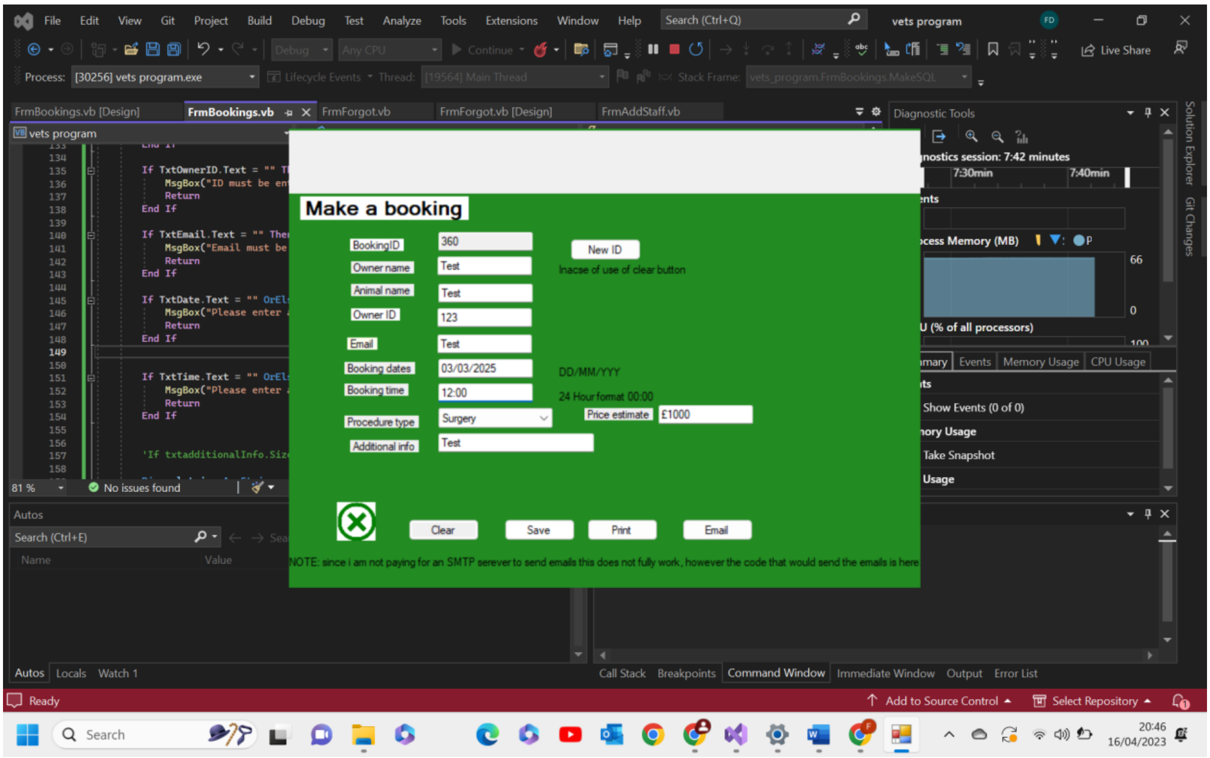
BookingID: 360
Owner name: Test
Animal name: Test
Owner ID: 123
Email: Test
Booking dates: 03/03/2025
Booking time: 900-00
Procedure type: Surgery
Heart Transplant
Vaccination
Neutering
Surgery
Soul Transplant
Euthanasia
check up
Birth
Stomach Pump
Additional info:

New ID
Inacse of use of clear button
DD/MM/YYY
24 Hour format 00:00
Price estimate: £1000

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here

Test 8.9 comments- As we can see here the program has been loaded and so the values in the table designated for storing procedure information have been written into the combo box. Pass

8.10-



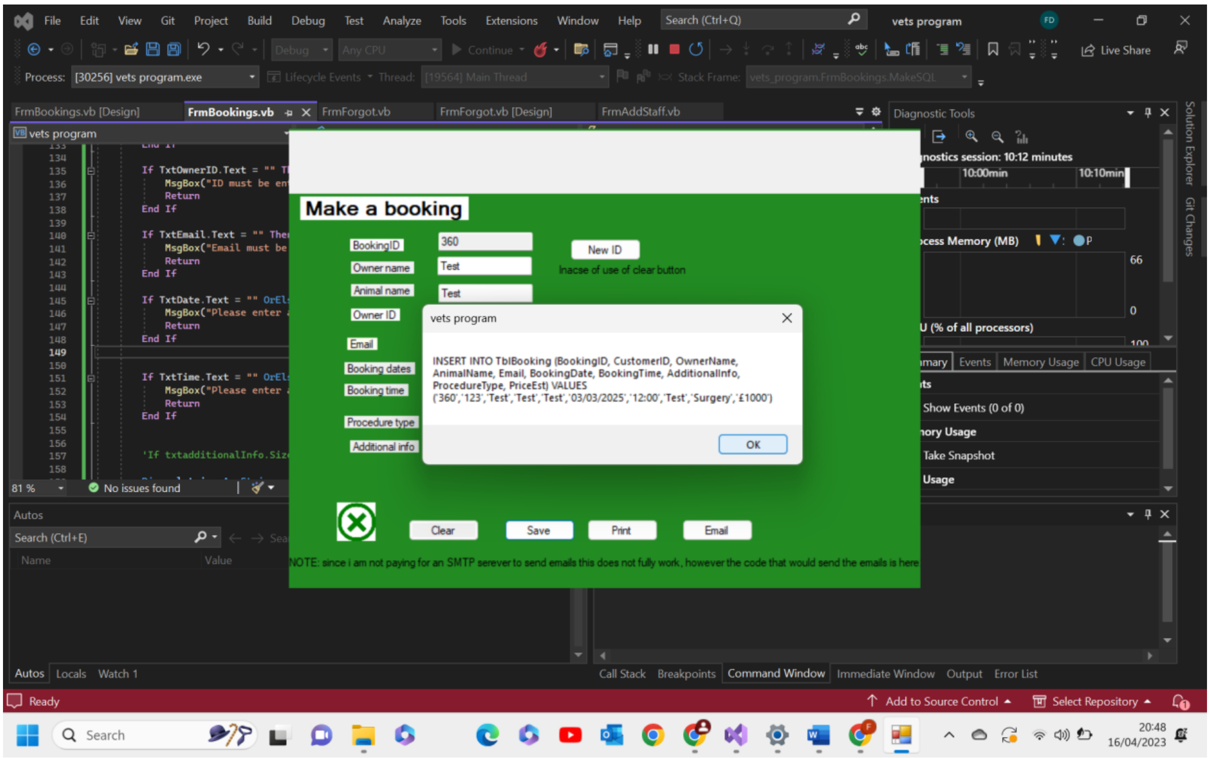
```
If TxtOwnerID.Text = "" T
    MsgBox("ID must be en
    Return
End If

If TxtEmail.Text = "" Then
    MsgBox("Email must be
    Return
End If

If TxtDate.Text = "" OrEl
    MsgBox("Please enter
    Return
End If

If TxtTime.Text = "" OrEl
    MsgBox("Please enter
    Return
End If

'If txtadditionalInfo.Siz
```

Make a booking

BookingID: 360
Owner name: Test
Animal name: Test
Owner ID: 123
Email: Test
Booking dates: 03/03/2025
Booking time: 12:00
Procedure type: Surgery
Additional info: Test

New ID
Inacse of use of clear button
DD/MM/YYY
24 Hour format 00:00
Price estimate: £1000

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here



```
    End If

    If TxtOwnerID.Text = "" Th
        MsgBox("ID must be en
        Return
    End If

    If TxtEmail.Text = "" Ther
        MsgBox("Email must be
        Return
    End If

    If TxtDate.Text = "" OrEl
        MsgBox("Please enter
        Return
    End If


    If TxtTime.Text = "" OrEl
        MsgBox("Please enter
        Return
    End If


    'If txtadditionalInfo.Siz
```

Make a booking

BookingID: 360
Owner name: Test
Animal name: Test
Owner ID
Email
Booking dates
Booking time
Procedure type
Additional info

New ID
Inacse of use of clear button

vets program

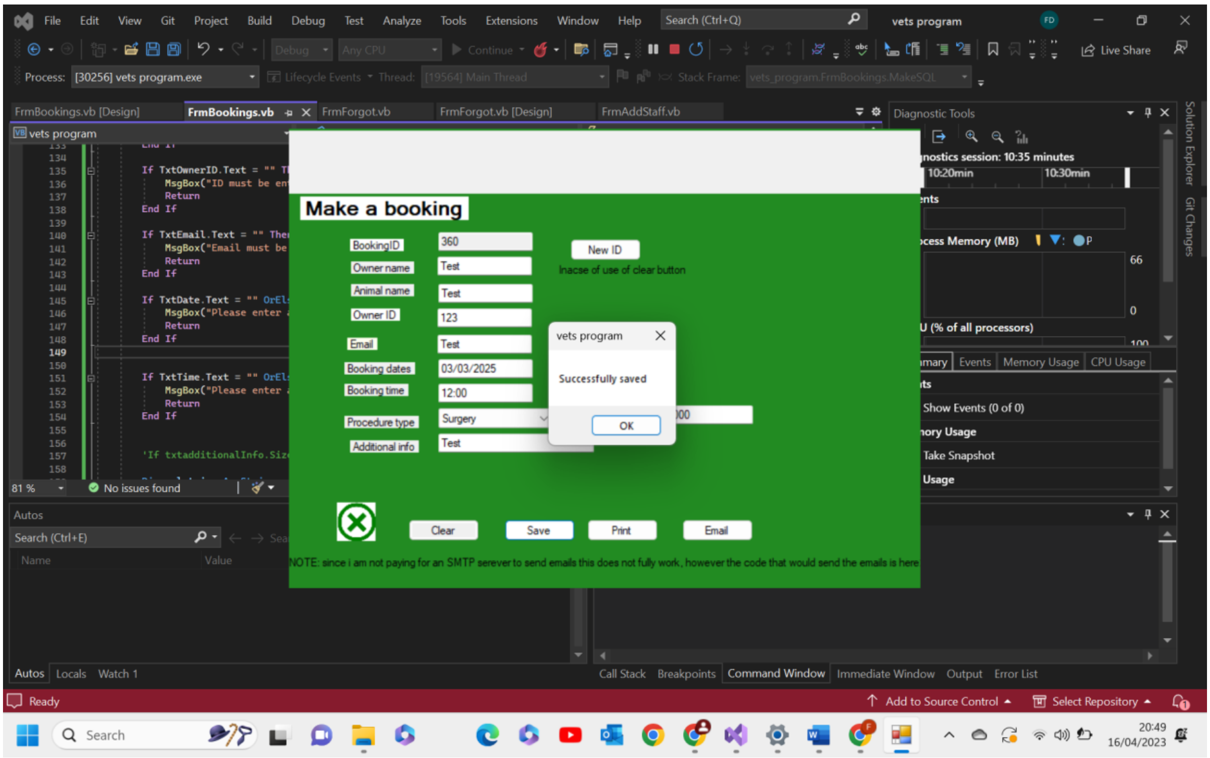
INSERT INTO TblBooking (BookingID, CustomerID, OwnerName, AnimalName, Email, BookingDate, BookingTime, AdditionalInfo, ProcedureType, PriceEst) VALUES ('360','123','Test','Test','Test','03/03/2025','12:00','Test','Surgery','£1000')

OK

Clear Save Print Email

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here

Show what will be saved



File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
vets program
Live Share
Process: [30256] vets program.exe
Thread: [19564] Main Thread
Stack Frame: vets_program.FrmBookings.MakeSQL
FrmBookings.vb [Design]
FrmBookings.vb
FrmForgot.vb
FrmForgot.vb [Design]
FrmAddStaff.vb
Diagnostic Tools
81 %
No issues found
Autos Locals Watch 1
Call Stack Breakpoints Command Window Immediate Window Output Error List
Ready
20:49
16/04/2023

```
    End If

    If TxtOwnerID.Text = "" Th
        MsgBox("ID must be en
        Return
    End If

    If TxtEmail.Text = "" Ther
        MsgBox("Email must be
        Return
    End If

    If TxtDate.Text = "" OrEl
        MsgBox("Please enter
        Return
    End If


    If TxtTime.Text = "" OrEl
        MsgBox("Please enter
        Return
    End If


    'If txtadditionalInfo.Siz
```

Make a booking

BookingID: 360
Owner name: Test
Animal name: Test
Owner ID: 123
Email: Test
Booking dates: 03/03/2025
Booking time: 12:00
Procedure type: Surgery
Additional info: Test

New ID
Inacse of use of clear button

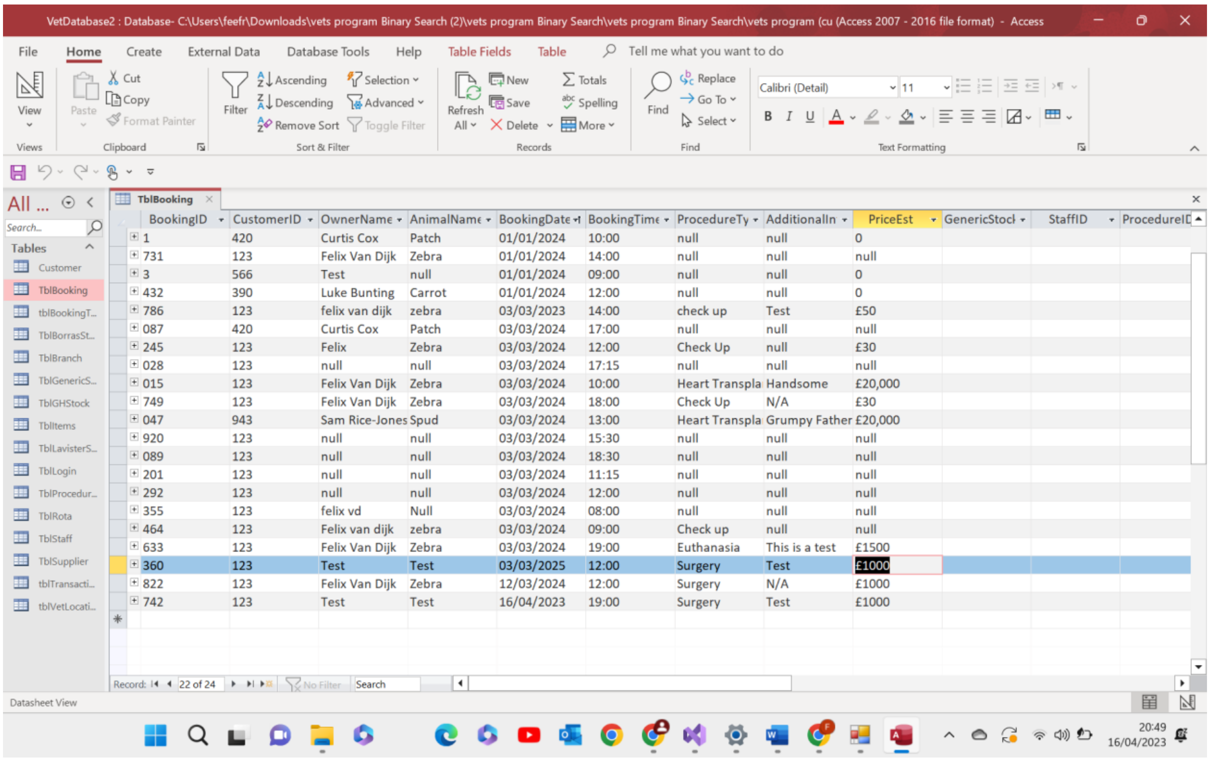
vets program

Successfully saved

OK

Clear Save Print Email

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here



VetDatabase2 : Database- C:\Users\feefr\Downloads\vets program Binary Search (2)\vets program Binary Search\vets program Binary Search\vets program (cu (Access 2007 - 2016 file format) - Access

TblBooking

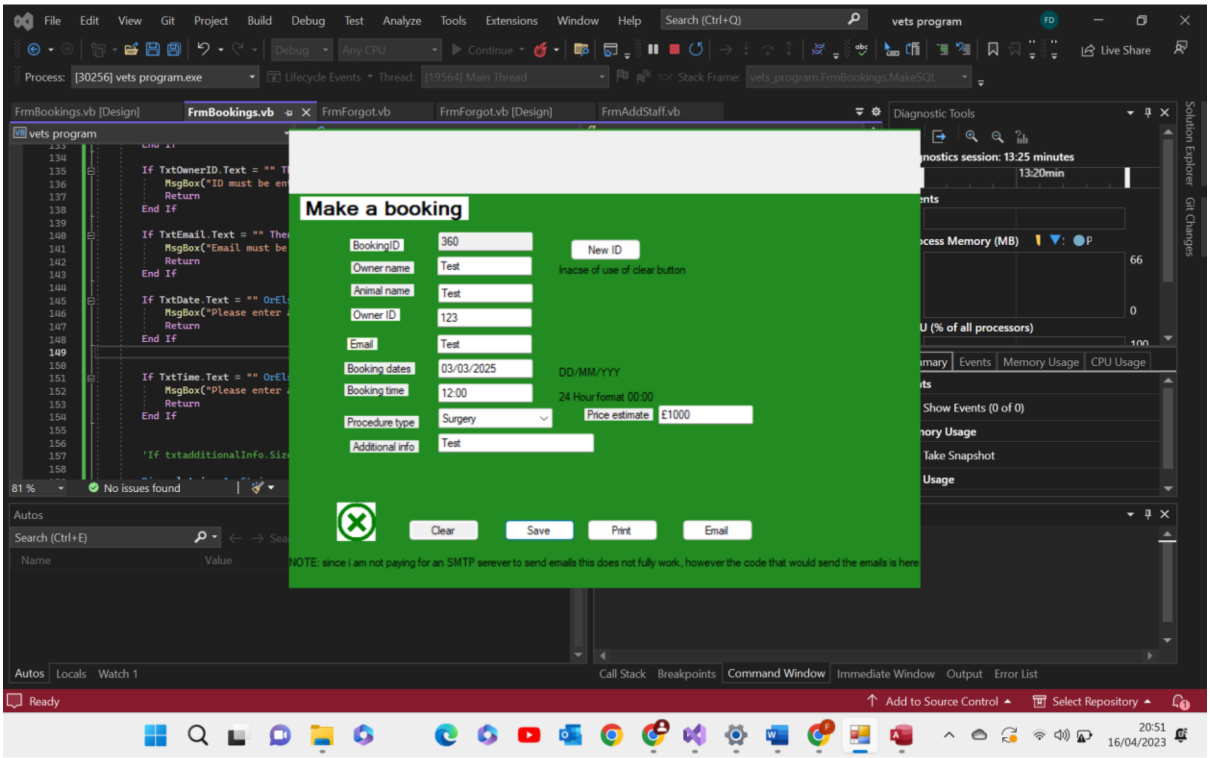
BookingID	CustomerID	OwnerName	AnimalName	BookingDate	BookingTime	ProcedureTy	AdditionalIn	PriceEst	GenericStock	StaffID	ProcedureID
1	420	Curtis Cox	Patch	01/01/2024	10:00	null	null	0			
731	123	Felix Van Dijk	Zebra	01/01/2024	14:00	null	null	null			
3	566	Test	null	01/01/2024	09:00	null	null	0			
432	390	Luke Bunting	Carrot	01/01/2024	12:00	null	null	0			
786	123	felix van dijk	zebra	03/03/2023	14:00	check up	Test	£50			
087	420	Curtis Cox	Patch	03/03/2024	17:00	null	null	null			
245	123	Felix	Zebra	03/03/2024	12:00	Check Up	null	£30			
028	123	null	null	03/03/2024	17:15	null	null	null			
015	123	Felix Van Dijk	Zebra	03/03/2024	10:00	Heart Transpla	Handsome	£20,000			
749	123	Felix Van Dijk	Zebra	03/03/2024	18:00	Check Up	N/A	£30			
047	943	Sam Rice-Jones	Spud	03/03/2024	13:00	Heart Transpla	Grumpy Father	£20,000			
920	123	null	null	03/03/2024	15:30	null	null	null			
089	123	null	null	03/03/2024	18:30	null	null	null			
201	123	null	null	03/03/2024	11:15	null	null	null			
292	123	null	null	03/03/2024	12:00	null	null	null			
355	123	felix vd	Null	03/03/2024	08:00	null	null	null			
464	123	Felix van dijk	zebra	03/03/2024	09:00	Check up	null	null			
633	123	Felix Van Dijk	Zebra	03/03/2024	19:00	Euthanasia	This is a test	£1500			
360	123	Test	Test	03/03/2025	12:00	Surgery	Test	£1000			
822	123	Felix Van Dijk	Zebra	12/03/2024	12:00	Surgery	N/A	£1000			
742	123	Test	Test	16/04/2023	19:00	Surgery	Test	£1000			

Record: 22 of 24

Proof it was written to the database. The highlighted row is the one we just saved.

Test 8.10 comments- as we can see when valid data is entered and all type of validation checks are passed, both presence and format, the data is written from the text boxes into the appropriate correlating table in the database where it is saved. Pass

8.11-



Process: [30256] vets program.exe

Stack Frame: vets_program.FrmBookings.MakeSQL

```
        If TxtOwnerID.Text = "" T
            MsgBox("ID must be en
            Return
        End If

        If TxtEmail.Text = "" The
            MsgBox("Email must be
            Return
        End If

        If TxtDate.Text = "" OrEl
            MsgBox("Please enter 
            Return
        End If


        If TxtTime.Text = "" OrEl
            MsgBox("Please enter 
            Return
        End If


        'If txtadditionalInfo.Siz
```

Make a booking

BookingID	360
Owner name	Test
Animal name	Test
Owner ID	123
Email	Test
Booking dates	03/03/2025
Booking time	12:00
Procedure type	Surgery
Price estimate	£1000
Additional info	Test

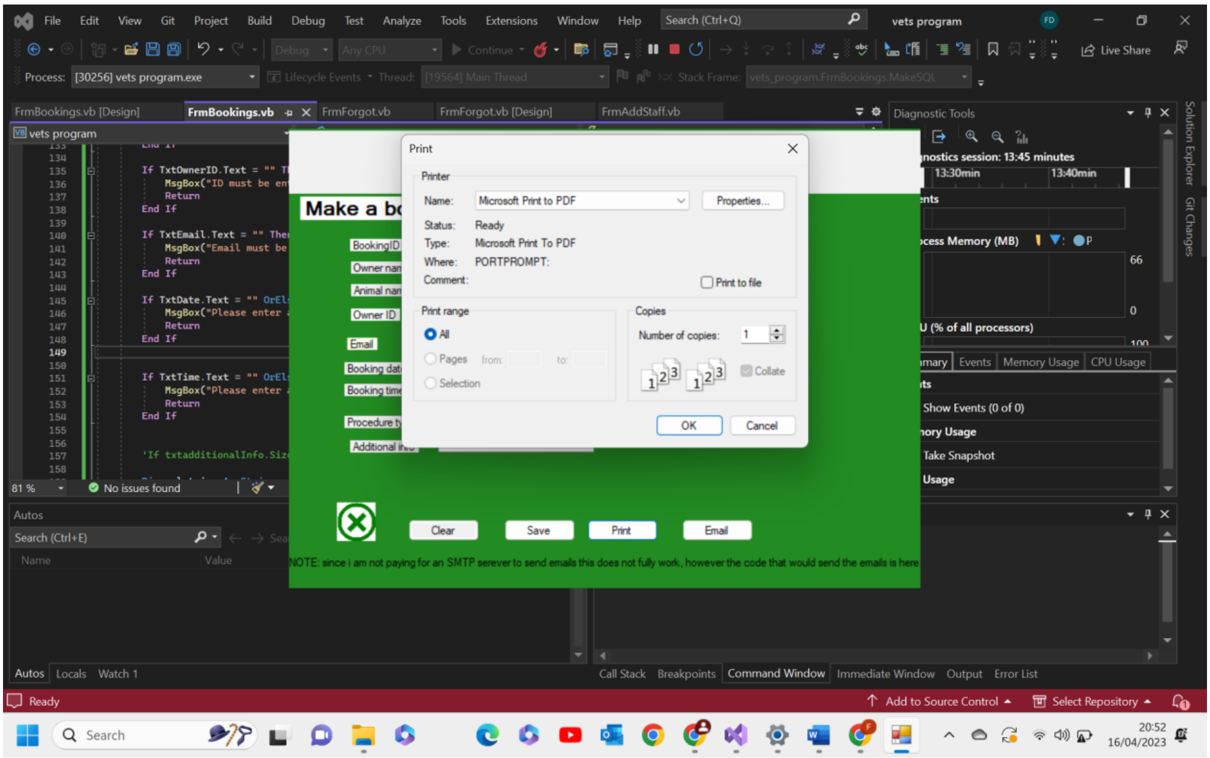
New ID

Inacse of use of clear button

DD/MM/YYY

24 Hour format 00:00

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here



```
If TxtOwnerID.Text = "" T
    MsgBox("ID must be en
    Return
End If

If TxtEmail.Text = "" Then
    MsgBox("Email must be
    Return
End If

If TxtDate.Text = "" OrEl
    MsgBox("Please enter
    Return
End If


If TxtTime.Text = "" OrEl
    MsgBox("Please enter
    Return
End If


'If txtadditionalInfo.Size
```

Print

Printer

Name: Microsoft Print to PDF

Status: Ready

Type: Microsoft Print To PDF

Where: PORTPROMPT:

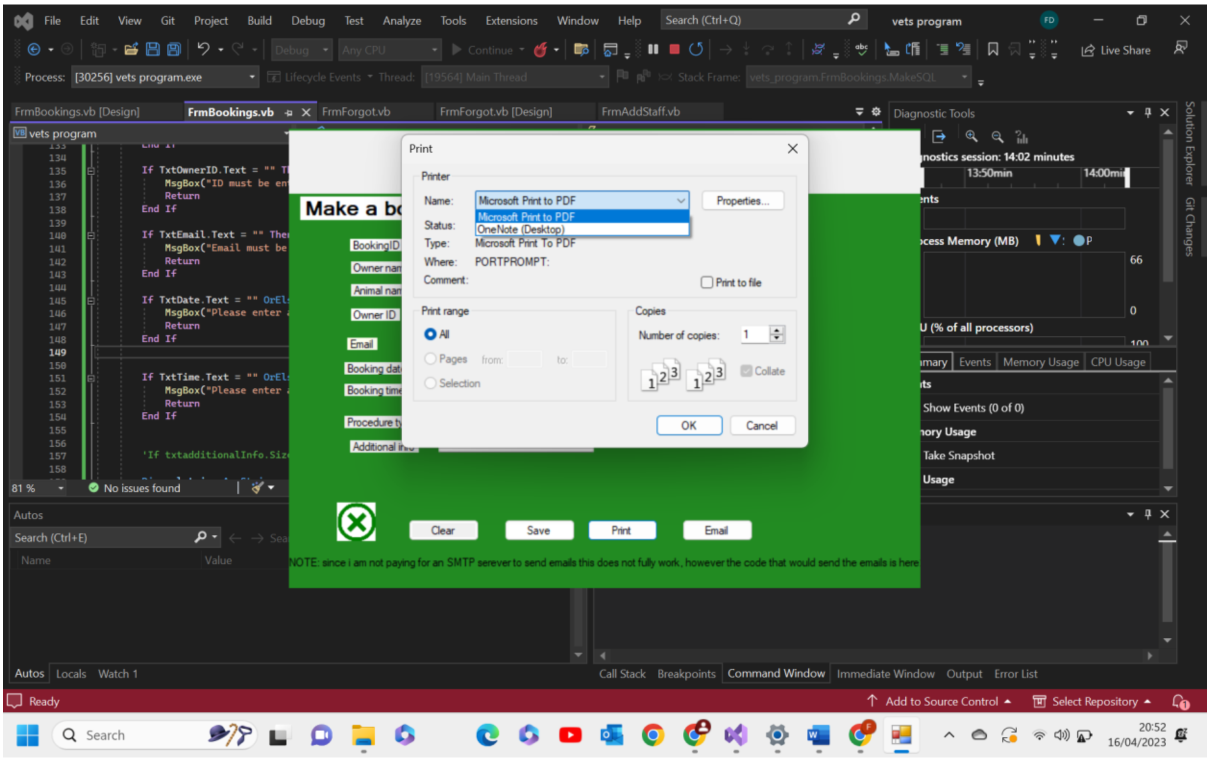
Comment:

□ Print to file

Print range: ● All ○ Pages ○ Selection

Copies: Number of copies: 1 ☑ Collate

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here



Print

Name: Microsoft Print to PDF

Microsoft Print to PDF
OneNote (Desktop)

Type: Microsoft Print To PDF

Where: PORTPROMPT:

Comment:

□ Print to file

Print range: ● All ○ Pages ○ Selection

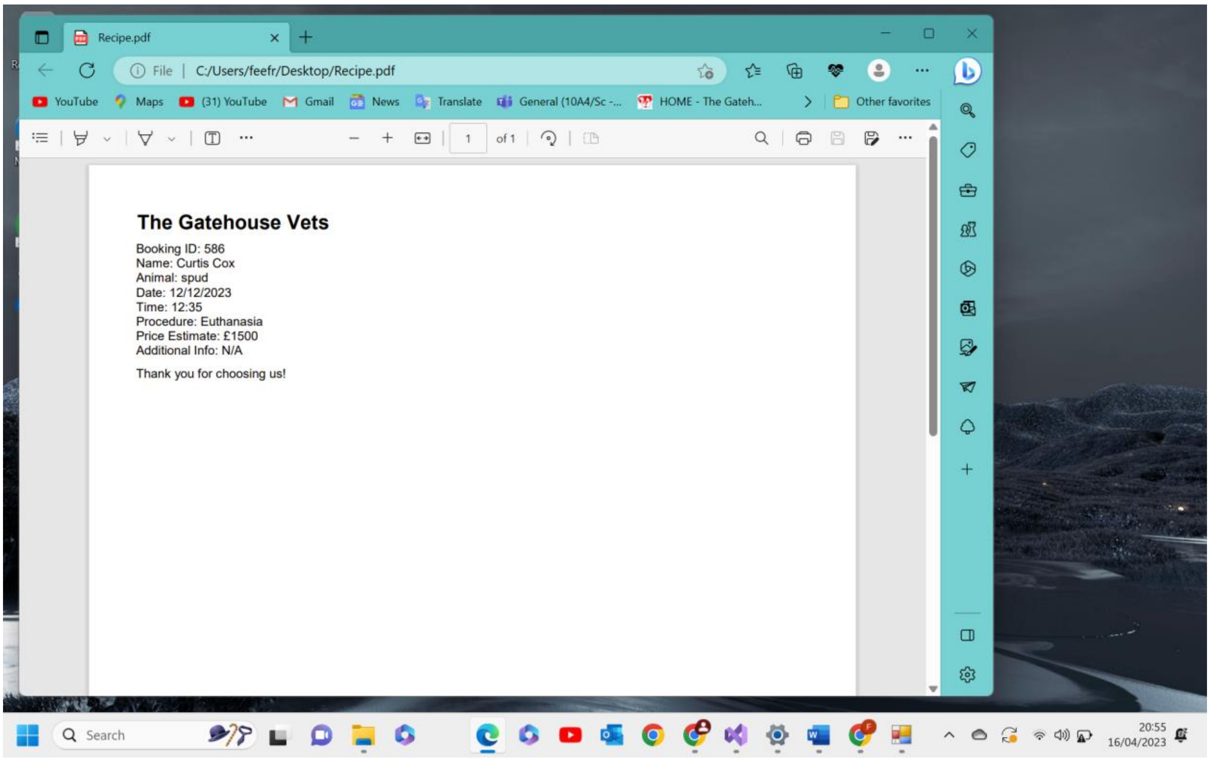
Copies: Number of copies: 1 ☑ Collate

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here

the above is where you could select a printer given there was one turned on and in range.

Test 8.11- as we can see above the print function works as expected. A smaller form appears letting the user choose printer, number of copies ext. this then prints the data in the text boxes. Pass

8.12-

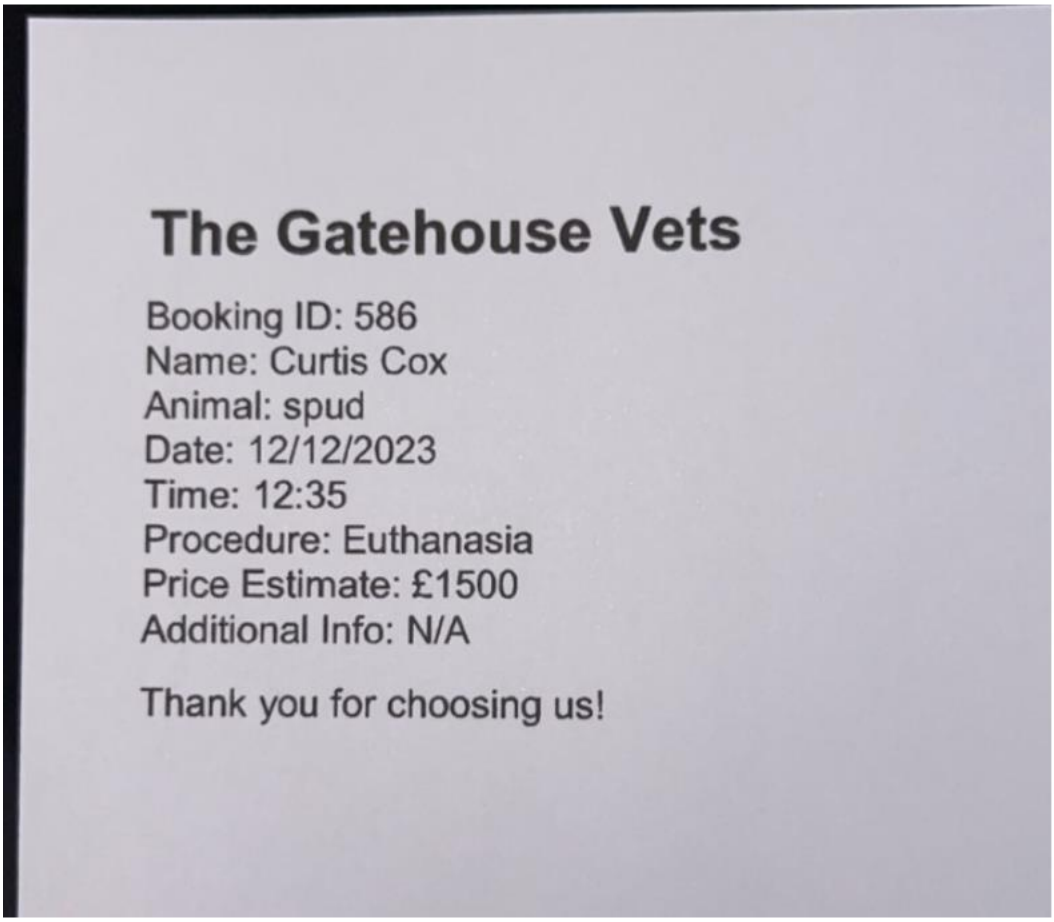


The Gatehouse Vets

Booking ID: 586
Name: Curtis Cox
Animal: spud
Date: 12/12/2023
Time: 12:35
Procedure: Euthanasia
Price Estimate: £1500
Additional Info: N/A

Thank you for choosing us!

The above is an example of what a recipe looks like if the user chooses to save as a pdf instead of print a physical copy. The below is a picture of a physical copy.



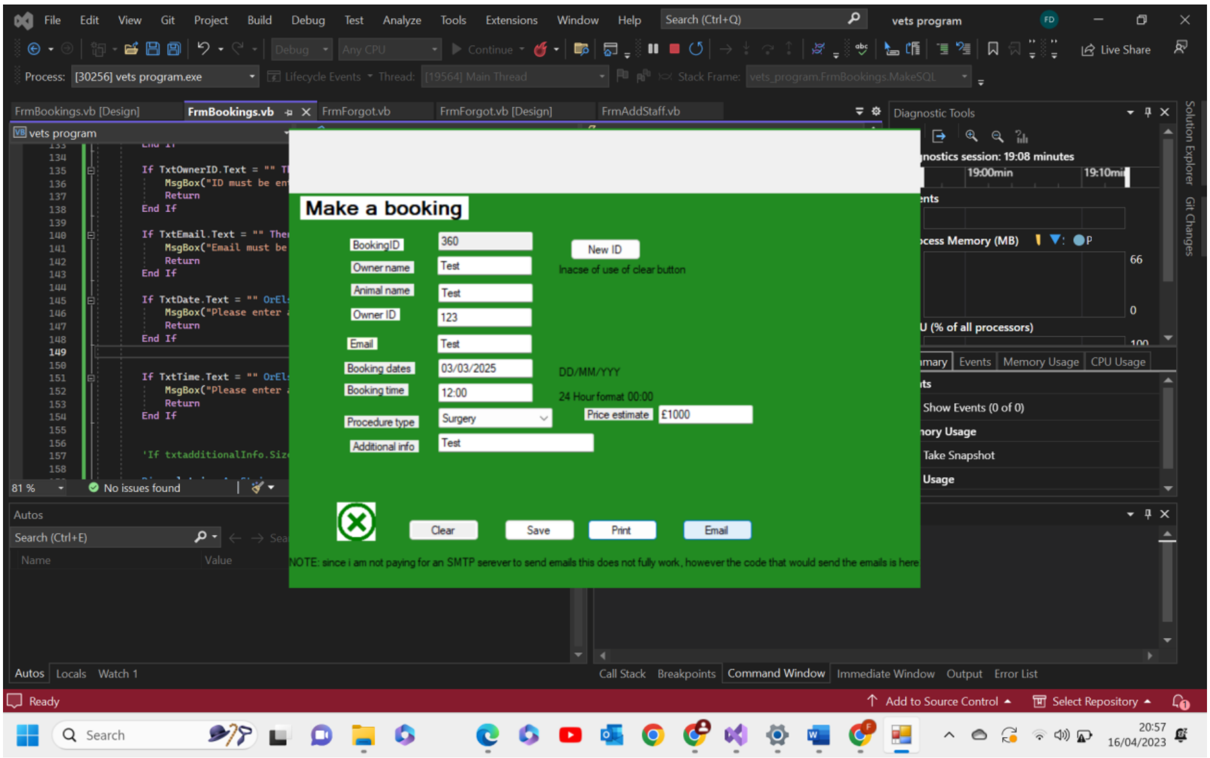
The Gatehouse Vets

Booking ID: 586
Name: Curtis Cox
Animal: spud
Date: 12/12/2023
Time: 12:35
Procedure: Euthanasia
Price Estimate: £1500
Additional Info: N/A

Thank you for choosing us!

Test 8.12 comments- as we can see the recipe is in the format intended, the header at the top followed by the information in the text boxes and a thank you message. Pass

8.13-

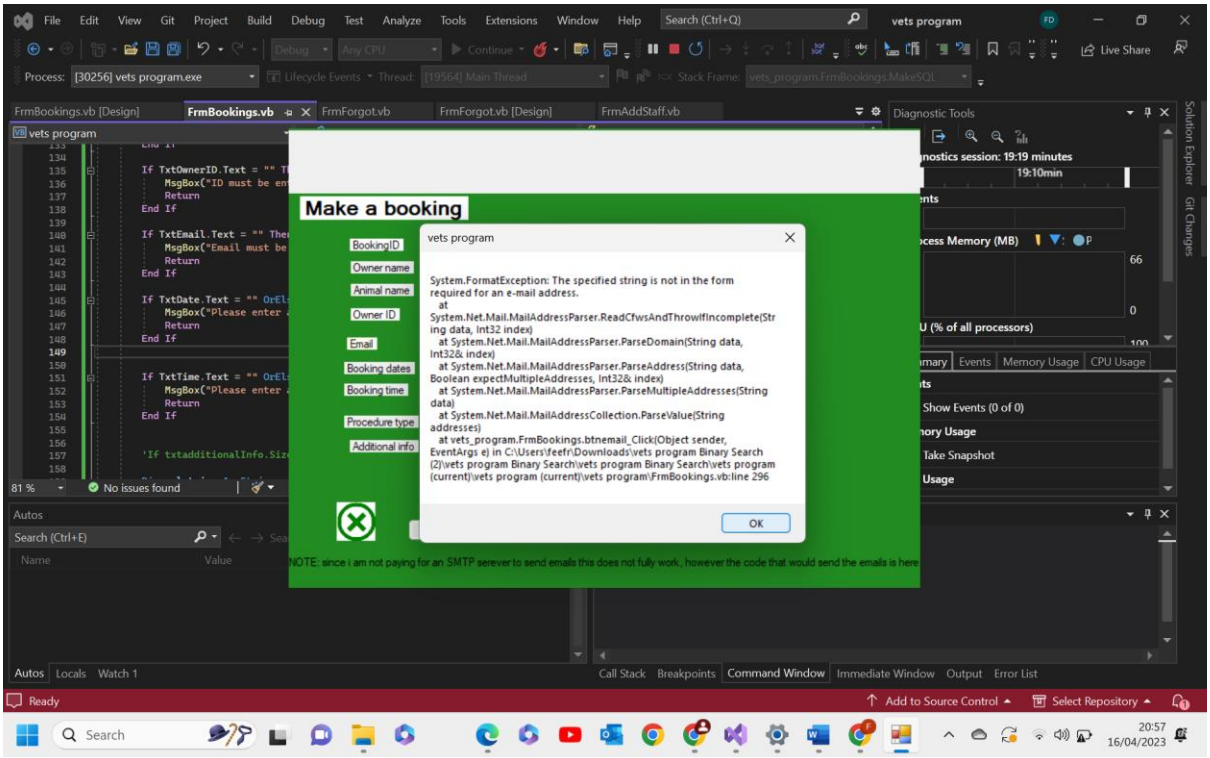


```
            End If

            If TxtOwnerID.Text = "" T
                MsgBox("ID must be en
                Return
            End If

            If TxtEmail.Text = "" Ther
                MsgBox("Email must be
                Return
            End If

            If TxtDate.Text = "" OrEl
                MsgBox("Please enter
                Return
            End If


            If TxtTime.Text = "" OrEl
                MsgBox("Please enter
                Return
            End If


            'If txtadditionalInfo.Siz
```

Make a booking

BookingID	360	New ID
Owner name	Test	Inacse of use of clear button
Animal name	Test	
Owner ID	123	
Email	Test	
Booking dates	03/03/2025	DD/MM/YYY
Booking time	12:00	24 Hour format 00:00
Procedure type	Surgery	Price estimate £1000
Additional info	Test	

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here

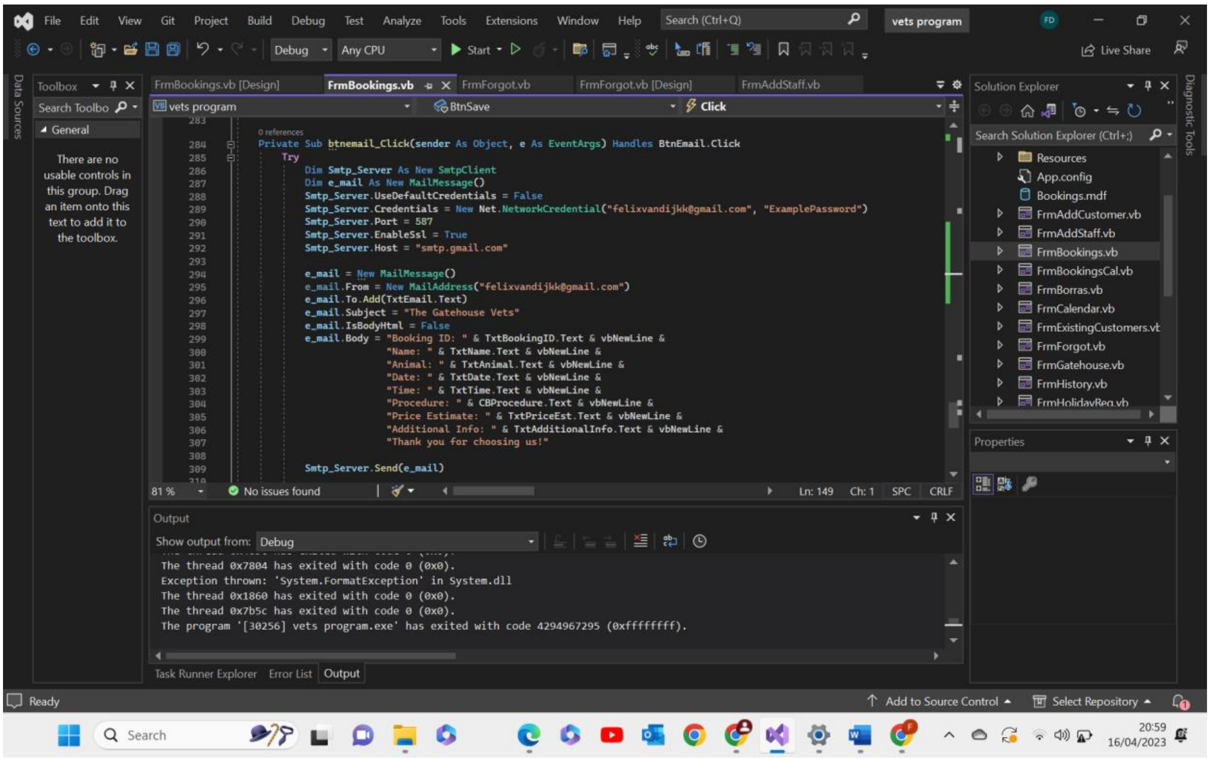


vets program

```
System.FormatException: The specified string is not in the form
required for an e-mail address.
   at
System.Net.Mail.MailAddressParser.ReadCfwsAndThrowIfIncomplete(Str
ing data, Int32 index)
   at System.Net.Mail.MailAddressParser.ParseDomain(String data,
Int32& index)
   at System.Net.Mail.MailAddressParser.ParseAddress(String data,
Boolean expectMultipleAddresses, Int32& index)
   at System.Net.Mail.MailAddressParser.ParseMultipleAddresses(String
data)
   at System.Net.Mail.MailAddressCollection.ParseValue(String
addresses)
   at vets_program.FrmBookings.btnemail_Click(Object sender,
EventArgs e) in C:\Users\feefr\Downloads\vets program Binary Search
(2)\vets program Binary Search\vets program Binary Search\vets program
(current)\vets program (current)\vets program\FrmBookings.vb:line 296
```

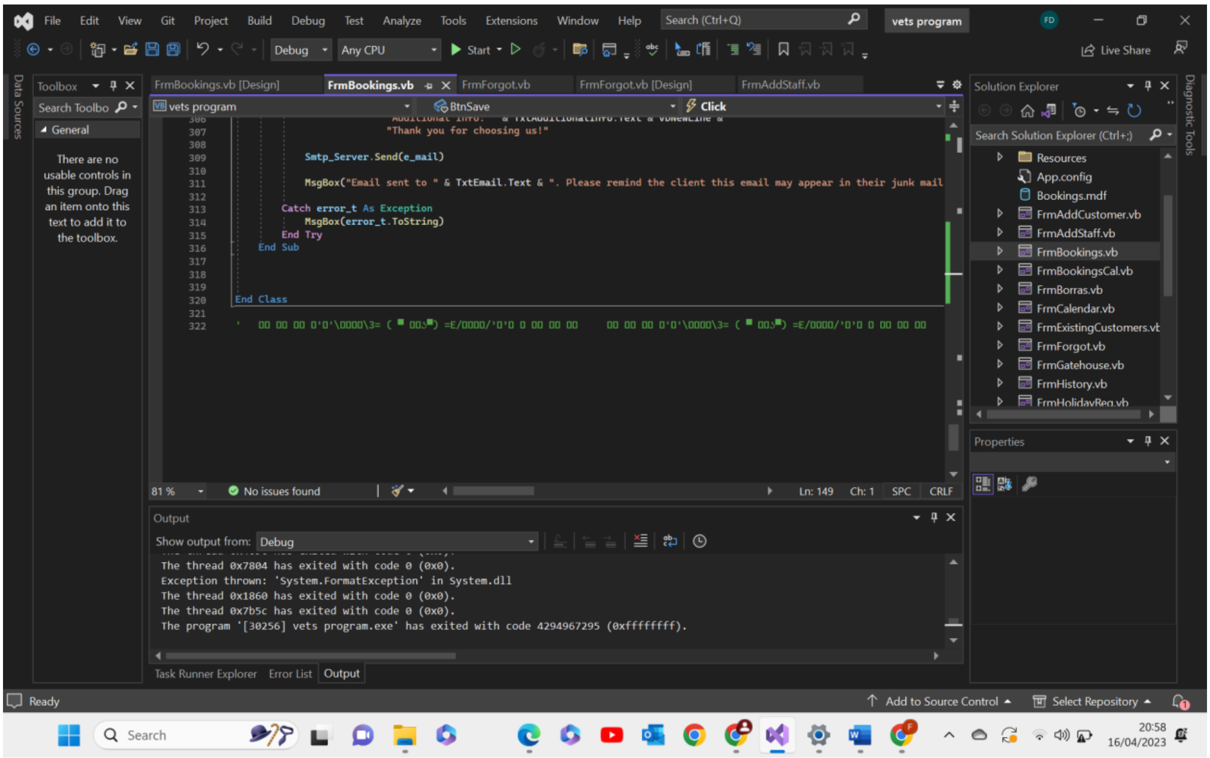
NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here

The above is what appears after the email button has been selected.



```
0 references
Private Sub btnemail_Click(sender As Object, e As EventArgs) Handles BtnEmail.Click
    Try
        Dim Smtp_Server As New SmtpClient
        Dim e_mail As New MailMessage()
        Smtp_Server.UseDefaultCredentials = False
        Smtp_Server.Credentials = New Net.NetworkCredential("felixvandijkk@gmail.com", "ExamplePassword")
        Smtp_Server.Port = 587
        Smtp_Server.EnableSsl = True
        Smtp_Server.Host = "smtp.gmail.com"

        e_mail = New MailMessage()
        e_mail.From = New MailAddress("felixvandijkk@gmail.com")
        e_mail.To.Add(TxtEmail.Text)
        e_mail.Subject = "The Gatehouse Vets"
        e_mail.IsBodyHtml = False
        e_mail.Body = "Booking ID: " & TxtBookingID.Text & vbNewLine &
                      "Name: " & TxtName.Text & vbNewLine &
                      "Animal: " & TxtAnimal.Text & vbNewLine &
                      "Date: " & TxtDate.Text & vbNewLine &
                      "Time: " & TxtTime.Text & vbNewLine &
                      "Procedure: " & CBProcedure.Text & vbNewLine &
                      "Price Estimate: " & TxtPriceEst.Text & vbNewLine &
                      "Additional Info: " & TxtAdditionalInfo.Text & vbNewLine &
                      "Thank you for choosing us!"

        Smtp_Server.Send(e_mail)
```

```
The thread 0x7804 has exited with code 0 (0x0).
Exception thrown: 'System.FormatException' in System.dll
The thread 0x1860 has exited with code 0 (0x0).
The thread 0x7b5c has exited with code 0 (0x0).
The program '[30256] vets program.exe' has exited with code 4294967295 (0xffffffff).
```



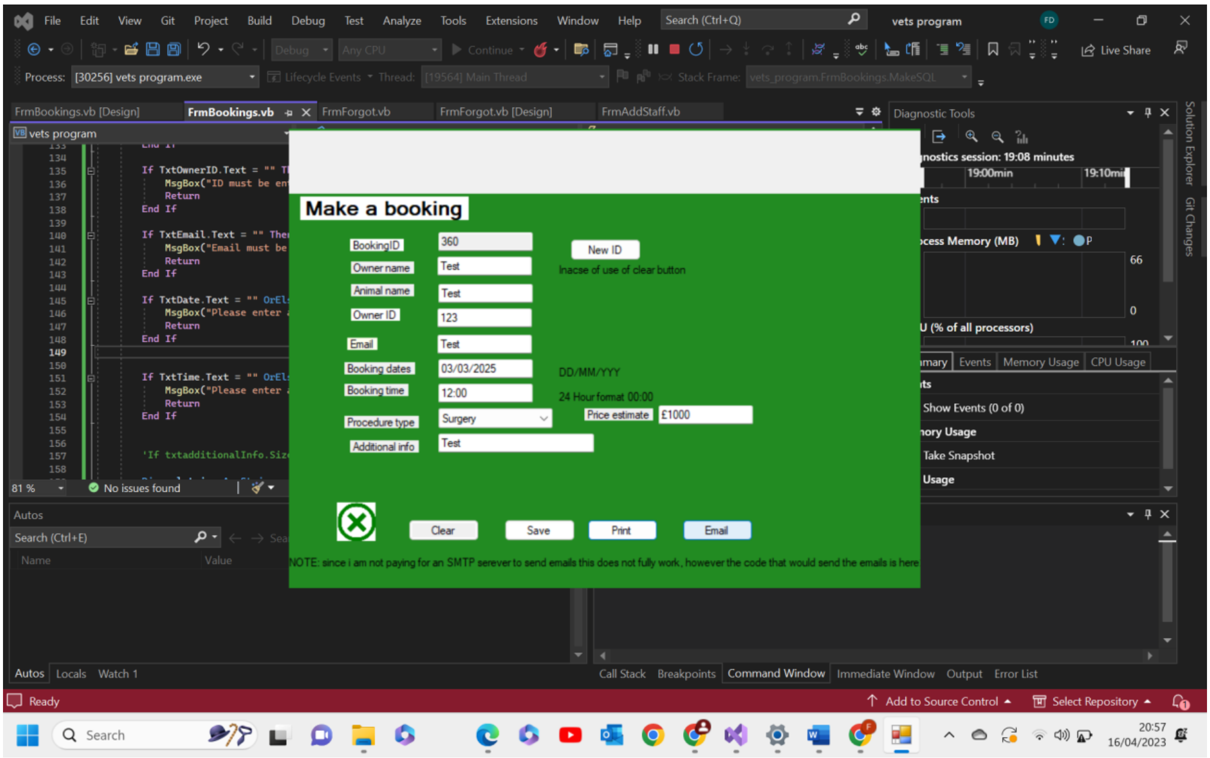
```
                      "Thank you for choosing us!"

        Smtp_Server.Send(e_mail)

        MsgBox("Email sent to " & TxtEmail.Text & ". Please remind the client this email may appear in their junk mail

    Catch error_t As Exception
        MsgBox(error_t.ToString)
    End Try
End Sub



End Class

'   00 00 00 0'0'\0000\3= ( ■ 003■) =E/0000/'0'0 0 00 00 00     00 00 00 0'0'\0000\3= ( ■ 003■) =E/0000/'0'0 0 00 00 00
```

```
The thread 0x7804 has exited with code 0 (0x0).
Exception thrown: 'System.FormatException' in System.dll
The thread 0x1860 has exited with code 0 (0x0).
The thread 0x7b5c has exited with code 0 (0x0).
The program '[30256] vets program.exe' has exited with code 4294967295 (0xffffffff).
```

The above two screenshots are the code that would send an email if I had paiud for the server'

Test 8.13 comments- as we can see the email function does not work fully however does have the expected outcome. As stated above the reason this does not work is due to the lack of a paid SMTP server. Pass

8.14-



Process: [30256] vets program.exe

```
            End If

            If TxtOwnerID.Text = "" Th
                MsgBox("ID must be en
                Return
            End If

            If TxtEmail.Text = "" Then
                MsgBox("Email must be
                Return
            End If

            If TxtDate.Text = "" OrEl
                MsgBox("Please enter a
                Return
            End If


            If TxtTime.Text = "" OrEl
                MsgBox("Please enter a
                Return
            End If


            'If txtadditionalInfo.Siz
```

Make a booking

BookingID: 360

Owner name: Test

Animal name: Test

Owner ID: 123

Email: Test

Booking dates: 03/03/2025 DD/MM/YYY

Booking time: 12:00 24 Hour format 00:00

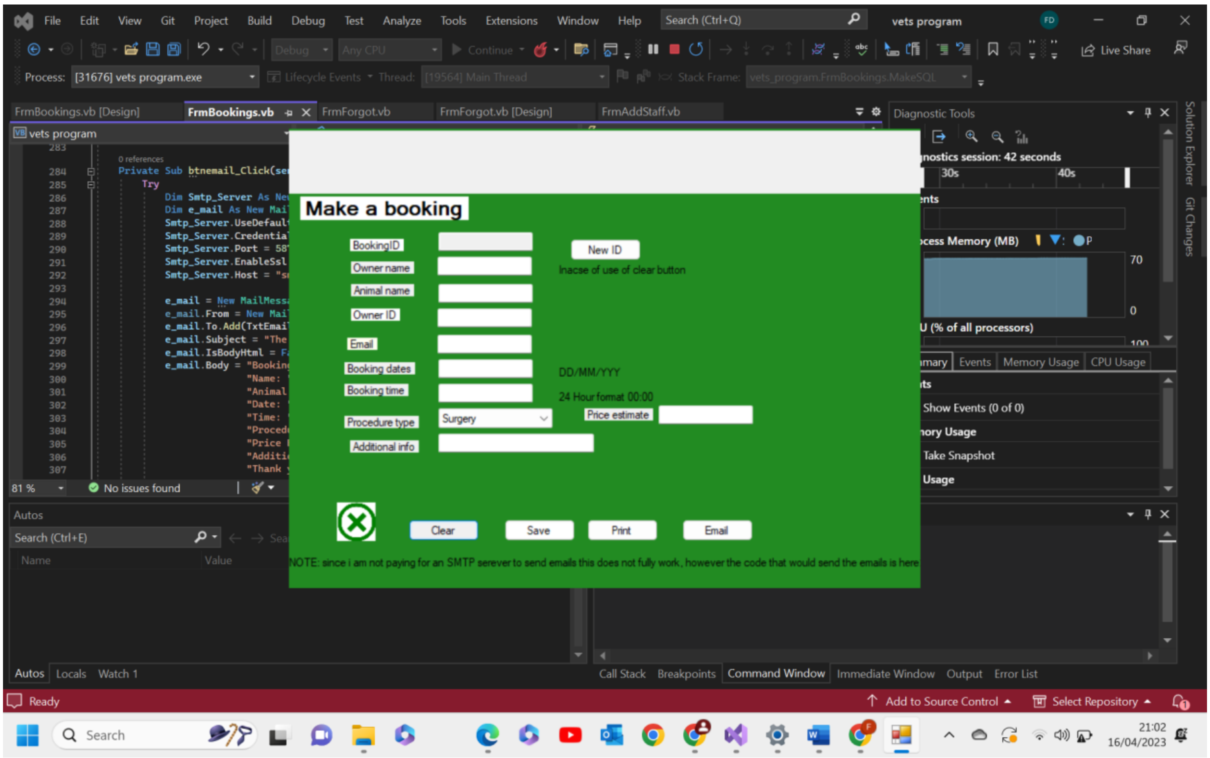
Procedure type: Surgery

Price estimate: £1000

Additional info: Test

Inacse of use of clear button

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here



Process: [31676] vets program.exe

```
        0 references
        Private Sub btnemail_Click(se
            Try
                Dim Smtp_Server As Ne
                Dim e_mail As New Mai
                Smtp_Server.UseDefaul
                Smtp_Server.Credentia
                Smtp_Server.Port = 58
                Smtp_Server.EnableSsl
                Smtp_Server.Host = "s

                e_mail = New MailMessa
                e_mail.From = New Mai
                e_mail.To.Add(TxtEmai
                e_mail.Subject = "The
                e_mail.IsBodyHtml = F
                e_mail.Body = "Bookin
                              "Name:
                              "Animal
                              "Date:
                              "Time:
                              "Proced
                              "Price
                              "Additi
                              "Thank
```

Make a booking

BookingID:

Owner name:

Animal name:

Owner ID:

Email:

Booking dates: DD/MM/YYY

Booking time: 24 Hour format 00:00

Procedure type: Surgery

Price estimate:

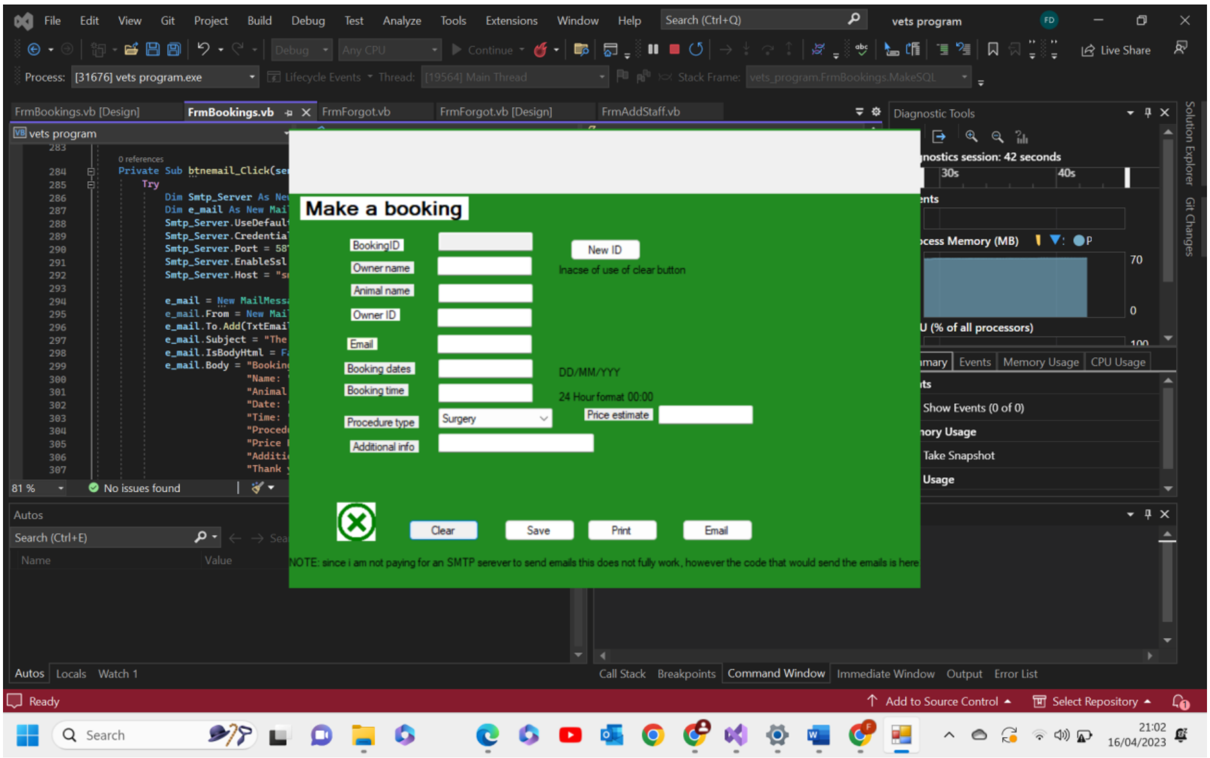
Additional info:

Inacse of use of clear button

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here

Test 8.14 comments- as we can see above, as a result of the clear button being pressed all text boxes were set = “” and so became void of data. Pass

8.15-



Make a booking

BookingID

Owner name

Animal name

Owner ID

Email

Booking dates — DD/MM/YYY

Booking time — 24 Hour format 00:00

Procedure type: Surgery — Price estimate

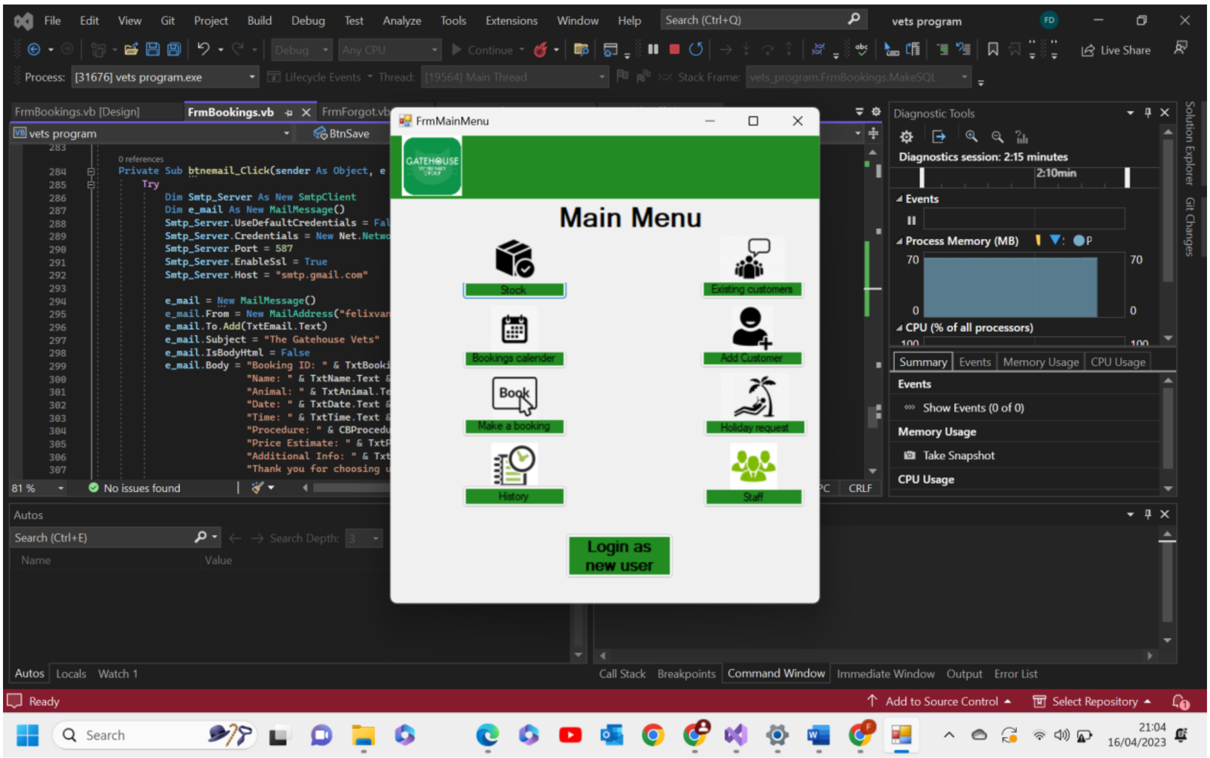
Additional info

New ID

Inacse of use of clear button

Clear | Save | Print | Email

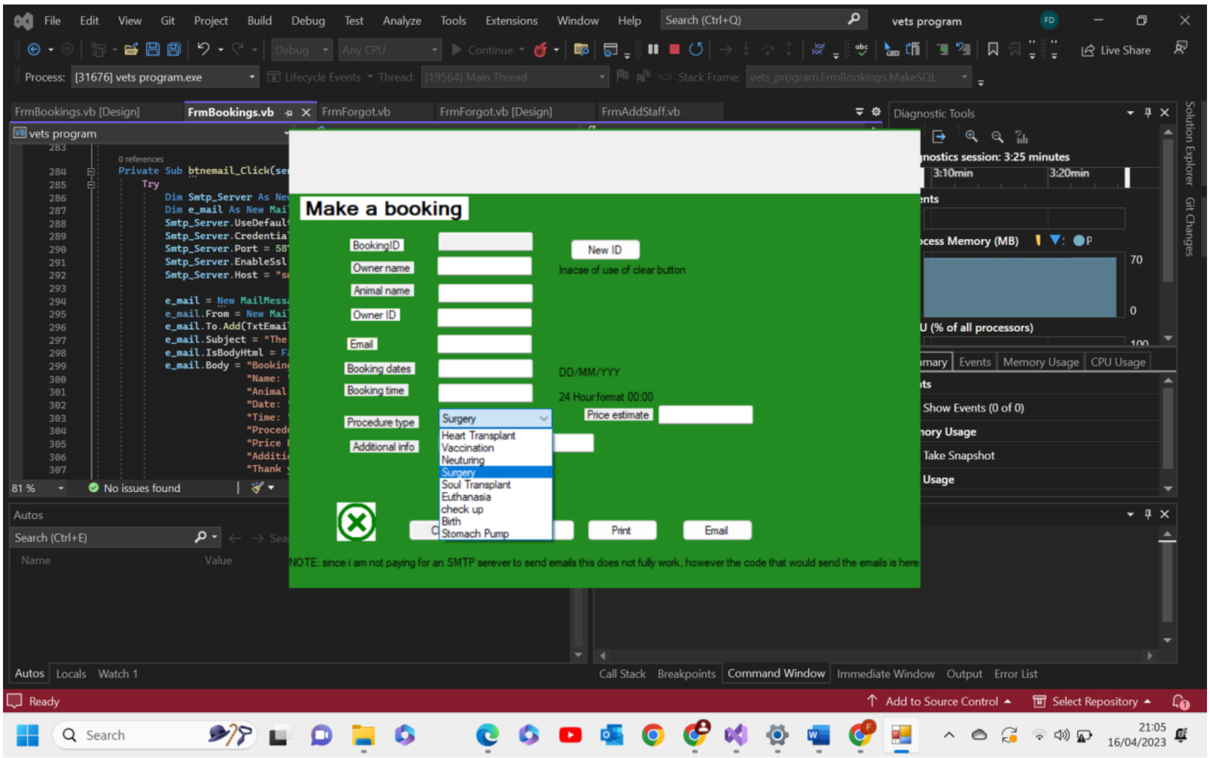
NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here



```
0 references
Private Sub btnemail_Click(sender As Object, e
    Try
        Dim Smtp_Server As New SmtpClient
        Dim e_mail As New MailMessage()
        Smtp_Server.UseDefaultCredentials = Fal
        Smtp_Server.Credentials = New Net.Netwo
        Smtp_Server.Port = 587
        Smtp_Server.EnableSsl = True
        Smtp_Server.Host = "smtp.gmail.com"

        e_mail = New MailMessage()
        e_mail.From = New MailAddress("felixvar
        e_mail.To.Add(TxtEmail.Text)
        e_mail.Subject = "The Gatehouse Vets"
        e_mail.IsBodyHtml = False
        e_mail.Body = "Booking ID: " & TxtBooki
                      "Name: " & TxtName.Text &
                      "Animal: " & TxtAnimal.Te
                      "Date: " & TxtDate.Text &
                      "Time: " & TxtTime.Text &
                      "Procedure: " & CBProcedu
                      "Price Estimate: " & TxtP
                      "Additional Info: " & Txt
                      "Thank you for choosing u
```

Test 8.15 comments- as shown above when the green cross picture box is pressed the form hides showing the main menu form.

8.16-

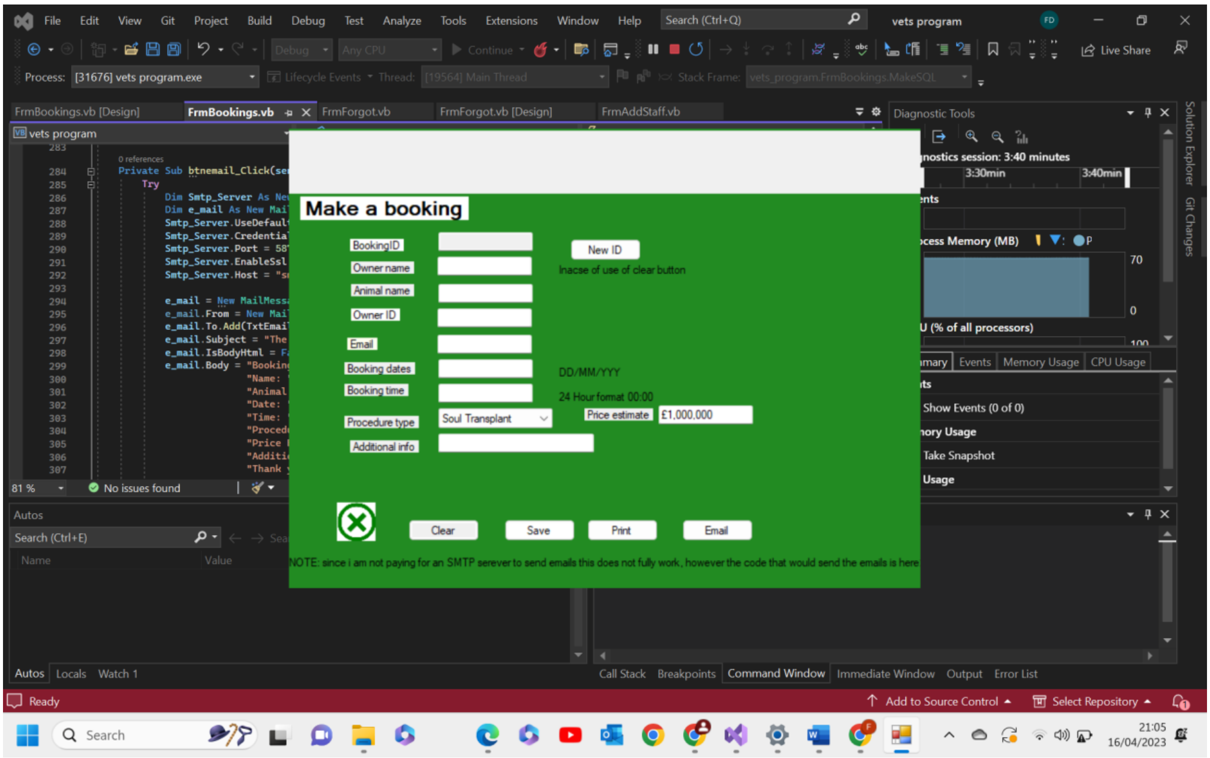


```
0 references
Private Sub btnemail_Click(se
    Try
        Dim Smtp_Server As Ne
        Dim e_mail As New Mai
        Smtp_Server.UseDefaul
        Smtp_Server.Credentia
        Smtp_Server.Port = 58
        Smtp_Server.EnableSsl
        Smtp_Server.Host = "s

        e_mail = New MailMess
        e_mail.From = New Mai
        e_mail.To.Add(TxtEmai
        e_mail.Subject = "The
        e_mail.IsBodyHtml = F
        e_mail.Body = "Bookin
                      "Name:
                      "Animal
                      "Date:
                      "Time:
                      "Proced
                      "Price
                      "Additi
                      "Thank
```

Make a booking

BookingID
Owner name
Animal name
Owner ID
Email
Booking dates
Booking time
Procedure type: Surgery
Additional info
Price estimate

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here

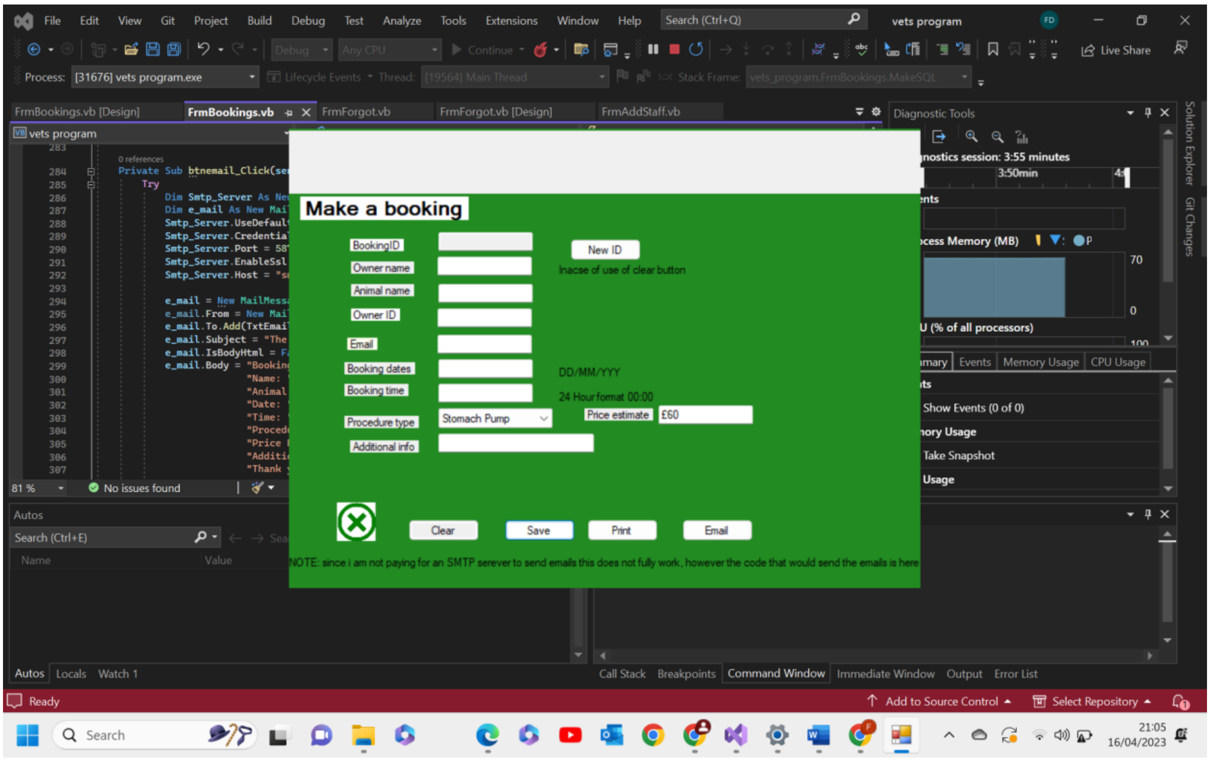


```
0 references
Private Sub btnemail_Click(se
    Try
        Dim Smtp_Server As Ne
        Dim e_mail As New Mai
        Smtp_Server.UseDefaul
        Smtp_Server.Credentia
        Smtp_Server.Port = 58
        Smtp_Server.EnableSsl
        Smtp_Server.Host = "s

        e_mail = New MailMess
        e_mail.From = New Mai
        e_mail.To.Add(TxtEmai
        e_mail.Subject = "The
        e_mail.IsBodyHtml = F
        e_mail.Body = "Bookin
                      "Name:
                      "Animal
                      "Date:
                      "Time:
                      "Proced
                      "Price
                      "Additi
                      "Thank
```

Make a booking

BookingID
Owner name
Animal name
Owner ID
Email
Booking dates
Booking time
Procedure type: Soul Transplant
Additional info
Price estimate: £1,000,000

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here



```
Private Sub btnemail_Click(se
    Try
        Dim Smtp_Server As Ne
        Dim e_mail As New Mai
        Smtp_Server.UseDefaul
        Smtp_Server.Credentia
        Smtp_Server.Port = 58
        Smtp_Server.EnableSsl
        Smtp_Server.Host = "s

        e_mail = New MailMess
        e_mail.From = New Mai
        e_mail.To.Add(TxtEmai
        e_mail.Subject = "The
        e_mail.IsBodyHtml = F
        e_mail.Body = "Bookin
                      "Name:
                      "Animal
                      "Date:
                      "Time:
                      "Proced
                      "Price
                      "Additi
                      "Thank
```

Make a booking

BookingID

Owner name

Animal name

Owner ID

Email

Booking dates

Booking time

Procedure type: Stomach Pump

Additional info

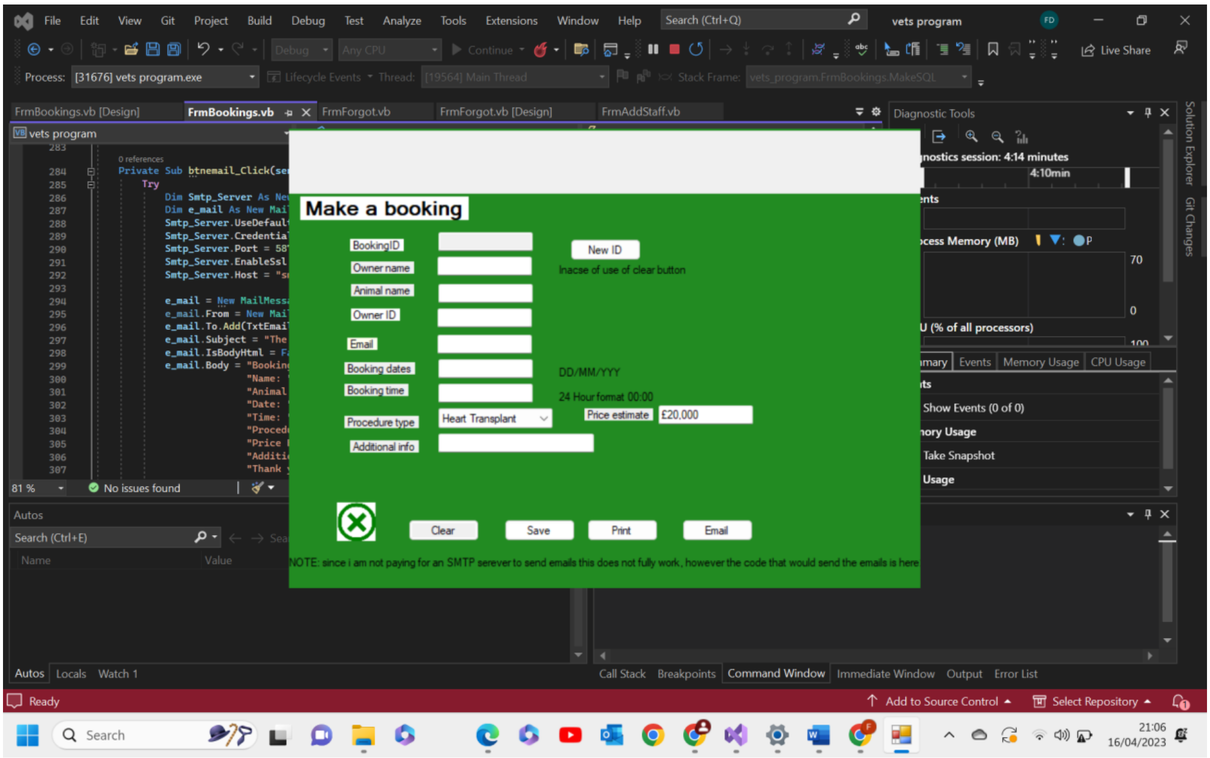
Inacse of use of clear button

DD/MM/YYY

24 Hour format 00:00

Price estimate: £60

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here



```
Private Sub btnemail_Click(se
    Try
        Dim Smtp_Server As Ne
        Dim e_mail As New Mai
        Smtp_Server.UseDefaul
        Smtp_Server.Credentia
        Smtp_Server.Port = 58
        Smtp_Server.EnableSsl
        Smtp_Server.Host = "s

        e_mail = New MailMess
        e_mail.From = New Mai
        e_mail.To.Add(TxtEmai
        e_mail.Subject = "The
        e_mail.IsBodyHtml = F
        e_mail.Body = "Bookin
                      "Name:
                      "Animal
                      "Date:
                      "Time:
                      "Proced
                      "Price
                      "Additi
                      "Thank
```

Make a booking

BookingID

Owner name

Animal name

Owner ID

Email

Booking dates

Booking time

Procedure type: Heart Transplant

Additional info

Inacse of use of clear button

DD/MM/YYY

24 Hour format 00:00

Price estimate: £20,000

NOTE: since i am not paying for an SMTP serever to send emails this does not fully work, however the code that would send the emails is here

Test 8.16 comments- above we can see three different examples of this function working. When a procedure is selected from the combo box, the price estimate associated with that in the procedure table in the database is written into the corresponding text box outputting a price for the customers recipe in either email or physical form. Pass

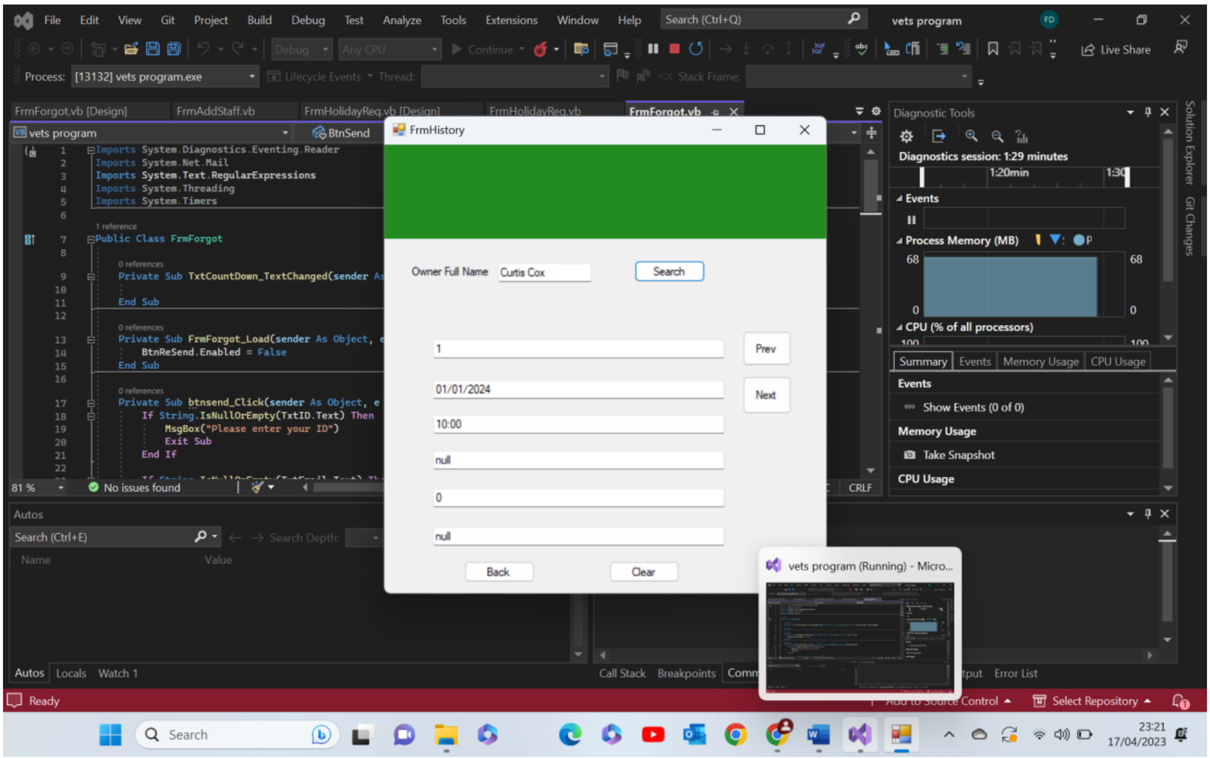
Test group 9- History form

Test Number	Test data	Actual outcome	verdict	comments

1	Valid date used Specifically 'Curtis Cox'	As expected any past bookings found under that name are displayed in the below text boxes starting with the earliest or highest in the table	Pass	N/A
2	Invalid data used 'Curtis c0x'	As expected a message box appears warning the user of the fact that name cannot be found in the database	Pass	N/A
3	Extreme data used	As expected a message box appears warning the user of the fact that name, or the lack thereof, cannot be found in the database	Pass	N/A
4	Functional test Valid data	As expected the next record under that name stored in the table is displayed in place of the old data in the text boxes	Pass	Could have included an 'end of records' message box function similar to that the previous button has
5	Functional test Valid data	As expected the previous record under that name stored in the table is displayed in place of the old data in the text boxes	Pass	N/A
6	Functional test Valid data	As expected when the end of the results for that name is reached a message box was outputted	Pass	N/A
7	Functional test	All text boxes became empty	Pass	N/A

8	Functional test	Current form became hidden and main menu form appeared	Pass	N/A
9	Functional test Valid data searched	As expected all names were sorted alphabetically from the database	Pass	N/A
10	Functional test Valid data used	As expected the sorted array was used to search through via a binary search algorithm	Pass	N/A

9.1-



Process: [13132] vets program.exe

```
Imports System.Diagnostics.Eventing.Reader
Imports System.Net.Mail
Imports System.Text.RegularExpressions
Imports System.Threading
Imports System.Timers

Public Class FrmForgot

    Private Sub TxtCountDown_TextChanged(sender As

    End Sub

    Private Sub FrmForgot_Load(sender As Object, e
        BtnReSend.Enabled = False
    End Sub

    Private Sub btnsend_Click(sender As Object, e
        If String.IsNullOrEmpty(TxtID.Text) Then
            MsgBox("Please enter your ID")
            Exit Sub
        End If
```

FrmHistory

Owner Full Name: Curtis Cox

1

01/01/2024

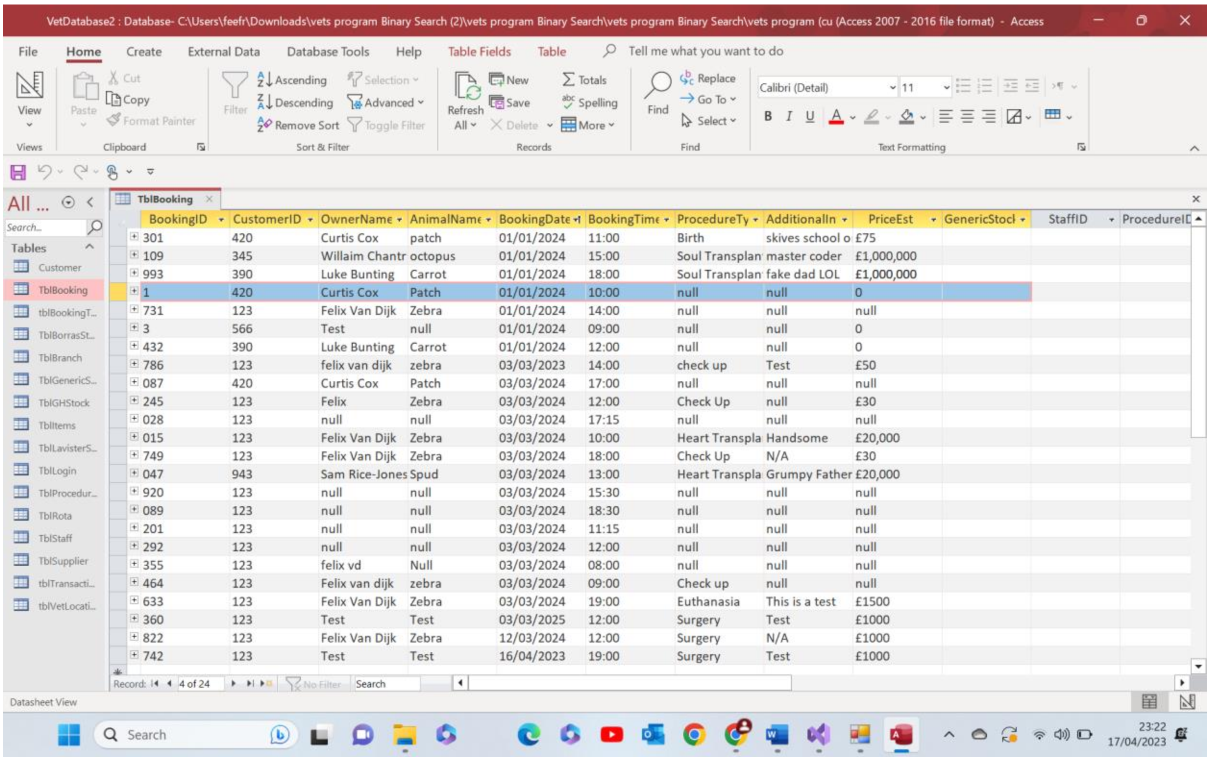
10:00

null

0

null

Diagnostics session: 1:29 minutes



VetDatabase2 : Database- C:\Users\feefr\Downloads\vets program Binary Search (2)\vets program Binary Search\vets program Binary Search\vets program (cu (Access 2007 - 2016 file format) - Access

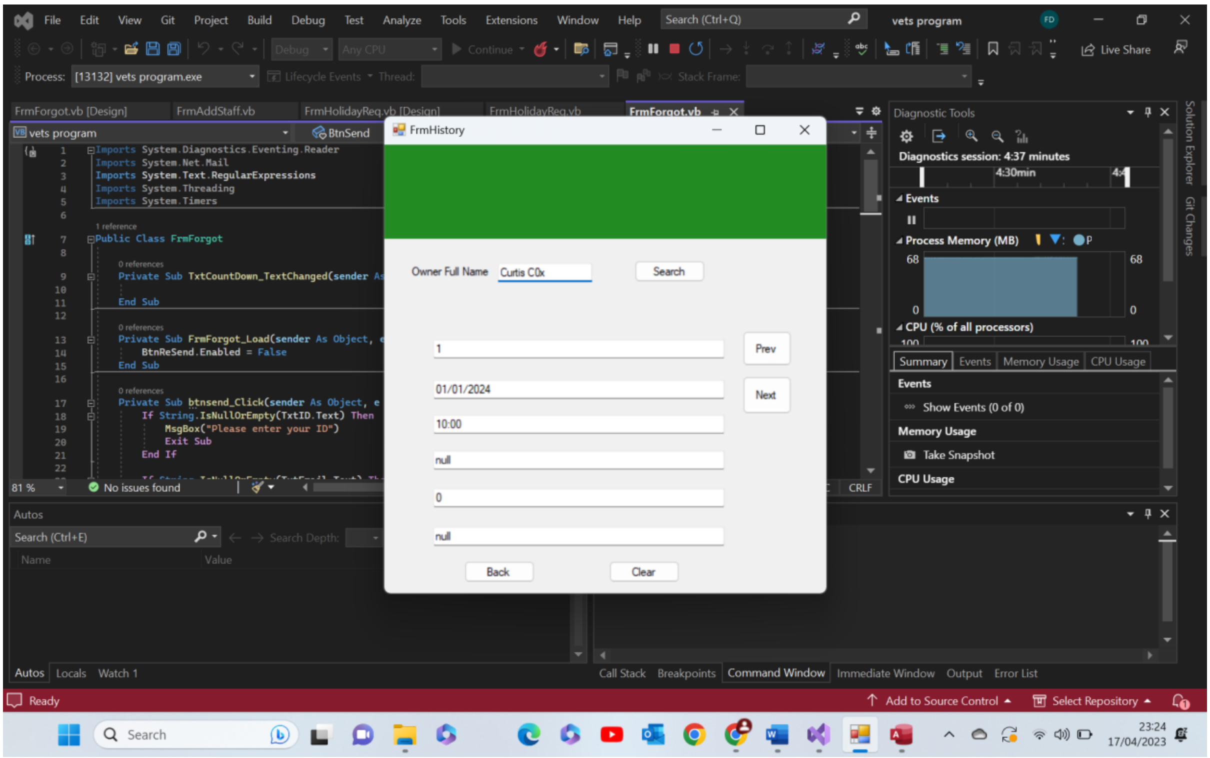
TblBooking

BookingID	CustomerID	OwnerName	AnimalName	BookingDate	BookingTime	ProcedureTy	AdditionalIn	PriceEst	GenericStock	StaffID	ProcedureID
301	420	Curtis Cox	patch	01/01/2024	11:00	Birth	skives school o	£75			
109	345	Willaim Chantr	octopus	01/01/2024	15:00	Soul Transplan	master coder	£1,000,000			
993	390	Luke Bunting	Carrot	01/01/2024	18:00	Soul Transplan	fake dad LOL	£1,000,000			
1	420	Curtis Cox	Patch	01/01/2024	10:00	null	null	0			
731	123	Felix Van Dijk	Zebra	01/01/2024	14:00	null	null	null			
3	566	Test	null	01/01/2024	09:00	null	null	0			
432	390	Luke Bunting	Carrot	01/01/2024	12:00	null	null	0			
786	123	felix van dijk	zebra	03/03/2023	14:00	check up	Test	£50			
087	420	Curtis Cox	Patch	03/03/2024	17:00	null	null	null			
245	123	Felix	Zebra	03/03/2024	12:00	Check Up	null	£30			
028	123	null	null	03/03/2024	17:15	null	null	null			
015	123	Felix Van Dijk	Zebra	03/03/2024	10:00	Heart Transpla	Handsome	£20,000			
749	123	Felix Van Dijk	Zebra	03/03/2024	18:00	Check Up	N/A	£30			
047	943	Sam Rice-Jones	Spud	03/03/2024	13:00	Heart Transpla	Grumpy Father	£20,000			
920	123	null	null	03/03/2024	15:30	null	null	null			
089	123	null	null	03/03/2024	18:30	null	null	null			
201	123	null	null	03/03/2024	11:15	null	null	null			
292	123	null	null	03/03/2024	12:00	null	null	null			
355	123	felix vd	Null	03/03/2024	08:00	null	null	null			
464	123	Felix van dijk	zebra	03/03/2024	09:00	Check up	null	null			
633	123	Felix Van Dijk	Zebra	03/03/2024	19:00	Euthanasia	This is a test	£1500			
360	123	Test	Test	03/03/2025	12:00	Surgery	Test	£1000			
822	123	Felix Van Dijk	Zebra	12/03/2024	12:00	Surgery	N/A	£1000			
742	123	Test	Test	16/04/2023	19:00	Surgery	Test	£1000			

Record: 4 of 24

Test 9.1 comments- as we can see when valid data is entered, in this case Curtis Cox, the program recognises that records with this name exist in the database and so output the correlating details into the text boxes. The second screenshot is to prove that the details in the text boxes actually correlate to the searched data. Pass

9.2-



Process: [13132] vets program.exe

```
Imports System.Diagnostics.Eventing.Reader
Imports System.Net.Mail
Imports System.Text.RegularExpressions
Imports System.Threading
Imports System.Timers

Public Class FrmForgot

    Private Sub TxtCountDown_TextChanged(sender As

    End Sub

    Private Sub FrmForgot_Load(sender As Object, e
        BtnReSend.Enabled = False
    End Sub

    Private Sub btnsend_Click(sender As Object, e
        If String.IsNullOrEmpty(TxtID.Text) Then
            MsgBox("Please enter your ID")
            Exit Sub
        End If
```

FrmHistory

Owner Full Name: Curtis C0x

1

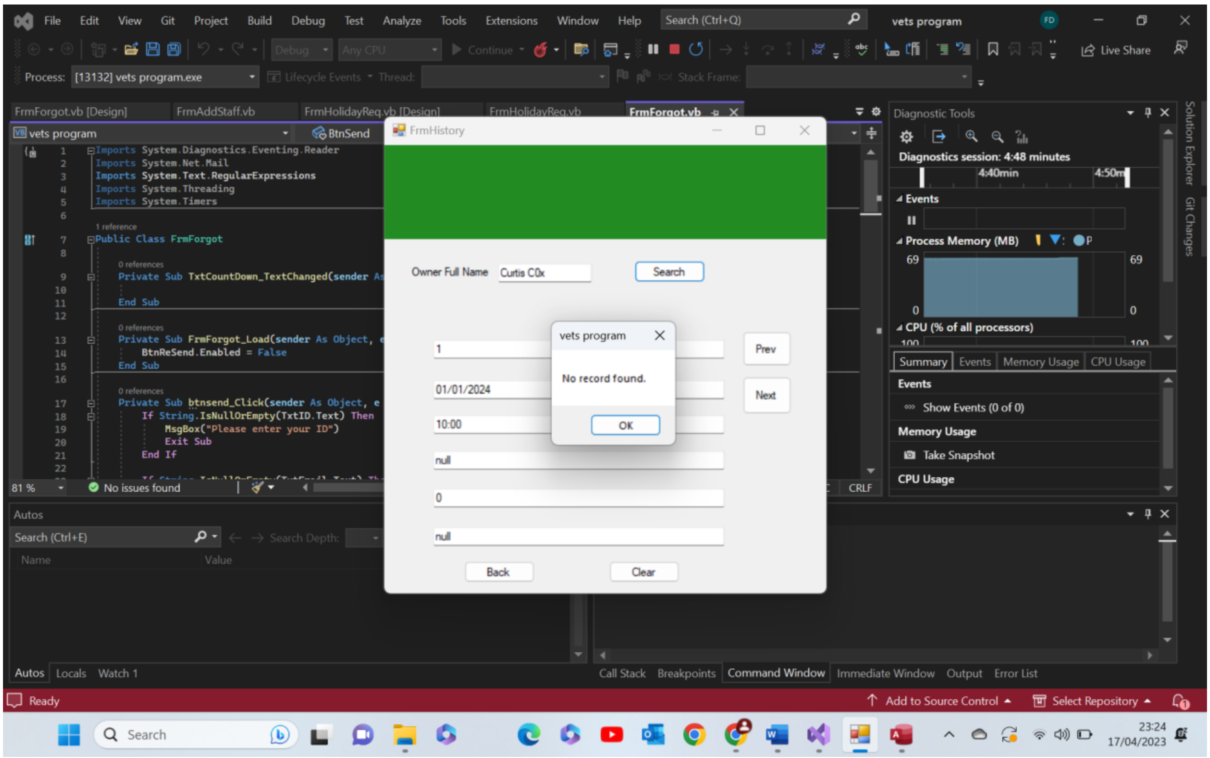
01/01/2024

10:00

null

0

null



```
Imports System.Diagnostics.Eventing.Reader
Imports System.Net.Mail
Imports System.Text.RegularExpressions
Imports System.Threading
Imports System.Timers

Public Class FrmForgot

    Private Sub TxtCountDown_TextChanged(sender As

    End Sub

    Private Sub FrmForgot_Load(sender As Object, e
        BtnReSend.Enabled = False
    End Sub

    Private Sub btnsend_Click(sender As Object, e
        If String.IsNullOrEmpty(TxtID.Text) Then
            MsgBox("Please enter your ID")
            Exit Sub
        End If
```

FrmHistory

Owner Full Name: Curtis C0x

1

01/01/2024

10:00

null

0

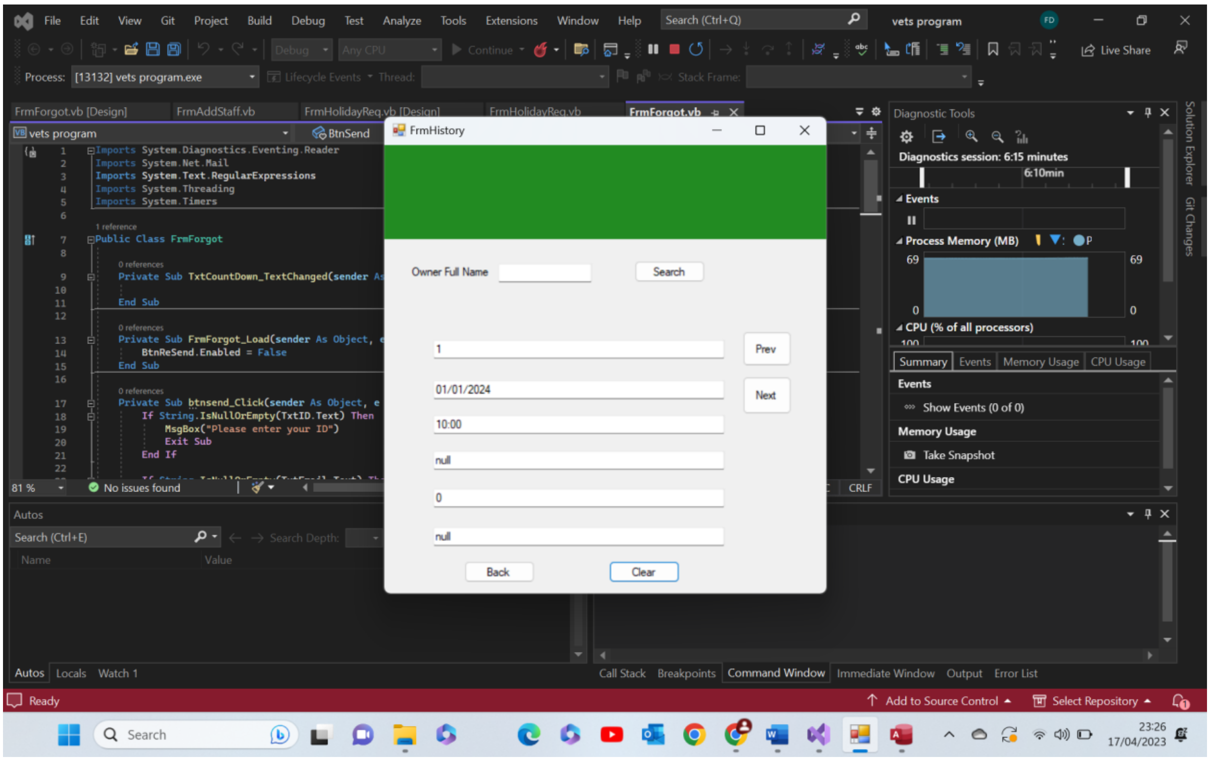
null

vets program

No record found.

Test 9.2 comments- as we can see above, when invalid data is entered, in this case Curtis C0x, the program recognises that this name does not appear in the database and so outputs an appropriate message box. Pass

9.3-



```
Imports System.Diagnostics.Eventing.Reader
Imports System.Net.Mail
Imports System.Text.RegularExpressions
Imports System.Threading
Imports System.Timers

Public Class FrmForgot

    Private Sub TxtCountDown_TextChanged(sender As

    End Sub

    Private Sub FrmForgot_Load(sender As Object, e
        BtnReSend.Enabled = False
    End Sub

    Private Sub btnsend_Click(sender As Object, e
        If String.IsNullOrEmpty(TxtID.Text) Then
            MsgBox("Please enter your ID")
            Exit Sub
        End If
```

FrmHistory

Owner Full Name:

1

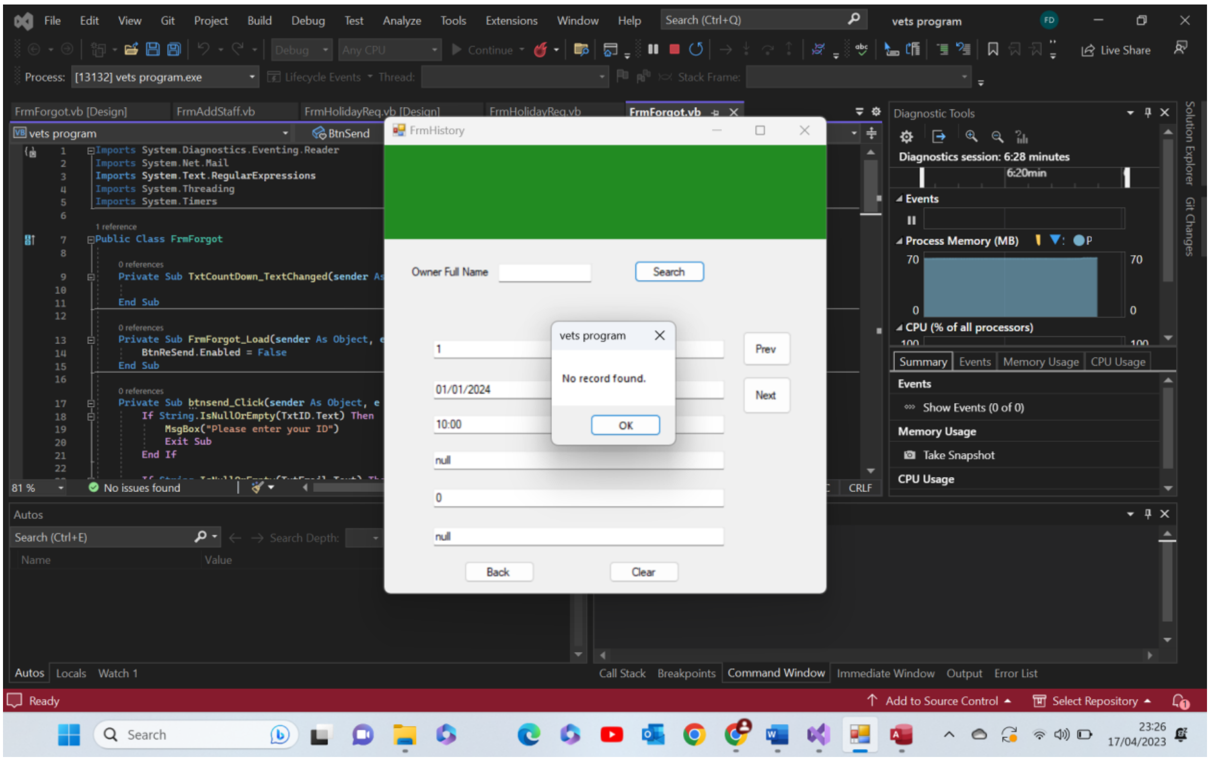
01/01/2024

10:00

null

0

null



```
Imports System.Diagnostics.Eventing.Reader
Imports System.Net.Mail
Imports System.Text.RegularExpressions
Imports System.Threading
Imports System.Timers

Public Class FrmForgot

    Private Sub TxtCountDown_TextChanged(sender As

    End Sub

    Private Sub FrmForgot_Load(sender As Object, e
        BtnReSend.Enabled = False
    End Sub

    Private Sub btnsend_Click(sender As Object, e
        If String.IsNullOrEmpty(TxtID.Text) Then
            MsgBox("Please enter your ID")
            Exit Sub
        End If
```

FrmHistory

Owner Full Name:

1

01/01/2024

10:00

null

0

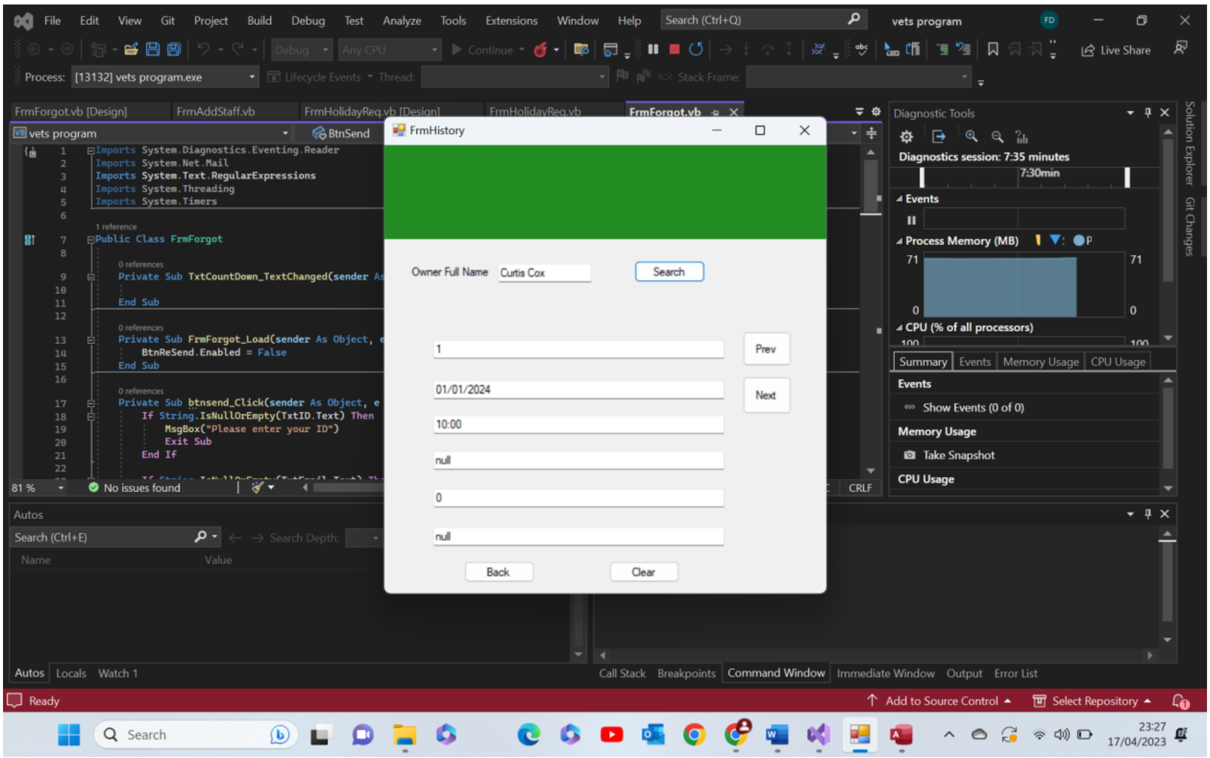
null

vets program

No record found.

Test 9.3 comments- as we can see above, when extreme data is entered the program recognises that this name does not appear in the database and so outputs an appropriate message box. Pass

9.4-



```
Imports System.Diagnostics.Eventing.Reader
Imports System.Net.Mail
Imports System.Text.RegularExpressions
Imports System.Threading
Imports System.Timers

Public Class FrmForgot

    Private Sub TxtCountDown_TextChanged(sender As

    End Sub

    Private Sub FrmForgot_Load(sender As Object, e
        BtnReSend.Enabled = False
    End Sub

    Private Sub btnsend_Click(sender As Object, e
        If String.IsNullOrEmpty(TxtID.Text) Then
            MsgBox("Please enter your ID")
            Exit Sub
        End If
```

FrmHistory

Owner Full Name: Curtis Cox

1

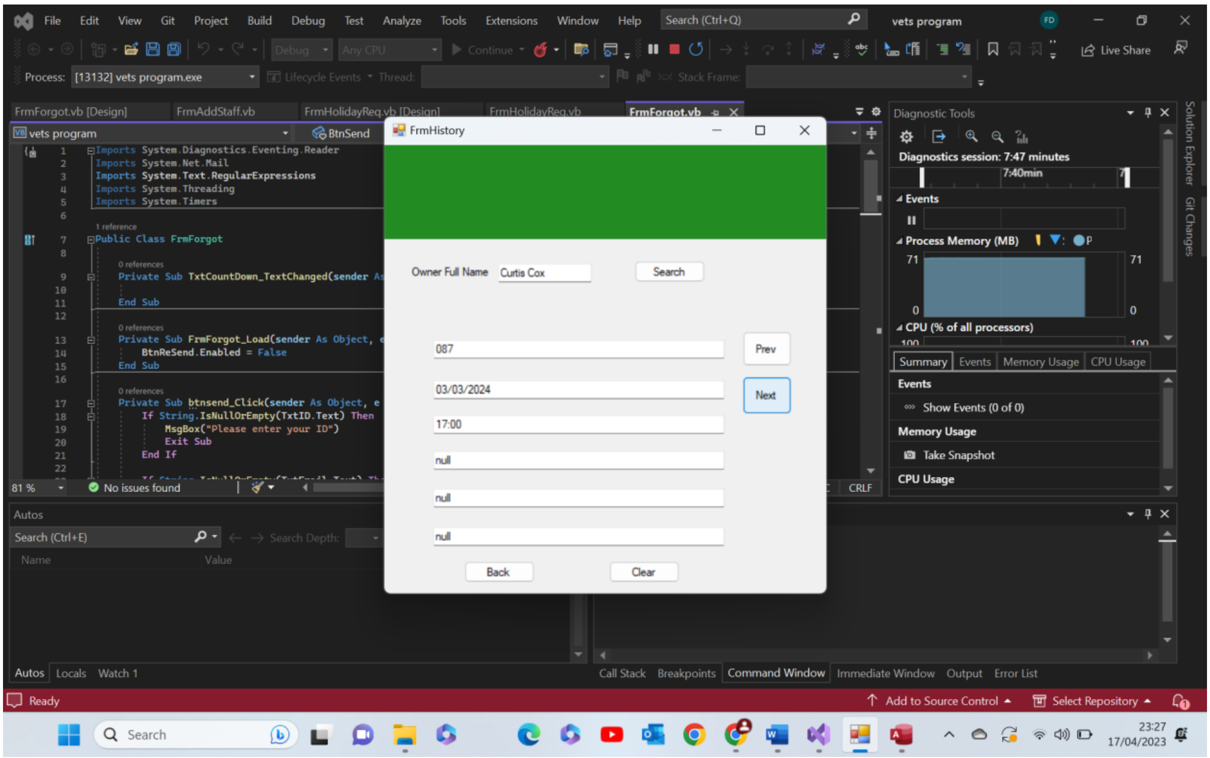
01/01/2024

10:00

null

0

null



```
Imports System.Diagnostics.Eventing.Reader
Imports System.Net.Mail
Imports System.Text.RegularExpressions
Imports System.Threading
Imports System.Timers

Public Class FrmForgot

    Private Sub TxtCountDown_TextChanged(sender As

    End Sub

    Private Sub FrmForgot_Load(sender As Object, e
        BtnReSend.Enabled = False
    End Sub

    Private Sub btnsend_Click(sender As Object, e
        If String.IsNullOrEmpty(TxtID.Text) Then
            MsgBox("Please enter your ID")
            Exit Sub
        End If
```

Owner Full Name: Curtis Cox

087

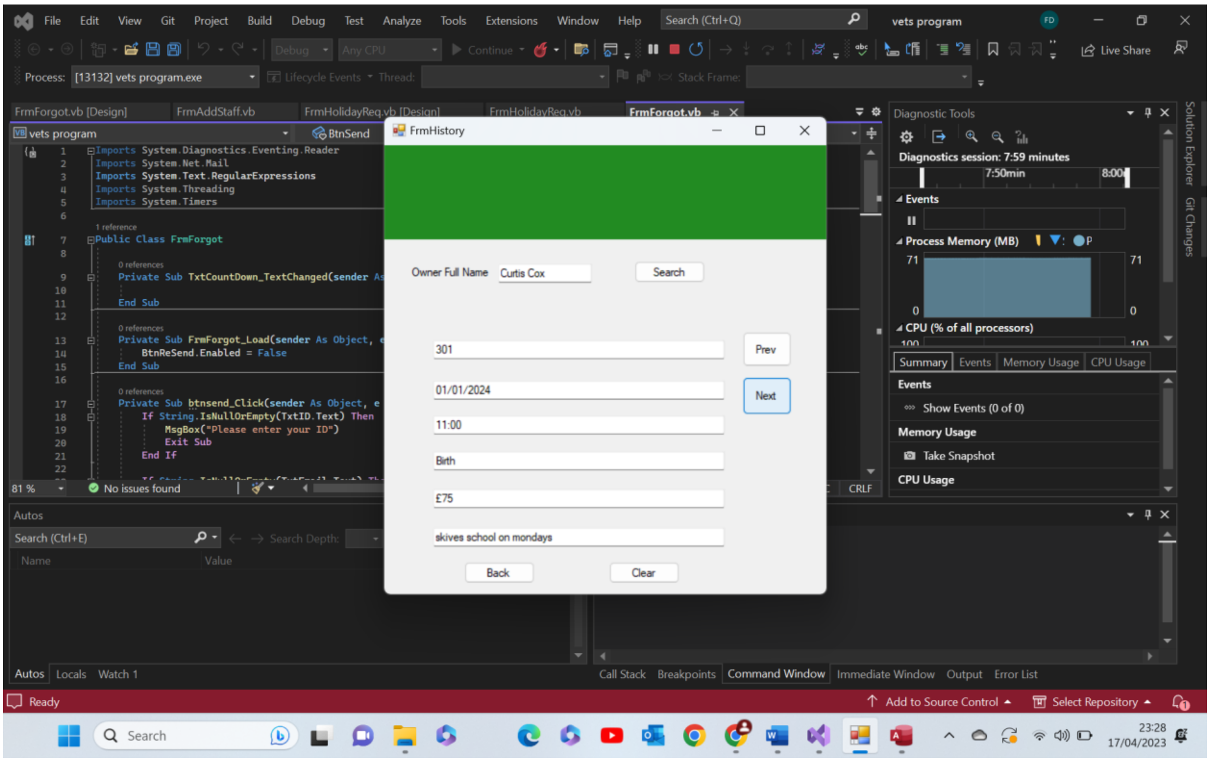
03/03/2024

17:00

null

null

null



```
Imports System.Diagnostics.Eventing.Reader
Imports System.Net.Mail
Imports System.Text.RegularExpressions
Imports System.Threading
Imports System.Timers

Public Class FrmForgot

    Private Sub TxtCountDown_TextChanged(sender As

    End Sub

    Private Sub FrmForgot_Load(sender As Object, e
        BtnReSend.Enabled = False
    End Sub

    Private Sub btnsend_Click(sender As Object, e
        If String.IsNullOrEmpty(TxtID.Text) Then
            MsgBox("Please enter your ID")
            Exit Sub
        End If
```

Owner Full Name: Curtis Cox

301

01/01/2024

11:00

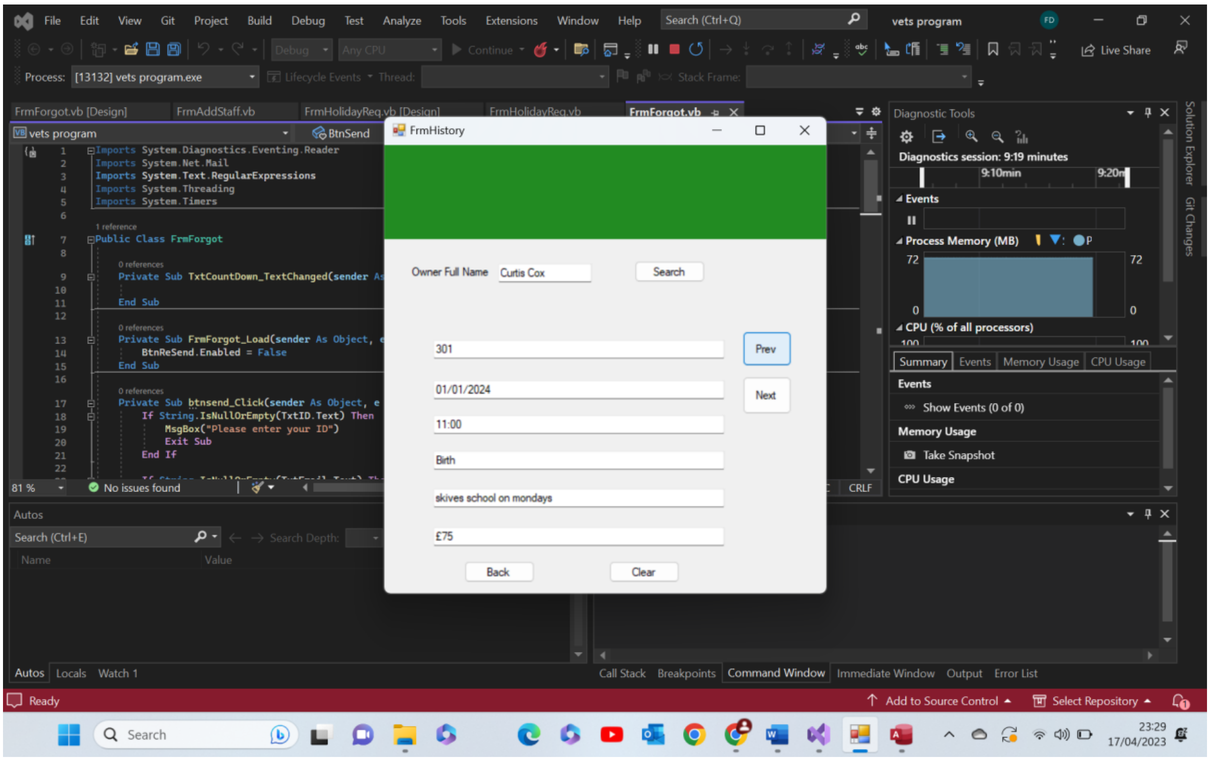
Birth

£75

skives school on mondays

Test 9.4 comments- as we can see above when the next button is selected the text boxes get new data correlating with the searched name in the database written into them. Pass

9.5-



Process: [13132] vets program.exe

```
Imports System.Diagnostics.Eventing.Reader
Imports System.Net.Mail
Imports System.Text.RegularExpressions
Imports System.Threading
Imports System.Timers

1 reference
Public Class FrmForgot

    0 references
    Private Sub TxtCountDown_TextChanged(sender As

    End Sub

    0 references
    Private Sub FrmForgot_Load(sender As Object, e
        BtnReSend.Enabled = False
    End Sub

    0 references
    Private Sub btnsend_Click(sender As Object, e
        If String.IsNullOrEmpty(TxtID.Text) Then
            MsgBox("Please enter your ID")
            Exit Sub
        End If
```

FrmHistory

Owner Full Name: Curtis Cox

Search

301

01/01/2024

11:00

Birth

skives school on mondays

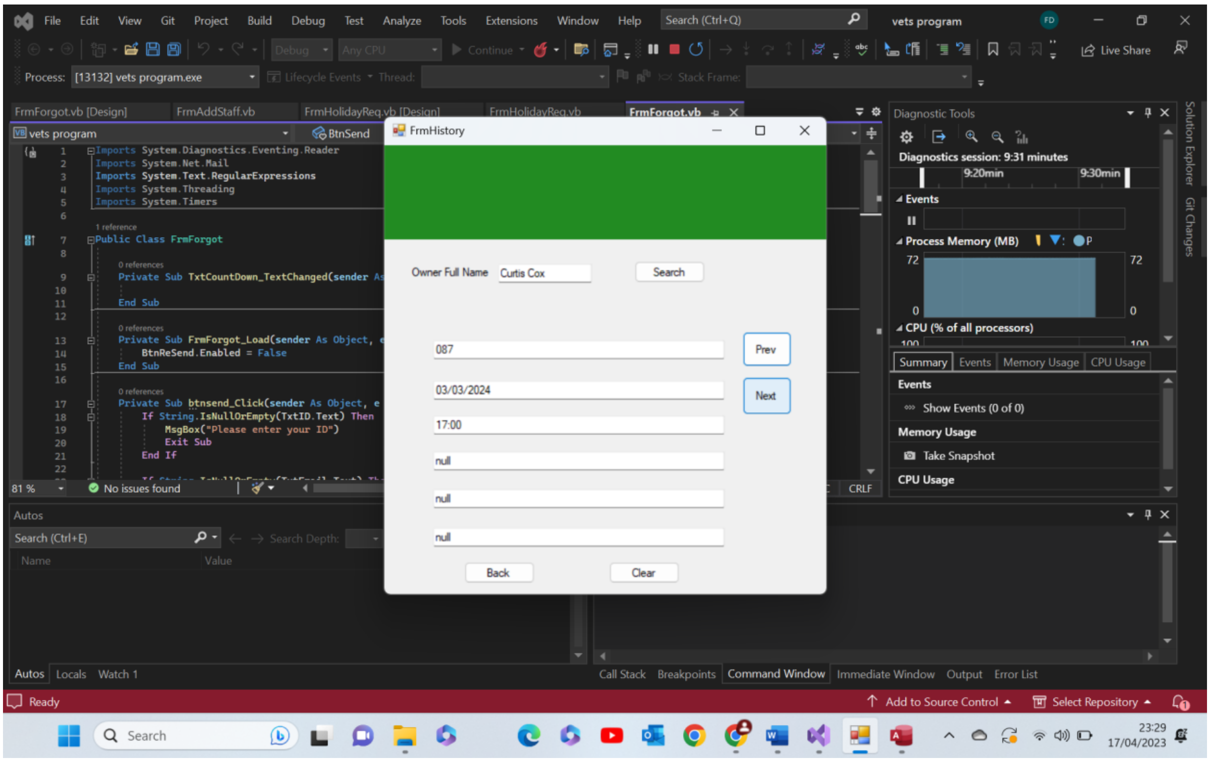
£75

Prev

Next

Back

Clear



Process: [13132] vets program.exe

```
Imports System.Diagnostics.Eventing.Reader
Imports System.Net.Mail
Imports System.Text.RegularExpressions
Imports System.Threading
Imports System.Timers

1 reference
Public Class FrmForgot

    0 references
    Private Sub TxtCountDown_TextChanged(sender As

    End Sub

    0 references
    Private Sub FrmForgot_Load(sender As Object, e
        BtnReSend.Enabled = False
    End Sub

    0 references
    Private Sub btnsend_Click(sender As Object, e
        If String.IsNullOrEmpty(TxtID.Text) Then
            MsgBox("Please enter your ID")
            Exit Sub
        End If
```

FrmHistory

Owner Full Name: Curtis Cox

Search

087

03/03/2024

17:00

null

null

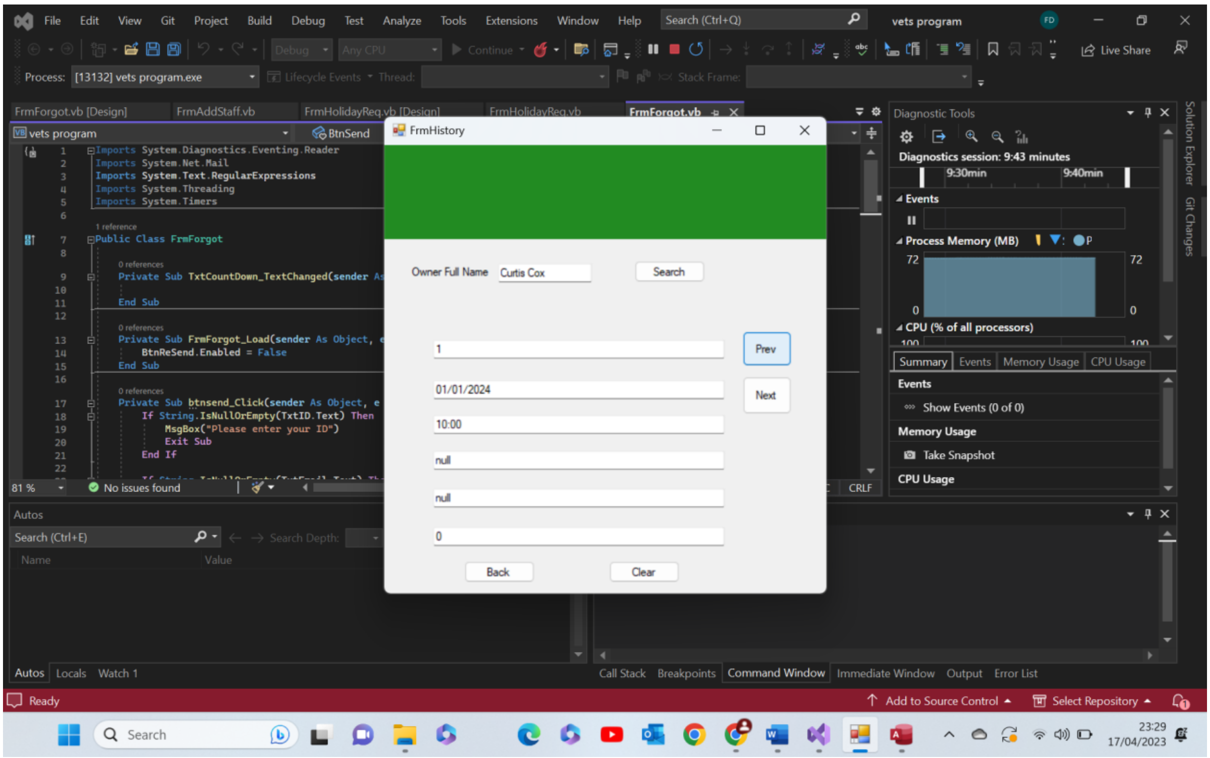
null

Prev

Next

Back

Clear



```
Imports System.Diagnostics.Eventing.Reader
Imports System.Net.Mail
Imports System.Text.RegularExpressions
Imports System.Threading
Imports System.Timers

1 reference
Public Class FrmForgot

    0 references
    Private Sub TxtCountDown_TextChanged(sender As

    End Sub

    0 references
    Private Sub FrmForgot_Load(sender As Object, e
        BtnReSend.Enabled = False
    End Sub

    0 references
    Private Sub btnsend_Click(sender As Object, e
        If String.IsNullOrEmpty(TxtID.Text) Then
            MsgBox("Please enter your ID")
            Exit Sub
        End If
```

FrmHistory

Owner Full Name: Curtis Cox

1

01/01/2024

10:00

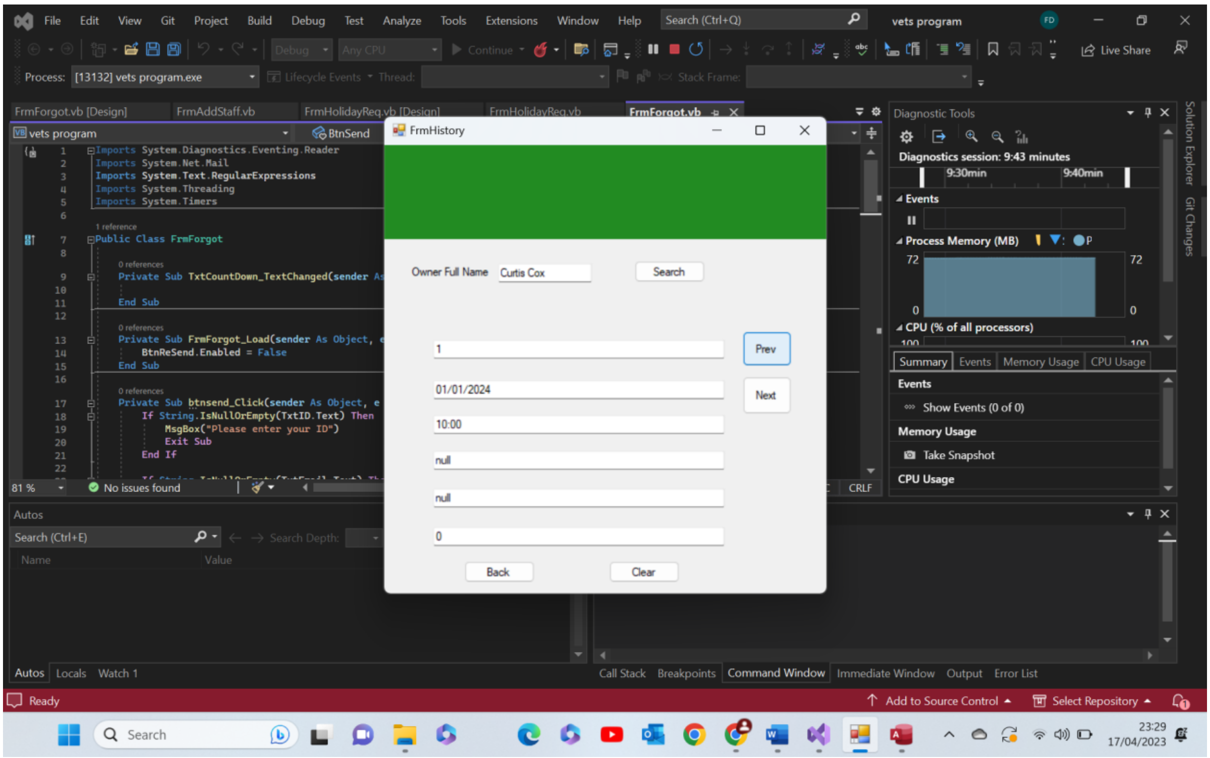
null

null

0

Test 9.5 comments- as we can see above when the previous button is selected the text boxes get new data correlating with the searched name in the database written into them. Pass

9.6-



```
Imports System.Diagnostics.Eventing.Reader
Imports System.Net.Mail
Imports System.Text.RegularExpressions
Imports System.Threading
Imports System.Timers

1 reference
Public Class FrmForgot

    0 references
    Private Sub TxtCountDown_TextChanged(sender As

    End Sub

    0 references
    Private Sub FrmForgot_Load(sender As Object, e
        BtnReSend.Enabled = False
    End Sub

    0 references
    Private Sub btnsend_Click(sender As Object, e
        If String.IsNullOrEmpty(TxtID.Text) Then
            MsgBox("Please enter your ID")
            Exit Sub
        End If
```

FrmHistory

Owner Full Name: Curtis Cox

1

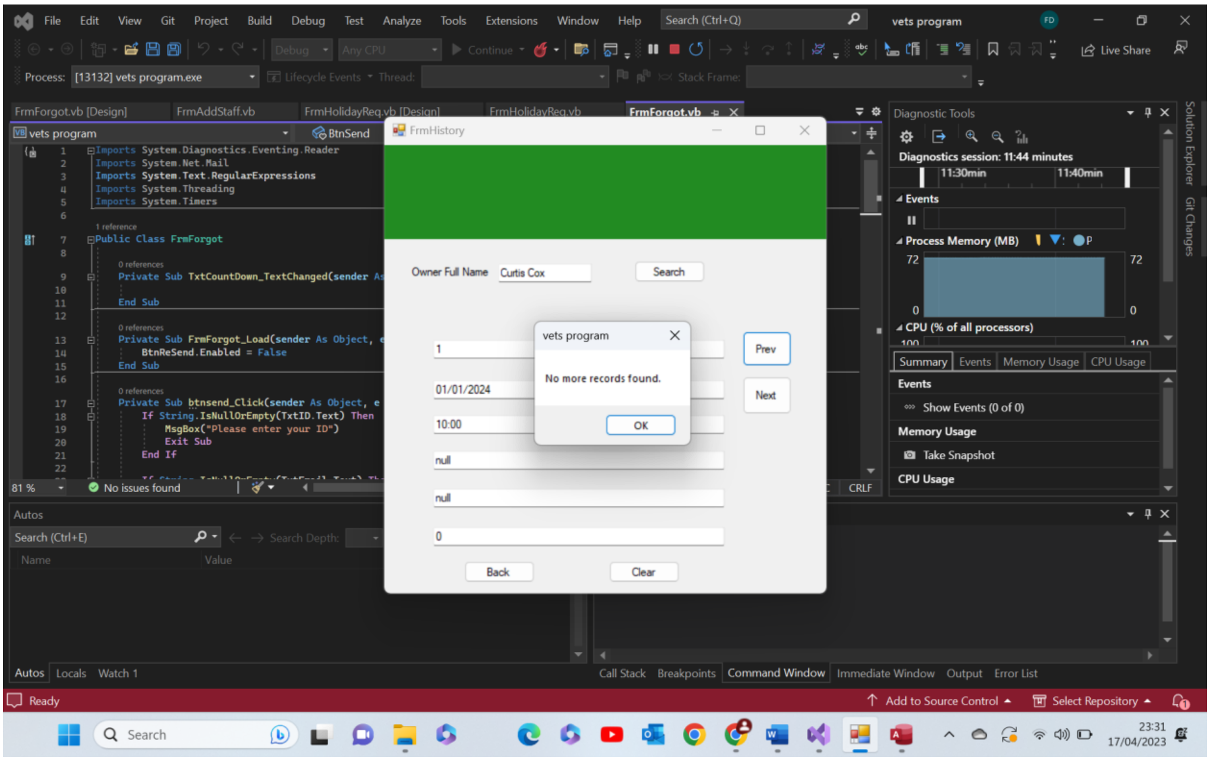
01/01/2024

10:00

null

null

0



```
Imports System.Diagnostics.Eventing.Reader
Imports System.Net.Mail
Imports System.Text.RegularExpressions
Imports System.Threading
Imports System.Timers

Public Class FrmForgot

    Private Sub TxtCountDown_TextChanged(sender As

    End Sub

    Private Sub FrmForgot_Load(sender As Object, e
        BtnReSend.Enabled = False
    End Sub

    Private Sub btnsend_Click(sender As Object, e
        If String.IsNullOrEmpty(TxtID.Text) Then
            MsgBox("Please enter your ID")
            Exit Sub
        End If
```

FrmHistory

Owner Full Name: Curtis Cox Search

1
01/01/2024
10:00
null
null
0

Prev Next Back Clear

vets program

No more records found.

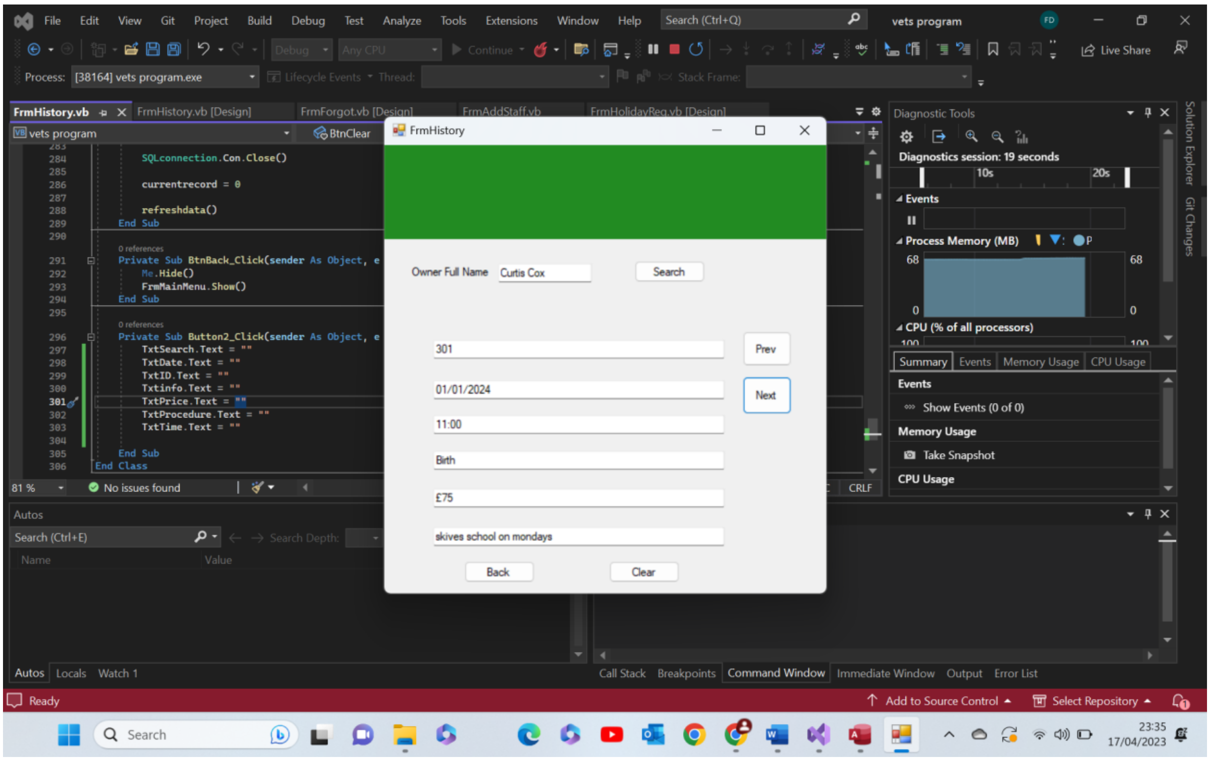
OK

Diagnostics session: 11:44 minutes

23:31 17/04/2023

Test 9.6 comments- as expected when the program recognised that the end of the records had been reached it outputted an appropriate message box warning the user and stopping them from using the previous button any more times. Pass

9.7-



```
            SQLconnection.Con.Close()

            currentrecord = 0

            refreshdata()
    End Sub

    Private Sub BtnBack_Click(sender As Object, e
        Me.Hide()
        FrmMainMenu.Show()
    End Sub

    Private Sub Button2_Click(sender As Object, e
        TxtSearch.Text = ""
        TxtDate.Text = ""
        TxtID.Text = ""
        Txtinfo.Text = ""
        TxtPrice.Text = ""
        TxtProcedure.Text = ""
        TxtTime.Text = ""

    End Sub
End Class
```

FrmHistory

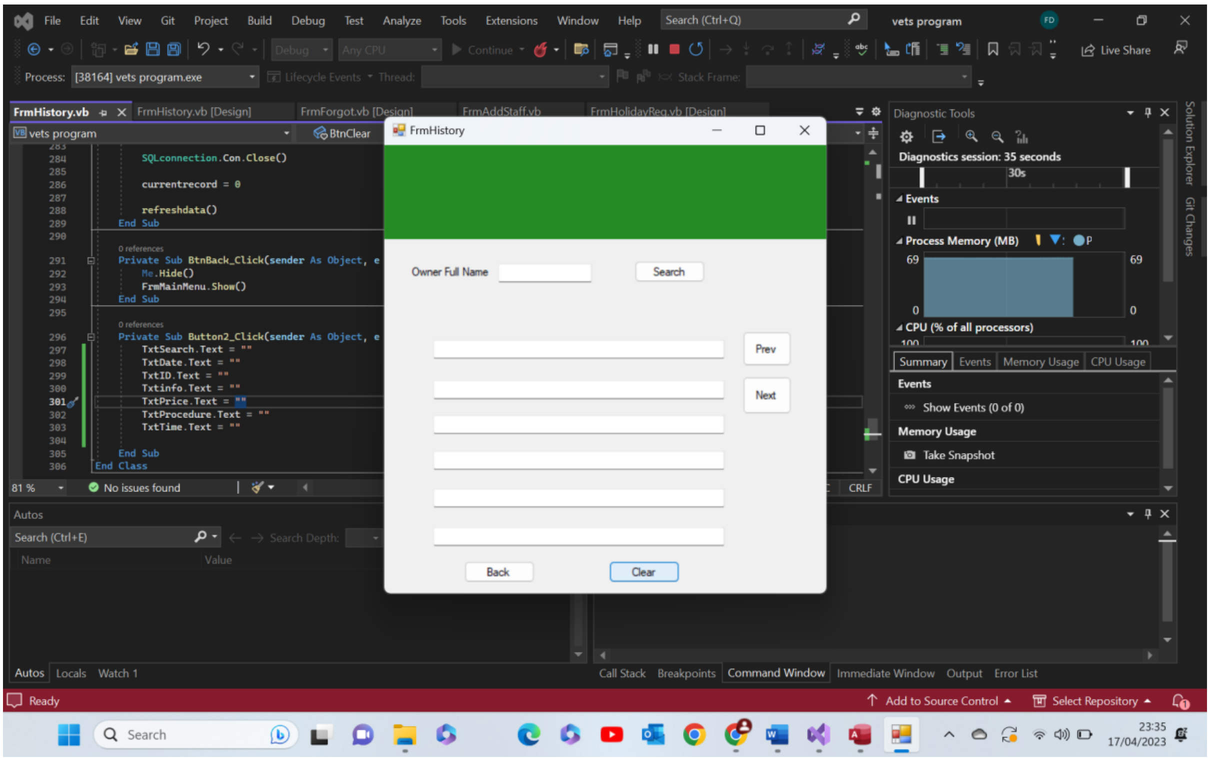
Owner Full Name: Curtis Cox Search

301
01/01/2024
11:00
Birth
£75
skives school on mondays

Prev Next Back Clear

Diagnostics session: 19 seconds

23:35 17/04/2023



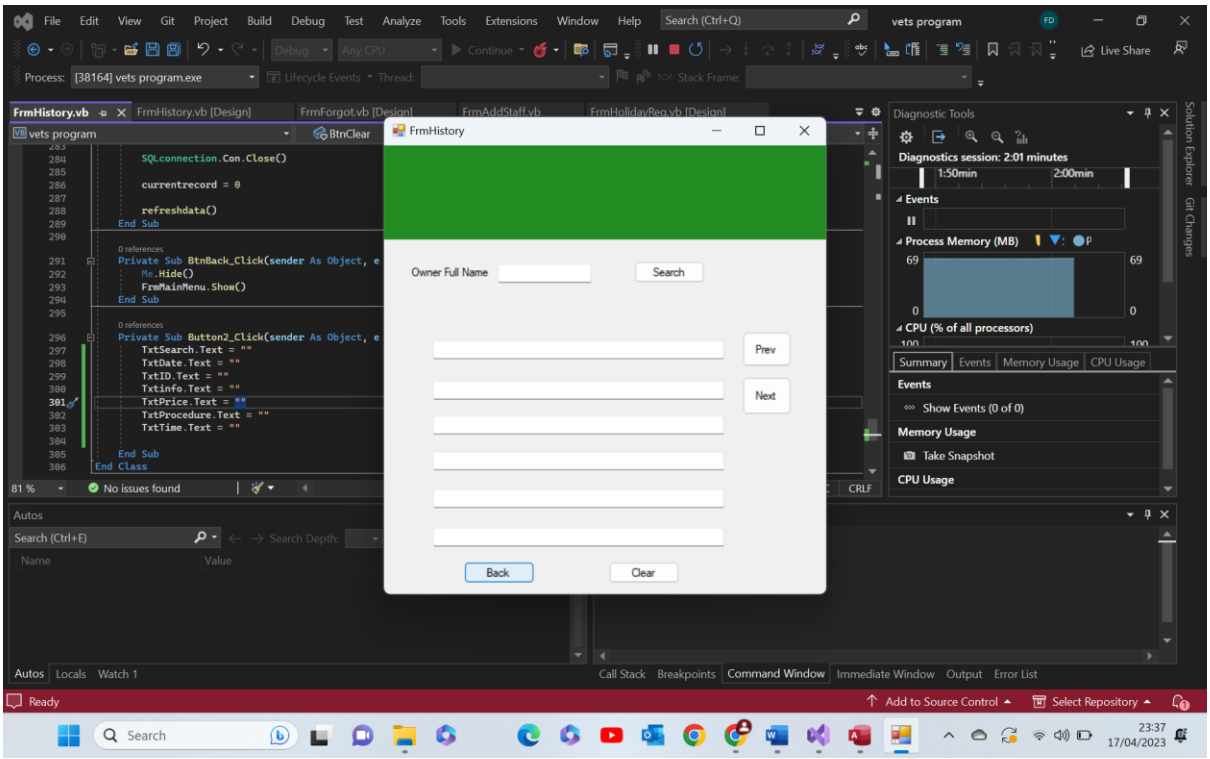
Process: [38164] vets program.exe

```
            SQLconnection.Con.Close()

            currentrecord = 0

            refreshdata()
        End Sub

        0 references
        Private Sub BtnBack_Click(sender As Object, e
            Me.Hide()
            FrmMainMenu.Show()
        End Sub

        0 references
        Private Sub Button2_Click(sender As Object, e
            TxtSearch.Text = ""
            TxtDate.Text = ""
            TxtID.Text = ""
            Txtinfo.Text = ""
            TxtPrice.Text = ""
            TxtProcedure.Text = ""
            TxtTime.Text = ""

        End Sub
    End Class
```

81 %   No issues found

Test 9.7 comments- as we can see when the clear button is pressed all text boxes are set = “” and so become void of data. Pass

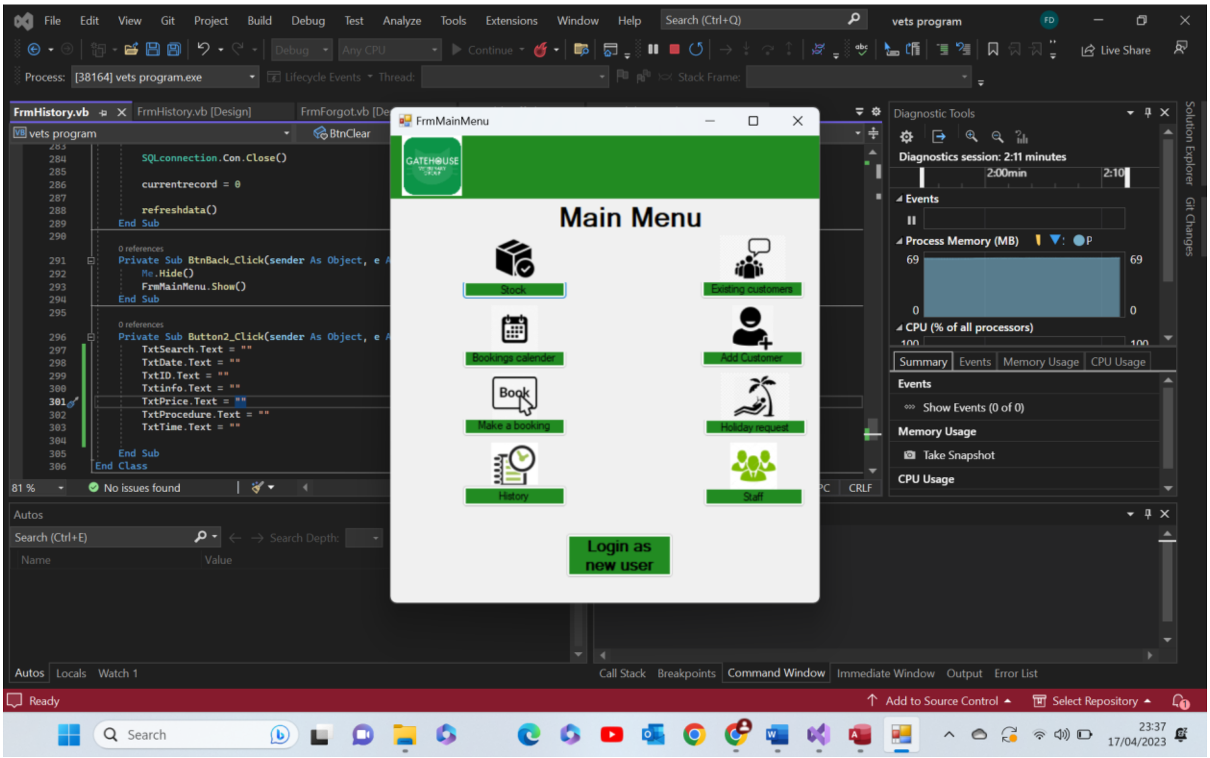
9.8-



Process: [38164] vets program.exe

```
            SQLconnection.Con.Close()

            currentrecord = 0

            refreshdata()
        End Sub

        0 references
        Private Sub BtnBack_Click(sender As Object, e
            Me.Hide()
            FrmMainMenu.Show()
        End Sub

        0 references
        Private Sub Button2_Click(sender As Object, e
            TxtSearch.Text = ""
            TxtDate.Text = ""
            TxtID.Text = ""
            Txtinfo.Text = ""
            TxtPrice.Text = ""
            TxtProcedure.Text = ""
            TxtTime.Text = ""

        End Sub
    End Class
```

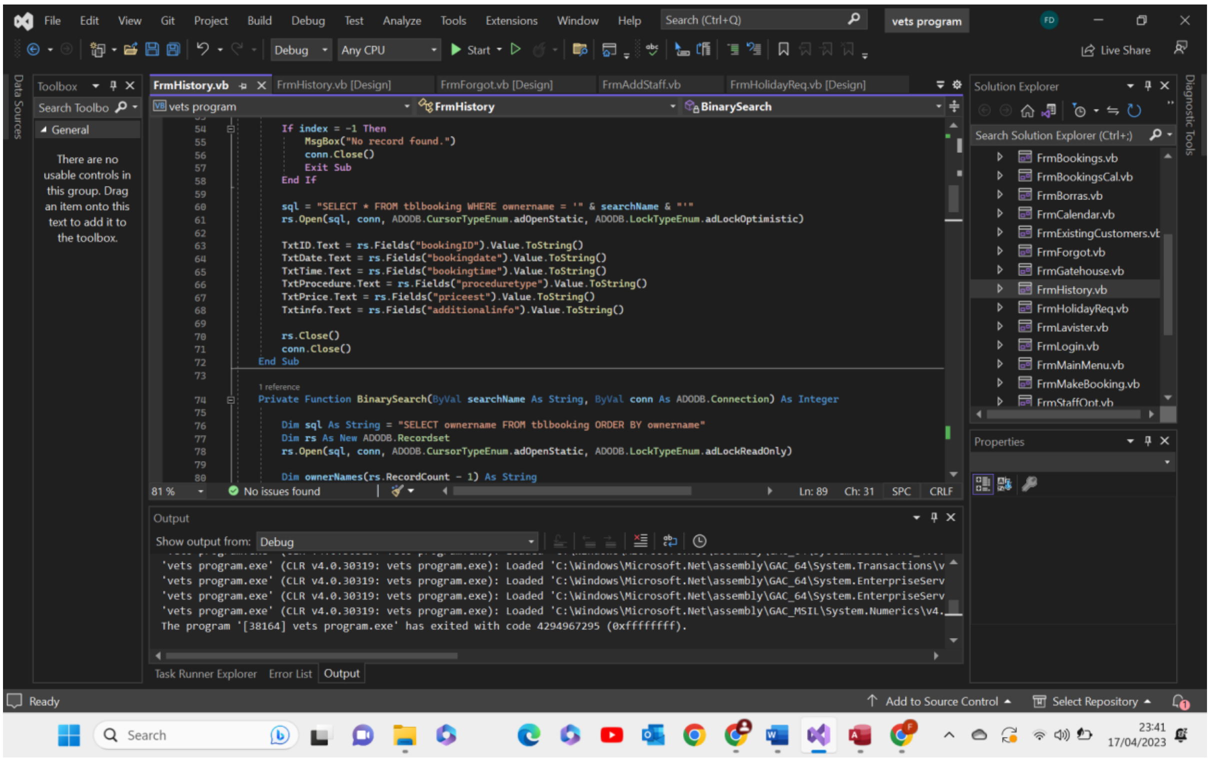
81 %   No issues found



```
        SQLconnection.Con.Close()

        currentrecord = 0

        refreshdata()
    End Sub

    0 references
    Private Sub BtnBack_Click(sender As Object, e A
        Me.Hide()
        FrmMainMenu.Show()
    End Sub

    0 references
    Private Sub Button2_Click(sender As Object, e A
        TxtSearch.Text = ""
        TxtDate.Text = ""
        TxtID.Text = ""
        Txtinfo.Text = ""
        TxtPrice.Text = ""
        TxtProcedure.Text = ""
        TxtTime.Text = ""

    End Sub
End Class
```

Test 9.8 comments – current form was hidden and main menu form opened as expected. Pass

9.9-



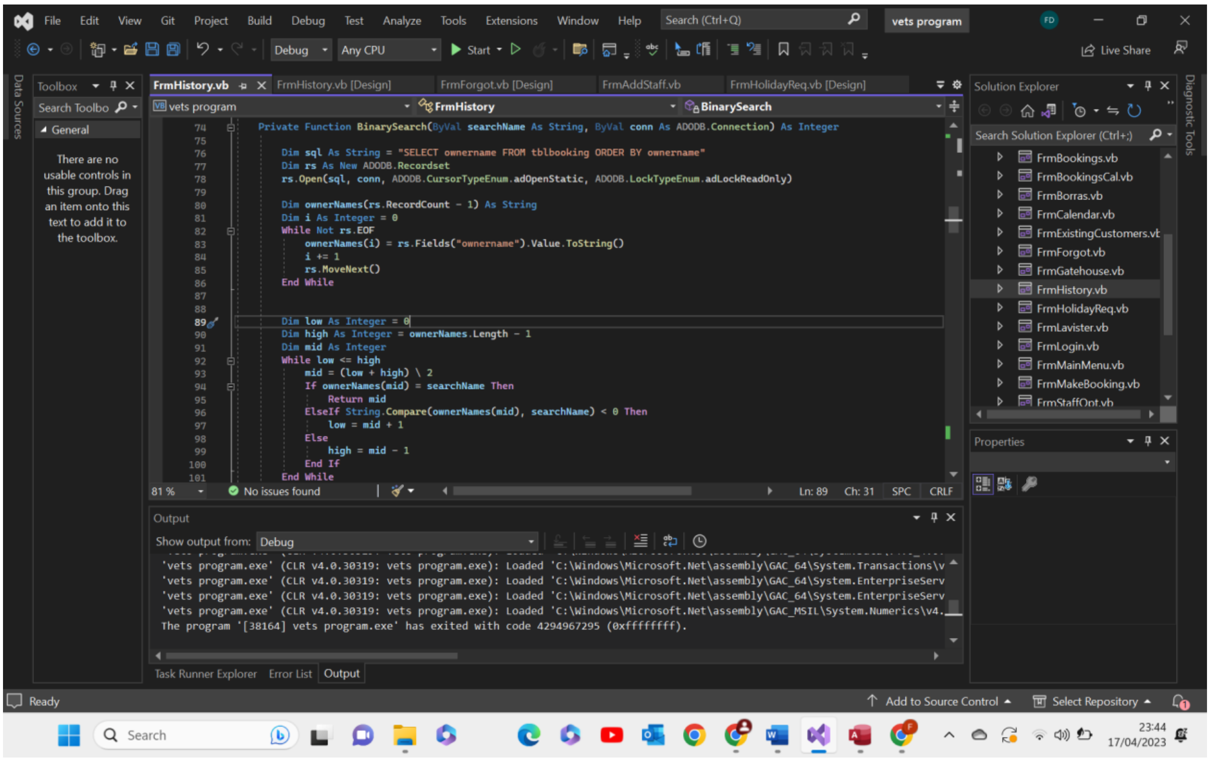
```
        If index = -1 Then
            MsgBox("No record found.")
            conn.Close()
            Exit Sub
        End If

        sql = "SELECT * FROM tblbooking WHERE ownername = '" & searchName & "'"
        rs.Open(sql, conn, ADODB.CursorTypeEnum.adOpenStatic, ADODB.LockTypeEnum.adLockOptimistic)

        TxtID.Text = rs.Fields("bookingID").Value.ToString()
        TxtDate.Text = rs.Fields("bookingdate").Value.ToString()
        TxtTime.Text = rs.Fields("bookingtime").Value.ToString()
        TxtProcedure.Text = rs.Fields("proceduretype").Value.ToString()
        TxtPrice.Text = rs.Fields("priceest").Value.ToString()
        Txtinfo.Text = rs.Fields("additionalinfo").Value.ToString()

        rs.Close()
        conn.Close()
    End Sub

    1 reference
    Private Function BinarySearch(ByVal searchName As String, ByVal conn As ADODB.Connection) As Integer

        Dim sql As String = "SELECT ownername FROM tblbooking ORDER BY ownername"
        Dim rs As New ADODB.Recordset
        rs.Open(sql, conn, ADODB.CursorTypeEnum.adOpenStatic, ADODB.LockTypeEnum.adLockReadOnly)

        Dim ownerNames(rs.RecordCount - 1) As String
```

```
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_64\System.Transactions\v
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_64\System.EnterpriseServ
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_64\System.EnterpriseServ
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_MSIL\System.Numerics\v4.
The program '[38164] vets program.exe' has exited with code 4294967295 (0xffffffff).
```

Test 9.9 comments- this is hard to demonstrate, but since the search code in this program is a binary search, the list must be sorted and so the fact that the test 9.1 was a success proves this works. I have included a screenshot of the code that performs this sort. The function BinarySearch performs a binary search on a sorted array of owner names

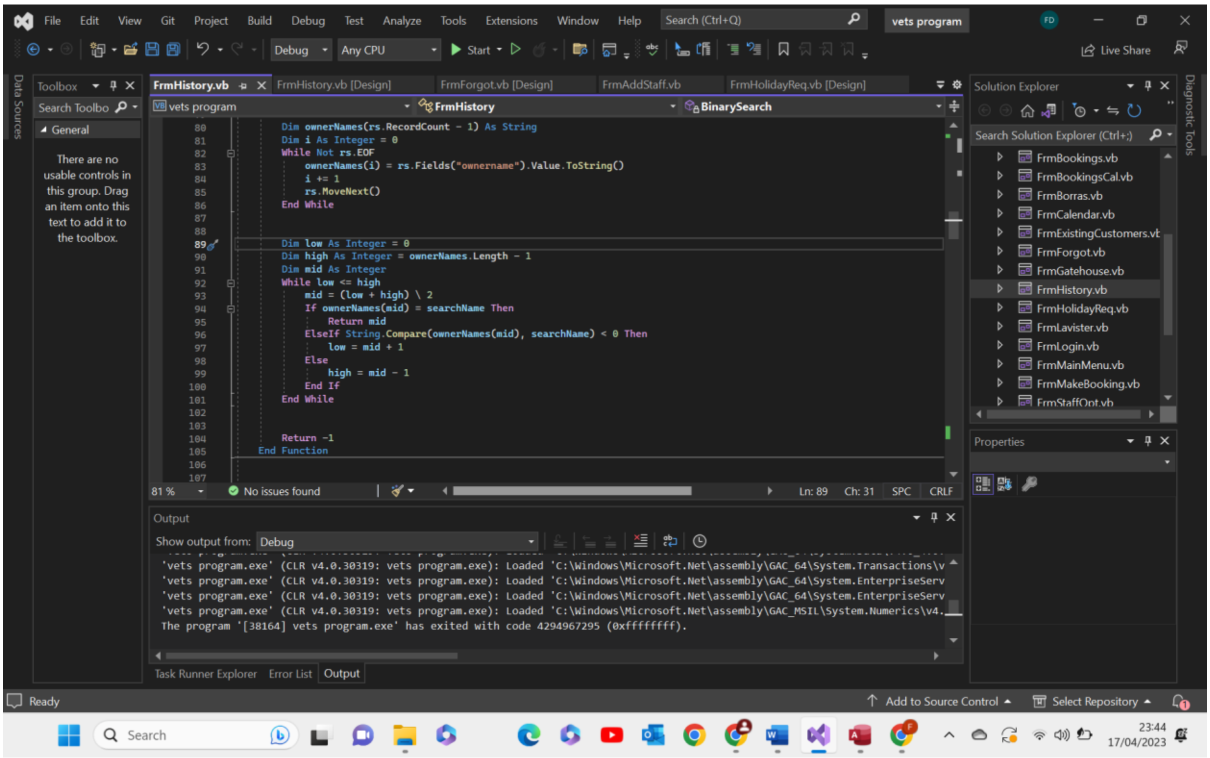
retrieved from the tblbooking table in the database. The SELECT statement in the SQL query orders the results by the ownername column, which ensures that the array is sorted before the binary search is performed.

9.10-



```
    Private Function BinarySearch(ByVal searchName As String, ByVal conn As ADODB.Connection) As Integer

        Dim sql As String = "SELECT ownername FROM tblbooking ORDER BY ownername"
        Dim rs As New ADODB.Recordset
        rs.Open(sql, conn, ADODB.CursorTypeEnum.adOpenStatic, ADODB.LockTypeEnum.adLockReadOnly)

        Dim ownerNames(rs.RecordCount - 1) As String
        Dim i As Integer = 0
        While Not rs.EOF
            ownerNames(i) = rs.Fields("ownername").Value.ToString()
            i += 1
            rs.MoveNext()
        End While


        Dim low As Integer = 0
        Dim high As Integer = ownerNames.Length - 1
        Dim mid As Integer
        While low <= high
            mid = (low + high) \ 2
            If ownerNames(mid) = searchName Then
                Return mid
            ElseIf String.Compare(ownerNames(mid), searchName) < 0 Then
                low = mid + 1
            Else
                high = mid - 1
            End If
        End While
```

```
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_64\System.Transactions\v
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_64\System.EnterpriseServ
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_64\System.EnterpriseServ
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_MSIL\System.Numerics\v4.
The program '[38164] vets program.exe' has exited with code 4294967295 (0xffffffff).
```



```
        Dim ownerNames(rs.RecordCount - 1) As String
        Dim i As Integer = 0
        While Not rs.EOF
            ownerNames(i) = rs.Fields("ownername").Value.ToString()
            i += 1
            rs.MoveNext()
        End While


        Dim low As Integer = 0
        Dim high As Integer = ownerNames.Length - 1
        Dim mid As Integer
        While low <= high
            mid = (low + high) \ 2
            If ownerNames(mid) = searchName Then
                Return mid
            ElseIf String.Compare(ownerNames(mid), searchName) < 0 Then
                low = mid + 1
            Else
                high = mid - 1
            End If
        End While


        Return -1
    End Function
```

```
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_64\System.Transactions\v
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_64\System.EnterpriseServ
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_64\System.EnterpriseServ
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_MSIL\System.Numerics\v4.
The program '[38164] vets program.exe' has exited with code 4294967295 (0xffffffff).
```

Test 9.10 comments- this is hard to demonstrate, however, the fact that the program successfully finds a record when the search term is "Curtis Cox" demonstrates that the

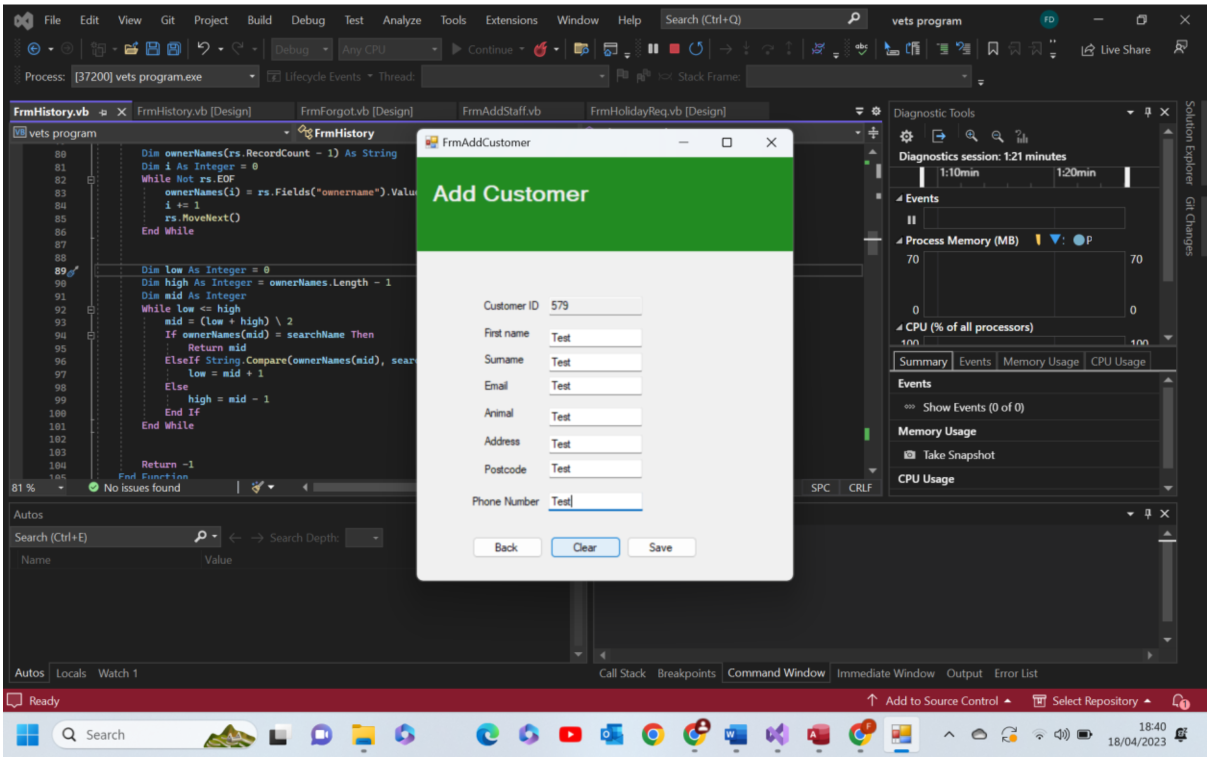
binary search algorithm is correctly implemented in the program. The BinarySearch function implements the binary search algorithm. It retrieves all the owner names from the tblbooking table and stores them in an array called ownerNames. It then uses a while loop to perform the binary search algorithm on the ownerNames array until it finds the index of the search value or determines that the value is not in the array. Pass

Test group 10- Add customer form:

Test number	Test data	Actual outcome	verdict	comments
1	Functional Clear pressed	All text boxes became void of any data	Pass	N/A
2	Valid data Functional Save pressed	If all presence checks were passed and the data is deemed valid the program read the info in the text boxes and wrote it into the appropriate table	Pass	N/A
3	Functional Back button pressed	Current form closed and main menu form appeared	Pass	N/A
4	Functional Extreme data in all text boxes	If any text boxes were left blank the program would output a message box with a warning and not save the data	Pass	N/A
5	Functional Invalid pre existing '123' specifically	If a new customer somehow had the same id as a pre existing one then the program would warn the user to generate a new ID and not save the inputted data	Pass	Could add a function where before generating a new ID the program would check if it already existed in the database.
6	Invalid data 'testATGmailDotCom' specifically	If the email was not of a correct format a message box would appear and	Pass	N/A

		the data would not be saved		
7	Invalid data '999'	If the phone number entered was not of a valid format then the program would output a message box and not allow the data to be saved	Pass	N/A
8	Functional form loaded	When the program loaded a random ID was generated and written into the text box	Pass	N/A

10.1-



```
        Dim ownerNames(rs.RecordCount - 1) As String
        Dim i As Integer = 0
        While Not rs.EOF
            ownerNames(i) = rs.Fields("ownername").Valu
            i += 1
            rs.MoveNext()
        End While


        Dim low As Integer = 0
        Dim high As Integer = ownerNames.Length - 1
        Dim mid As Integer
        While low <= high
            mid = (low + high) \ 2
            If ownerNames(mid) = searchName Then
                Return mid
            ElseIf String.Compare(ownerNames(mid), sear
                low = mid + 1
            Else
                high = mid - 1
            End If
        End While


        Return -1
    End Function
```

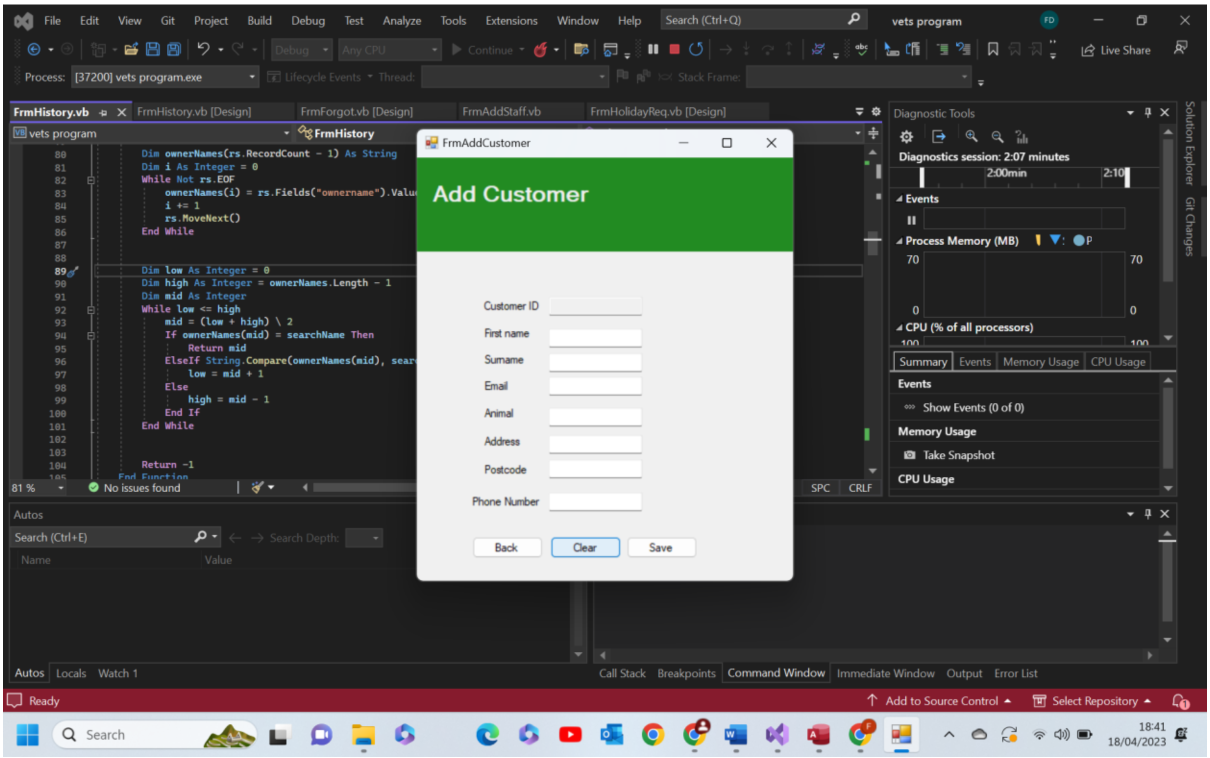
81 % No issues found

FrmAddCustomer

Add Customer

Customer ID	579
First name	Test
Surname	Test
Email	Test
Animal	Test
Address	Test
Postcode	Test
Phone Number	Test

Back Clear Save



```
Dim ownerNames(rs.RecordCount - 1) As String
Dim i As Integer = 0
While Not rs.EOF
    ownerNames(i) = rs.Fields("ownername").Valu
    i += 1
    rs.MoveNext()
End While


Dim low As Integer = 0
Dim high As Integer = ownerNames.Length - 1
Dim mid As Integer
While low <= high
    mid = (low + high) \ 2
    If ownerNames(mid) = searchName Then
        Return mid
    ElseIf String.Compare(ownerNames(mid), sear
        low = mid + 1
    Else
        high = mid - 1
    End If
End While


Return -1
```

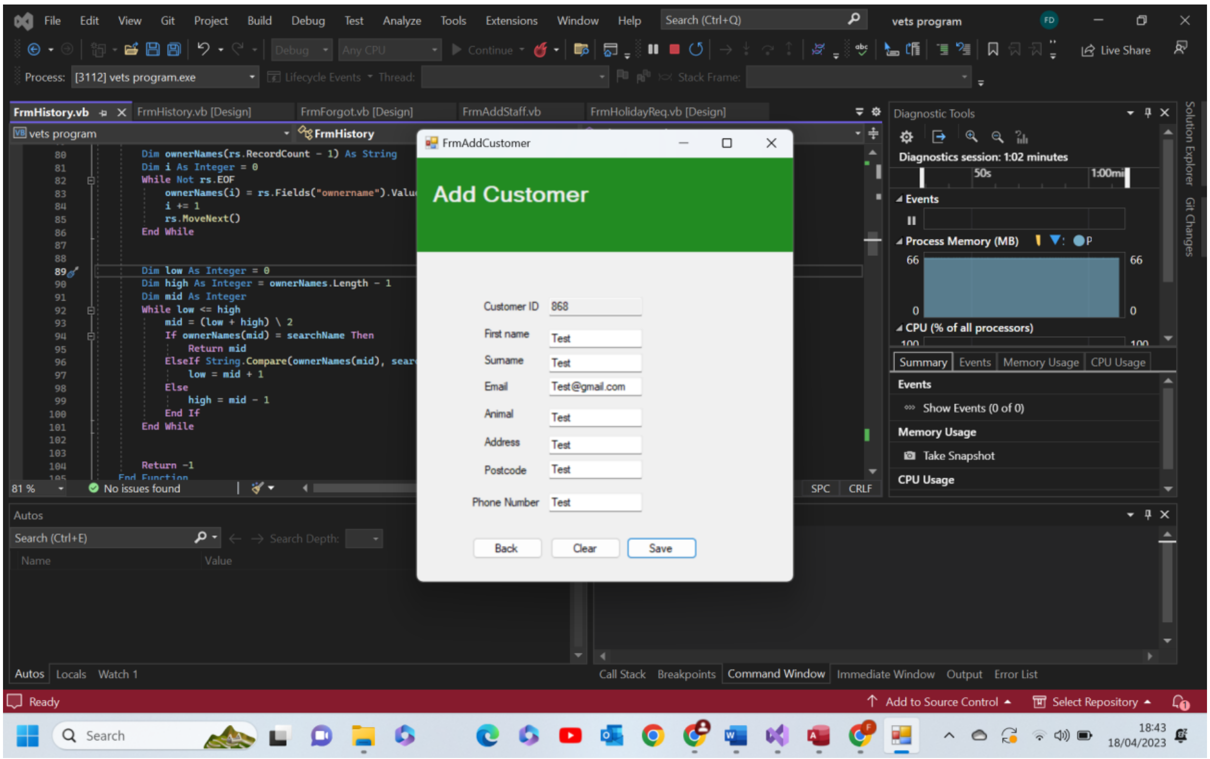
FrmAddCustomer

Add Customer

Customer ID	
First name	
Surname	
Email	
Animal	
Address	
Postcode	
Phone Number	

Test 10.1 comments- as we can see above when the clear button Is pressed all the text boxes become empty. Pass

10.2-

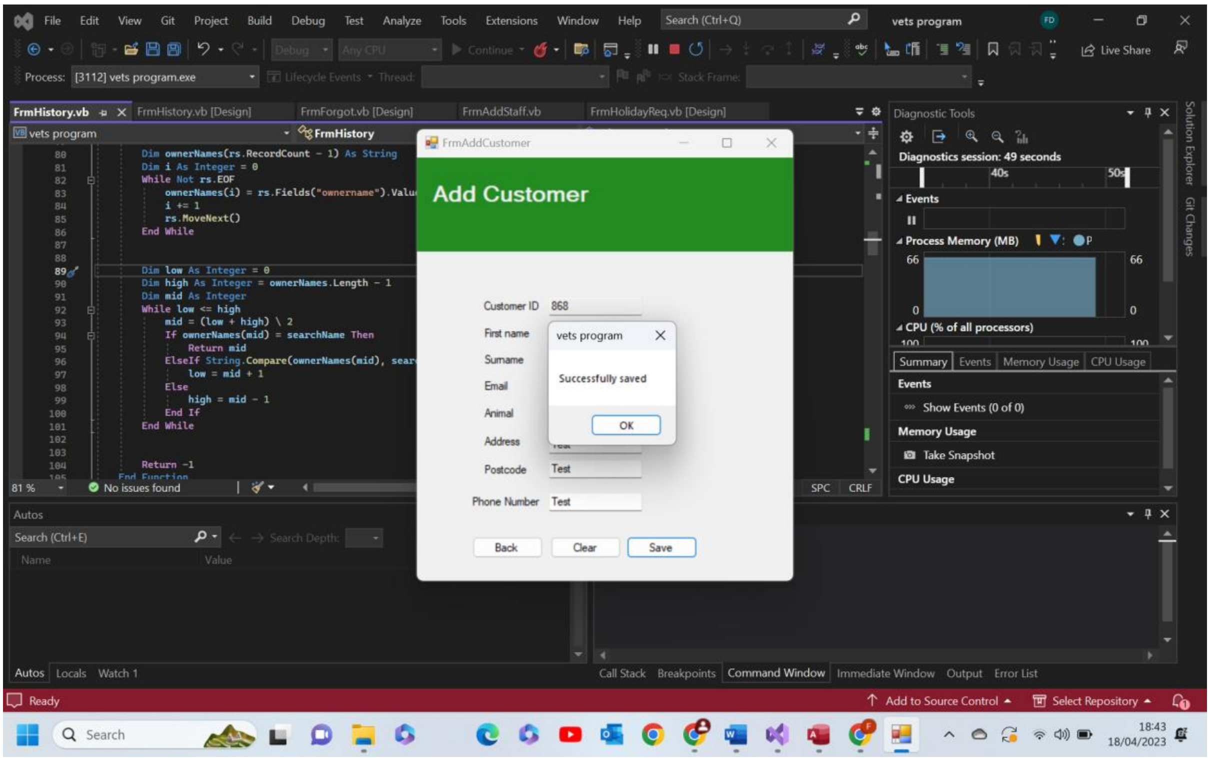


```
Dim ownerNames(rs.RecordCount - 1) As String
Dim i As Integer = 0
While Not rs.EOF
    ownerNames(i) = rs.Fields("ownername").Valu
    i += 1
    rs.MoveNext()
End While


Dim low As Integer = 0
Dim high As Integer = ownerNames.Length - 1
Dim mid As Integer
While low <= high
    mid = (low + high) \ 2
    If ownerNames(mid) = searchName Then
        Return mid
    ElseIf String.Compare(ownerNames(mid), sear
        low = mid + 1
    Else
        high = mid - 1
    End If
End While


Return -1
```

FrmAddCustomer

Add Customer

Customer ID	868
First name	Test
Surname	Test
Email	Test@gmail.com
Animal	Test
Address	Test
Postcode	Test
Phone Number	Test



Process: [3112] vets program.exe

FrmHistory.vb

```
        Dim ownerNames(rs.RecordCount - 1) As String
        Dim i As Integer = 0
        While Not rs.EOF
            ownerNames(i) = rs.Fields("ownername").Valu
            i += 1
            rs.MoveNext()
        End While


        Dim low As Integer = 0
        Dim high As Integer = ownerNames.Length - 1
        Dim mid As Integer
        While low <= high
            mid = (low + high) \ 2
            If ownerNames(mid) = searchName Then
                Return mid
            ElseIf String.Compare(ownerNames(mid), sear
                low = mid + 1
            Else
                high = mid - 1
            End If
        End While


        Return -1
    End Function
```

FrmAddCustomer

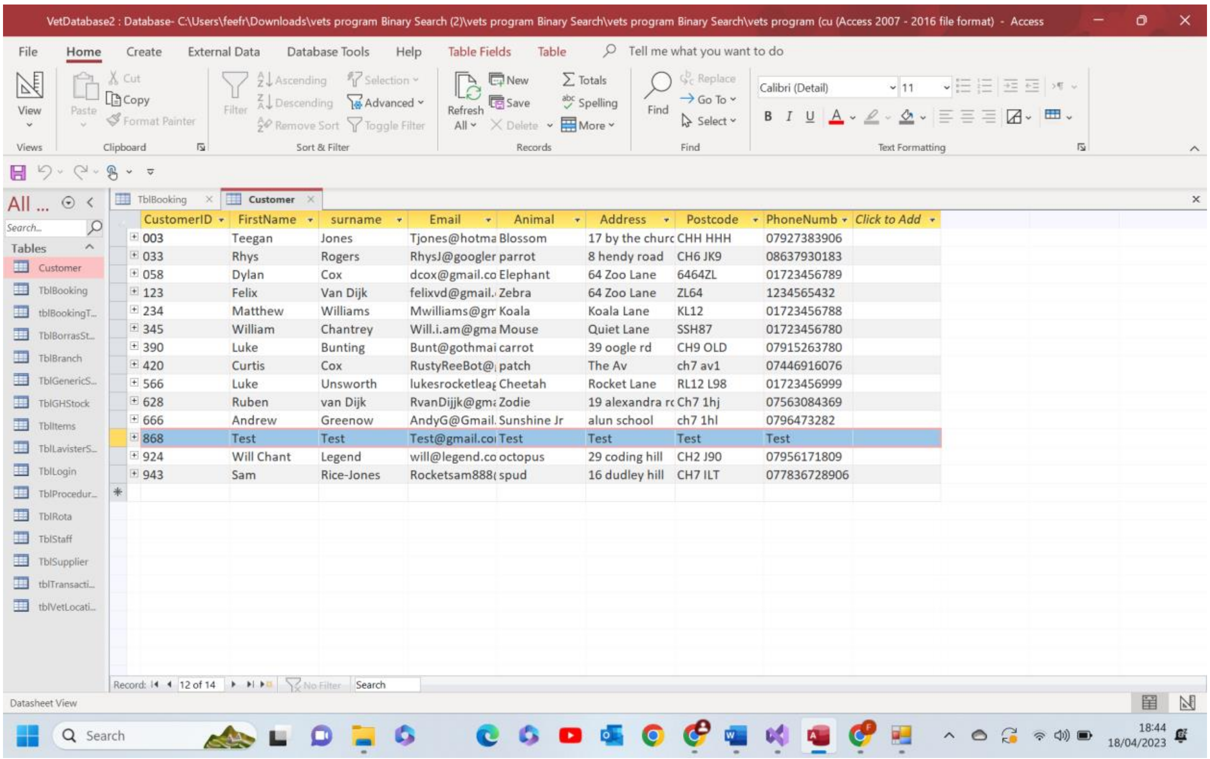
Add Customer

Customer ID	868
First name	
Surname	
Email	
Animal	
Address	
Postcode	Test
Phone Number	Test

vets program

Successfully saved

OK



VetDatabase2 : Database- C:\Users\feefr\Downloads\vets program Binary Search (2)\vets program Binary Search\vets program Binary Search\vets program (cu (Access 2007 - 2016 file format) - Access

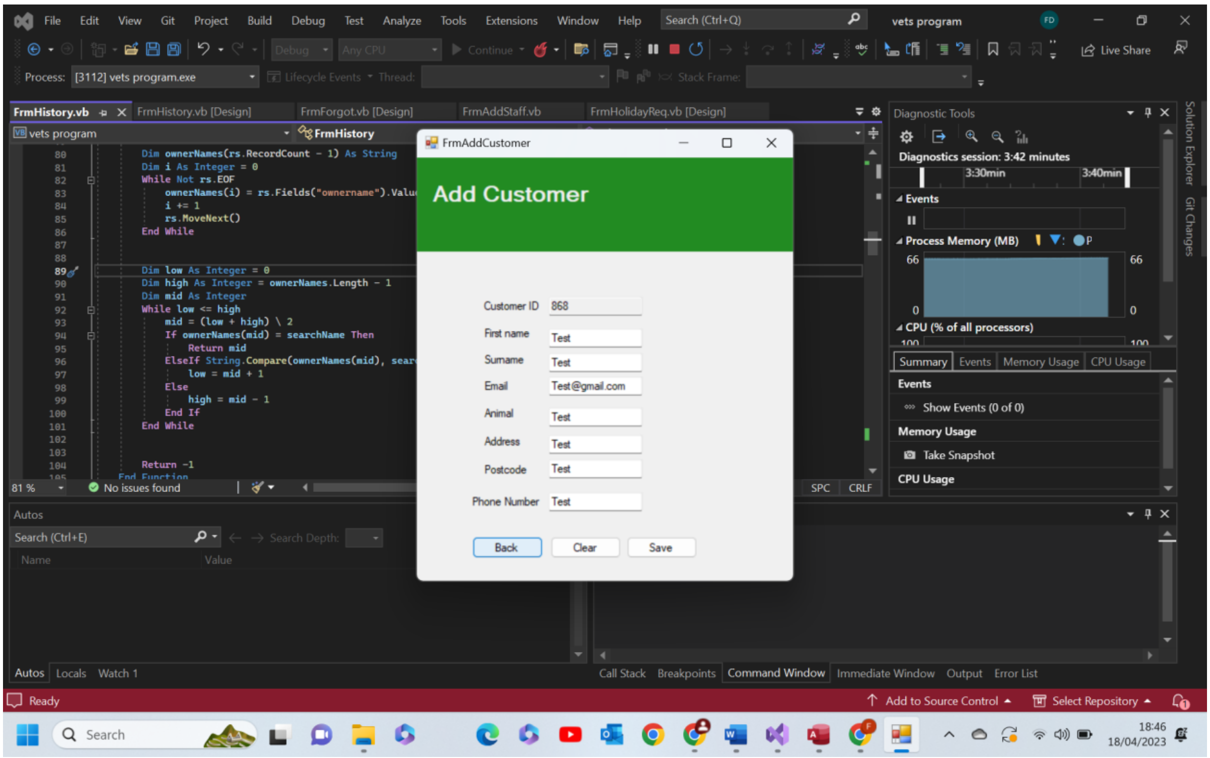
Customer

CustomerID	FirstName	surname	Email	Animal	Address	Postcode	PhoneNumb	Click to Add
003	Teegan	Jones	Tjones@hotma	Blossom	17 by the churc	CHH HHH	07927383906	
033	Rhys	Rogers	RhysJ@googler	parrot	8 hendy road	CH6 JK9	08637930183	
058	Dylan	Cox	dcox@gmail.co	Elephant	64 Zoo Lane	6464ZL	01723456789	
123	Felix	Van Dijk	felixvd@gmail.	Zebra	64 Zoo Lane	ZL64	1234565432	
234	Matthew	Williams	Mwilliams@gm	Koala	Koala Lane	KL12	01723456788	
345	William	Chantrey	Will.i.am@gma	Mouse	Quiet Lane	SSH87	01723456780	
390	Luke	Bunting	Bunt@gothmai	carrot	39 oogle rd	CH9 OLD	07915263780	
420	Curtis	Cox	RustyReeBot@	patch	The Av	ch7 av1	07446916076	
566	Luke	Unsworth	lukesrocketleag	Cheetah	Rocket Lane	RL12 L98	01723456999	
628	Ruben	van Dijk	RvanDijjk@gm	Zodie	19 alexandra rc	Ch7 1hj	07563084369	
666	Andrew	Greenow	AndyG@Gmail.	Sunshine Jr	alun school	ch7 1hl	0796473282	
868	Test	Test	Test@gmail.co	Test	Test	Test	Test	
924	Will Chant	Legend	will@legend.co	octopus	29 coding hill	CH2 J90	07956171809	
943	Sam	Rice-Jones	Rocketsam888(	spud	16 dudley hill	CH7 ILT	077836728906	

Record: 12 of 14

Test 10.2 comments- as we can see when the data inputted into the text boxes passed all of the validation checks and so is valid data, the program writes the information into the access database and outputs a message box. Pass

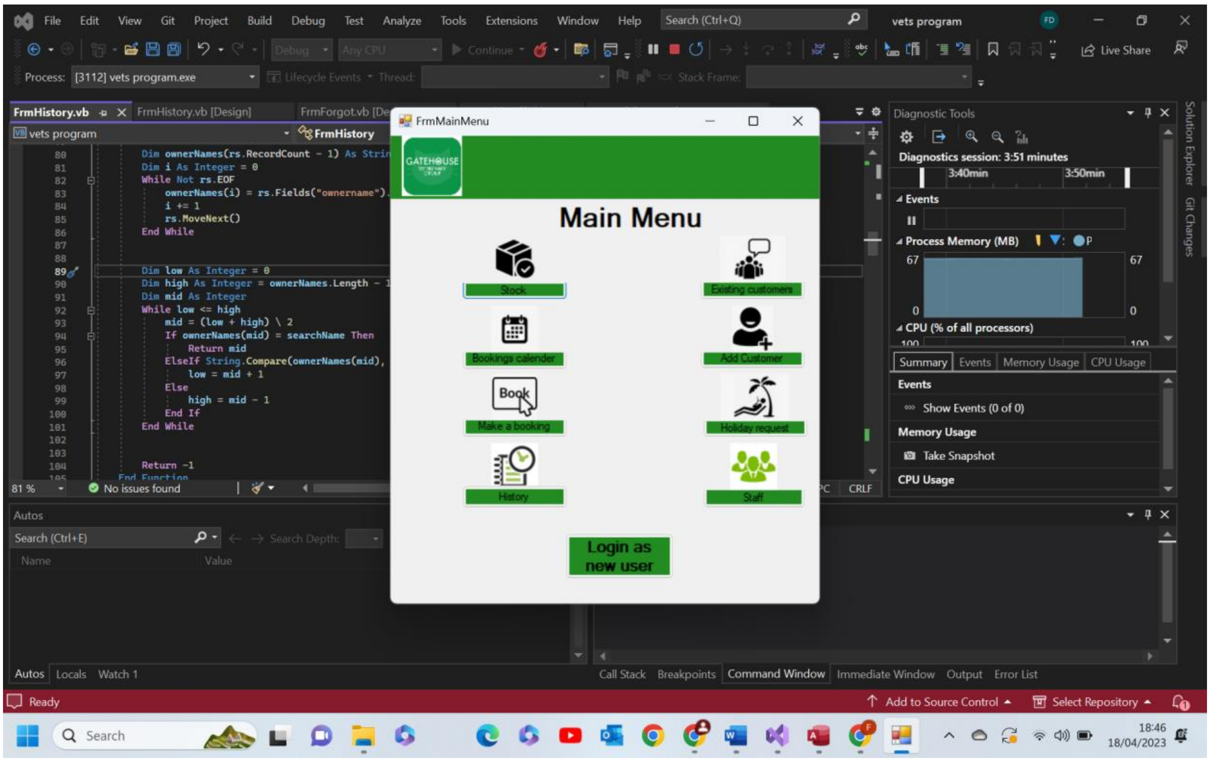
10.3-



```
Dim ownerNames(rs.RecordCount - 1) As String
Dim i As Integer = 0
While Not rs.EOF
    ownerNames(i) = rs.Fields("ownername").Valu
    i += 1
    rs.MoveNext()
End While

Dim low As Integer = 0
Dim high As Integer = ownerNames.Length - 1
Dim mid As Integer
While low <= high
    mid = (low + high) \ 2
    If ownerNames(mid) = searchName Then
        Return mid
    ElseIf String.Compare(ownerNames(mid), sear
        low = mid + 1
    Else
        high = mid - 1
    End If
End While

Return -1
End Function
```

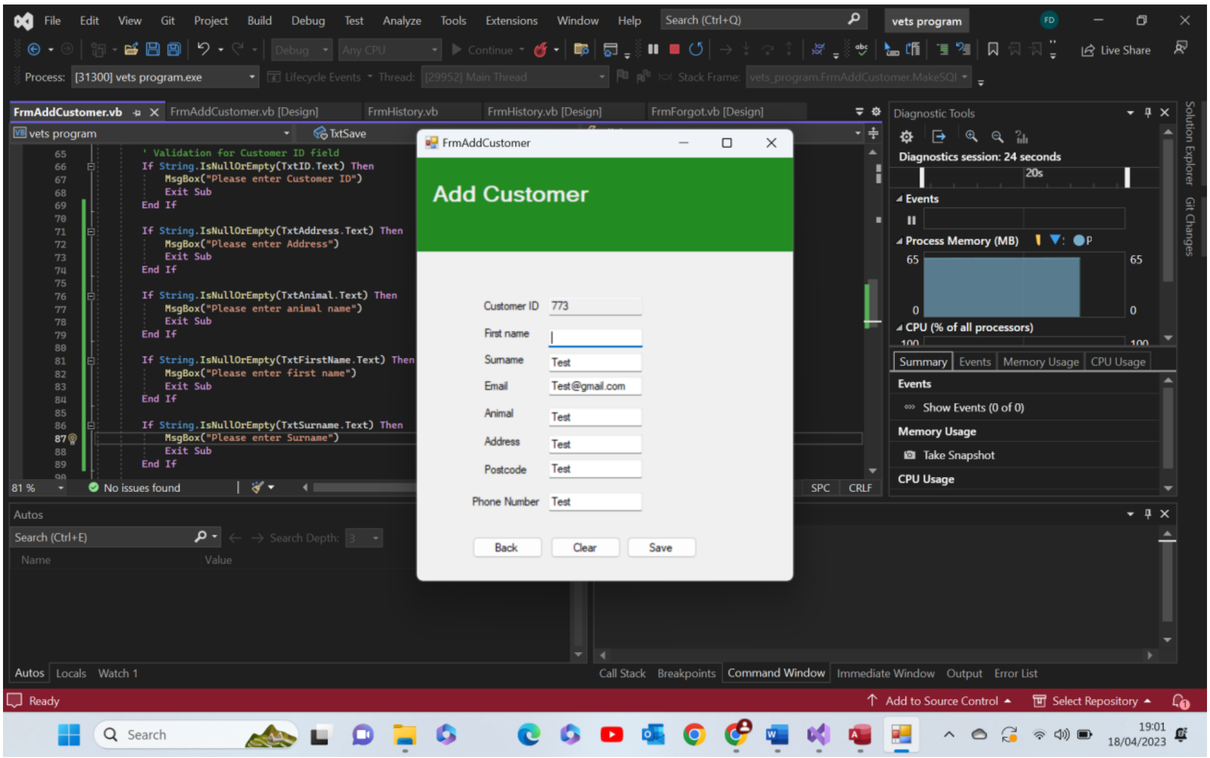
Add Customer

Customer ID	868
First name	Test
Surname	Test
Email	Test@gmail.com
Animal	Test
Address	Test
Postcode	Test
Phone Number	Test



Test 10.3 comments- as we can see when the back button is selected the add customer form is hidden and the main menu appears. Pass

10.4-

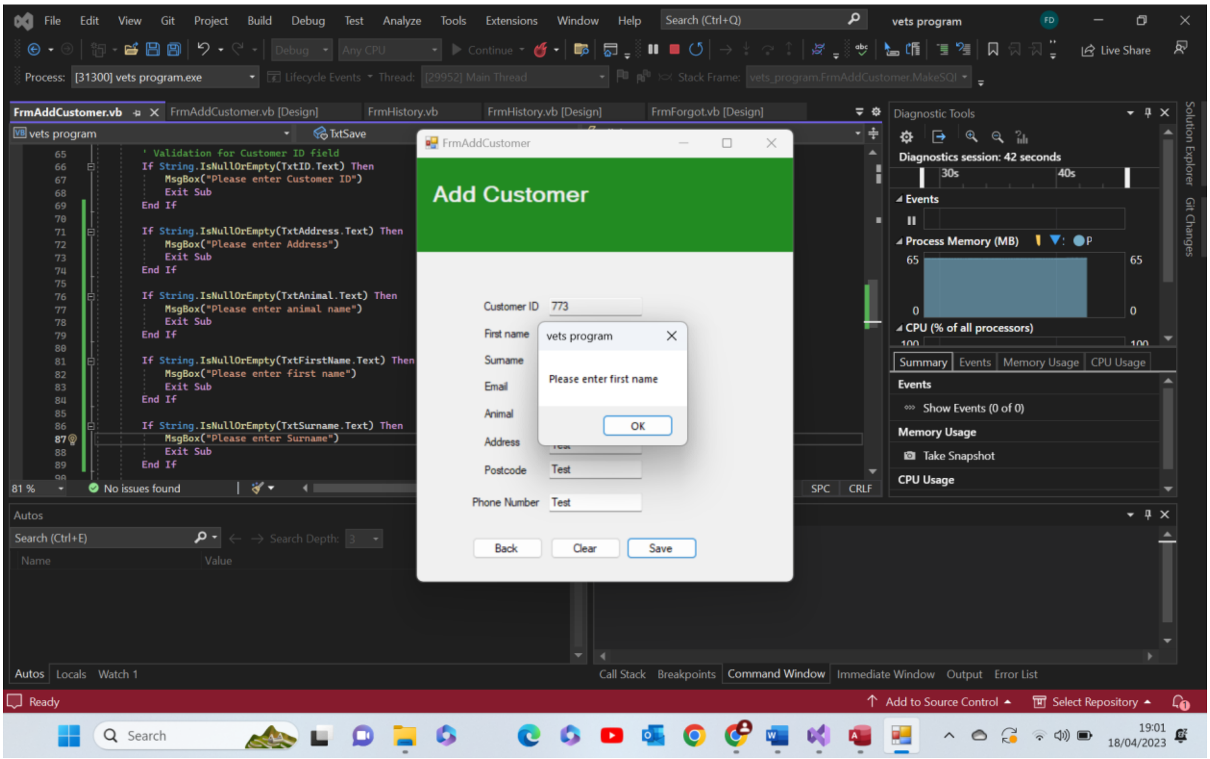


```
            ' Validation for Customer ID field
            If String.IsNullOrEmpty(TxtID.Text) Then
                MsgBox("Please enter Customer ID")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtAddress.Text) Then
                MsgBox("Please enter Address")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Then
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text) Then
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) Then
                MsgBox("Please enter Surname")
                Exit Sub
            End If
```

FrmAddCustomer

Add Customer

Customer ID	773
First name	
Surname	Test
Email	Test@gmail.com
Animal	Test
Address	Test
Postcode	Test
Phone Number	Test



```
            ' Validation for Customer ID field
            If String.IsNullOrEmpty(TxtID.Text) Then
                MsgBox("Please enter Customer ID")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtAddress.Text) Then
                MsgBox("Please enter Address")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Then
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text) Then
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) Then
                MsgBox("Please enter Surname")
                Exit Sub
            End If
```

FrmAddCustomer

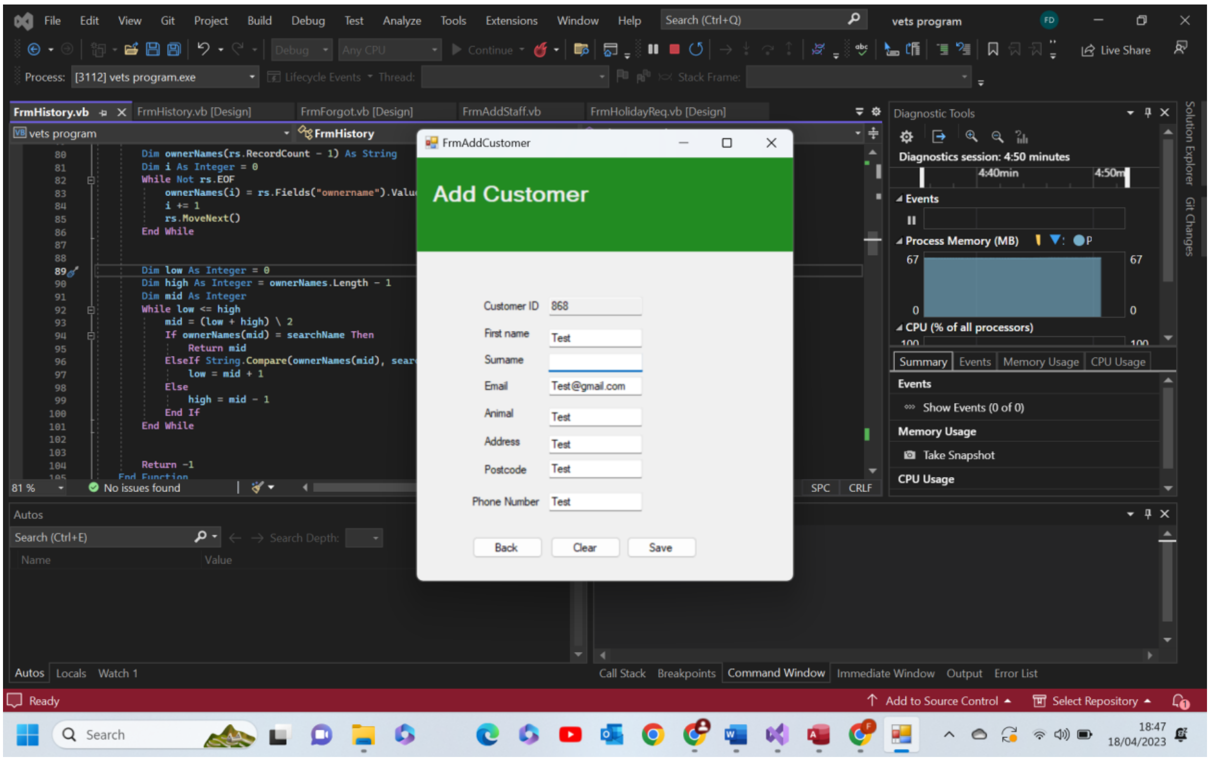
Add Customer

Customer ID	773
First name	
Surname	
Email	
Animal	
Address	
Postcode	Test
Phone Number	Test

vets program

Please enter first name

OK

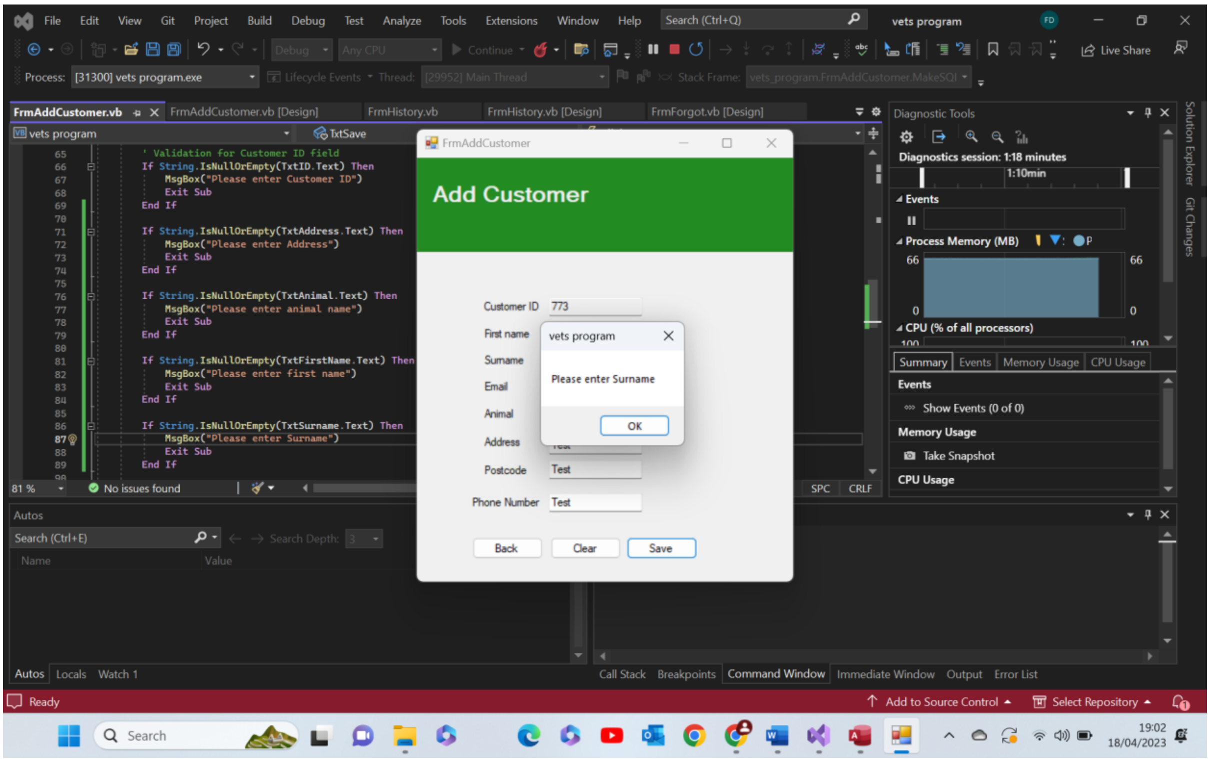

File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
vets program
Process: [3112] vets program.exe
FrmHistory.vb
FrmHistory.vb [Design]
FrmForgot.vb [Design]
FrmAddStaff.vb
FrmHolidayReq.vb [Design]
FrmHistory
Diagnostic Tools
Diagnostics session: 4:50 minutes
Events
Process Memory (MB)
CPU (% of all processors)
Summary Events Memory Usage CPU Usage
Show Events (0 of 0)
Take Snapshot
No issues found
Autos Locals Watch 1
Call Stack Breakpoints Command Window Immediate Window Output Error List
Ready
Add to Source Control
Select Repository
18:47
18/04/2023

```
Dim ownerNames(rs.RecordCount - 1) As String
Dim i As Integer = 0
While Not rs.EOF
    ownerNames(i) = rs.Fields("ownername").Valu
    i += 1
    rs.MoveNext()
End While


Dim low As Integer = 0
Dim high As Integer = ownerNames.Length - 1
Dim mid As Integer
While low <= high
    mid = (low + high) \ 2
    If ownerNames(mid) = searchName Then
        Return mid
    ElseIf String.Compare(ownerNames(mid), sear
        low = mid + 1
    Else
        high = mid - 1
    End If
End While


Return -1
```

FrmAddCustomer

Add Customer

Customer ID	868
First name	Test
Surname	
Email	Test@gmail.com
Animal	Test
Address	Test
Postcode	Test
Phone Number	Test


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
vets program
Process: [31300] vets program.exe
Thread: [29952] Main Thread
Stack Frame: vets_program.FrmAddCustomer.MakeSQl
FrmAddCustomer.vb
FrmAddCustomer.vb [Design]
FrmHistory.vb
FrmHistory.vb [Design]
FrmForgot.vb [Design]
TxtSave
Diagnostic Tools
Diagnostics session: 1:18 minutes
Events
Process Memory (MB)
CPU (% of all processors)
Summary Events Memory Usage CPU Usage
Show Events (0 of 0)
Take Snapshot
No issues found
Autos Locals Watch 1
Call Stack Breakpoints Command Window Immediate Window Output Error List
Ready
Add to Source Control
Select Repository
19:02
18/04/2023

```
' Validation for Customer ID field
If String.IsNullOrEmpty(TxtID.Text) Then
    MsgBox("Please enter Customer ID")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtAddress.Text) Then
    MsgBox("Please enter Address")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtAnimal.Text) Then
    MsgBox("Please enter animal name")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtFirstName.Text) Then
    MsgBox("Please enter first name")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtSurname.Text) Then
    MsgBox("Please enter Surname")
    Exit Sub
End If
```

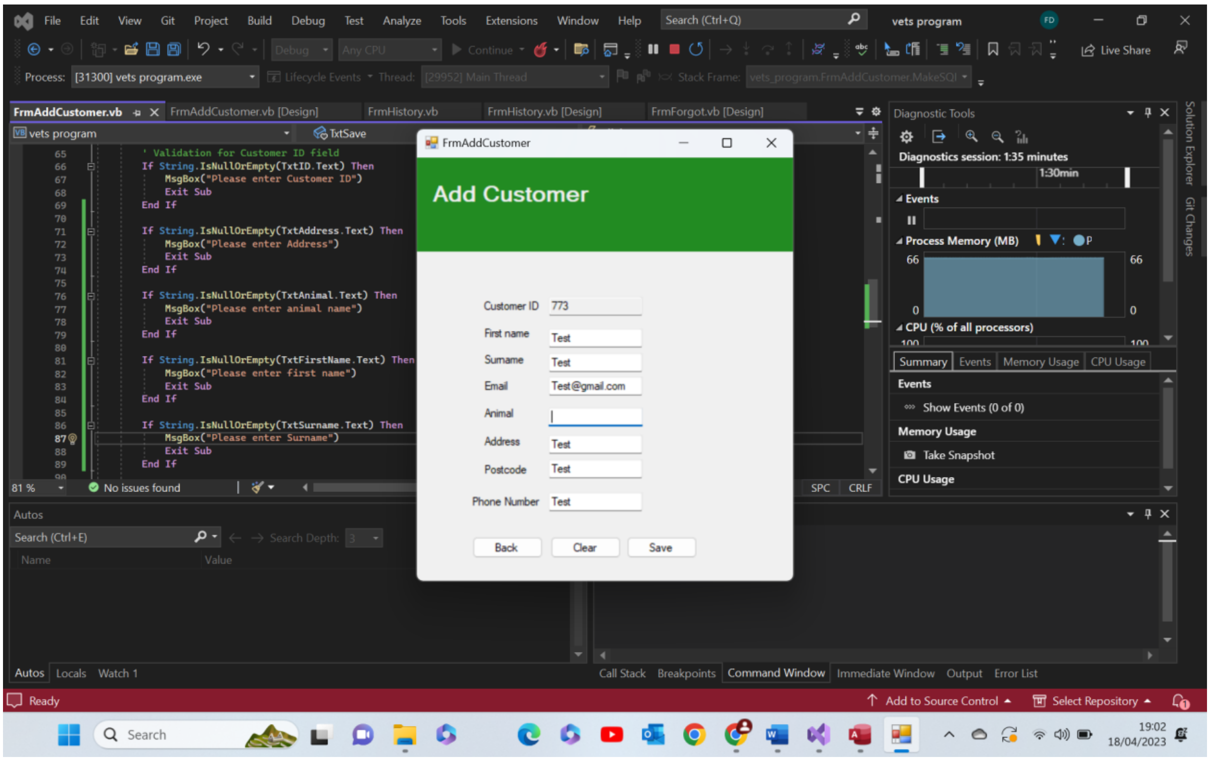
FrmAddCustomer

Add Customer

Customer ID	773
First name	
Surname	
Email	
Animal	
Address	Test
Postcode	Test
Phone Number	Test

vets program

Please enter Surname

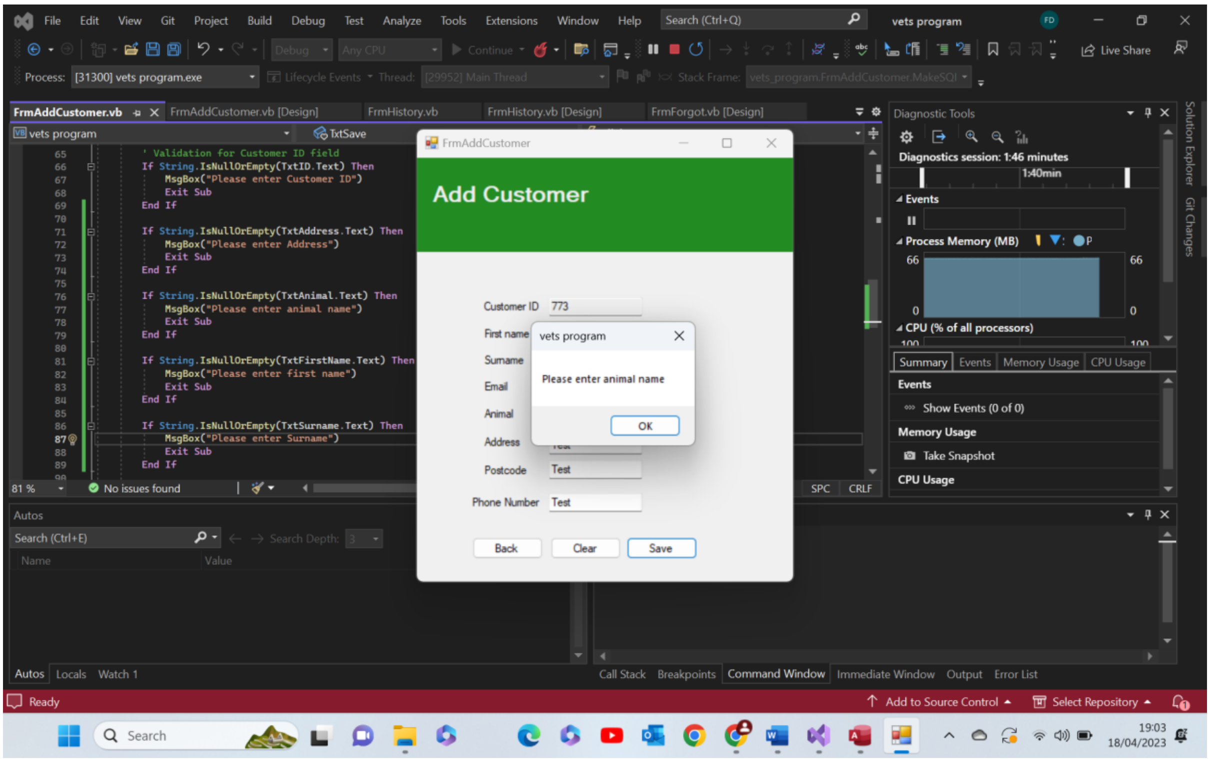


```
' Validation for Customer ID field
If String.IsNullOrEmpty(TxtID.Text) Then
    MsgBox("Please enter Customer ID")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtAddress.Text) Then
    MsgBox("Please enter Address")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtAnimal.Text) Then
    MsgBox("Please enter animal name")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtFirstName.Text) Then
    MsgBox("Please enter first name")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtSurname.Text) Then
    MsgBox("Please enter Surname")
    Exit Sub
End If
```

FrmAddCustomer

Add Customer

Customer ID	773
First name	Test
Surname	Test
Email	Test@gmail.com
Animal	
Address	Test
Postcode	Test
Phone Number	Test



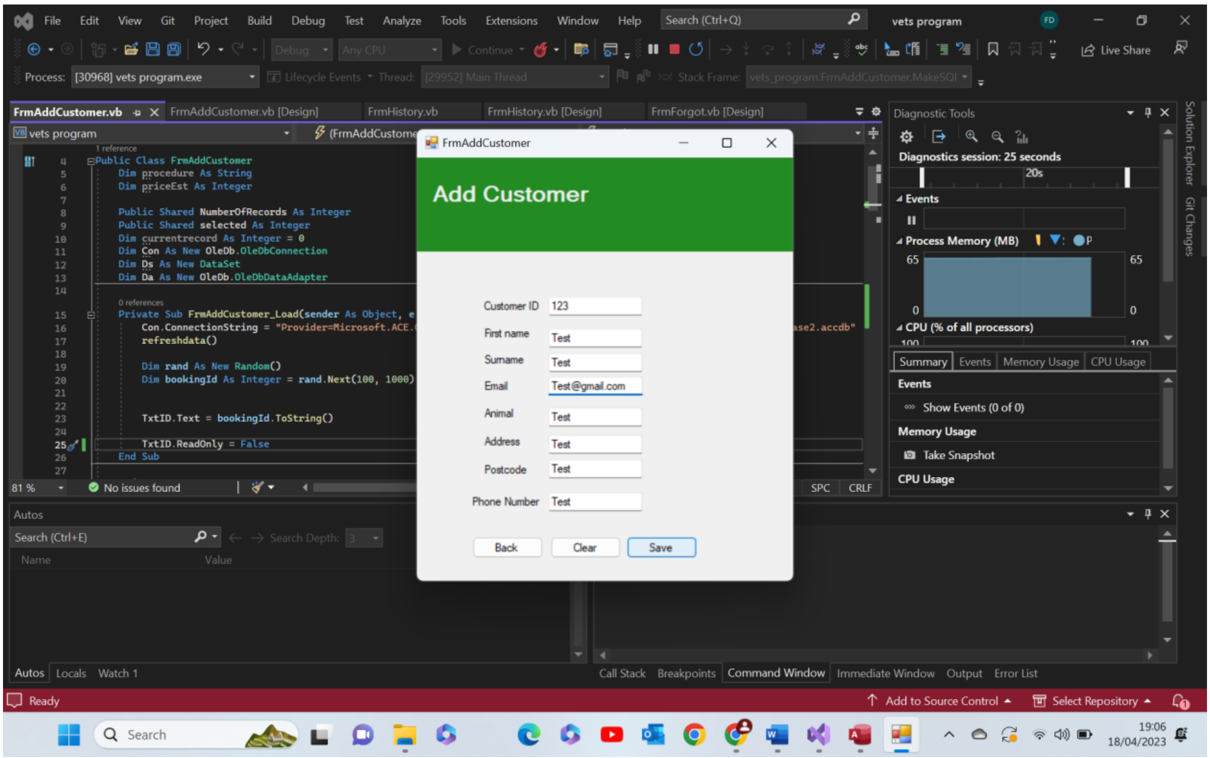
```
' Validation for Customer ID field
If String.IsNullOrEmpty(TxtID.Text) Then
    MsgBox("Please enter Customer ID")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtAddress.Text) Then
    MsgBox("Please enter Address")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtAnimal.Text) Then
    MsgBox("Please enter animal name")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtFirstName.Text) Then
    MsgBox("Please enter first name")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtSurname.Text) Then
    MsgBox("Please enter Surname")
    Exit Sub
End If
```

vets program

Please enter animal name

Test 10.4 comments- above I have shown a few examples of the presence check working on different random text boxes on the form. As we can see the program recognises the null data in the text box and so outputs a message box relating to the text box which has been left blank and does not save the data. Pass

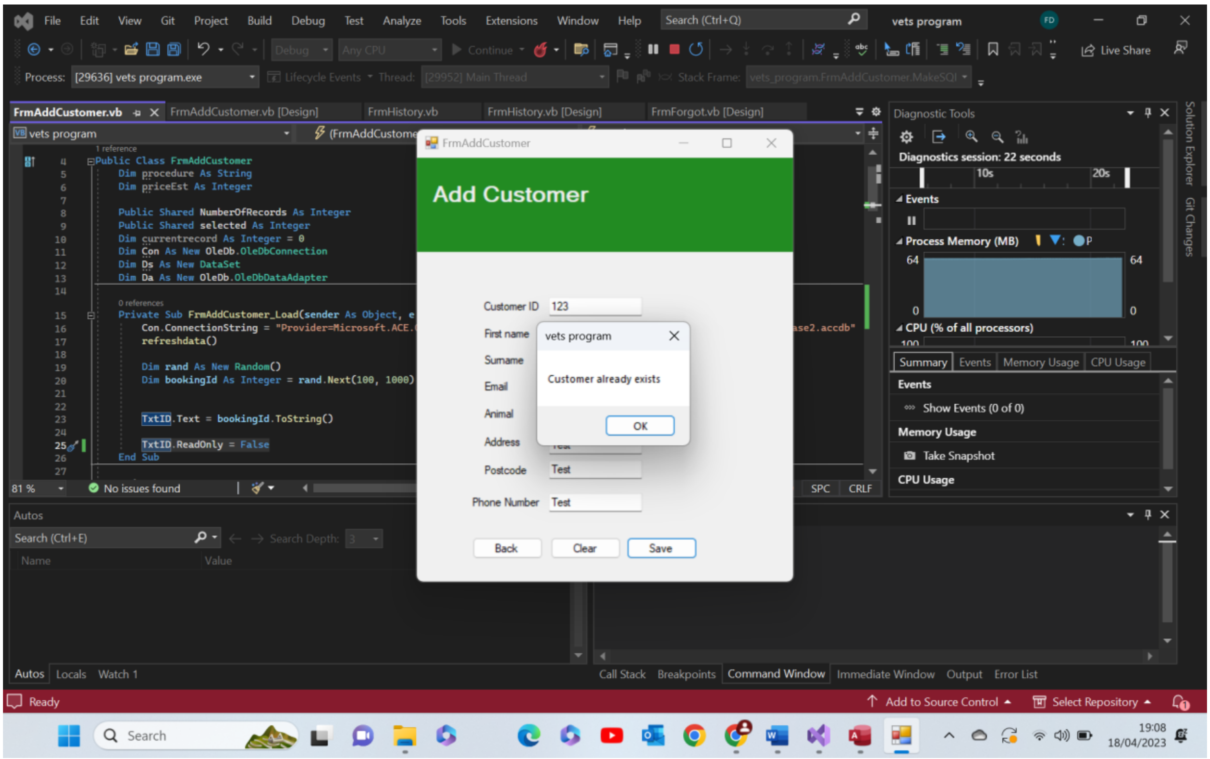
10.5-



```
Public Class FrmAddCustomer
    Dim procedure As String
    Dim priceEst As Integer

    Public Shared NumberOfRecords As Integer
    Public Shared selected As Integer
    Dim currentrecord As Integer = 0
    Dim Con As New OleDb.OleDbConnection
    Dim Ds As New DataSet
    Dim Da As New OleDb.OleDbDataAdapter

    Private Sub FrmAddCustomer_Load(sender As Object, e
        Con.ConnectionString = "Provider=Microsoft.ACE.          ase2.accdb"
        refreshdata()

        Dim rand As New Random()
        Dim bookingId As Integer = rand.Next(100, 1000)


        TxtID.Text = bookingId.ToString()

        TxtID.ReadOnly = False
    End Sub
```

Add Customer

Customer ID	123
First name	Test
Surname	Test
Email	Test@gmail.com
Animal	Test
Address	Test
Postcode	Test
Phone Number	Test



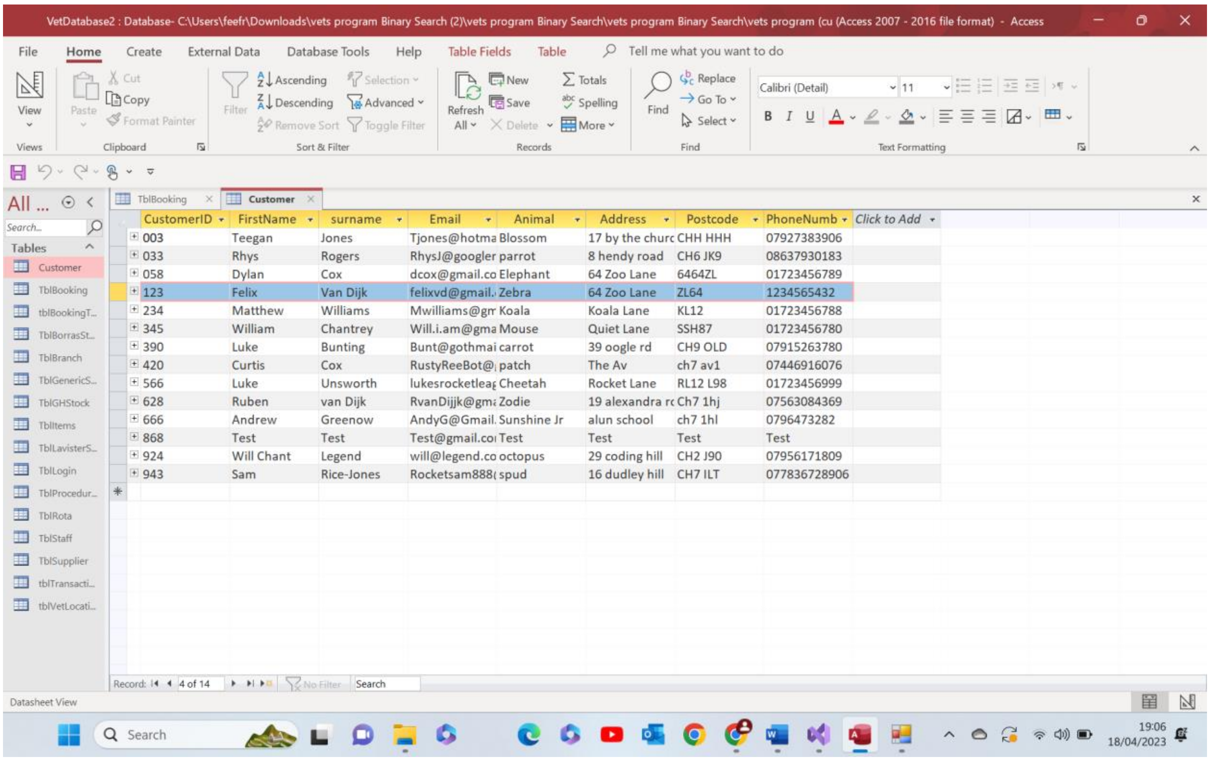
```
Public Class FrmAddCustomer
    Dim procedure As String
    Dim priceEst As Integer

    Public Shared NumberOfRecords As Integer
    Public Shared selected As Integer
    Dim currentrecord As Integer = 0
    Dim Con As New OleDb.OleDbConnection
    Dim Ds As New DataSet
    Dim Da As New OleDb.OleDbDataAdapter

    Private Sub FrmAddCustomer_Load(sender As Object, e
        Con.ConnectionString = "Provider=Microsoft.ACE.          ase2.accdb"
        refreshdata()

        Dim rand As New Random()
        Dim bookingId As Integer = rand.Next(100, 1000)


        TxtID.Text = bookingId.ToString()

        TxtID.ReadOnly = False
    End Sub
```

Add Customer

Customer ID	123
First name	
Surname	
Email	
Animal	
Address	
Postcode	Test
Phone Number	Test

vets program

Customer already exists



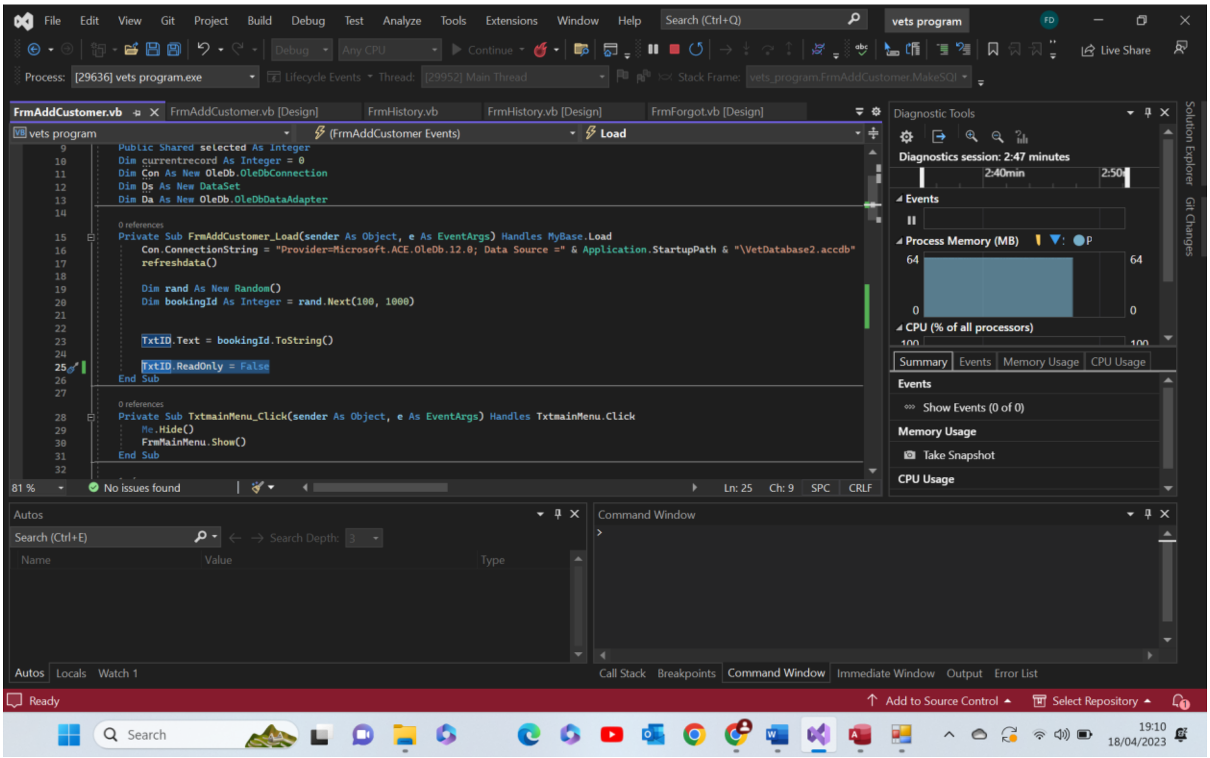
VetDatabase2 : Database- C:\Users\feefr\Downloads\vets program Binary Search (2)\vets program Binary Search\vets program Binary Search\vets program (cu (Access 2007 - 2016 file format) - Access

Customer

CustomerID	FirstName	surname	Email	Animal	Address	Postcode	PhoneNumb	Click to Add
003	Teegan	Jones	Tjones@hotma	Blossom	17 by the churc	CHH HHH	07927383906	
033	Rhys	Rogers	RhysJ@googler	parrot	8 hendy road	CH6 JK9	08637930183	
058	Dylan	Cox	dcox@gmail.co	Elephant	64 Zoo Lane	6464ZL	01723456789	
123	Felix	Van Dijk	felixvd@gmail.	Zebra	64 Zoo Lane	ZL64	1234565432	
234	Matthew	Williams	Mwilliams@gm	Koala	Koala Lane	KL12	01723456788	
345	William	Chantrey	Will.i.am@gma	Mouse	Quiet Lane	SSH87	01723456780	
390	Luke	Bunting	Bunt@gothmai	carrot	39 oogle rd	CH9 OLD	07915263780	
420	Curtis	Cox	RustyReeBot@	patch	The Av	ch7 av1	07446916076	
566	Luke	Unsworth	lukesrocketleag	Cheetah	Rocket Lane	RL12 L98	01723456999	
628	Ruben	van Dijk	RvanDijjk@gm	Zodie	19 alexandra r	Ch7 1hj	07563084369	
666	Andrew	Greenow	AndyG@Gmail.	Sunshine Jr	alun school	ch7 1hl	0796473282	
868	Test	Test	Test@gmail.co	Test	Test	Test	Test	
924	Will Chant	Legend	will@legend.co	octopus	29 coding hill	CH2 J90	07956171809	
943	Sam	Rice-Jones	Rocketsam888(	spud	16 dudley hill	CH7 ILT	077836728906	

Record: 4 of 14

Test 10.5 comments- as we can see above of a new customer is attempted to be saved with a Customer ID that already exists the program recognises this, doesn't let the new record be saved and outputs a message box. As you can see above in the access file the ID '123' already exists and so the program will no allow for this record to be saved. In order to do this test I had to change the code to allow me to edit the ID box. I will show this alteration below. Pass

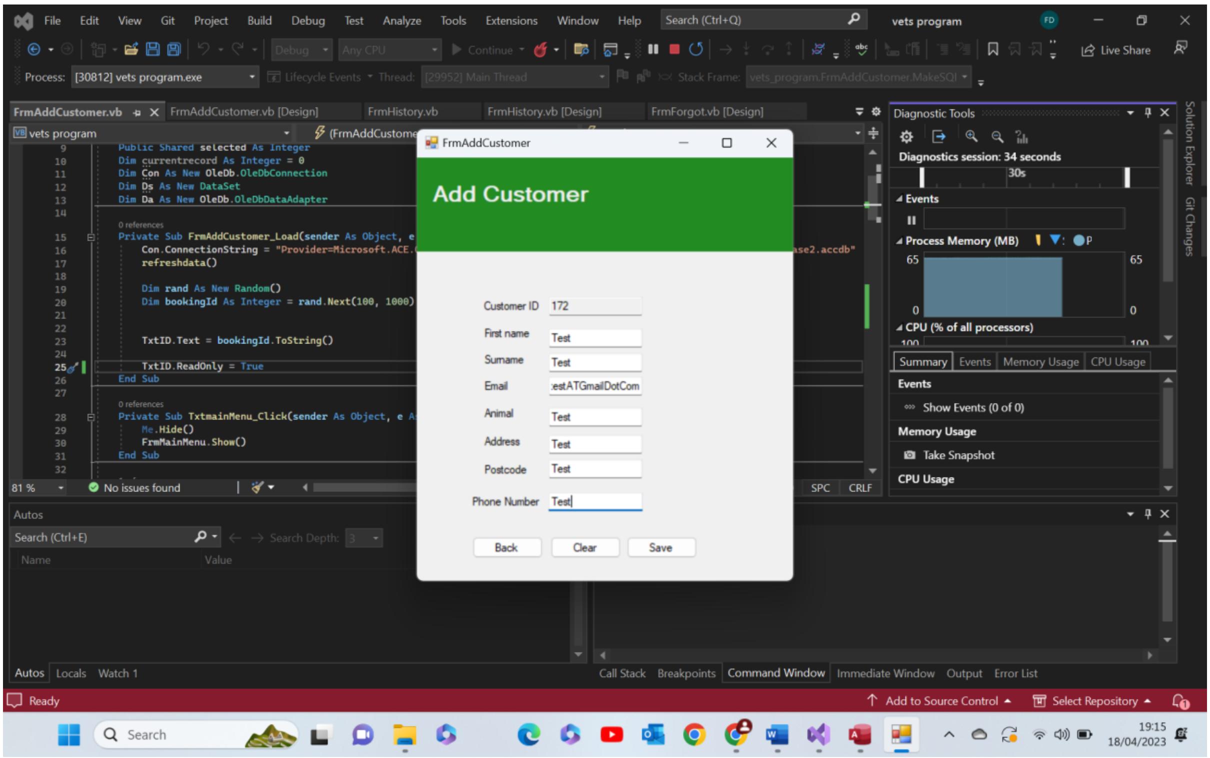


FrmAddCustomer.vb

```
    Public Shared selected As Integer
    Dim currentrecord As Integer = 0
    Dim Con As New OleDb.OleDbConnection
    Dim Ds As New DataSet
    Dim Da As New OleDb.OleDbDataAdapter

    Private Sub FrmAddCustomer_Load(sender As Object, e As EventArgs) Handles MyBase.Load
        Con.ConnectionString = "Provider=Microsoft.ACE.OleDb.12.0; Data Source =" & Application.StartupPath & "\VetDatabase2.accdb"
        refreshdata()

        Dim rand As New Random()
        Dim bookingId As Integer = rand.Next(100, 1000)


        TxtID.Text = bookingId.ToString()

        TxtID.ReadOnly = False
    End Sub

    Private Sub TxtmainMenu_Click(sender As Object, e As EventArgs) Handles TxtmainMenu.Click
        Me.Hide()
        FrmMainMenu.Show()
    End Sub
```

I needed to alter the statement to be false to allow me to edit the text box. If not I would have to keep generating random IDs until a pre existing one happened to appear.

10.6-



```
    Public Shared selected As Integer
    Dim currentrecord As Integer = 0
    Dim Con As New OleDb.OleDbConnection
    Dim Ds As New DataSet
    Dim Da As New OleDb.OleDbDataAdapter

    Private Sub FrmAddCustomer_Load(sender As Object, e
        Con.ConnectionString = "Provider=Microsoft.ACE.
        refreshdata()

        Dim rand As New Random()
        Dim bookingId As Integer = rand.Next(100, 1000)


        TxtID.Text = bookingId.ToString()

        TxtID.ReadOnly = True
    End Sub

    Private Sub TxtmainMenu_Click(sender As Object, e A
        Me.Hide()
        FrmMainMenu.Show()
    End Sub
```

FrmAddCustomer

Add Customer

Customer ID 172

First name Test

Surname Test

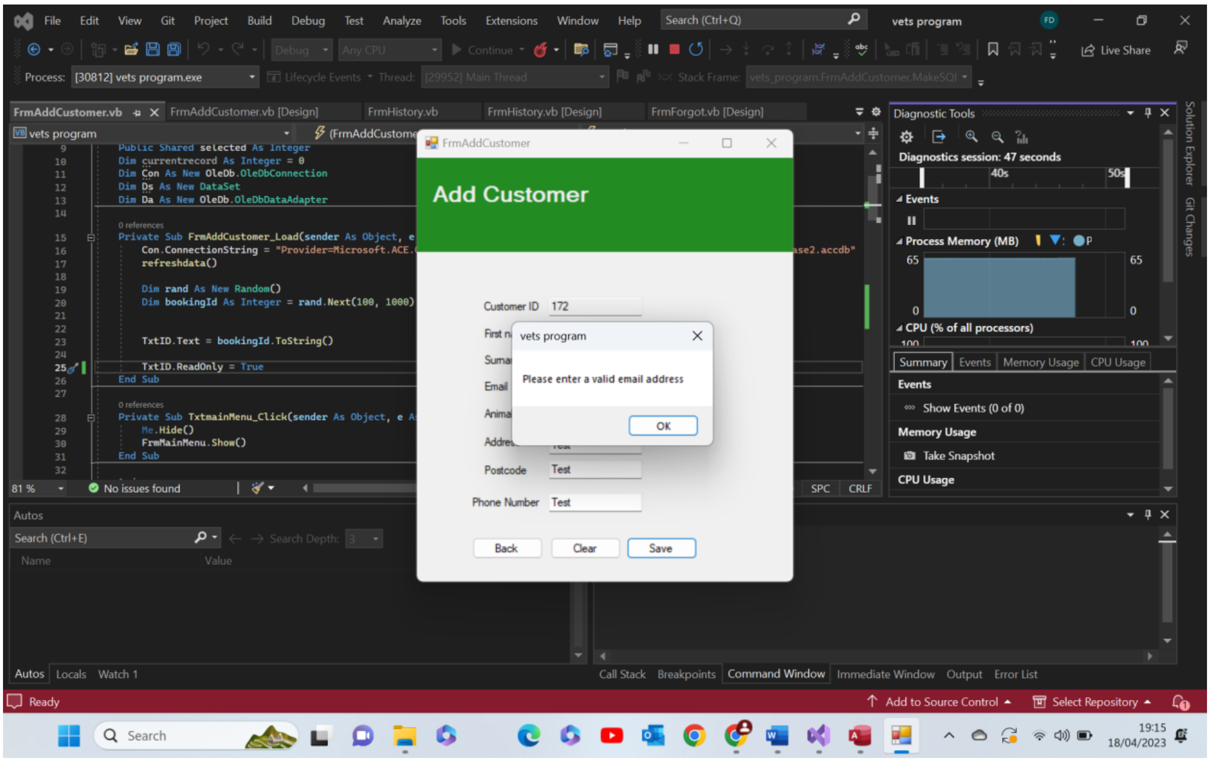
Email :estATGmailDotCom

Animal Test

Address Test

Postcode Test

Phone Number Test



FrmAddCustomer

Add Customer

Customer ID 172

Postcode Test

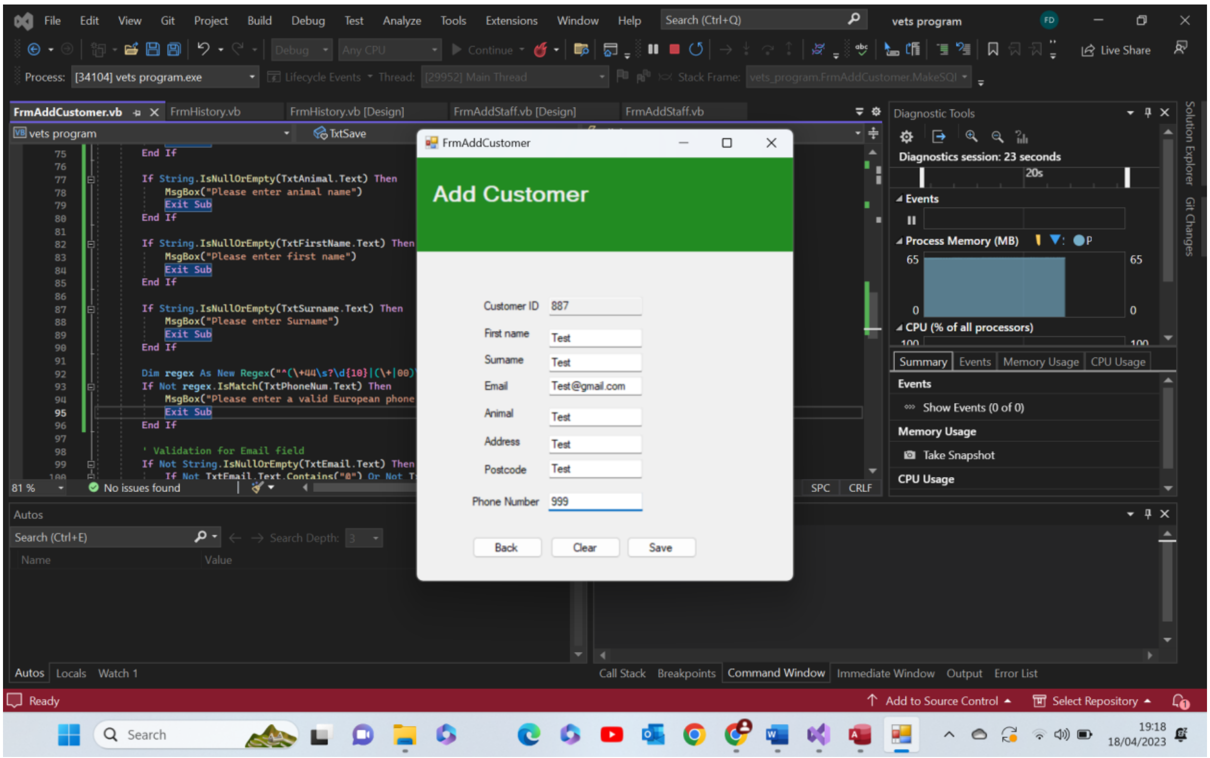
Phone Number Test

vets program

Please enter a valid email address

Test 10.6 comments-as we can see the email entered is not of the correct format and the program recognises this. The inputter data failed the format check and so the data was not saved and a message box was outputted. Pass

10.7-

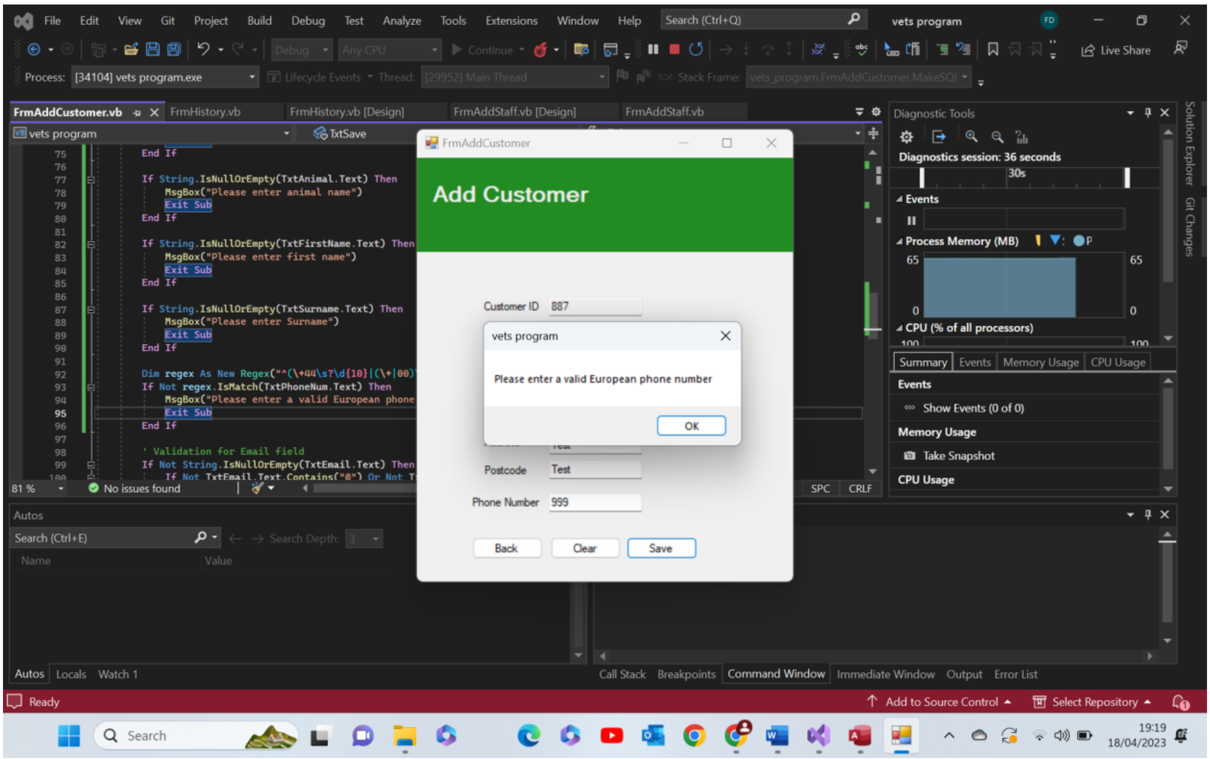


```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Then
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text) Then
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) Then
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\+|00)
            If Not regex.IsMatch(TxtPhoneNum.Text) Then
                MsgBox("Please enter a valid European phone
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text) Then
                If Not TxtEmail.Text.Contains("@") Or Not T
```

FrmAddCustomer

Add Customer

Customer ID	887
First name	Test
Surname	Test
Email	Test@gmail.com
Animal	Test
Address	Test
Postcode	Test
Phone Number	999



```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Then
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text) Then
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) Then
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\+|00)
            If Not regex.IsMatch(TxtPhoneNum.Text) Then
                MsgBox("Please enter a valid European phone
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text) Then
                If Not TxtEmail.Text.Contains("@") Or Not T
```

FrmAddCustomer

Add Customer

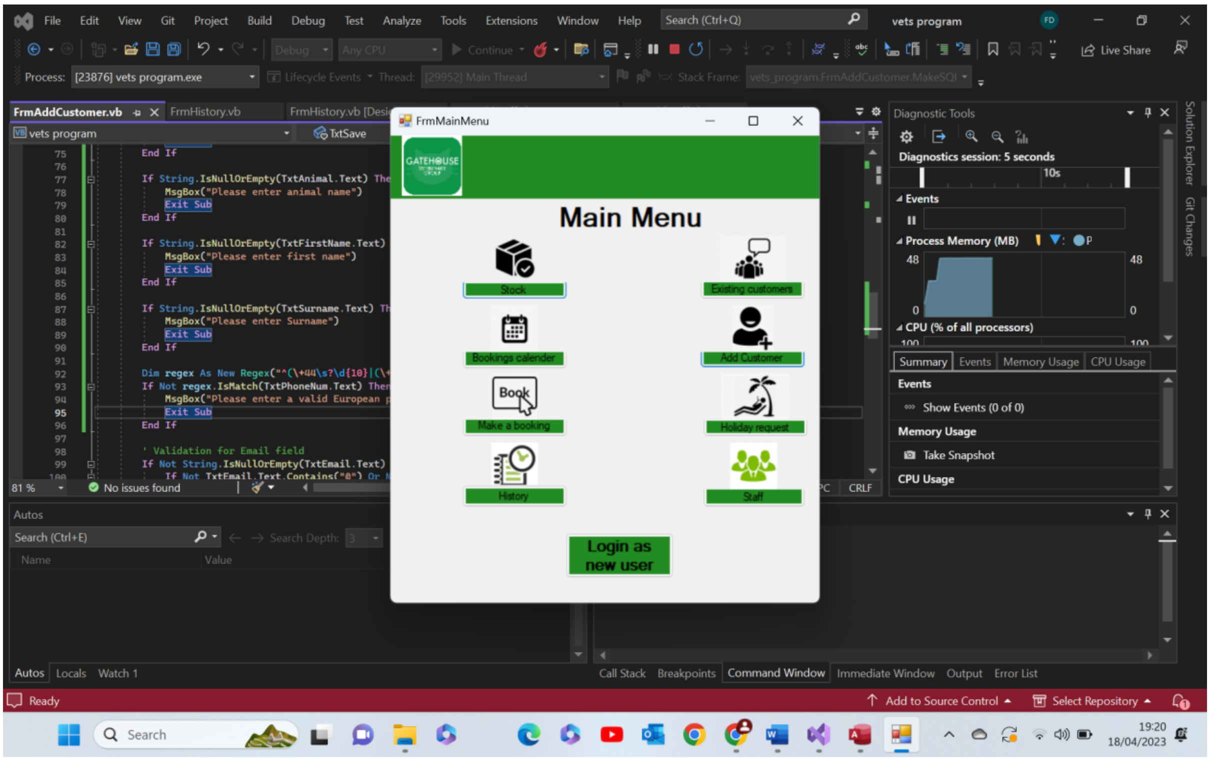
Customer ID	887
Postcode	Test
Phone Number	999

vets program

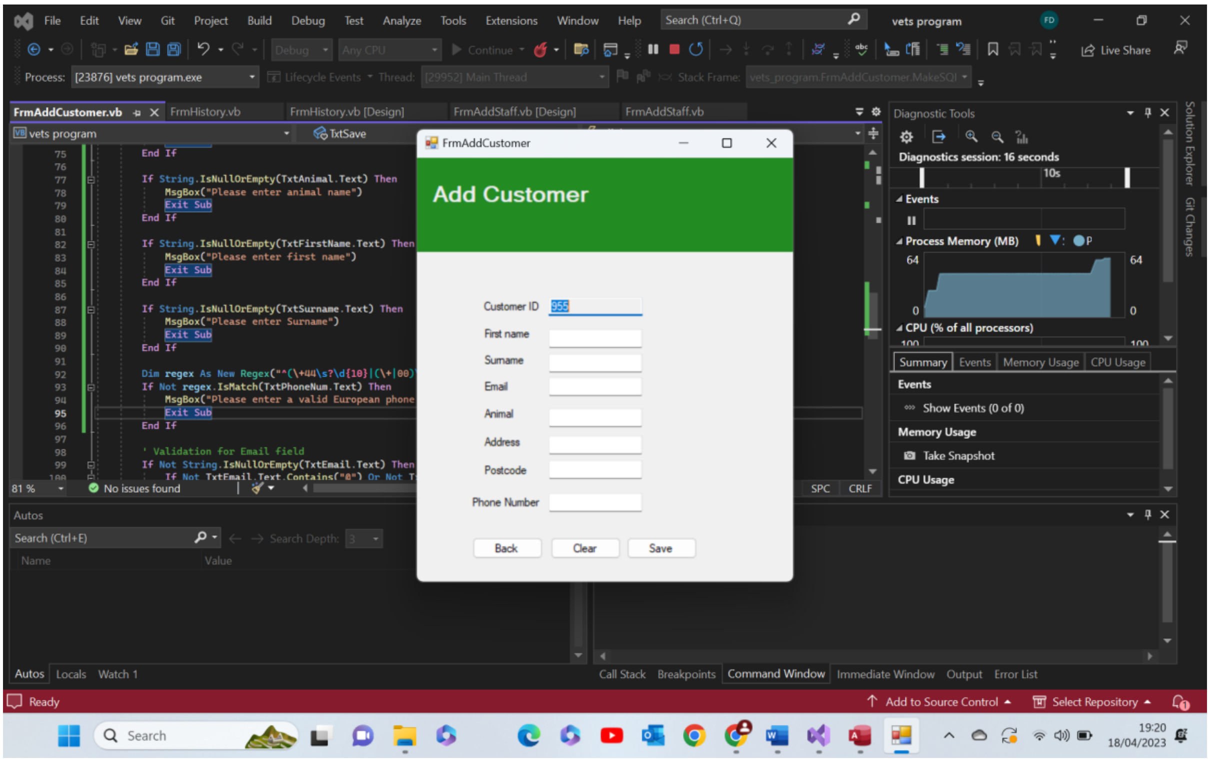
Please enter a valid European phone number

Test 10.7 comments- as we can see the inputted number was not a valid number for a customer to use and so it failed the format check validations, a message box was outputted and the data was not saved. Pass

10.8-



```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) The
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text)
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) Th
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\+
            If Not regex.IsMatch(TxtPhoneNum.Text) Then
                MsgBox("Please enter a valid European p
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text)
                If Not TxtEmail.Text.Contains("@") Or N
```



```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Then
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text) Then
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) Then
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\+|00)
            If Not regex.IsMatch(TxtPhoneNum.Text) Then
                MsgBox("Please enter a valid European phone
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text) Then
                If Not TxtEmail.Text.Contains("@") Or Not T
```

FrmAddCustomer

Add Customer

Customer ID 955

First name

Surname

Email

Animal

Address

Postcode

Phone Number

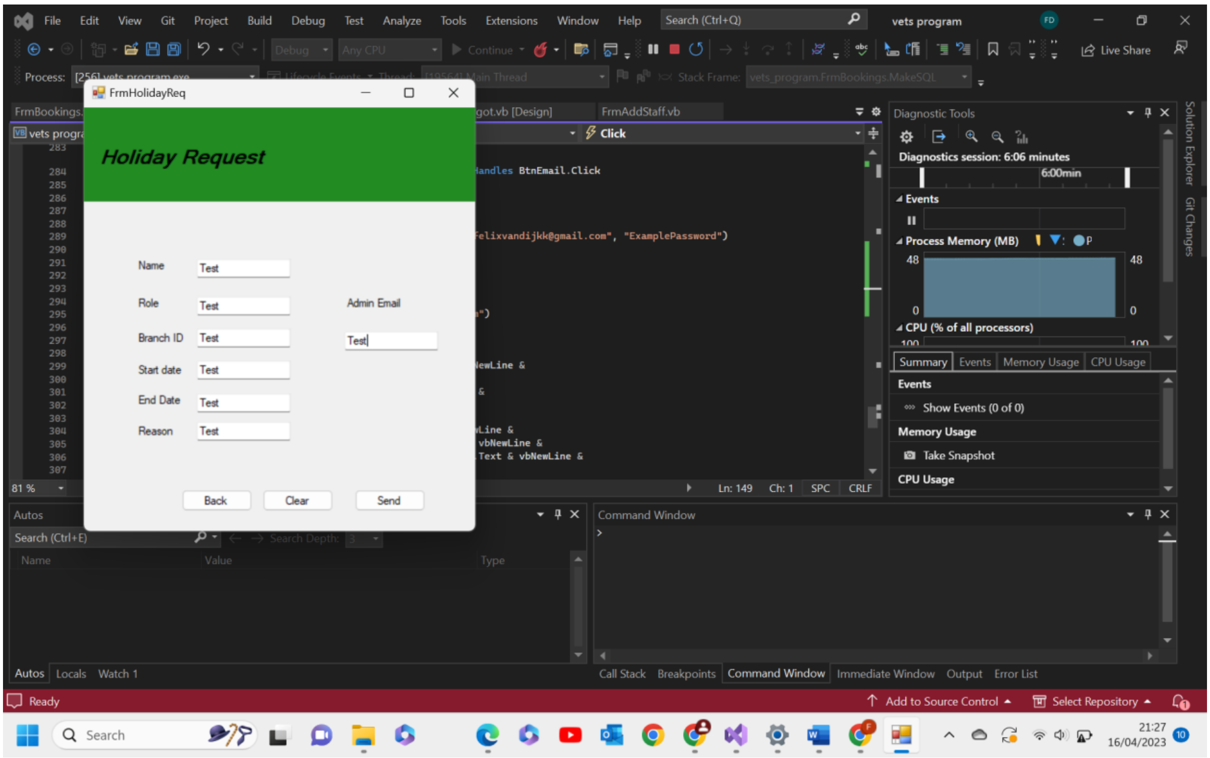
Test 10.8 comments-as we can see as soon as the form loads the text box has a random three digit ID assigned to it and is made read only so it cannot be tampered with. Pass

Test group 11- Holiday request form:

Test Number	Test Data	Actual outcome	Verdict	Comments
1	Valid data entered	As expected the info In the text boxes is sent to the	Pass	N/A

	All text boxes have ‘Test’ written in	Admin for approval		
2	Functional test All text boxes have the word ‘Test’ inputted	All text boxes became void of data	Pass	N/A
3	Functional test	Current form closed and main menu form loaded	Pass	N/A
4	Extreme data entered	If any text boxes were left void of data an appropriate message box was displayed.	Pass	N/A

11.1-

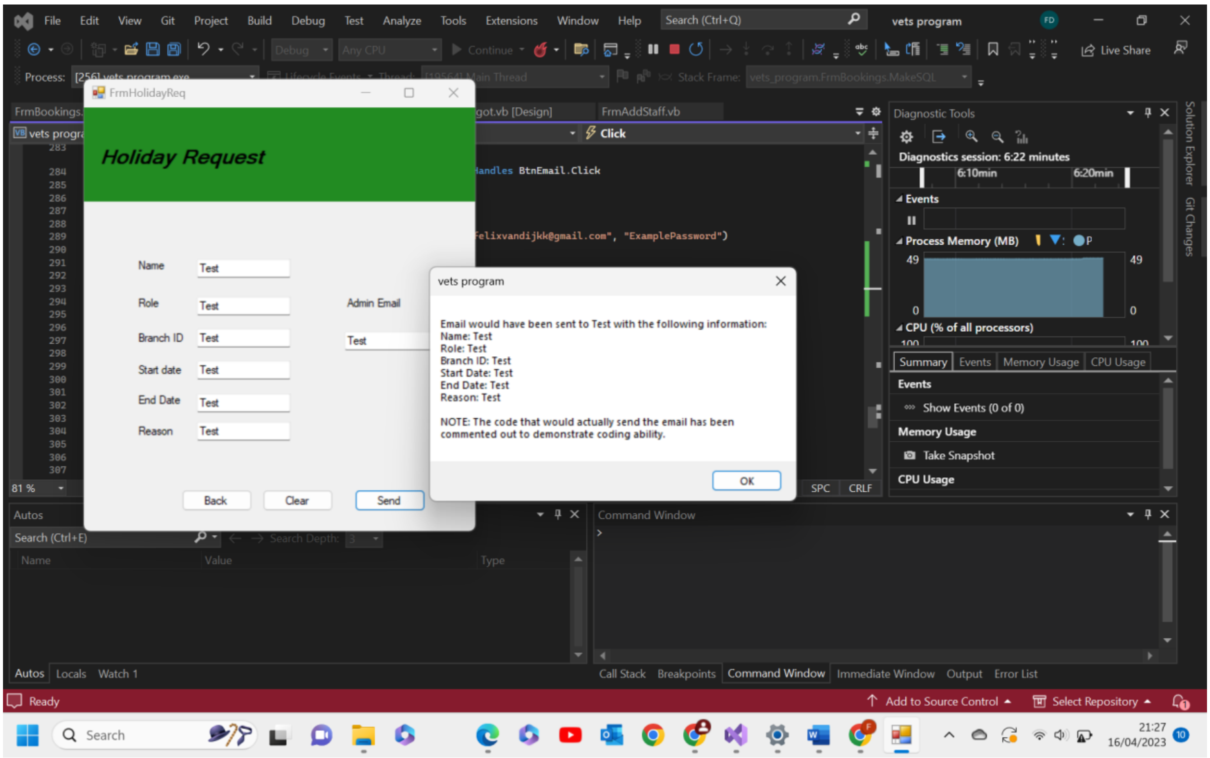


FrmHolidayReq

Holiday Request

Name: Test
Role: Test
Branch ID: Test
Start date: Test
End Date: Test
Reason: Test
Admin Email: Test

```
Handles BtnEmail.Click
felixvandijkk@gmail.com", "ExamplePassword")
")
NewLine &
&
Line &
vbNewLine &
Text & vbNewLine &
```



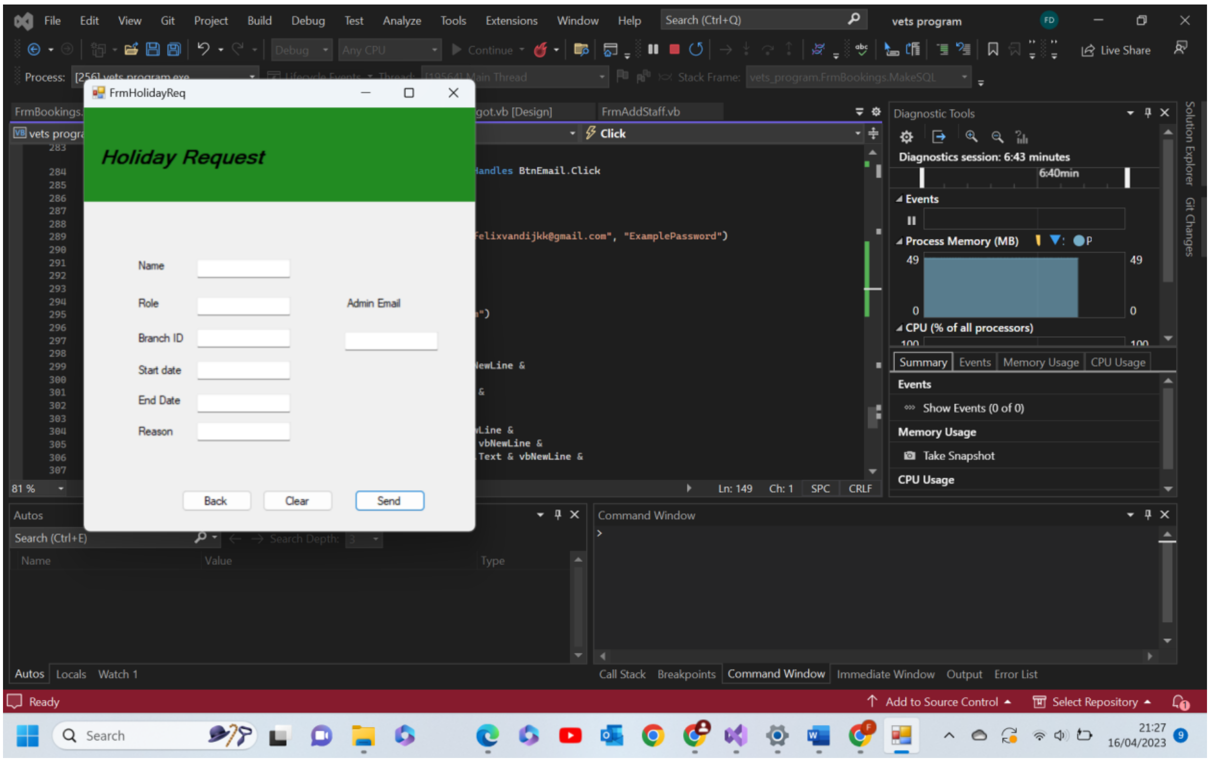
Holiday Request

Name: Test
Role: Test
Branch ID: Test
Start date: Test
End Date: Test
Reason: Test
Admin Email: Test

vets program

Email would have been sent to Test with the following information:
Name: Test
Role: Test
Branch ID: Test
Start Date: Test
End Date: Test
Reason: Test

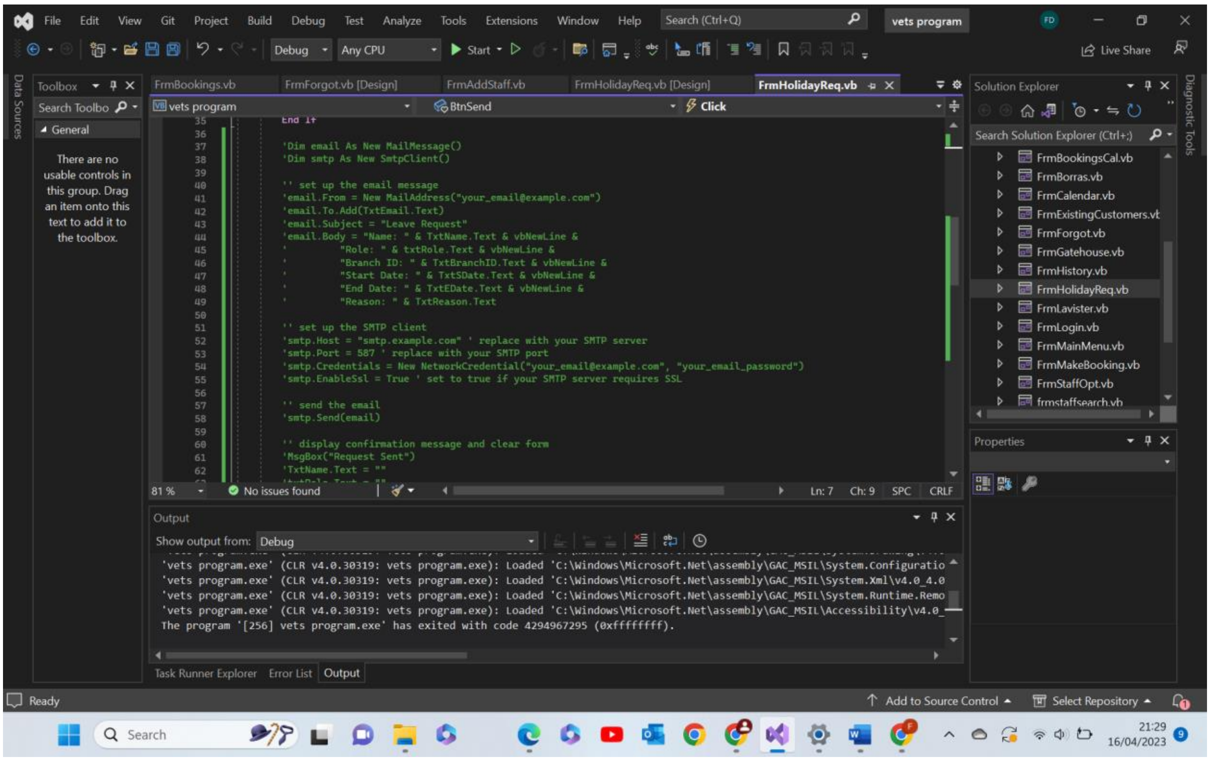
NOTE: The code that would actually send the email has been commented out to demonstrate coding ability.



Holiday Request

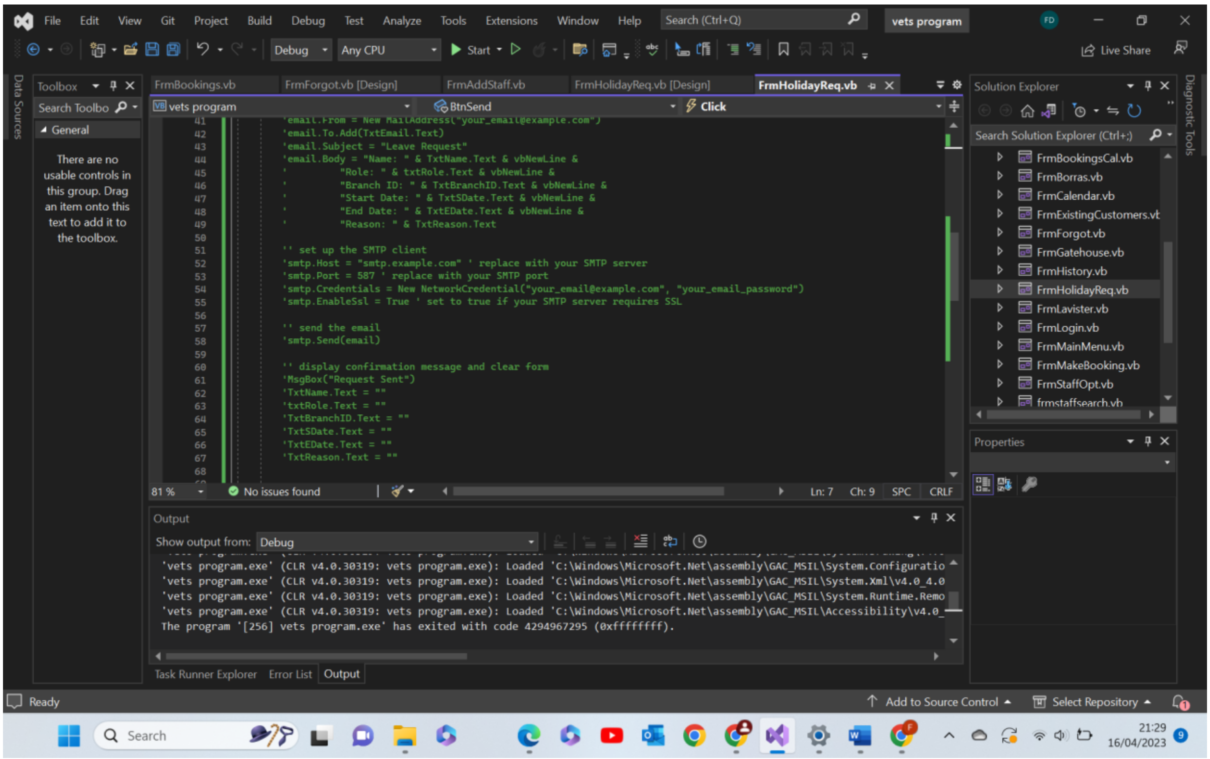
Name:
Role:
Branch ID:
Start date:
End Date:
Reason:
Admin Email:

Test 11.1 comments- as we can see above when all boxes have data present in them the program will attempt to send an email to the admin. Of course this does not work so I have set up a message box to show what the email would look like. below I will show the code used for the email that has been commented out. Additionally above is shown that the text boxes become blank after the request has been sent to make it easier to send a new one. Pass



```
            End If

            'Dim email As New MailMessage()
            'Dim smtp As New SmtpClient()

            '' set up the email message
            'email.From = New MailAddress("your_email@example.com")
            'email.To.Add(TxtEmail.Text)
            'email.Subject = "Leave Request"
            'email.Body = "Name: " & TxtName.Text & vbNewLine &
            '          "Role: " & txtRole.Text & vbNewLine &
            '          "Branch ID: " & TxtBranchID.Text & vbNewLine &
            '          "Start Date: " & TxtSDate.Text & vbNewLine &
            '          "End Date: " & TxtEDate.Text & vbNewLine &
            '          "Reason: " & TxtReason.Text

            '' set up the SMTP client
            'smtp.Host = "smtp.example.com" ' replace with your SMTP server
            'smtp.Port = 587 ' replace with your SMTP port
            'smtp.Credentials = New NetworkCredential("your_email@example.com", "your_email_password")
            'smtp.EnableSsl = True ' set to true if your SMTP server requires SSL

            '' send the email
            'smtp.Send(email)

            '' display confirmation message and clear form
            'MsgBox("Request Sent")
            'TxtName.Text = ""
```

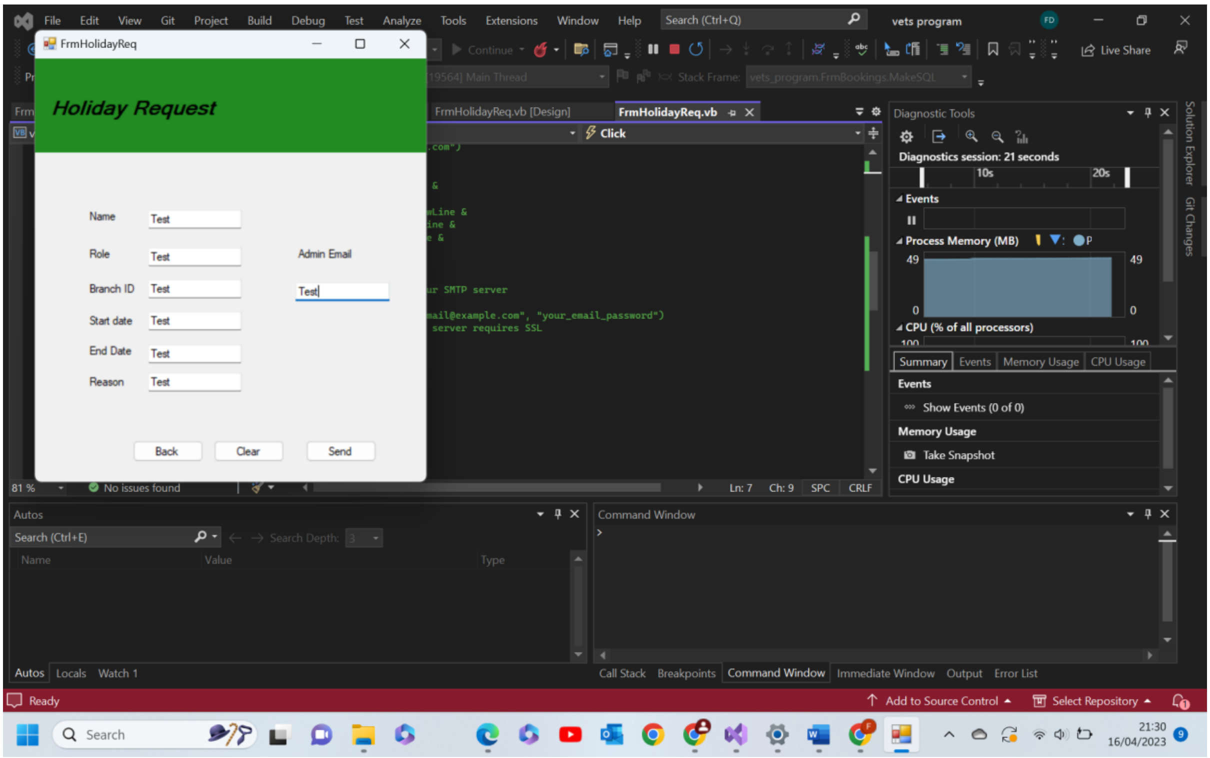
```
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_MSIL\System.Configuratio
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_MSIL\System.Xml\v4.0_4.0
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_MSIL\System.Runtime.Remo
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_MSIL\Accessibility\v4.0_
The program '[256] vets program.exe' has exited with code 4294967295 (0xffffffff).
```



```
            'email.From = New MailAddress("your_email@example.com")
            'email.To.Add(TxtEmail.Text)
            'email.Subject = "Leave Request"
            'email.Body = "Name: " & TxtName.Text & vbNewLine &
            '          "Role: " & txtRole.Text & vbNewLine &
            '          "Branch ID: " & TxtBranchID.Text & vbNewLine &
            '          "Start Date: " & TxtSDate.Text & vbNewLine &
            '          "End Date: " & TxtEDate.Text & vbNewLine &
            '          "Reason: " & TxtReason.Text

            '' set up the SMTP client
            'smtp.Host = "smtp.example.com" ' replace with your SMTP server
            'smtp.Port = 587 ' replace with your SMTP port
            'smtp.Credentials = New NetworkCredential("your_email@example.com", "your_email_password")
            'smtp.EnableSsl = True ' set to true if your SMTP server requires SSL

            '' send the email
            'smtp.Send(email)

            '' display confirmation message and clear form
            'MsgBox("Request Sent")
            'TxtName.Text = ""
            'txtRole.Text = ""
            'TxtBranchID.Text = ""
            'TxtSDate.Text = ""
            'TxtEDate.Text = ""
            'TxtReason.Text = ""
```

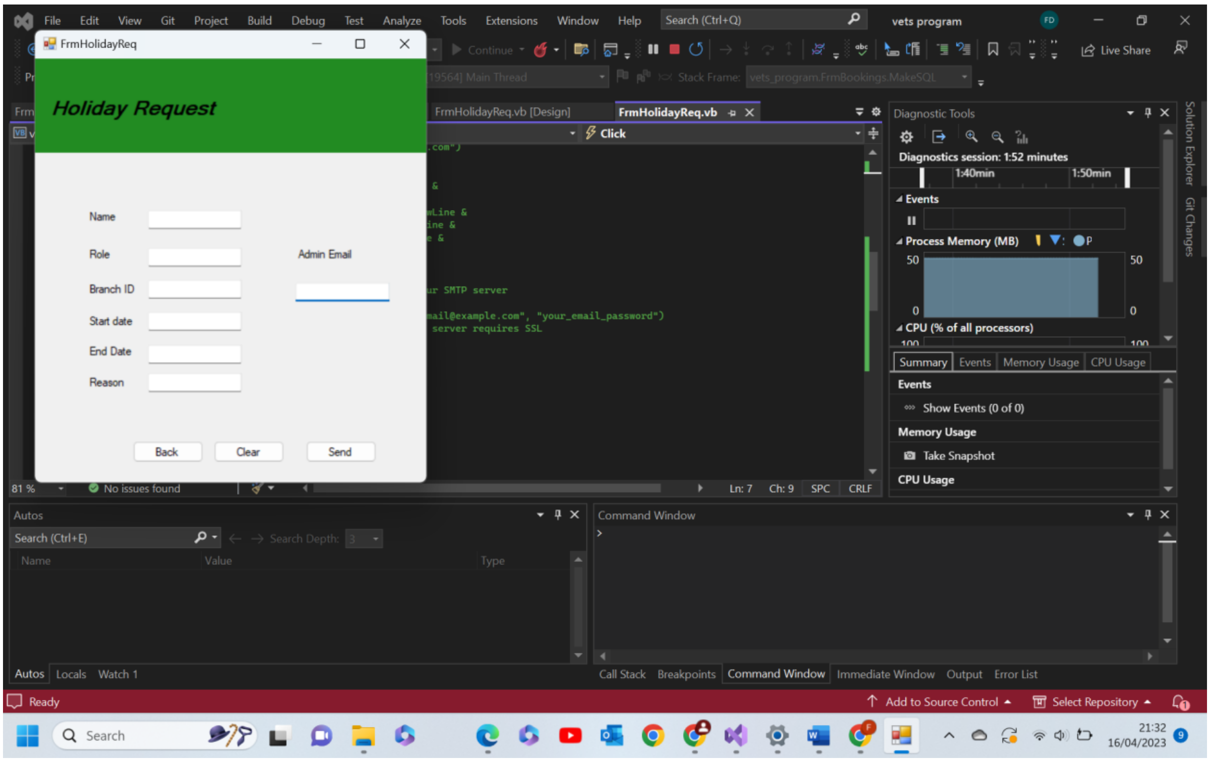
```
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_MSIL\System.Configuratio
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_MSIL\System.Xml\v4.0_4.0
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_MSIL\System.Runtime.Remo
'vets program.exe' (CLR v4.0.30319: vets program.exe): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_MSIL\Accessibility\v4.0_
The program '[256] vets program.exe' has exited with code 4294967295 (0xffffffff).
```

11.2-



Holiday Request

Name: Test
Role: Test
Admin Email: Test
Branch ID: Test
Start date: Test
End Date: Test
Reason: Test

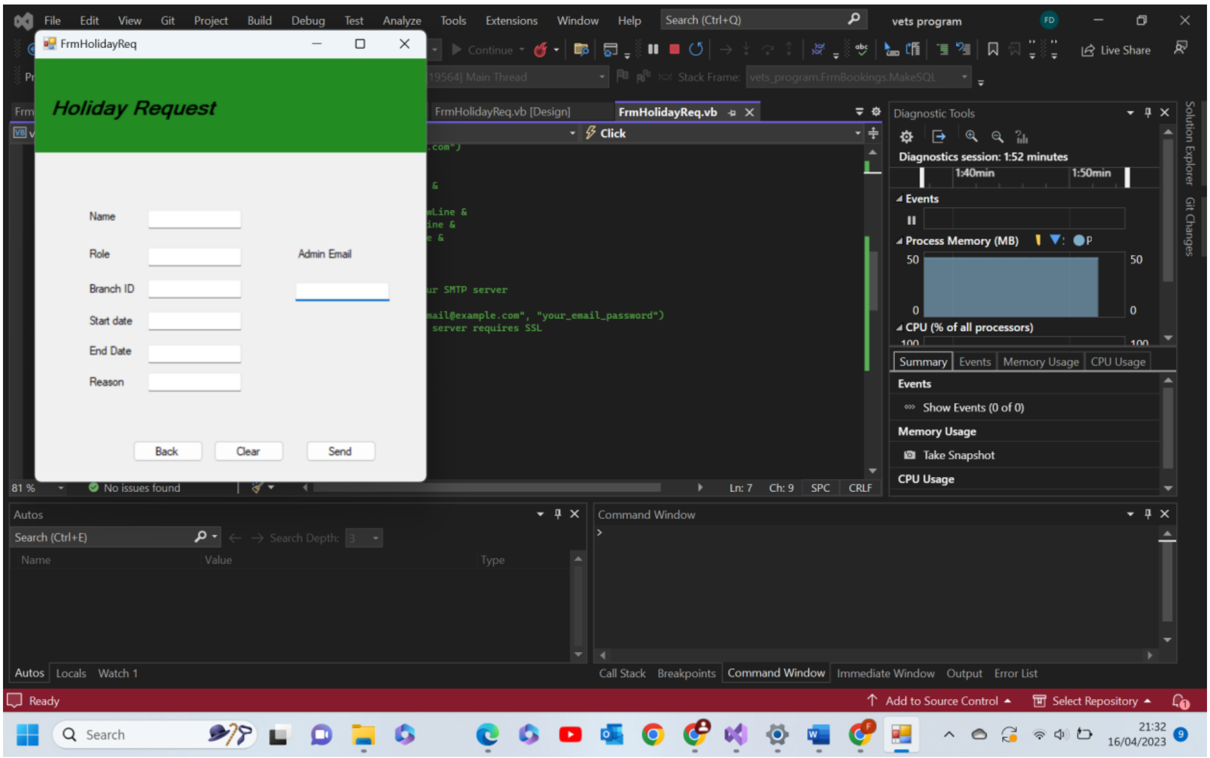


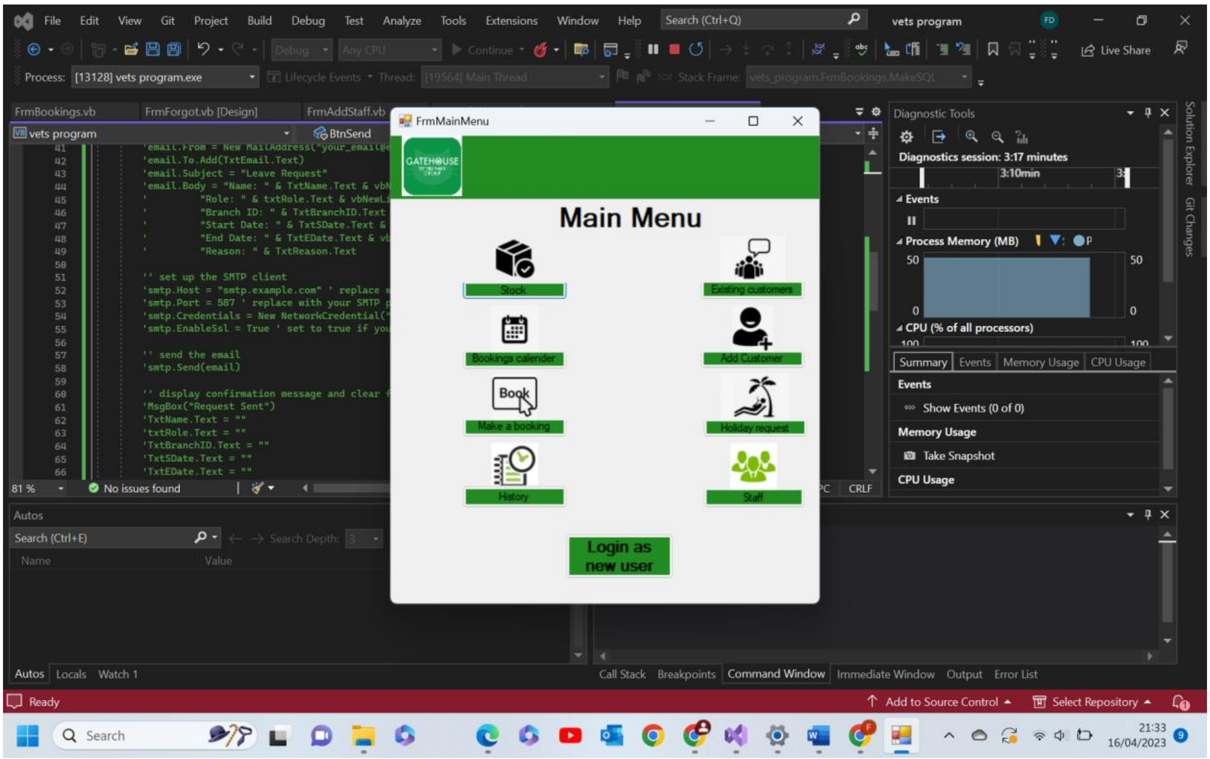
Holiday Request

Name:
Role:
Admin Email:
Branch ID:
Start date:
End Date:
Reason:

Test 11.2 comments- as we can see above when the clear button is pressed al text boxes are set = “” and so become void of data. Pass

11.3-

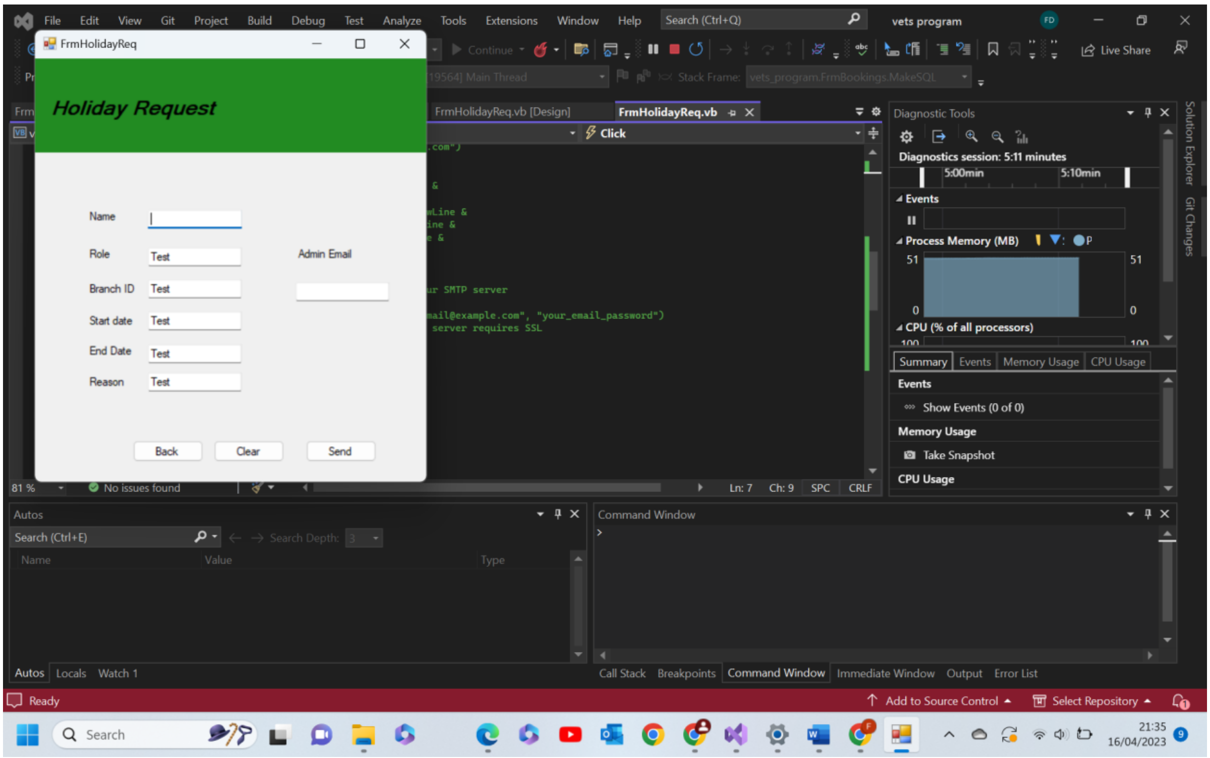




```
'email.From = New MailAddress("your_email@e
'email.To.Add(TxtEmail.Text)
'email.Subject = "Leave Request"
'email.Body = "Name: " & TxtName.Text & vbN
'          "Role: " & txtRole.Text & vbNewLi
'          "Branch ID: " & TxtBranchID.Text
'          "Start Date: " & TxtSDate.Text &
'          "End Date: " & TxtEDate.Text & vb
'          "Reason: " & TxtReason.Text

'' set up the SMTP client
'smtp.Host = "smtp.example.com" ' replace
'smtp.Port = 587 ' replace with your SMTP p
'smtp.Credentials = New NetworkCredential("
'smtp.EnableSsl = True ' set to true if you

'' send the email
'smtp.Send(email)

'' display confirmation message and clear
'MsgBox("Request Sent")
'TxtName.Text = ""
'txtRole.Text = ""
'TxtBranchID.Text = ""
'TxtSDate.Text = ""
'TxtEDate.Text = ""
```

Test 11.3 comments- as we can see above when the back button is pressed the current form is hidden and the main menu form is shown. Pass

11.4-


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
vets program
Live Share
FrmHolidayReq
FrmHolidayReq.vb [Design]
FrmHolidayReq.vb
Click
Diagnostic Tools
Summary Events Memory Usage CPU Usage
Autos
Command Window
Call Stack Breakpoints Command Window Immediate Window Output Error List
Autos Locals Watch 1
Ready
Add to Source Control
Select Repository
Back
Clear
Send

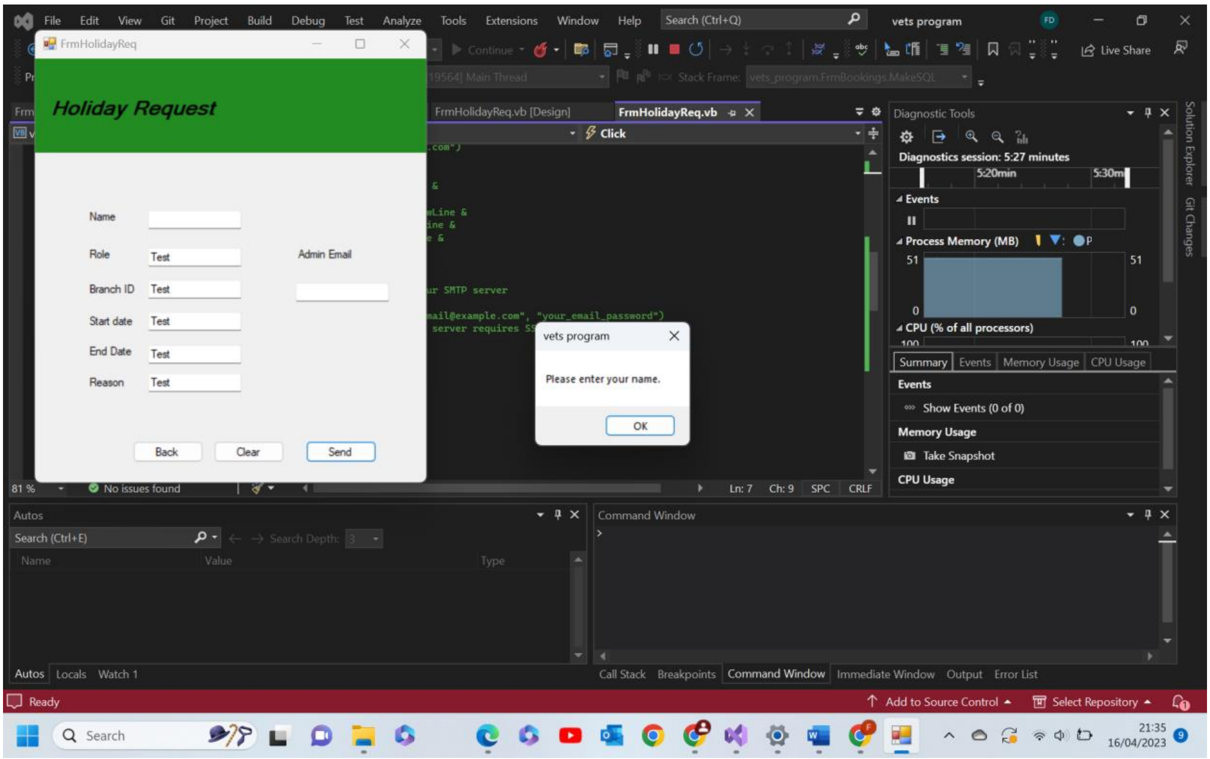
Holiday Request

Name		Admin Email	
Role	Test		
Branch ID	Test		
Start date	Test		
End Date	Test		
Reason	Test		

Diagnostics session: 5:11 minutes

No issues found   Ln: 7   Ch: 9   SPC   CRLF

21:35 16/04/2023


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
vets program
Live Share
FrmHolidayReq
FrmHolidayReq.vb [Design]
FrmHolidayReq.vb
Click
Diagnostic Tools
Summary Events Memory Usage CPU Usage
Autos
Command Window
Call Stack Breakpoints Command Window Immediate Window Output Error List
Autos Locals Watch 1
Ready
Add to Source Control
Select Repository
Back
Clear
Send

Holiday Request

Name		Admin Email	
Role	Test		
Branch ID	Test		
Start date	Test		
End Date	Test		
Reason	Test		

vets program

Please enter your name.

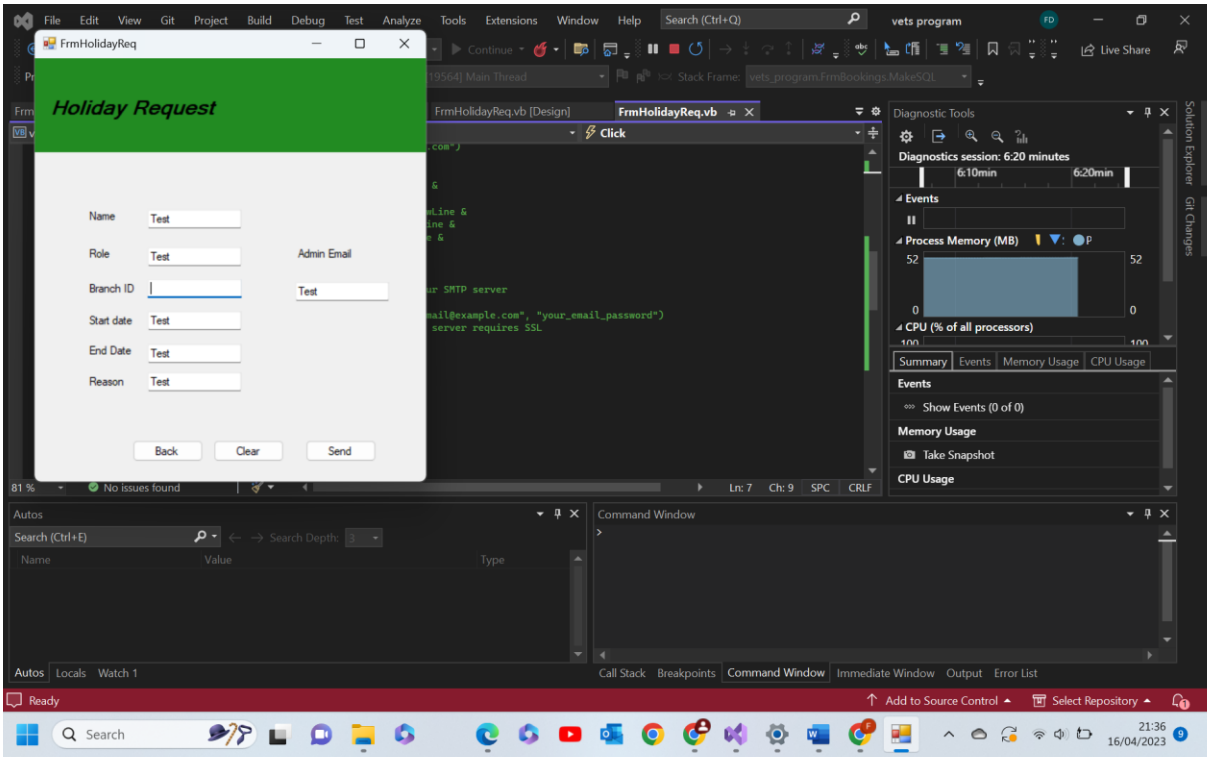
OK

Diagnostics session: 5:27 minutes

No issues found   Ln: 7   Ch: 9   SPC   CRLF

21:35 16/04/2023

Name not present.



FrmHolidayReq

Holiday Request

Name: Test

Role: Test

Admin Email: Test

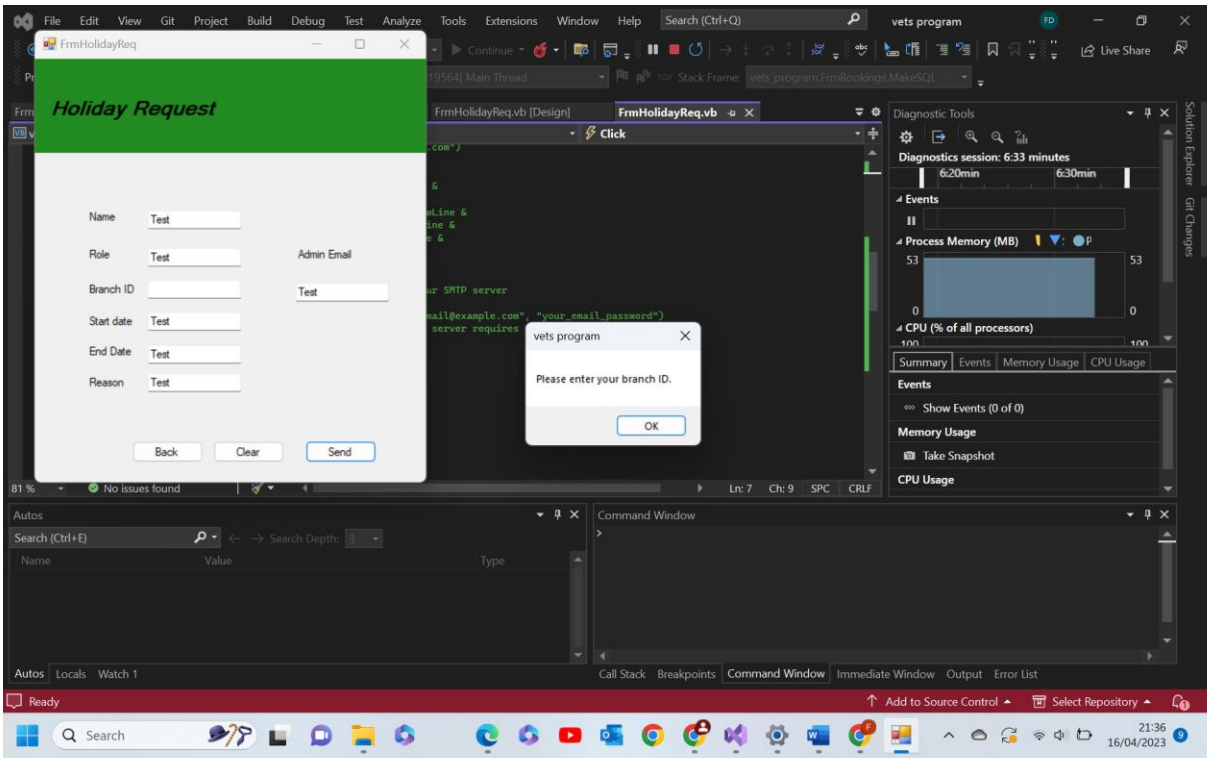
Branch ID:

Start date: Test

End Date: Test

Reason: Test

Back
Clear
Send
File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
vets program
Live Share
FrmHolidayReq.vb [Design]
FrmHolidayReq.vb
Click
Diagnostic Tools
Diagnostics session: 6:20 minutes
Events
Process Memory (MB)
CPU (% of all processors)
Summary Events Memory Usage CPU Usage
Show Events (0 of 0)
Take Snapshot
81 %
No issues found
Ln: 7 Ch: 9 SPC CRLF
Autos
Command Window
Call Stack Breakpoints Command Window Immediate Window Output Error List
Ready
Add to Source Control
Select Repository
21:36
16/04/2023



FrmHolidayReq

Holiday Request

Name: Test

Role: Test

Admin Email: Test

Branch ID:

Start date: Test

End Date: Test

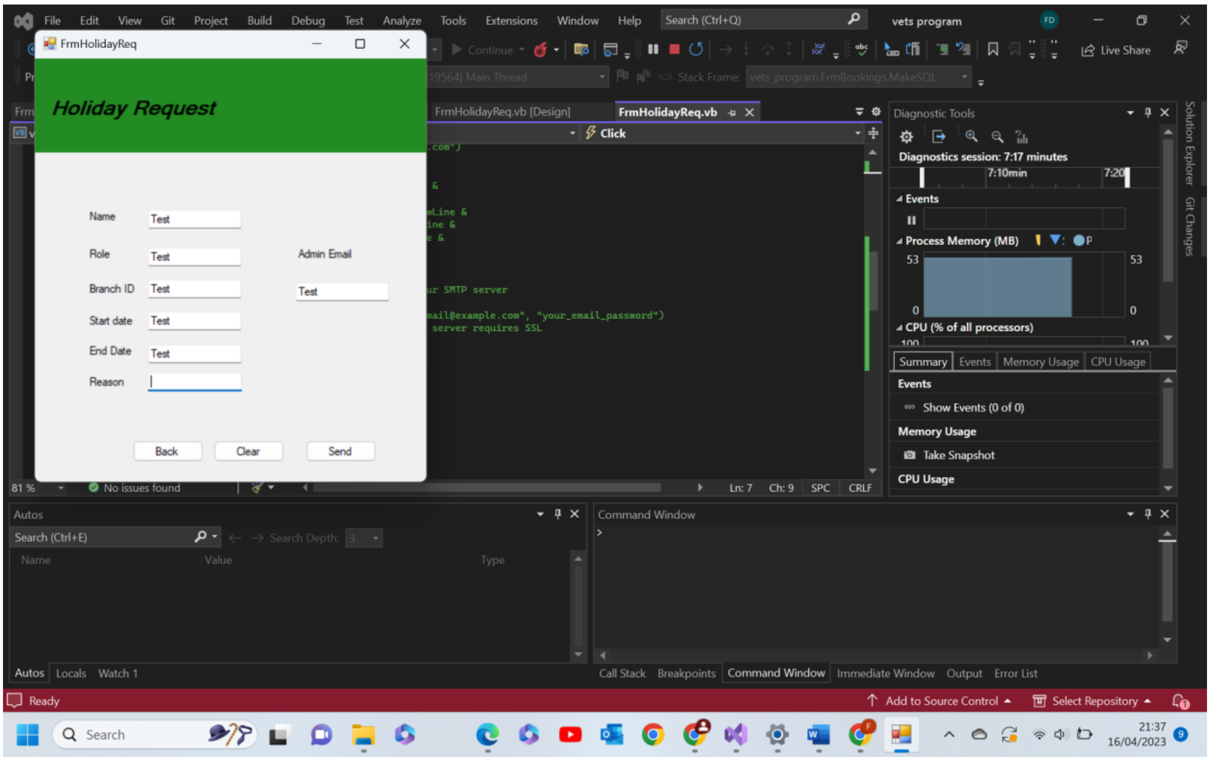
Reason: Test

vets program

Please enter your branch ID.

OK

Branch ID not present

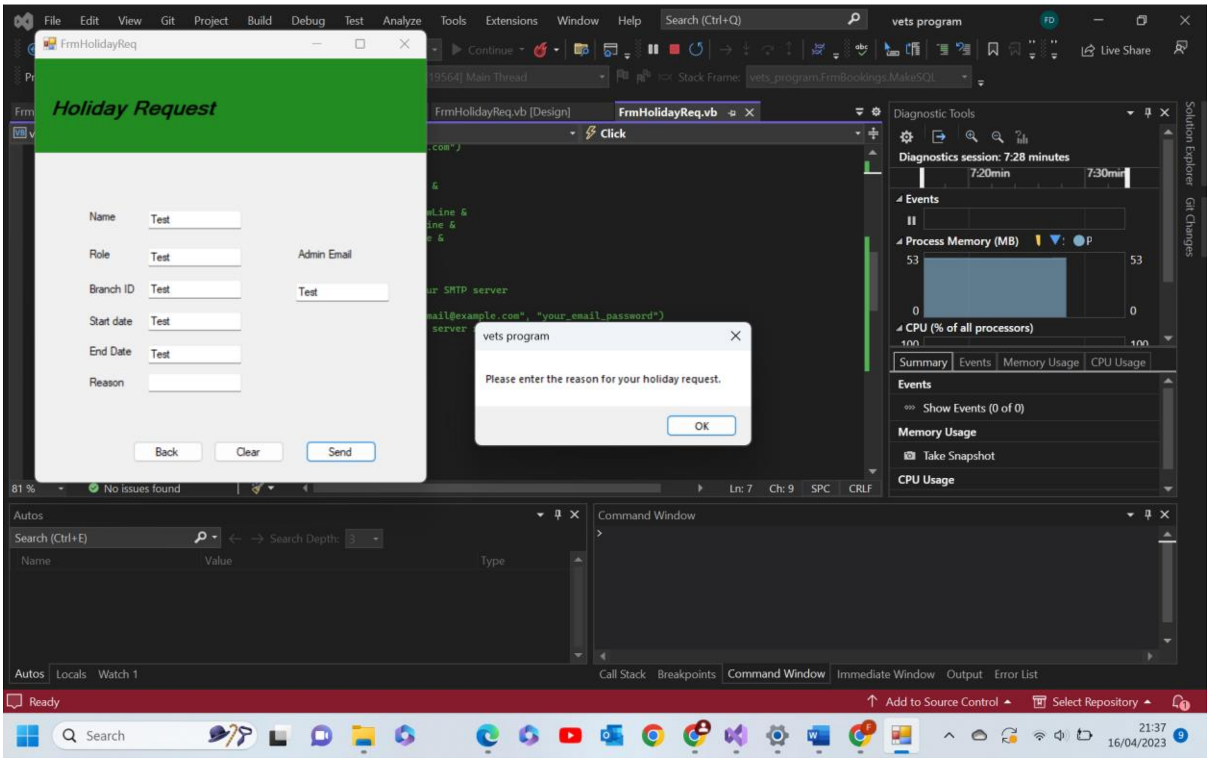

File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
vets program
Live Share
FrmHolidayReq.vb [Design]
FrmHolidayReq.vb
Click
Diagnostic Tools
Diagnostics session: 7:17 minutes
Events
Process Memory (MB)
CPU (% of all processors)
Summary Events Memory Usage CPU Usage
Show Events (0 of 0)
Take Snapshot
Autos Locals Watch 1
Command Window
Call Stack Breakpoints Command Window Immediate Window Output Error List
Ready
Add to Source Control
Select Repository
21:37
16/04/2023

FrmHolidayReq

Holiday Request

Name	Test		
Role	Test	Admin Email	
Branch ID	Test		Test
Start date	Test		
End Date	Test		
Reason			

Back Clear Send


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
vets program
Live Share
FrmHolidayReq.vb [Design]
FrmHolidayReq.vb
Click
Diagnostic Tools
Diagnostics session: 7:28 minutes
Events
Process Memory (MB)
CPU (% of all processors)
Summary Events Memory Usage CPU Usage
Show Events (0 of 0)
Take Snapshot
Autos Locals Watch 1
Command Window
Call Stack Breakpoints Command Window Immediate Window Output Error List
Ready
Add to Source Control
Select Repository
21:37
16/04/2023

FrmHolidayReq

Holiday Request

Name	Test		
Role	Test	Admin Email	
Branch ID	Test		Test
Start date	Test		
End Date	Test		
Reason			

Back Clear Send

vets program

Please enter the reason for your holiday request.

OK

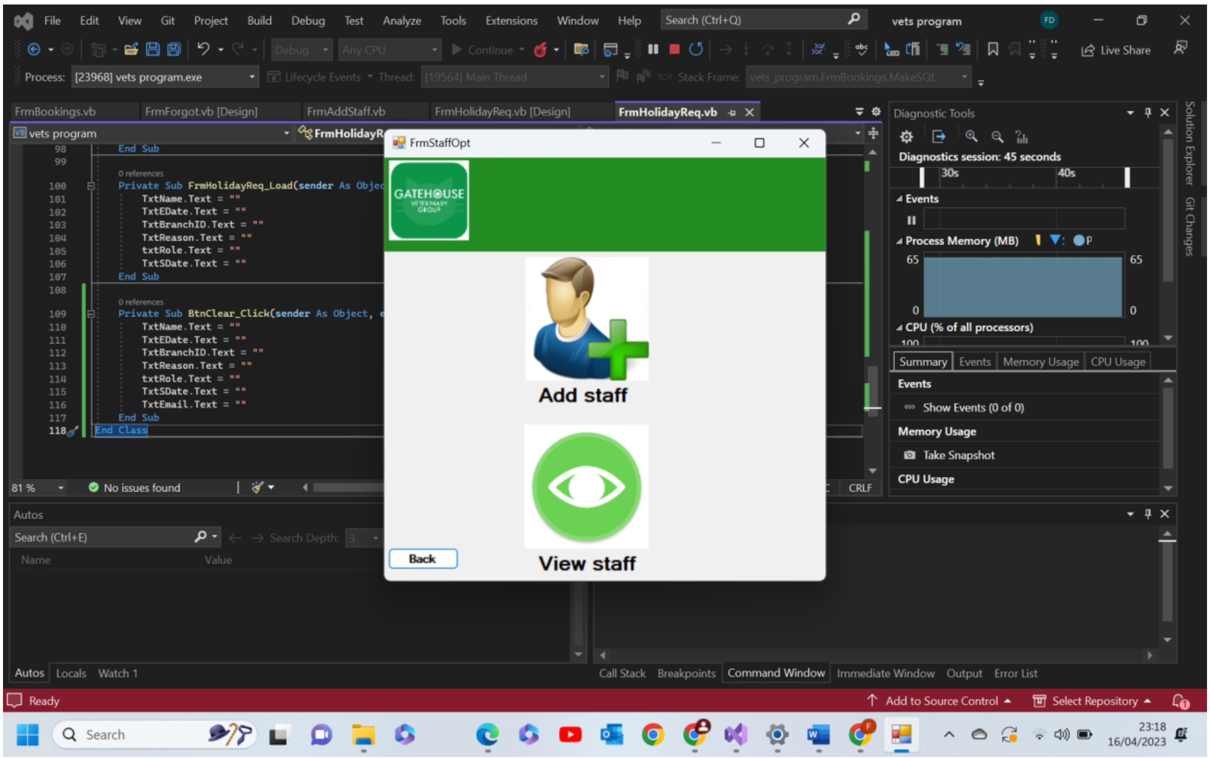
Reason not present

Test 11.4 comments- above are three examples out of a possible 7 that could be shown. I have shown three instead of one to improve the validity of the test as more than one works. As we can see above the program recognises the lack of data and so the text box fails the presence check. The program the outputs an appropriate message box and holds off from sending the email until all validation checks are passed. Pass

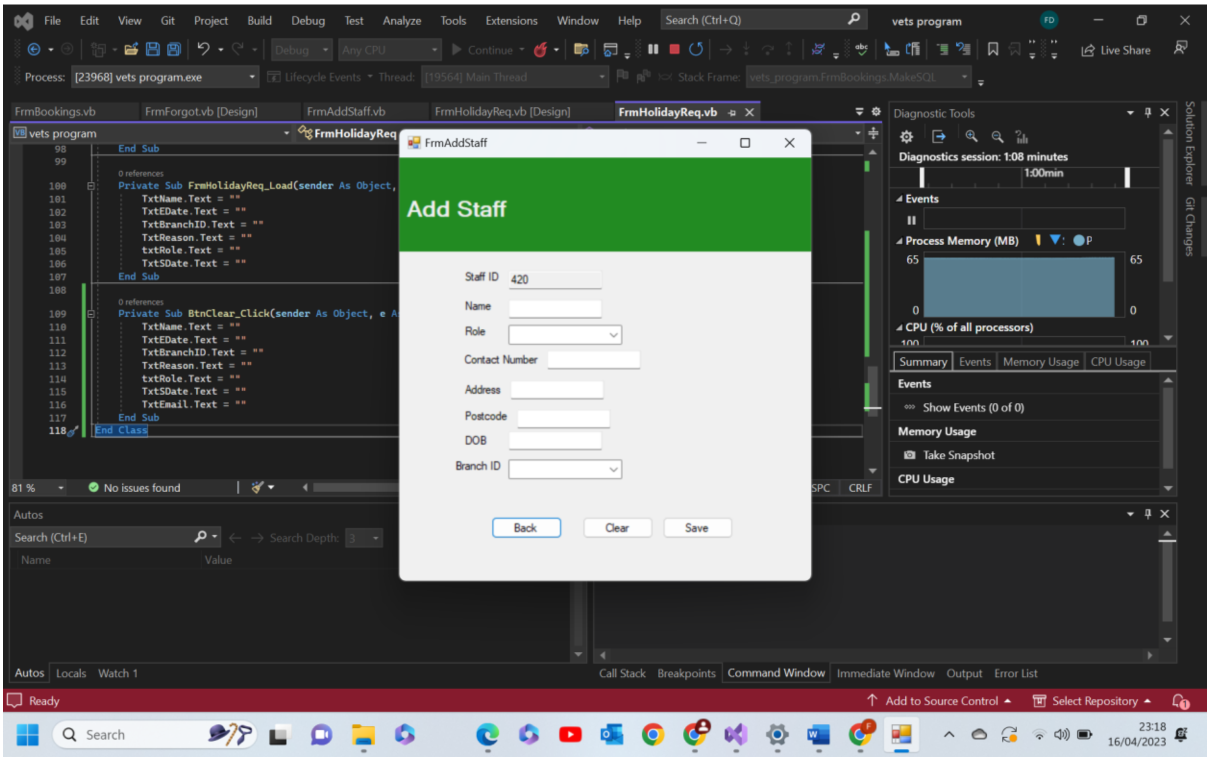
Test group 12- Staff Option form:

Test number	Test data	Actual outcome	Verdict	Comments
1	Functional test	As expected current form hidden and add staff shown	Pass	N/A
2	Functional test	As expected current form hidden and view staff shown	Pass	N/A
3	Functional test	Current form hidden and main menu form shown as expected.	Pass	N/A

12.1-



```
    End Sub

    Private Sub FrmHolidayReq_Load(sender As Objec
        TxtName.Text = ""
        TxtEDate.Text = ""
        TxtBranchID.Text = ""
        TxtReason.Text = ""
        txtRole.Text = ""
        TxtSDate.Text = ""
    End Sub

    Private Sub BtnClear_Click(sender As Object, e
        TxtName.Text = ""
        TxtEDate.Text = ""
        TxtBranchID.Text = ""
        TxtReason.Text = ""
        txtRole.Text = ""
        TxtSDate.Text = ""
        TxtEmail.Text = ""
    End Sub
End Class
```



```
        End Sub

        0 references
        Private Sub FrmHolidayReq_Load(sender As Object,
            TxtName.Text = ""
            TxtEDate.Text = ""
            TxtBranchID.Text = ""
            TxtReason.Text = ""
            txtRole.Text = ""
            TxtSDate.Text = ""
        End Sub

        0 references
        Private Sub BtnClear_Click(sender As Object, e A
            TxtName.Text = ""
            TxtEDate.Text = ""
            TxtBranchID.Text = ""
            TxtReason.Text = ""
            txtRole.Text = ""
            TxtSDate.Text = ""
            TxtEmail.Text = ""
        End Sub
End Class
```

FrmAddStaff

Add Staff

Staff ID 420

Name

Role

Contact Number

Address

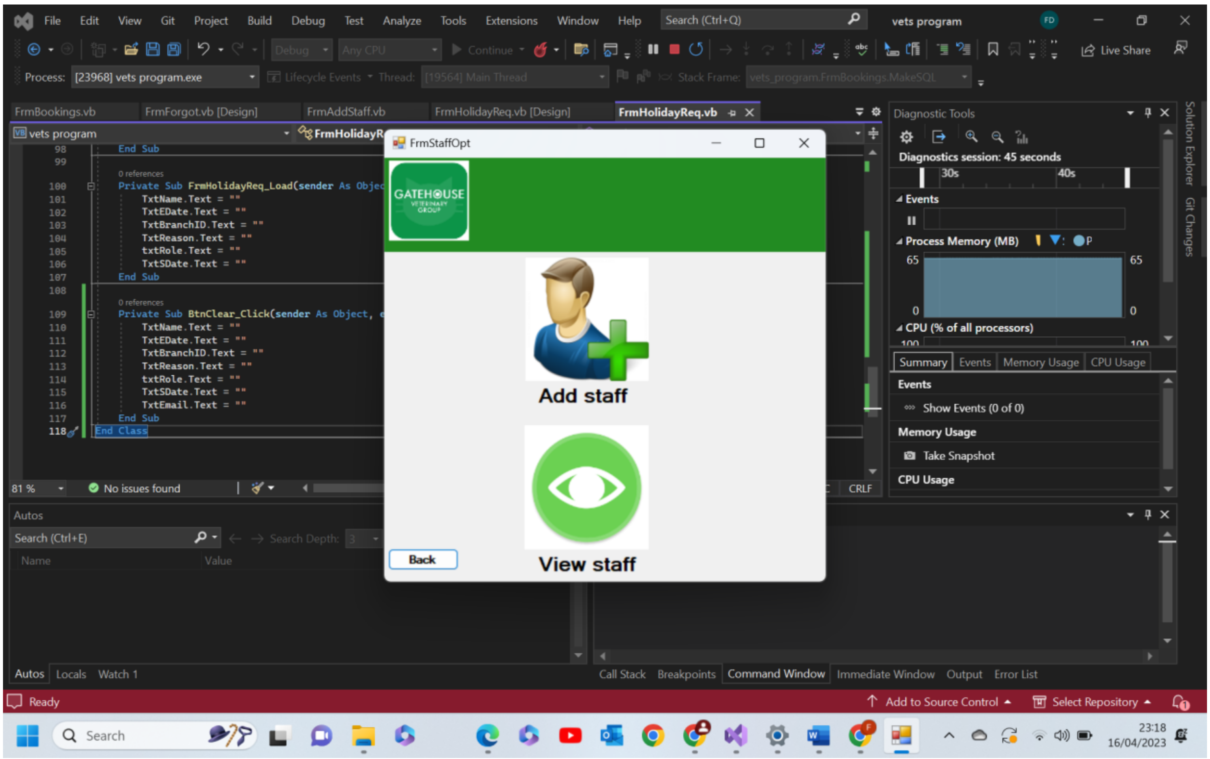
Postcode

DOB

Branch ID

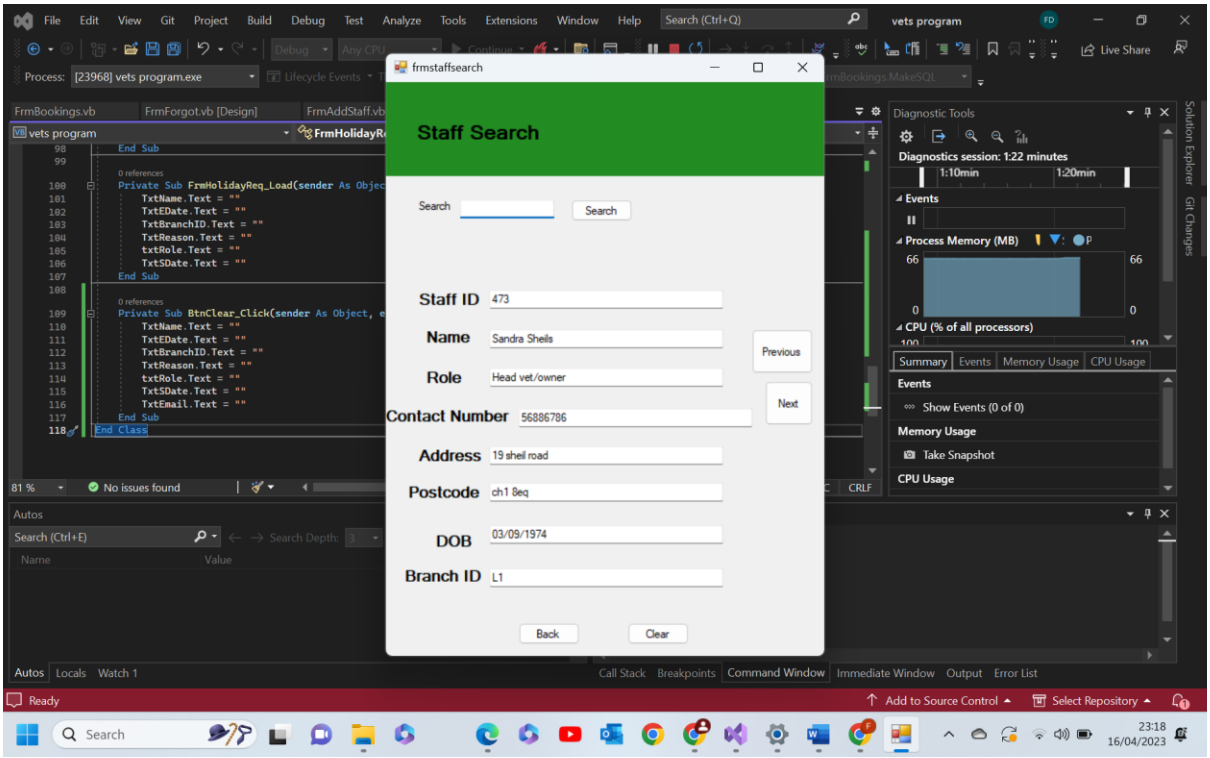
Test 12.1 comments- as we can see above, as expected, when the button or picture box was pressed the staff option form was hidden and the add staff form was shown. Pass

12.2-



```
        End Sub

        0 references
        Private Sub FrmHolidayReq_Load(sender As Objec
            TxtName.Text = ""
            TxtEDate.Text = ""
            TxtBranchID.Text = ""
            TxtReason.Text = ""
            txtRole.Text = ""
            TxtSDate.Text = ""
        End Sub

        0 references
        Private Sub BtnClear_Click(sender As Object, e
            TxtName.Text = ""
            TxtEDate.Text = ""
            TxtBranchID.Text = ""
            TxtReason.Text = ""
            txtRole.Text = ""
            TxtSDate.Text = ""
            TxtEmail.Text = ""
        End Sub
End Class
```

FrmStaffOpt



```
    End Sub

    Private Sub FrmHolidayReq_Load(sender As Objec
        TxtName.Text = ""
        TxtEDate.Text = ""
        TxtBranchID.Text = ""
        TxtReason.Text = ""
        txtRole.Text = ""
        TxtSDate.Text = ""
    End Sub

    Private Sub BtnClear_Click(sender As Object, e
        TxtName.Text = ""
        TxtEDate.Text = ""
        TxtBranchID.Text = ""
        TxtReason.Text = ""
        txtRole.Text = ""
        TxtSDate.Text = ""
        TxtEmail.Text = ""
    End Sub
End Class
```

frmstaffsearch

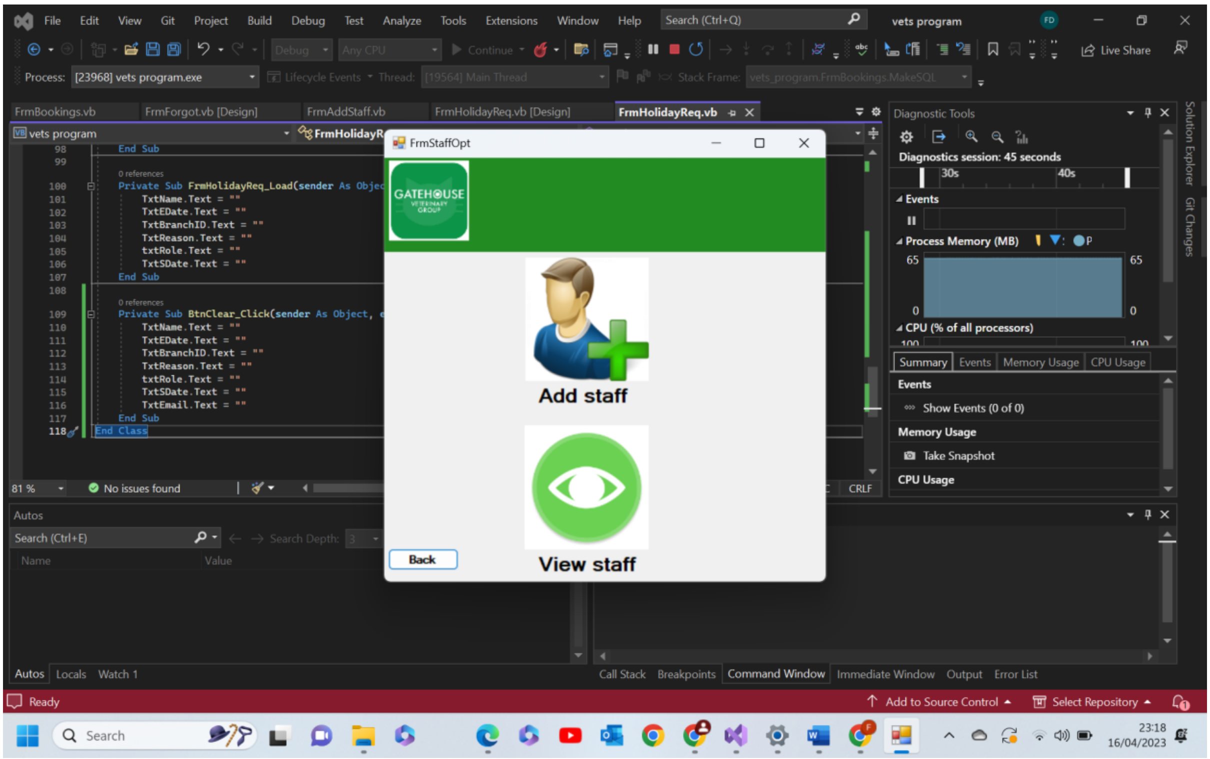
Staff Search

Search: [Search]

Staff ID: 473
Name: Sandra Sheils
Role: Head vet/owner
Contact Number: 56886786
Address: 19 sheil road
Postcode: ch1 8eq
DOB: 03/09/1974
Branch ID: L1

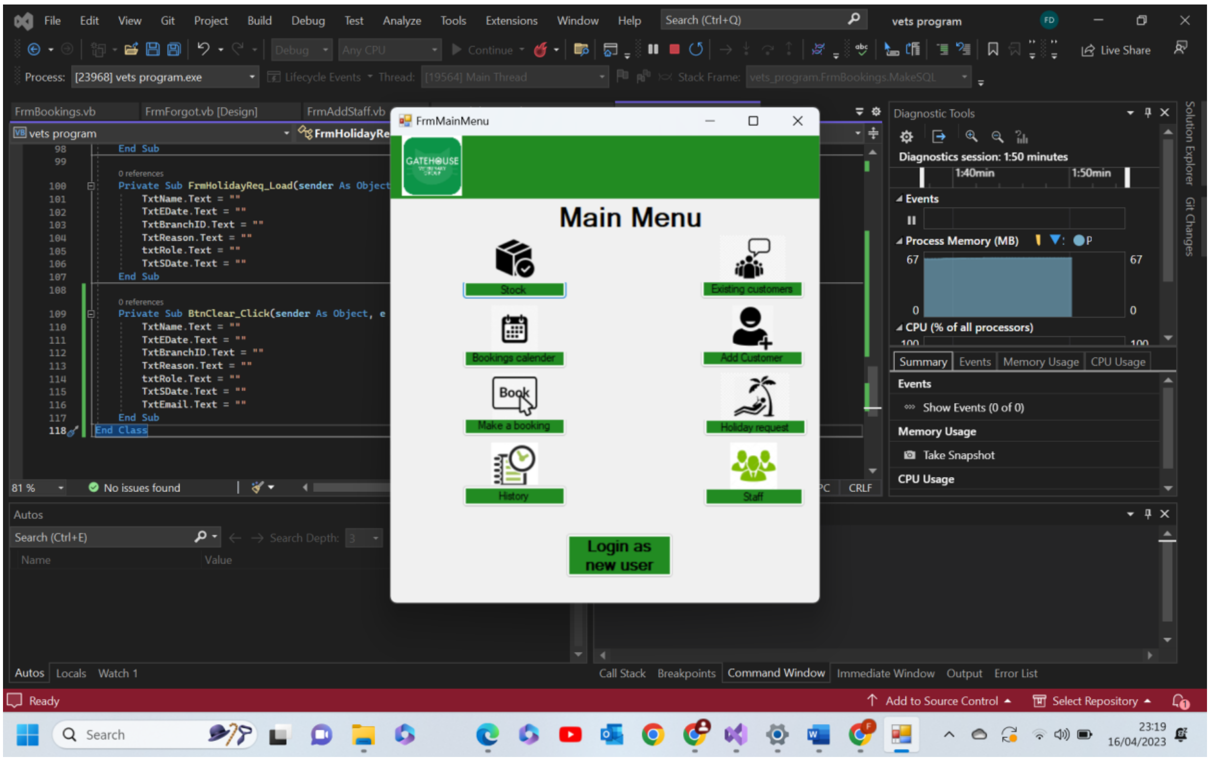
Test 12.2 comments- as we can see above, as expected, when the button or picture box was pressed the staff option form was hidden and the staff search form was shown. Pass

12.3-



```
    End Sub

    Private Sub FrmHolidayReq_Load(sender As Objec
        TxtName.Text = ""
        TxtEDate.Text = ""
        TxtBranchID.Text = ""
        TxtReason.Text = ""
        txtRole.Text = ""
        TxtSDate.Text = ""
    End Sub

    Private Sub BtnClear_Click(sender As Object, e
        TxtName.Text = ""
        TxtEDate.Text = ""
        TxtBranchID.Text = ""
        TxtReason.Text = ""
        txtRole.Text = ""
        TxtSDate.Text = ""
        TxtEmail.Text = ""
    End Sub
End Class
```

FrmStaffOpt



```
    End Sub

    0 references
    Private Sub FrmHolidayReq_Load(sender As Object
        TxtName.Text = ""
        TxtEDate.Text = ""
        TxtBranchID.Text = ""
        TxtReason.Text = ""
        txtRole.Text = ""
        TxtSDate.Text = ""
    End Sub

    0 references
    Private Sub BtnClear_Click(sender As Object, e
        TxtName.Text = ""
        TxtEDate.Text = ""
        TxtBranchID.Text = ""
        TxtReason.Text = ""
        txtRole.Text = ""
        TxtSDate.Text = ""
        TxtEmail.Text = ""
    End Sub
End Class
```

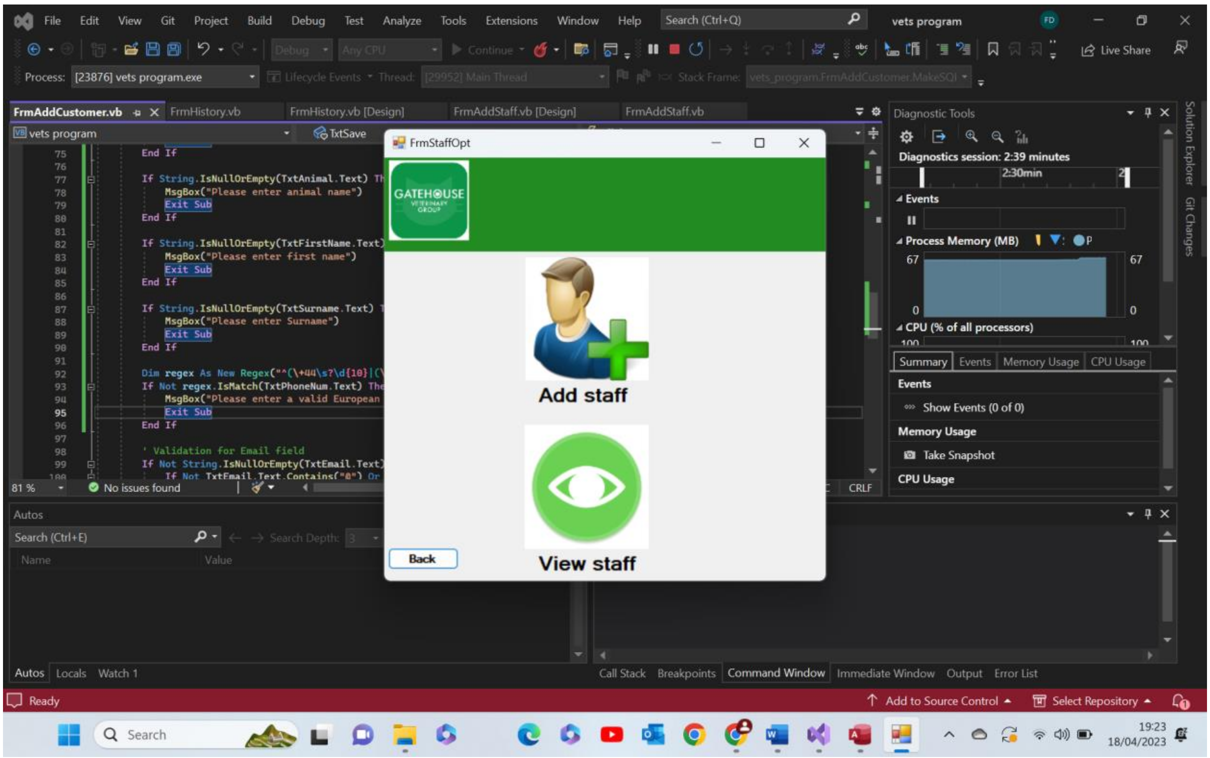
Test 12.3 comments- as we can see above, as expected, when the button or picture box was pressed the staff option form was hidden and the main menu form was shown.

Test group 13-Add Staff Form:

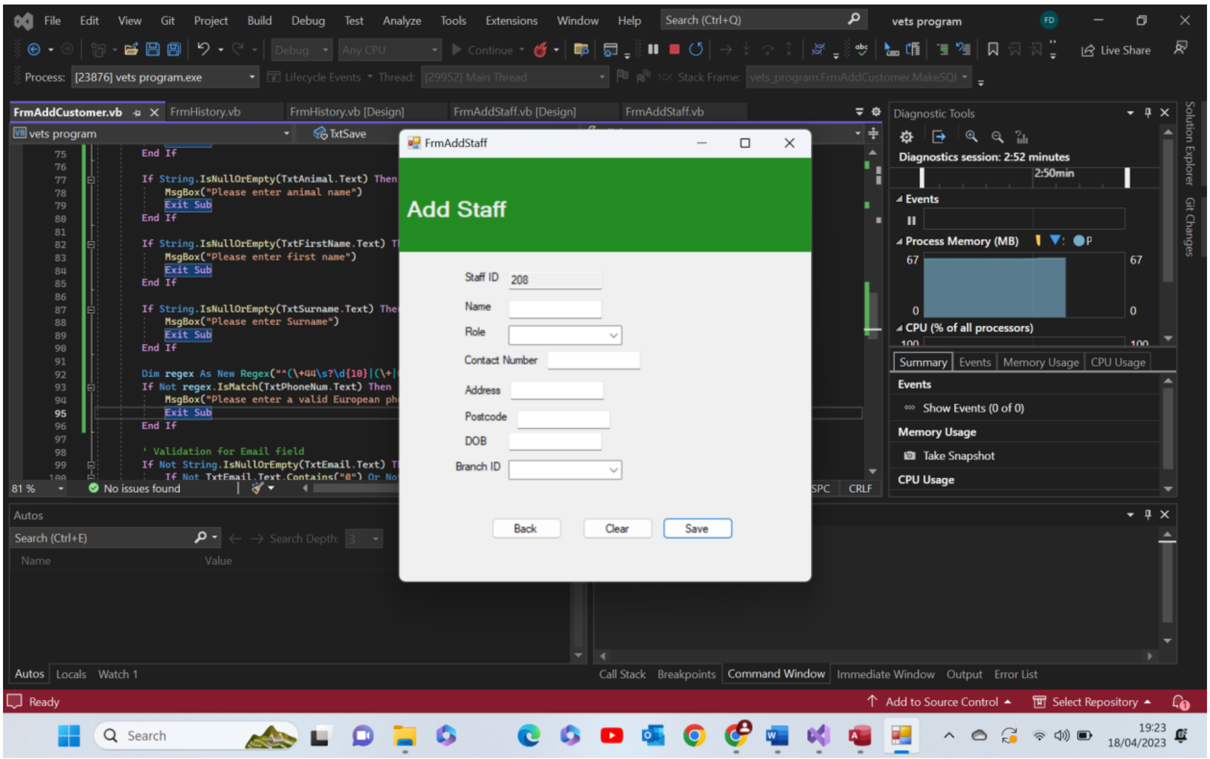
Test number	Test data	Actual outcome	Verdict	Comments
1	Functional test Form loaded	As expected when the form was loaded a random three integer number was written into the correct text box	Pass	N/A
2	Functional test Form load	As expected when the form loads the staff ID text box is set to read only	Pass	N/A
3	Invalid data Specifically ‘999’	As expected if a phone number is entered that does not adhere to the format of a European number, the format check in	Pass	Possible non-European customers who are only over for a month or so may be left out. Unlikely however

		the code will not allow this to be displayed and output a message box		
4	Functional test Form loaded Info in access database used	As expected the info from the roles table was read and written into the combo box on form load	Pass	N/A
5	Functional test Form loaded Info in access database used	As expected the info from branch ID appeared in the combo box	Pass	N/A
6	Functional Save button pressed Valid test data	Program read all data in the text boxes and given that it was valid, wrote the data to a new line in the correct table in the database	Pass	N/A
7	Functional test Extreme data	If any text boxes were left blank the program outputted a message box saying which and did not allow the data to be saved	Pass	N/A
8	Functional Clear button	All text boxes were made empty	Pass	N/A
9	Functional Back button	Current form closed and staff option form opened	Pass	N/A

13.1-



```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Th
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text)
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) T
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\
            If Not regex.IsMatch(TxtPhoneNum.Text) The
                MsgBox("Please enter a valid European
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text)
                If Not TxtEmail.Text.Contains("@") Or
```



Staff ID 208

Name

Role

Contact Number

Address

Postcode

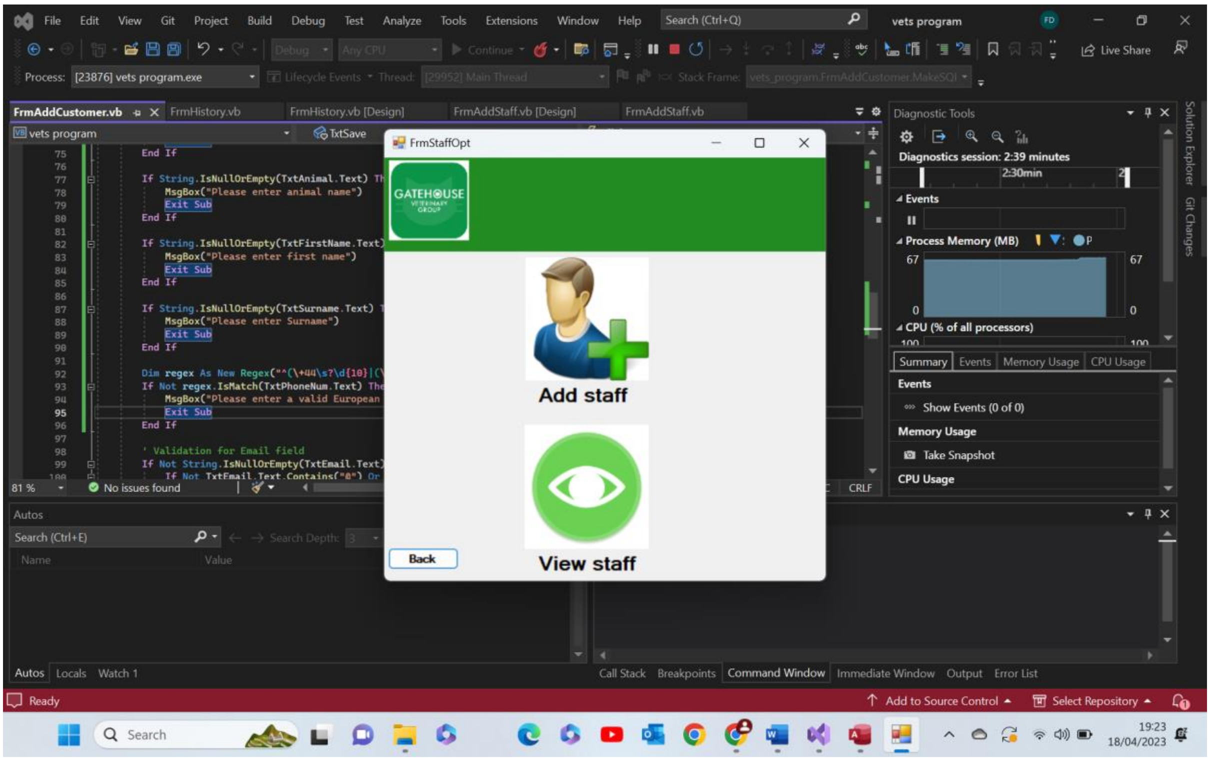
DOB

Branch ID

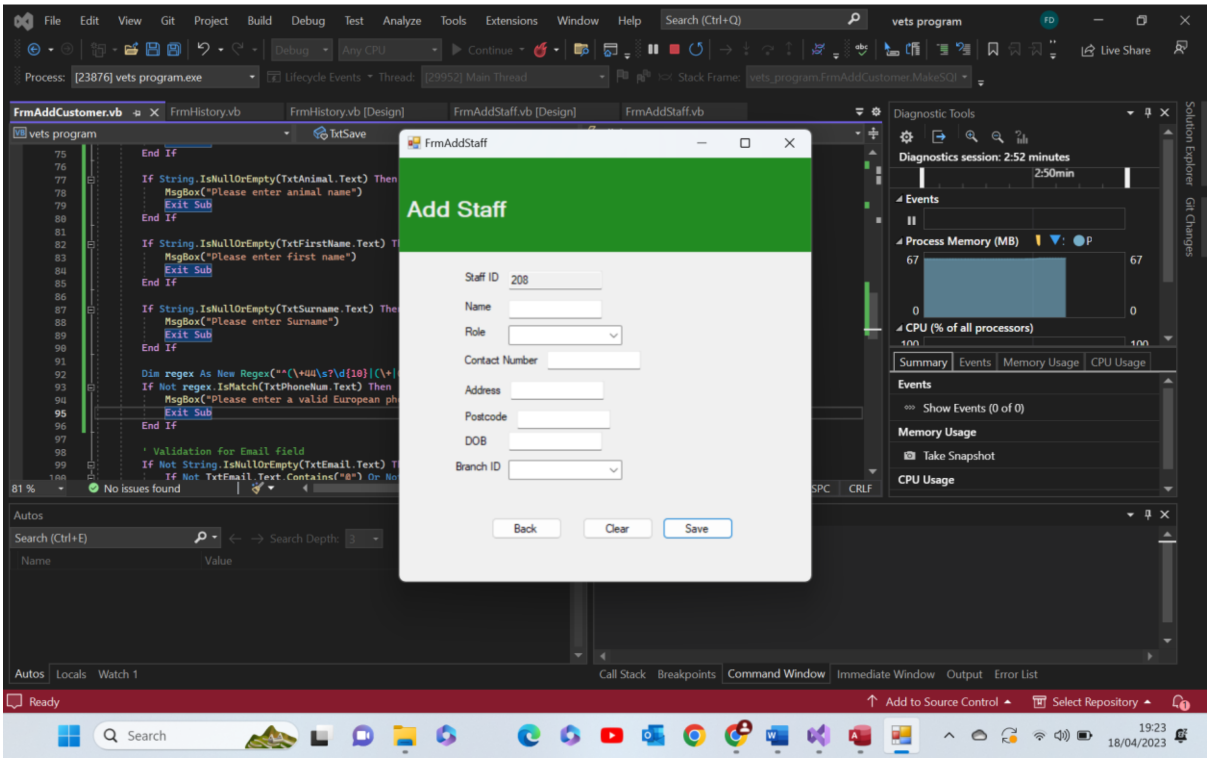
```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Then
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text) T
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) The
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\+|
            If Not regex.IsMatch(TxtPhoneNum.Text) Then
                MsgBox("Please enter a valid European ph
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text) T
                If Not TxtEmail.Text.Contains("@") Or No
```

Test 13.1 comments- as we can see when the form is loaded it is assigned a random three digit ID number to the Staff ID text box. Pass

13.2-



```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Th
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text)
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) T
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\
            If Not regex.IsMatch(TxtPhoneNum.Text) The
                MsgBox("Please enter a valid European
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text)
                If Not TxtEmail.Text.Contains("@") Or
```



Add Staff

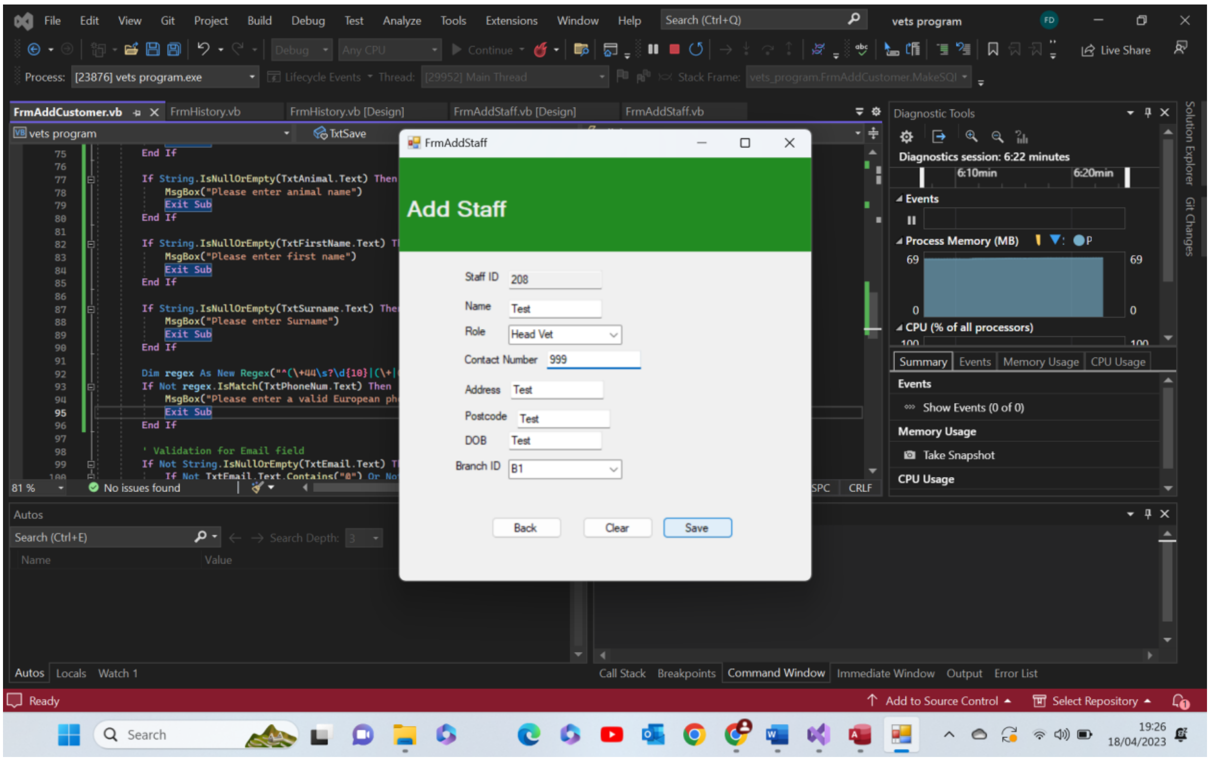
Staff ID	208
Name	
Role	
Contact Number	
Address	
Postcode	
DOB	
Branch ID	

Back Clear Save

```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Then
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text) T
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) The
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\+|
            If Not regex.IsMatch(TxtPhoneNum.Text) Then
                MsgBox("Please enter a valid European ph
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text) T
                If Not TxtEmail.Text.Contains("@") Or No
```

Test 13.2 comments- as we can see when the form loads the text box read only = true and so no one can tamper with or alter the text box. Pass

13.3-



```
        End If

        If String.IsNullOrEmpty(TxtAnimal.Text) Then
            MsgBox("Please enter animal name")
            Exit Sub
        End If

        If String.IsNullOrEmpty(TxtFirstName.Text) T
            MsgBox("Please enter first name")
            Exit Sub
        End If

        If String.IsNullOrEmpty(TxtSurname.Text) The
            MsgBox("Please enter Surname")
            Exit Sub
        End If

        Dim regex As New Regex("^(\+44\s?\d{10}|(\+|
        If Not regex.IsMatch(TxtPhoneNum.Text) Then
            MsgBox("Please enter a valid European ph
            Exit Sub
        End If

        ' Validation for Email field
        If Not String.IsNullOrEmpty(TxtEmail.Text) T
            If Not TxtEmail.Text.Contains("@") Or No
```

Add Staff

Staff ID 208

Name Test

Role Head Vet

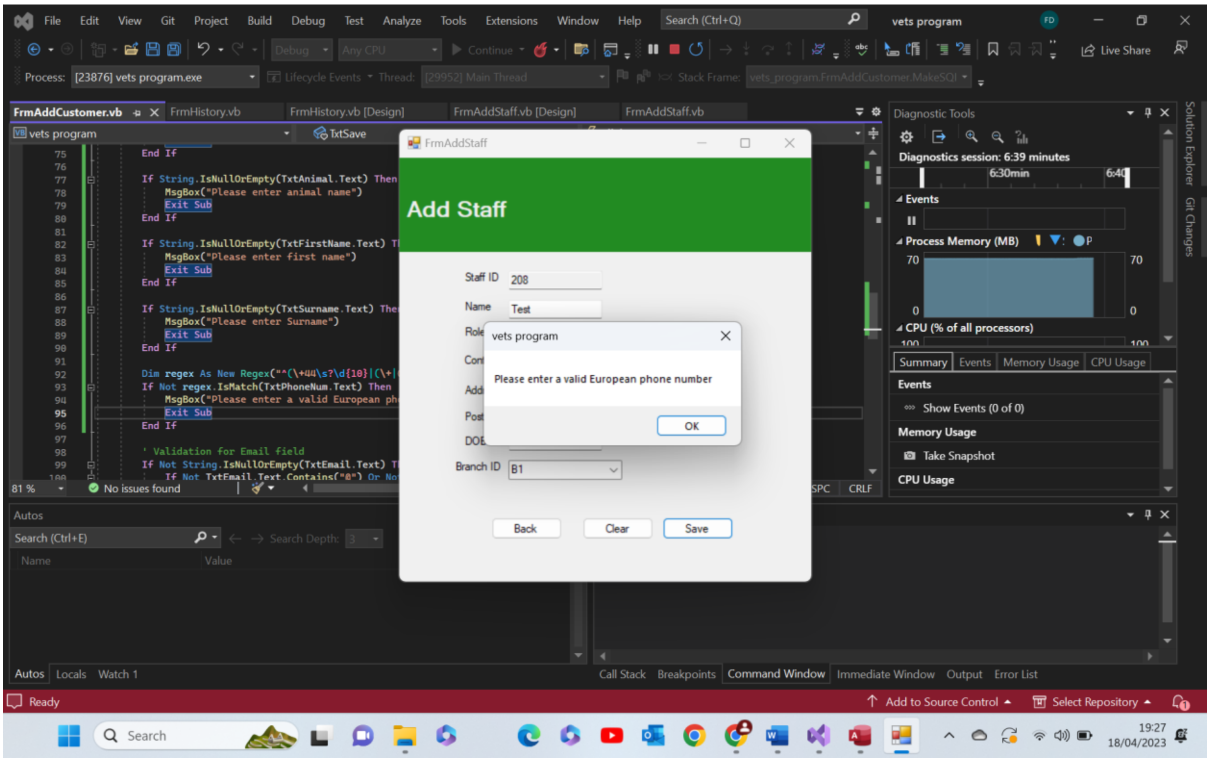
Contact Number 999

Address Test

Postcode Test

DOB Test

Branch ID B1



Add Staff

Staff ID 208

Name Test

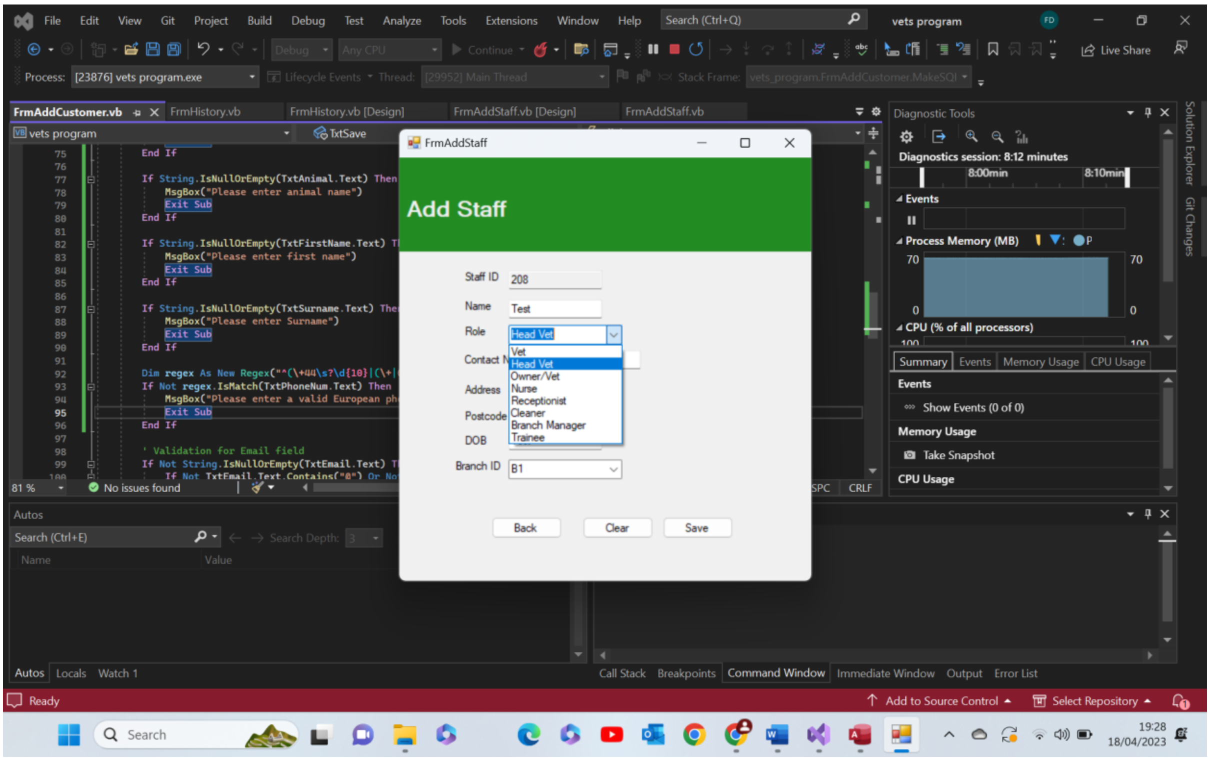
Branch ID B1

vets program

Please enter a valid European phone number

Test 13.3- as we can see the number '999' did not pass the format check validation in check and so the program output a message box warning and did not save the data. Pass

13.4-



```
End If

If String.IsNullOrEmpty(TxtAnimal.Text) Then
    MsgBox("Please enter animal name")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtFirstName.Text) T
    MsgBox("Please enter first name")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtSurname.Text) The
    MsgBox("Please enter Surname")
    Exit Sub
End If

Dim regex As New Regex("^(\+44\s?\d{10}|(\+|
If Not regex.IsMatch(TxtPhoneNum.Text) Then
    MsgBox("Please enter a valid European ph
    Exit Sub
End If

' Validation for Email field
If Not String.IsNullOrEmpty(TxtEmail.Text) T
    If Not TxtEmail.Text.Contains("@") Or No
```

Add Staff

Staff ID 208

Name Test

Role Head Vet

Vet
Head Vet
Owner/Vet
Nurse
Receptionist
Cleaner
Branch Manager
Trainee

Contact N

Address

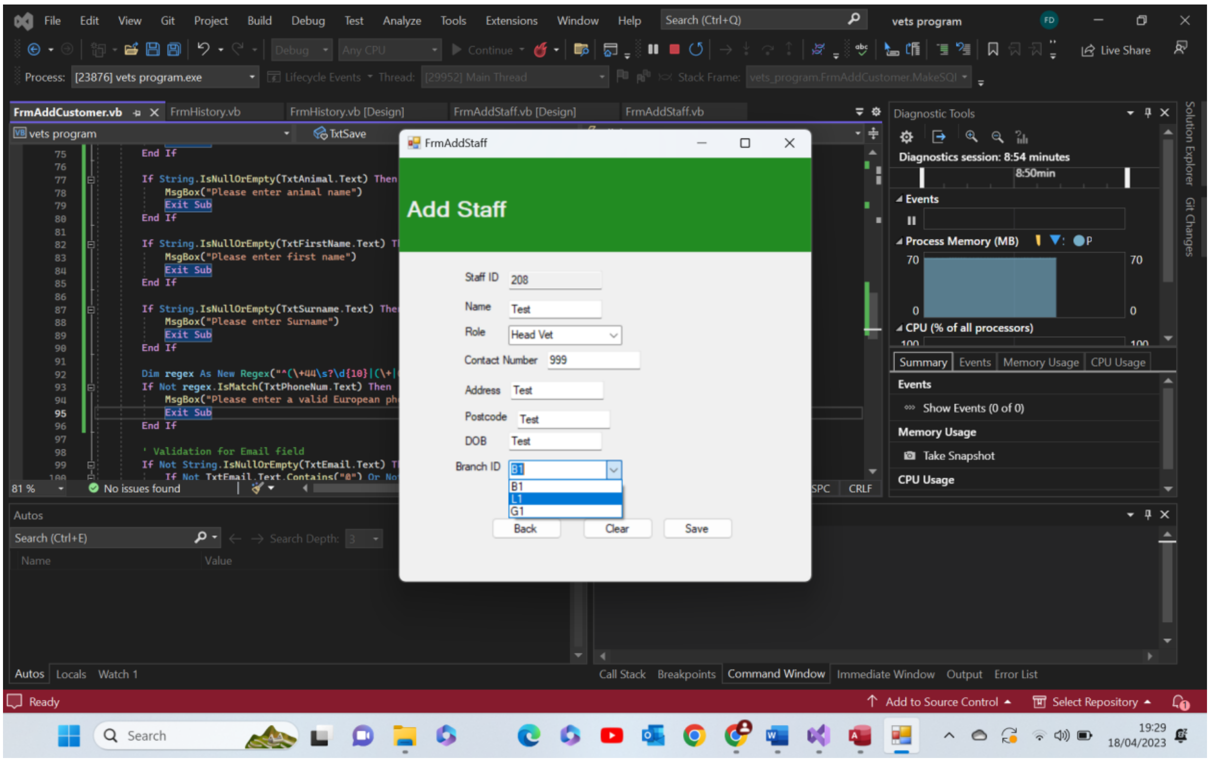
Postcode

DOB

Branch ID B1

Test 13.4 comments- as we can see all applicable data was loaded correctly into this combo box. Pass

13.5-



```
End If

If String.IsNullOrEmpty(TxtAnimal.Text) Then
    MsgBox("Please enter animal name")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtFirstName.Text) T
    MsgBox("Please enter first name")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtSurname.Text) The
    MsgBox("Please enter Surname")
    Exit Sub
End If

Dim regex As New Regex("^(\+44\s?\d{10}|(\+|
If Not regex.IsMatch(TxtPhoneNum.Text) Then
    MsgBox("Please enter a valid European ph
    Exit Sub
End If

' Validation for Email field
If Not String.IsNullOrEmpty(TxtEmail.Text) T
    If Not TxtEmail.Text.Contains("@") Or No
```

Add Staff

Staff ID 208

Name Test

Role Head Vet

Contact Number 999

Address Test

Postcode Test

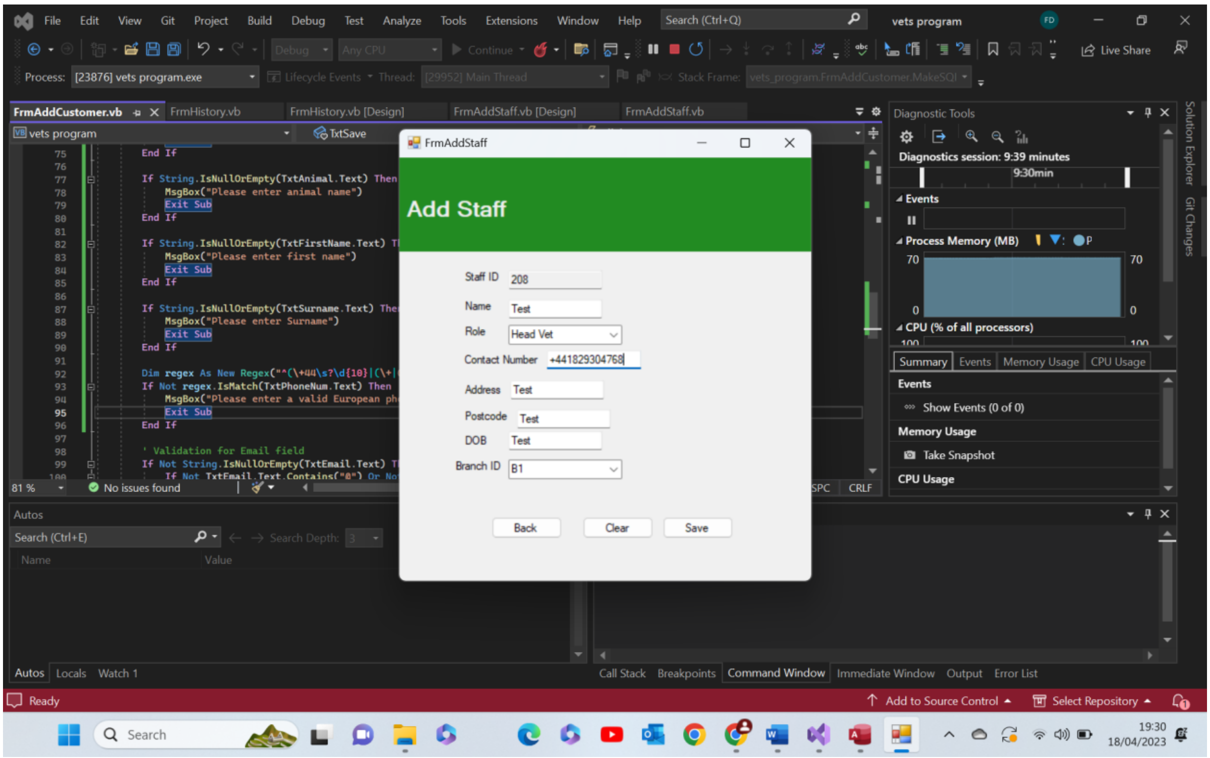
DOB Test

Branch ID B1

B1
L1
G1

Test 13.5 comments - as we can see all applicable data was loaded correctly into this combo box. Pass

13.6-

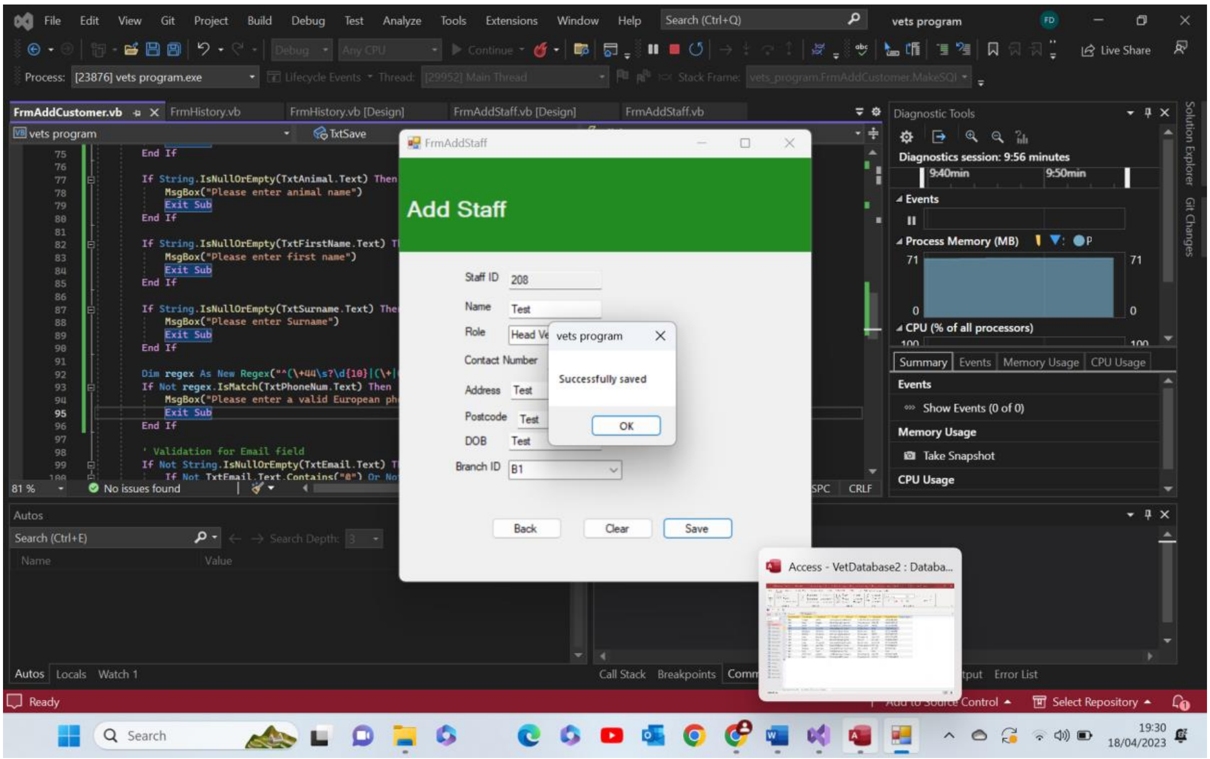


```
        End If

        If String.IsNullOrEmpty(TxtAnimal.Text) Then
            MsgBox("Please enter animal name")
            Exit Sub
        End If

        If String.IsNullOrEmpty(TxtFirstName.Text) T
            MsgBox("Please enter first name")
            Exit Sub
        End If

        If String.IsNullOrEmpty(TxtSurname.Text) The
            MsgBox("Please enter Surname")
            Exit Sub
        End If

        Dim regex As New Regex("^(\+44\s?\d{10}|(\+|(
        If Not regex.IsMatch(TxtPhoneNum.Text) Then
            MsgBox("Please enter a valid European ph
            Exit Sub
        End If

        ' Validation for Email field
        If Not String.IsNullOrEmpty(TxtEmail.Text) T
            If Not TxtEmail.Text.Contains("@") Or No
```

FrmAddStaff

Add Staff

Staff ID	208
Name	Test
Role	Head Vet
Contact Number	+441829304768
Address	Test
Postcode	Test
DOB	Test
Branch ID	B1



```
        End If

        If String.IsNullOrEmpty(TxtAnimal.Text) Then
            MsgBox("Please enter animal name")
            Exit Sub
        End If

        If String.IsNullOrEmpty(TxtFirstName.Text) T
            MsgBox("Please enter first name")
            Exit Sub
        End If

        If String.IsNullOrEmpty(TxtSurname.Text) The
            MsgBox("Please enter Surname")
            Exit Sub
        End If

        Dim regex As New Regex("^(\+44\s?\d{10}|(\+|(
        If Not regex.IsMatch(TxtPhoneNum.Text) Then
            MsgBox("Please enter a valid European ph
            Exit Sub
        End If

        ' Validation for Email field
        If Not String.IsNullOrEmpty(TxtEmail.Text) T
            If Not TxtEmail.Text.Contains("@") Or No
```

FrmAddStaff

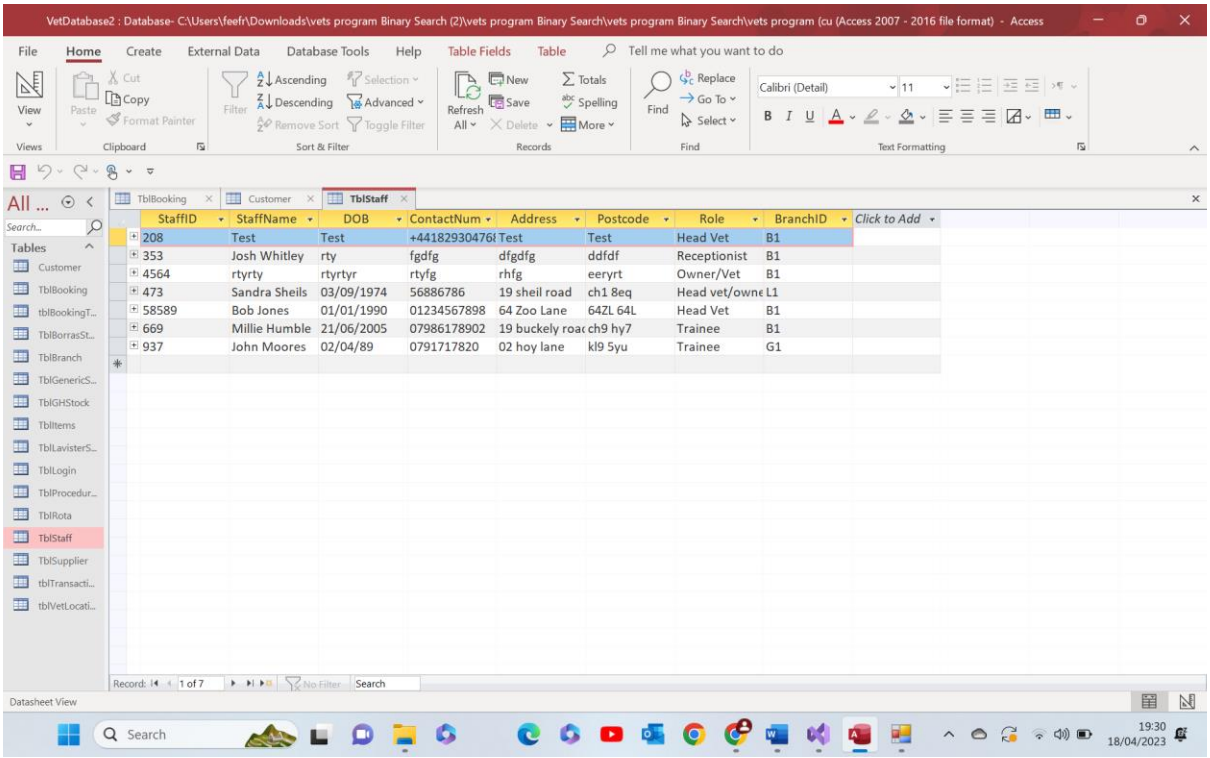
Add Staff

Staff ID	208
Name	Test
Role	Head Ve
Contact Number	
Address	Test
Postcode	Test
DOB	Test
Branch ID	B1

vets program

Successfully saved

OK
Back
Clear
Save
Diagnostics session: 9:56 minutes
Access - VetDatabase2 : Databa...
Ready
19:30
18/04/2023



VetDatabase2 : Database- C:\Users\feefr\Downloads\vets program Binary Search (2)\vets program Binary Search\vets program Binary Search\vets program (cu (Access 2007 - 2016 file format) - Access

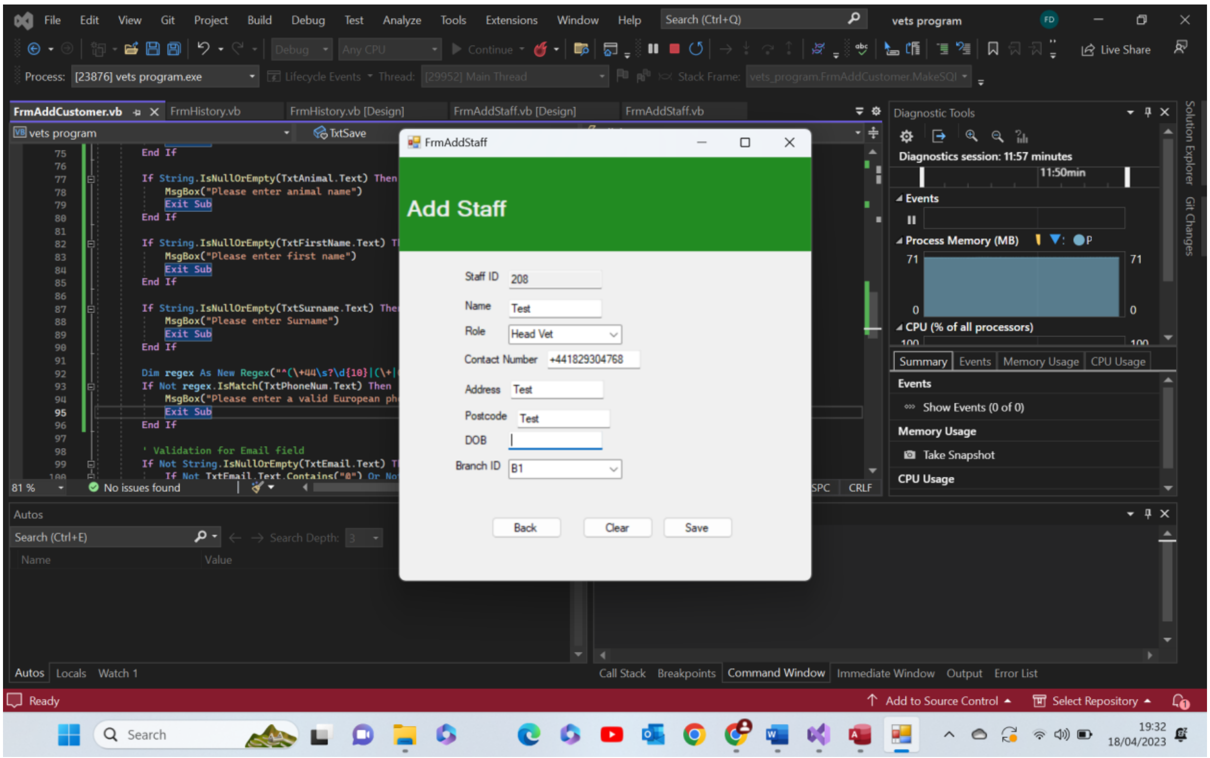
TblStaff

StaffID	StaffName	DOB	ContactNum	Address	Postcode	Role	BranchID
208	Test	Test	+44182930476	Test	Test	Head Vet	B1
353	Josh Whitley	rty	fgdfg	dfgdfg	ddfdf	Receptionist	B1
4564	rtyrty	rtyrtyr	rtyfg	rhfg	eeryrt	Owner/Vet	B1
473	Sandra Sheils	03/09/1974	56886786	19 sheil road	ch1 8eq	Head vet/owne	L1
58589	Bob Jones	01/01/1990	01234567898	64 Zoo Lane	64ZL 64L	Head Vet	B1
669	Millie Humble	21/06/2005	07986178902	19 buckely roa	ch9 hy7	Trainee	B1
937	John Moores	02/04/89	0791717820	02 hoy lane	kl9 5yu	Trainee	G1

Record: 1 of 7

Test 13.6 comments- as we can see all data in all text boxes passed their respective validation checks, both presence and format. Because they passed the data was deemed valid and so saved to a new row in the correct table in the database. The screenshot above shows the new data that has been added. Pass

13.7-



Process: [23876] vets program.exe

FrmAddCustomer.vb

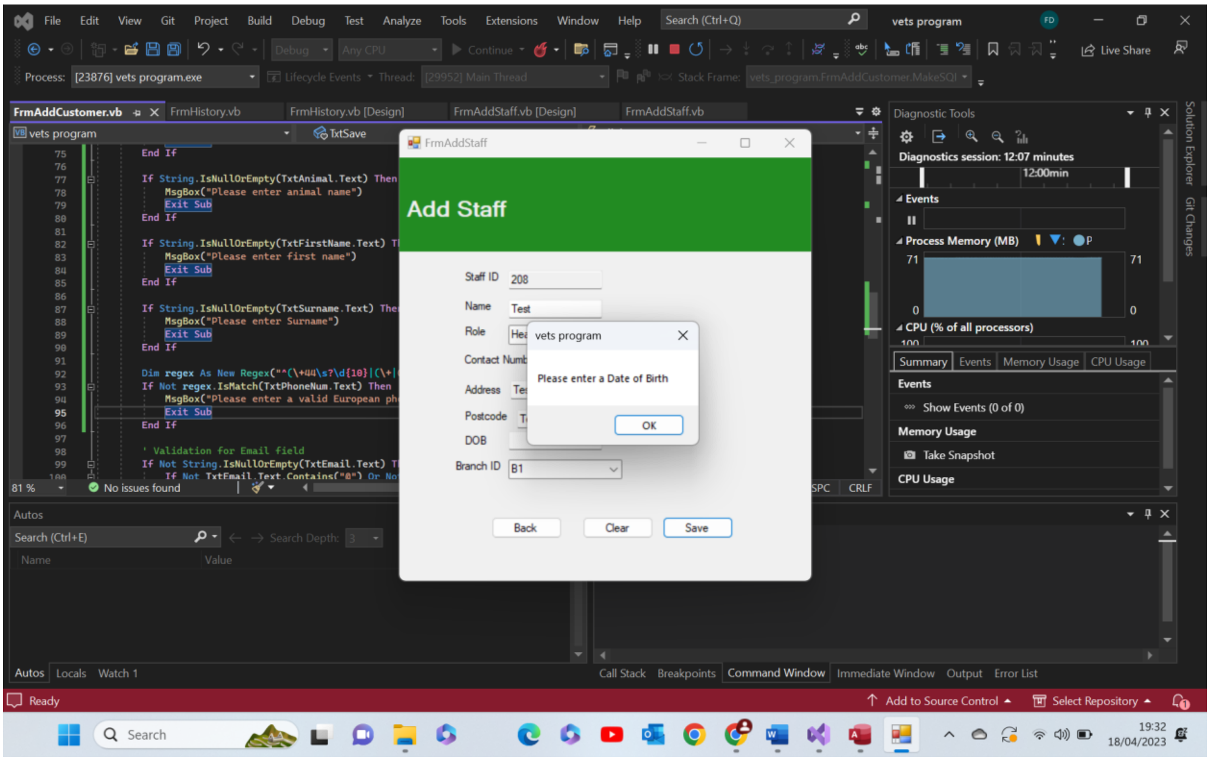
```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Then
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text) Tl
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) The
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\+|
            If Not regex.IsMatch(TxtPhoneNum.Text) Then
                MsgBox("Please enter a valid European ph
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text) Tl
                If Not TxtEmail.Text.Contains("@") Or No
```

FrmAddStaff

Add Staff

Staff ID	208
Name	Test
Role	Head Vet
Contact Number	+441829304768
Address	Test
Postcode	Test
DOB	
Branch ID	B1

Back · Clear · Save



```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Then
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text) Th
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) Then
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\+|
            If Not regex.IsMatch(TxtPhoneNum.Text) Then
                MsgBox("Please enter a valid European ph
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text) Th
                If Not TxtEmail.Text.Contains("@") Or No
```

Add Staff

Staff ID: 208

Name: Test

Role: Hea

Address: Te

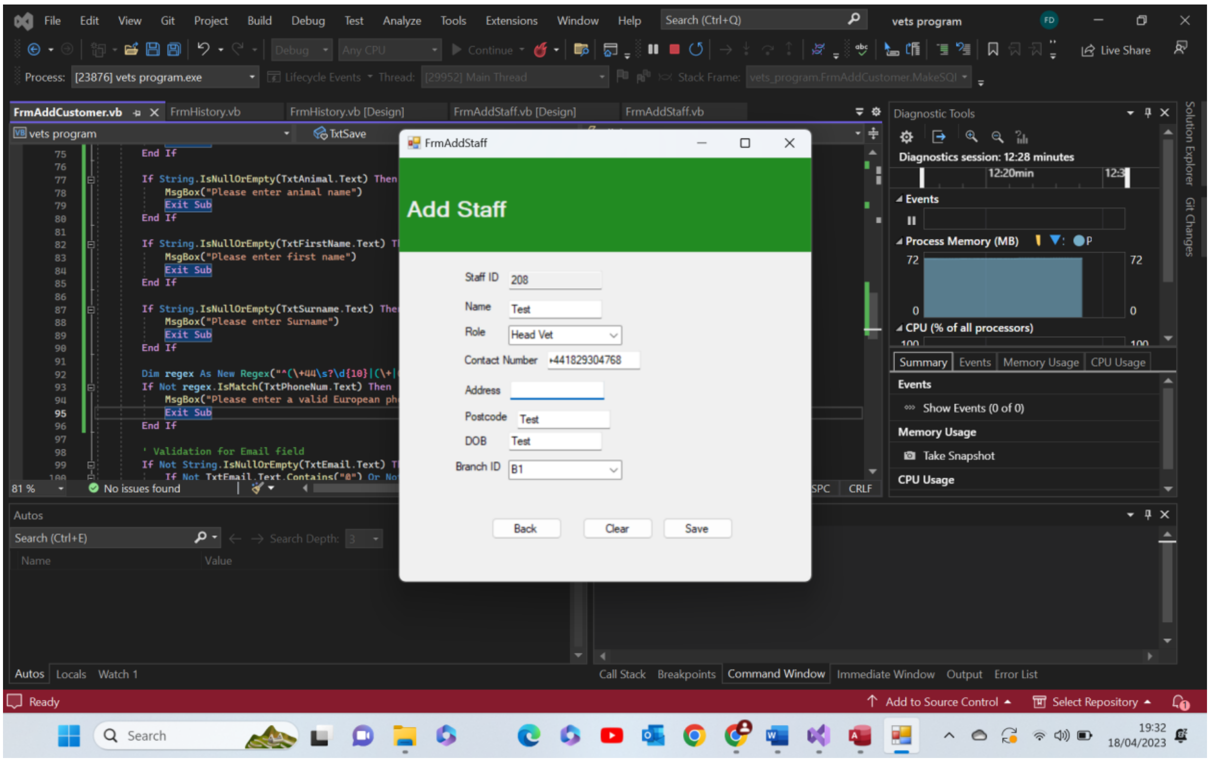
Postcode: T

DOB:

Branch ID: B1

vets program

Please enter a Date of Birth



```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Then
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text) Th
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) Then
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\+|
            If Not regex.IsMatch(TxtPhoneNum.Text) Then
                MsgBox("Please enter a valid European ph
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text) Th
                If Not TxtEmail.Text.Contains("@") Or No
```

Add Staff

Staff ID: 208

Name: Test

Role: Head Vet

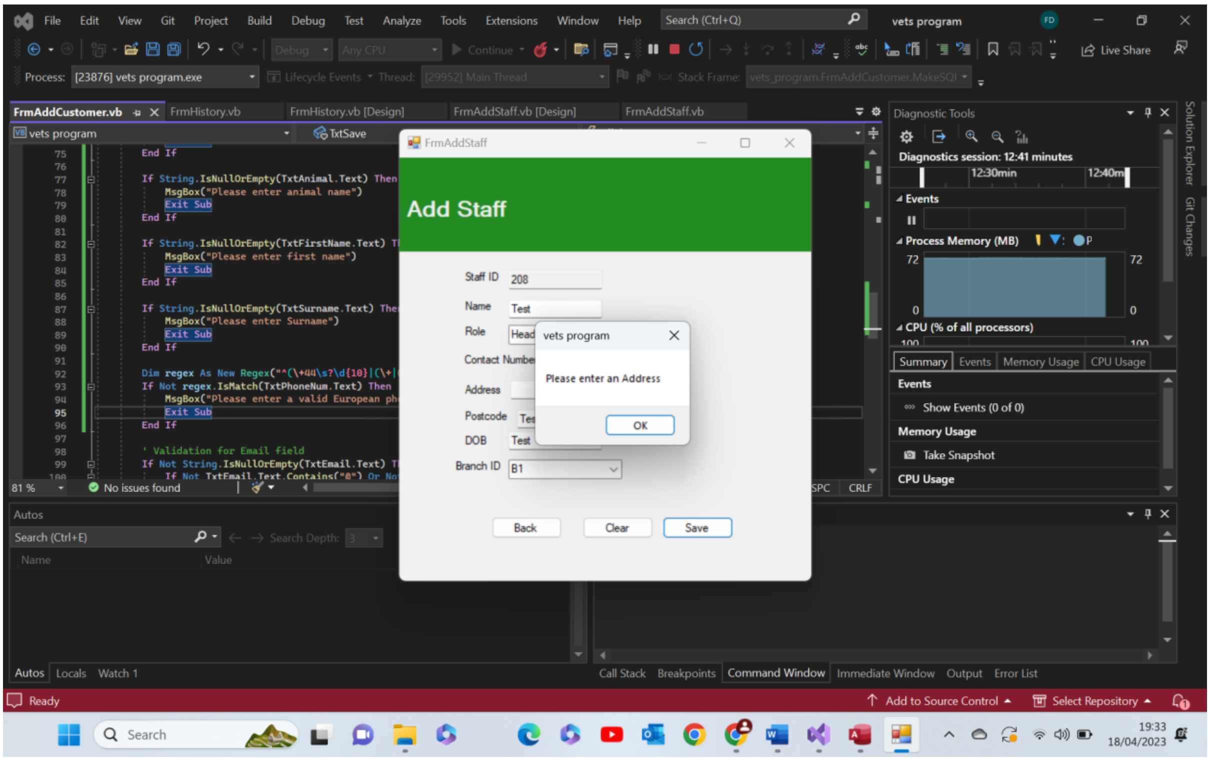
Contact Number: +441829304768

Address:

Postcode: Test

DOB: Test

Branch ID: B1



```
        End If

        If String.IsNullOrEmpty(TxtAnimal.Text) Then
            MsgBox("Please enter animal name")
            Exit Sub
        End If

        If String.IsNullOrEmpty(TxtFirstName.Text) T
            MsgBox("Please enter first name")
            Exit Sub
        End If

        If String.IsNullOrEmpty(TxtSurname.Text) The
            MsgBox("Please enter Surname")
            Exit Sub
        End If

        Dim regex As New Regex("^(\+44\s?\d{10}|(\+|
        If Not regex.IsMatch(TxtPhoneNum.Text) Then
            MsgBox("Please enter a valid European ph
            Exit Sub
        End If

        ' Validation for Email field
        If Not String.IsNullOrEmpty(TxtEmail.Text) T
            If Not TxtEmail.Text.Contains("@") Or No
```

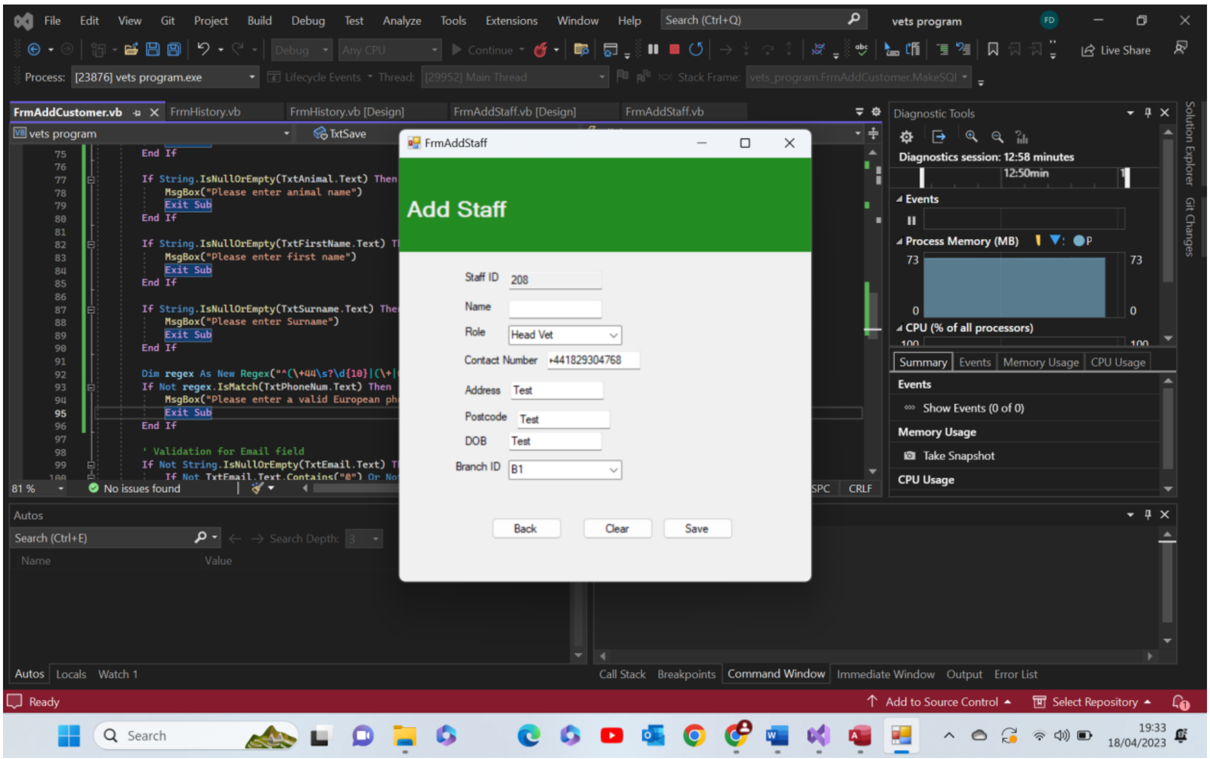
FrmAddStaff

Add Staff

Staff ID: 208
Name: Test
Role: Head
Contact Number:
Address:
Postcode: Tes
DOB: Test
Branch ID: B1

vets program

Please enter an Address

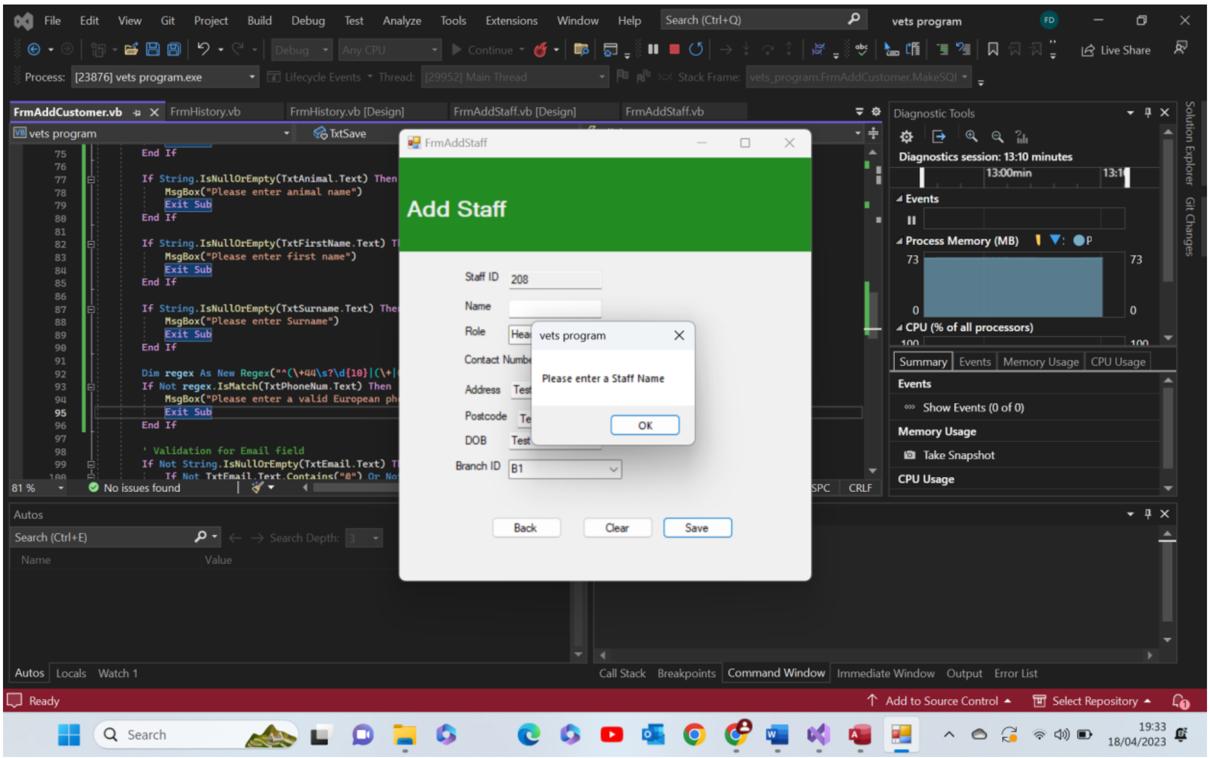


```
        End If

        If String.IsNullOrEmpty(TxtAnimal.Text) Then
            MsgBox("Please enter animal name")
            Exit Sub
        End If

        If String.IsNullOrEmpty(TxtFirstName.Text) T
            MsgBox("Please enter first name")
            Exit Sub
        End If

        If String.IsNullOrEmpty(TxtSurname.Text) The
            MsgBox("Please enter Surname")
            Exit Sub
        End If

        Dim regex As New Regex("^(\+44\s?\d{10}|(\+|
        If Not regex.IsMatch(TxtPhoneNum.Text) Then
            MsgBox("Please enter a valid European ph
            Exit Sub
        End If

        ' Validation for Email field
        If Not String.IsNullOrEmpty(TxtEmail.Text) T
            If Not TxtEmail.Text.Contains("@") Or No
```

FrmAddStaff

Add Staff

Staff ID: 208
Name:
Role: Head Vet
Contact Number: +441829304768
Address: Test
Postcode: Test
DOB: Test
Branch ID: B1



```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Then
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text) T
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) The
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\+|
            If Not regex.IsMatch(TxtPhoneNum.Text) Then
                MsgBox("Please enter a valid European ph
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text) T
                If Not TxtEmail.Text.Contains("@") Or No
```

Add Staff

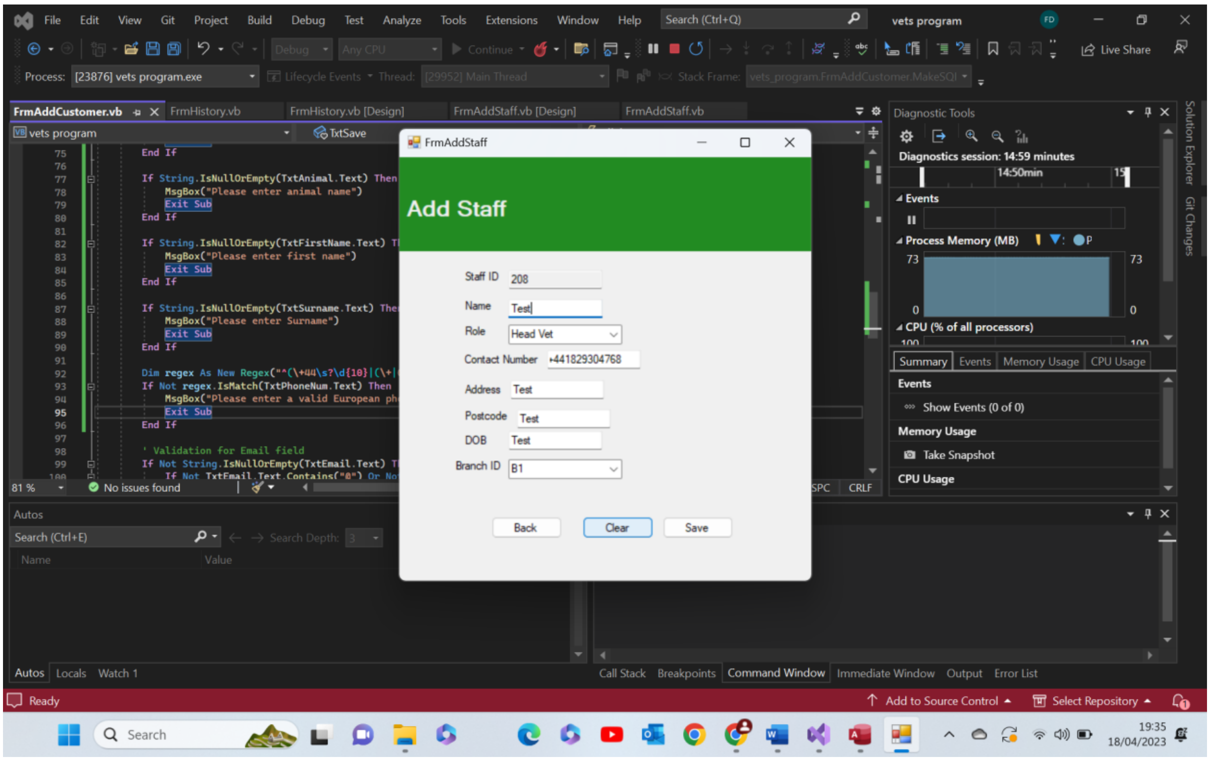
Staff ID: 208
Name:
Role: Hea
Contact Numbe
Address: Tes
Postcode: Te
DOB: Test
Branch ID: B1

vets program

Please enter a Staff Name

Test 13.7 comments- as we can see above I have provided three examples of the presence check in action. The program recognises the lack of or Null data and so outputs a message box warning the user where the extreme or lack of data is found. The program does not save any data if on presence check is failed. Pass

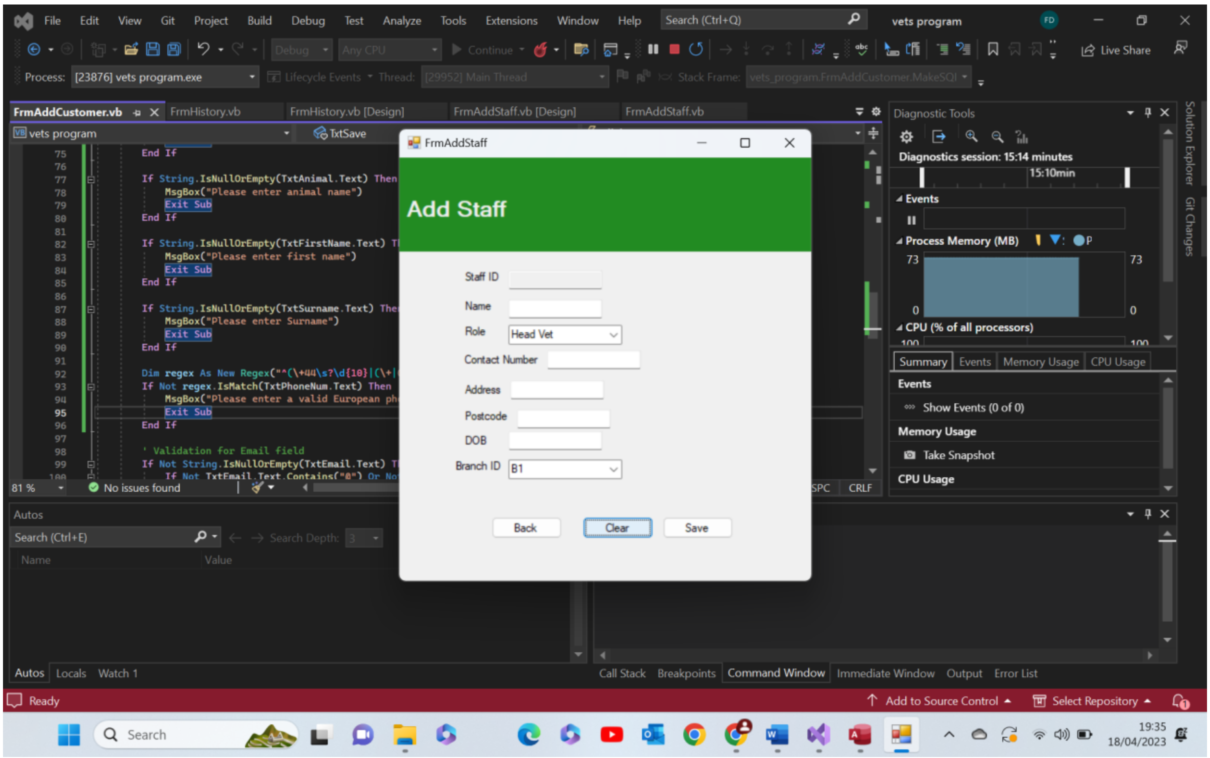
13.8-



```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Then
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text) T
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) The
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\+|
            If Not regex.IsMatch(TxtPhoneNum.Text) Then
                MsgBox("Please enter a valid European ph
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text) T
                If Not TxtEmail.Text.Contains("@") Or No
```

Add Staff

Staff ID: 208
Name: Test
Role: Head Vet
Contact Number: +441829304768
Address: Test
Postcode: Test
DOB: Test
Branch ID: B1



```
End If

If String.IsNullOrEmpty(TxtAnimal.Text) Then
    MsgBox("Please enter animal name")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtFirstName.Text) T
    MsgBox("Please enter first name")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtSurname.Text) The
    MsgBox("Please enter Surname")
    Exit Sub
End If

Dim regex As New Regex("^(\+44\s?\d{10}|(\+|
If Not regex.IsMatch(TxtPhoneNum.Text) Then
    MsgBox("Please enter a valid European ph
    Exit Sub
End If

' Validation for Email field
If Not String.IsNullOrEmpty(TxtEmail.Text) T
    If Not TxtEmail.Text.Contains("@") Or No
```

Add Staff

Staff ID

Name

Role: Head Vet

Contact Number

Address

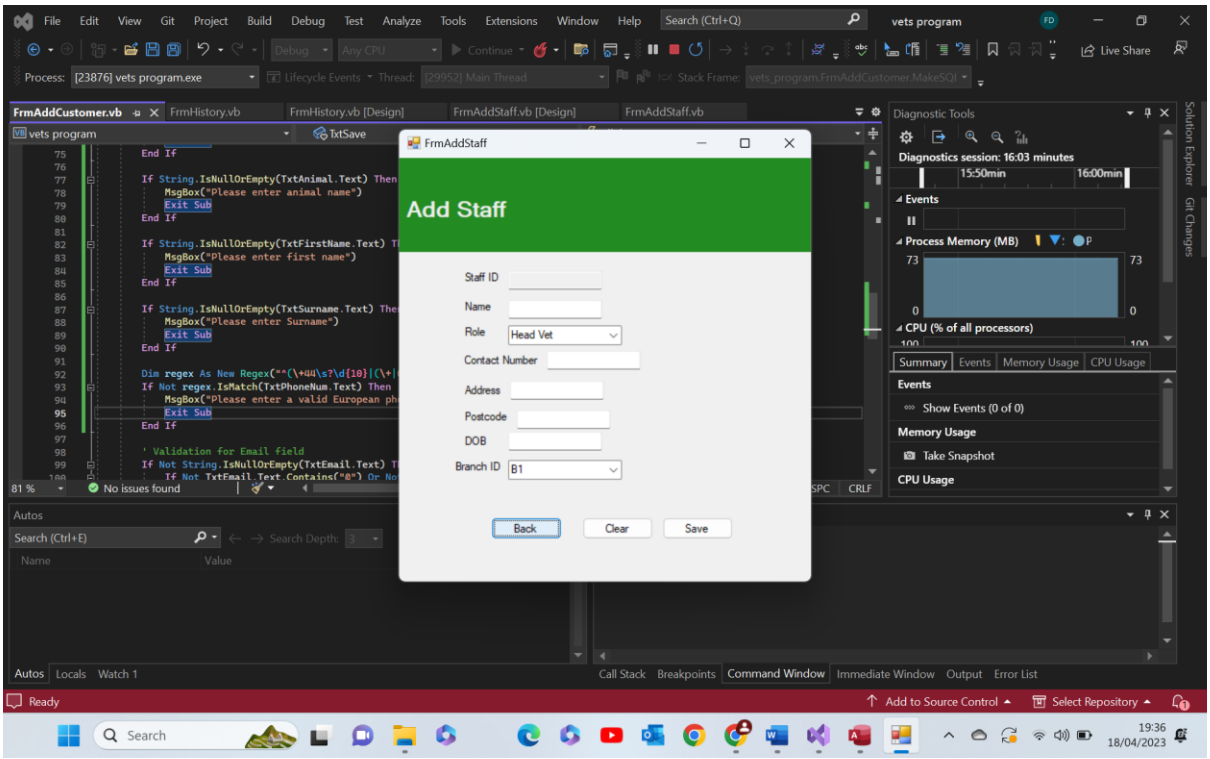
Postcode

DOB

Branch ID: B1

Test 13.8 comments- as we can see all text boxes were set = "" and so became Null or void of data. Pass

13.9-



```
End If

If String.IsNullOrEmpty(TxtAnimal.Text) Then
    MsgBox("Please enter animal name")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtFirstName.Text) T
    MsgBox("Please enter first name")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtSurname.Text) The
    MsgBox("Please enter Surname")
    Exit Sub
End If

Dim regex As New Regex("^(\+44\s?\d{10}|(\+|
If Not regex.IsMatch(TxtPhoneNum.Text) Then
    MsgBox("Please enter a valid European ph
    Exit Sub
End If

' Validation for Email field
If Not String.IsNullOrEmpty(TxtEmail.Text) T
    If Not TxtEmail.Text.Contains("@") Or No
```

Add Staff

Staff ID

Name

Role: Head Vet

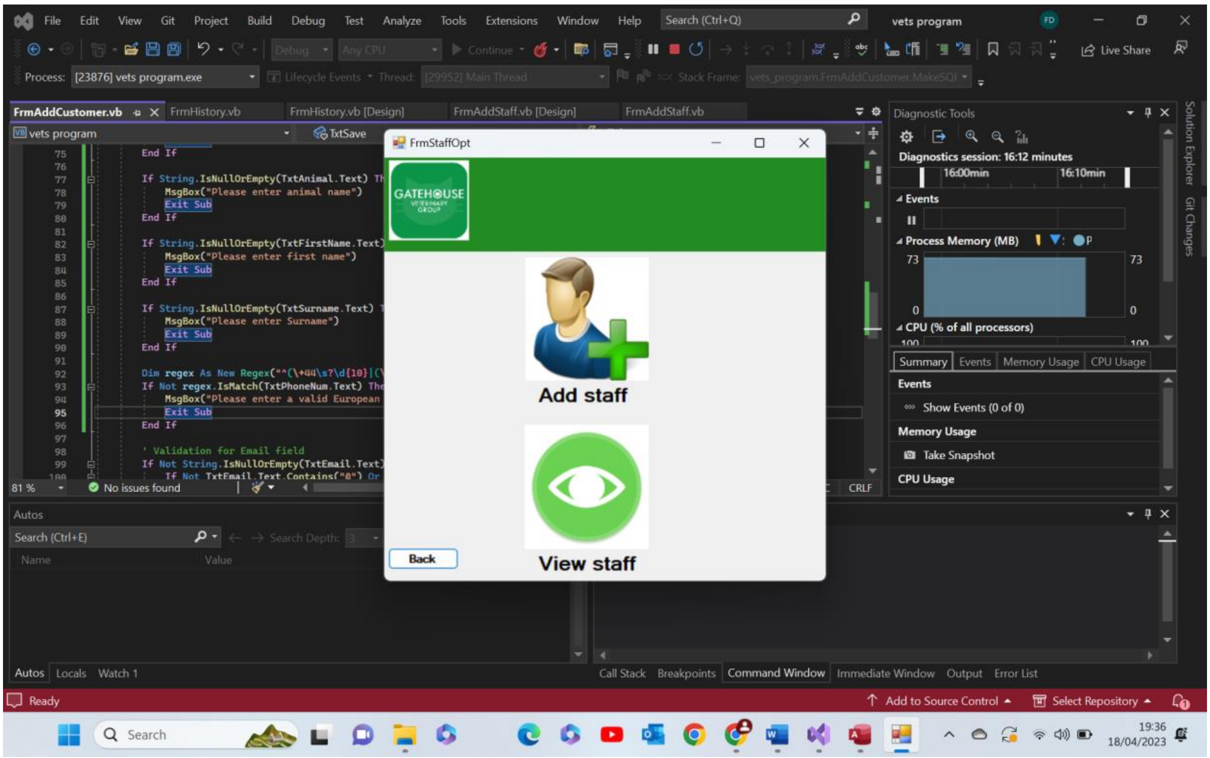
Contact Number

Address

Postcode

DOB

Branch ID: B1



```
        End If

        If String.IsNullOrEmpty(TxtAnimal.Text) Th
            MsgBox("Please enter animal name")
            Exit Sub
        End If

        If String.IsNullOrEmpty(TxtFirstName.Text)
            MsgBox("Please enter first name")
            Exit Sub
        End If

        If String.IsNullOrEmpty(TxtSurname.Text) T
            MsgBox("Please enter Surname")
            Exit Sub
        End If

        Dim regex As New Regex("^(\+44\s?\d{10}|(\
        If Not regex.IsMatch(TxtPhoneNum.Text) The
            MsgBox("Please enter a valid European
            Exit Sub
        End If

        ' Validation for Email field
        If Not String.IsNullOrEmpty(TxtEmail.Text)
            If Not TxtEmail.Text.Contains("@") Or
```

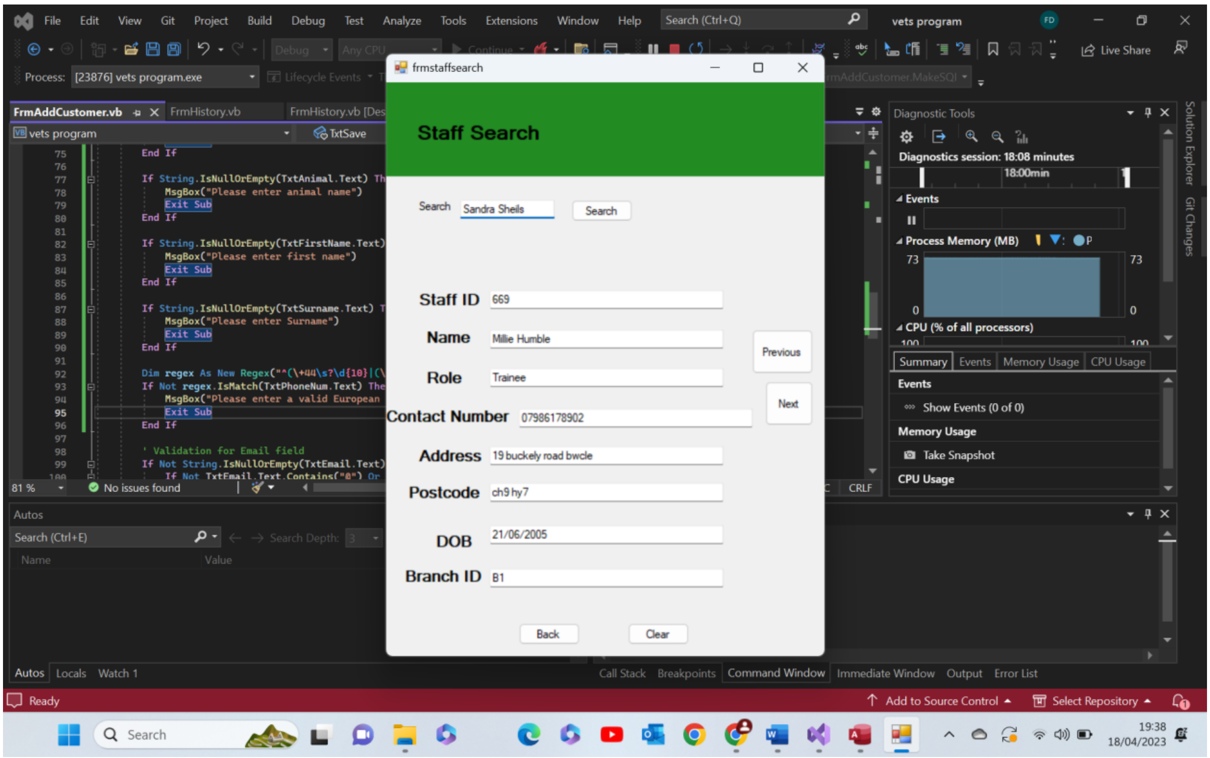
Test 13.9 comments- as we can see the back button hidden the add staff form and shown the staff option form. Pass

Test group 14- View staff form:

Test number	**Test data**	**Actual outcome**	**Verdict**	**Comments**
1	**Valid data ‘Sandra Sheils’**	**In the event a valid name was entered all details associated with that person in the database were read and then written to the text boxes on the form**	**Pass**	**N/A**
2	**Invalid data ‘s4andra SHEils’**	**In the event an invalid name was entered a message box appeared stating ‘no record found’**	**Pass**	**N/A**
3	**Extreme data Text box empty**	**In the event an invalid name, or empty in this case, was entered a**	**Pass**	**Maybe a distinguishing text box would be preferable here,**

		message box appeared stating 'no record found'		something along the lines of 'no data entered' rather than 'no records found'
4	Functional test Next button pressed	When the next button was pressed the 'next' record that had been saved was displayed in the text boxes	Pass	Could alter these two to only work for records with the same names
5	Functional test Previous button pressed	When the previous button was pressed the 'previous' record that had been saved was displayed in the text boxes	Pass	Could alter these two to only work for records with the same names
6	Functional test Clear button pressed	All text boxes became void of data	Pass	N/A
7	Functional test Back button pressed	Current form closed and staff option form was shown.	Pass	N/A

14.1-

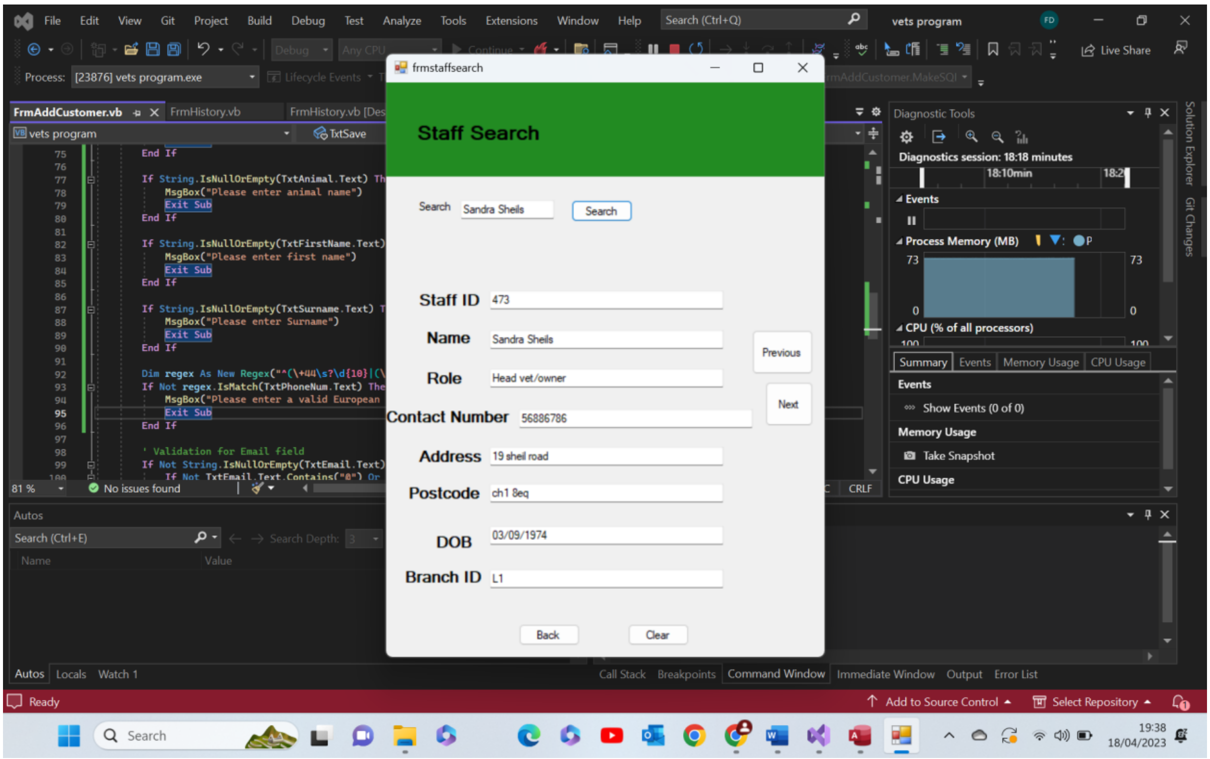


```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Th
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text)
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) T
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\
            If Not regex.IsMatch(TxtPhoneNum.Text) The
                MsgBox("Please enter a valid European
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text)
                If Not TxtEmail.Text.Contains("@") Or
```

frmstaffsearch

Staff Search

Search	Sandra Sheils
Staff ID	669
Name	Millie Humble
Role	Trainee
Contact Number	07986178902
Address	19 buckely road bwcle
Postcode	ch9 hy7
DOB	21/06/2005
Branch ID	B1

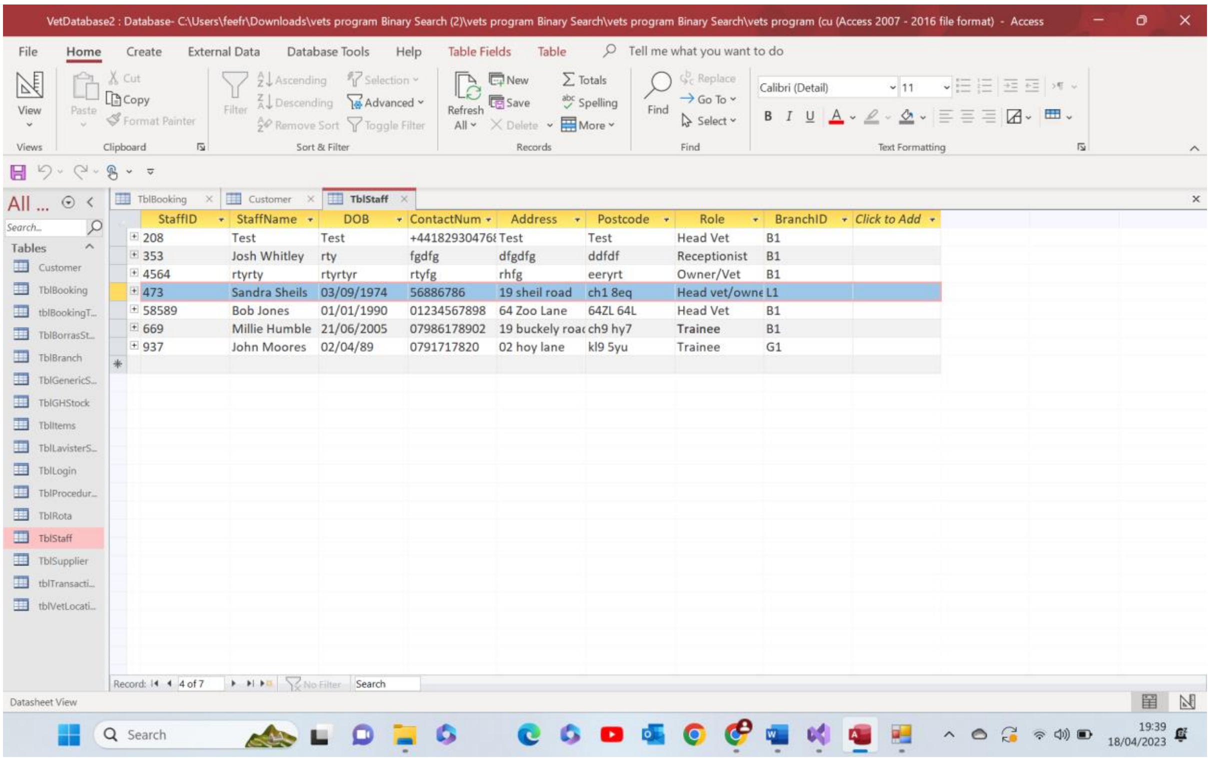


```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Th
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text)
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) T
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\
            If Not regex.IsMatch(TxtPhoneNum.Text) The
                MsgBox("Please enter a valid European
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text)
                If Not TxtEmail.Text.Contains("@") Or
```

frmstaffsearch

Staff Search

Search	Sandra Sheils
Staff ID	473
Name	Sandra Sheils
Role	Head vet/owner
Contact Number	56886786
Address	19 sheil road
Postcode	ch1 8eq
DOB	03/09/1974
Branch ID	L1



VetDatabase2 : Database- C:\Users\feefr\Downloads\vets program Binary Search (2)\vets program Binary Search\vets program Binary Search\vets program (cu (Access 2007 - 2016 file format) - Access

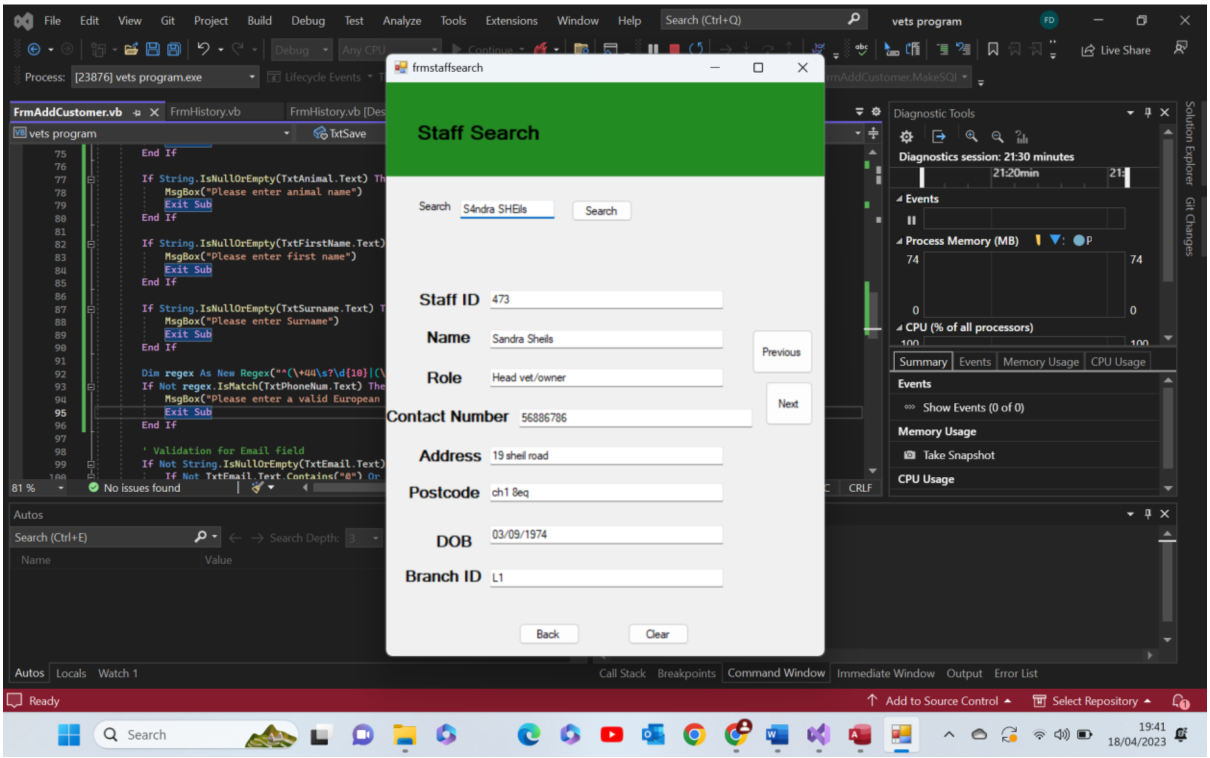
TblStaff

StaffID	StaffName	DOB	ContactNum	Address	Postcode	Role	BranchID	Click to Add
208	Test	Test	+44182930476ł	Test	Test	Head Vet	B1	
353	Josh Whitley	rty	fgdfg	dfgdfg	ddfdf	Receptionist	B1	
4564	rtyrty	rtyrtyr	rtyfg	rhfg	eeryrt	Owner/Vet	B1	
473	Sandra Sheils	03/09/1974	56886786	19 sheil road	ch1 8eq	Head vet/owne	L1	
58589	Bob Jones	01/01/1990	01234567898	64 Zoo Lane	64ZL 64L	Head Vet	B1	
669	Millie Humble	21/06/2005	07986178902	19 buckely roac	ch9 hy7	Trainee	B1	
937	John Moores	02/04/89	0791717820	02 hoy lane	kl9 5yu	Trainee	G1	

Record: 4 of 7

Test 14.1 comments- as we can see above when valid data is inputted, in this case ‘Sandra Sheils’ the program recognises that this name appears in the data base in the table staff, it the fetches all the correlating information and writes them into the text boxes below the search bar. As we can see from the above database screenshot the correct information was put into text boxes correlating with the name.

14.2-

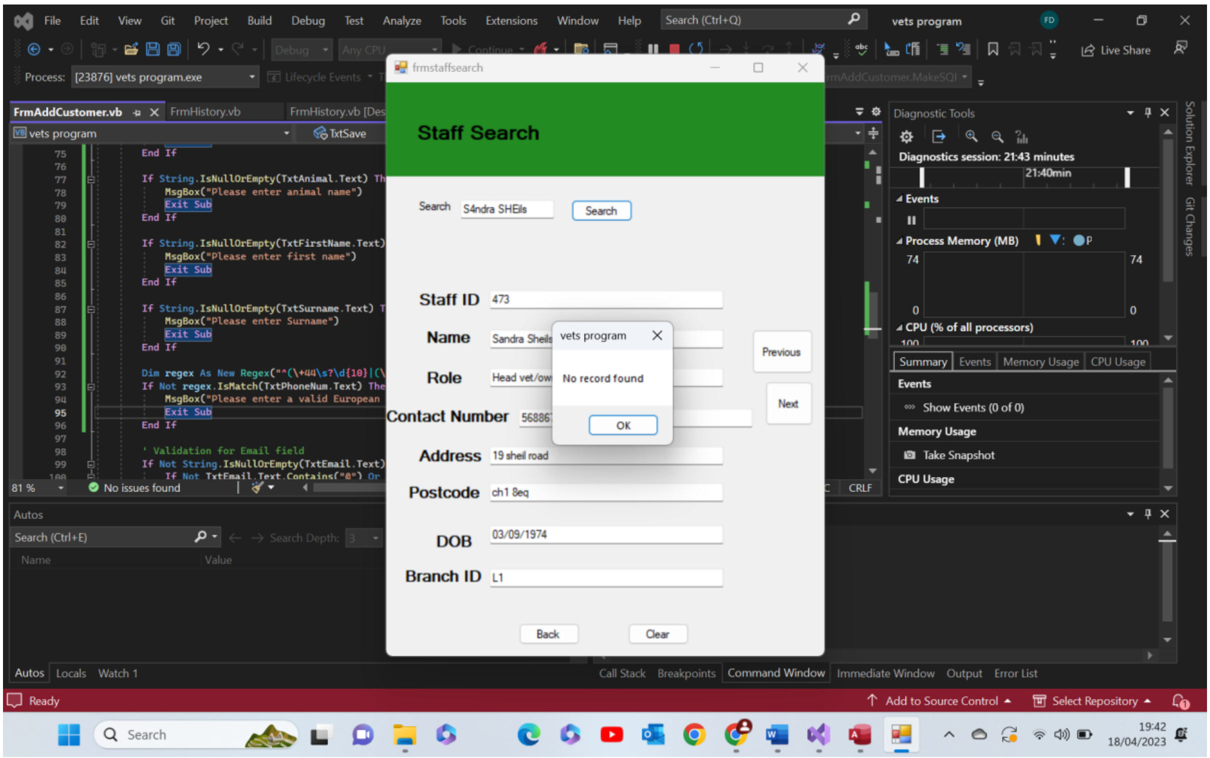


frmstaffsearch

Staff Search

Search	S4ndra SHEils
Staff ID	473
Name	Sandra Sheils
Role	Head vet/owner
Contact Number	56886786
Address	19 sheil road
Postcode	ch1 8eq
DOB	03/09/1974
Branch ID	L1

```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Th
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text)
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) T
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\
            If Not regex.IsMatch(TxtPhoneNum.Text) The
                MsgBox("Please enter a valid European
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text)
                If Not TxtEmail.Text.Contains("@") Or
```



```
        End If

        If String.IsNullOrEmpty(TxtAnimal.Text) Th
            MsgBox("Please enter animal name")
            Exit Sub
        End If

        If String.IsNullOrEmpty(TxtFirstName.Text)
            MsgBox("Please enter first name")
            Exit Sub
        End If

        If String.IsNullOrEmpty(TxtSurname.Text) T
            MsgBox("Please enter Surname")
            Exit Sub
        End If

        Dim regex As New Regex("^(\+44\s?\d{10}|(\
        If Not regex.IsMatch(TxtPhoneNum.Text) The
            MsgBox("Please enter a valid European
            Exit Sub
        End If

        ' Validation for Email field
        If Not String.IsNullOrEmpty(TxtEmail.Text)
            If Not TxtEmail.Text.Contains("@") Or
```

frmstaffsearch

Staff Search

Search: S4ndra SHEils

Staff ID: 473

Name: Sandra Sheils

Role: Head vet/owner

Contact Number: 56886786

Address: 19 sheil road

Postcode: ch1 8eq

DOB: 03/09/1974

Branch ID: L1

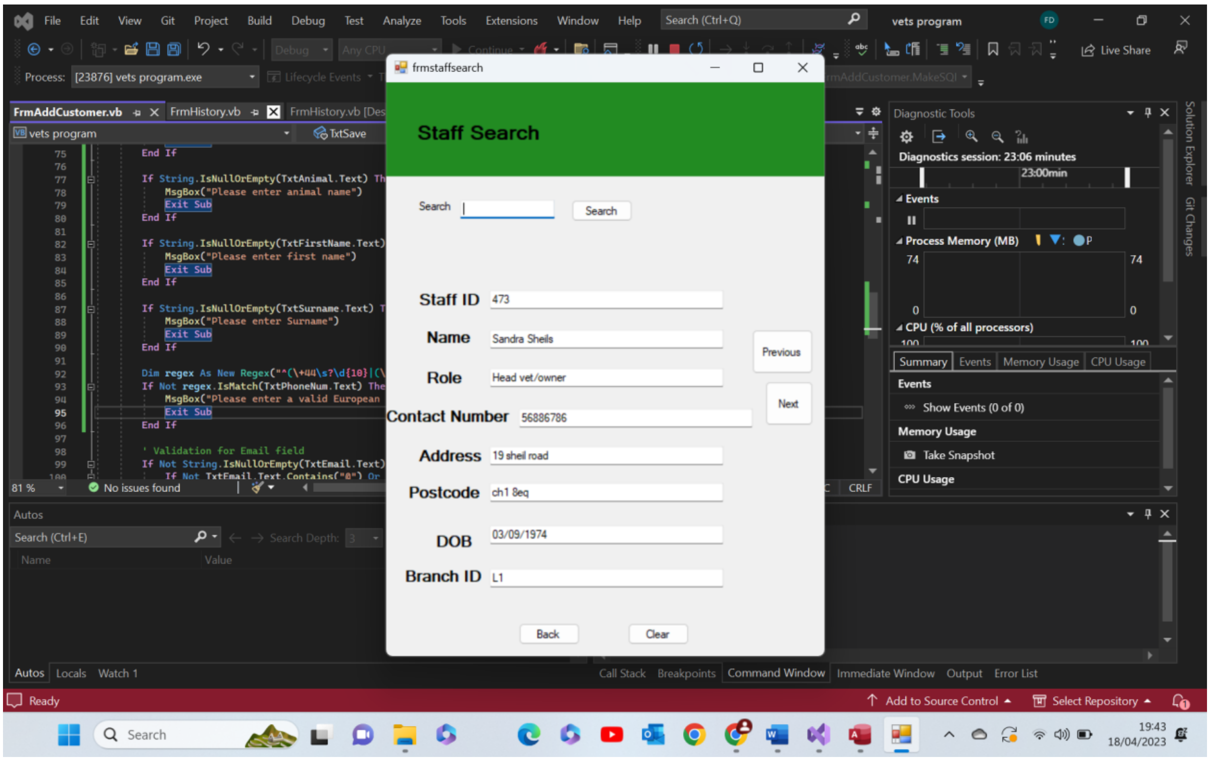
vets program

No record found

OK

Test 14.2 comments- as we can see above when invalid data in entered into the search bar the program recognises that the name does not match any saved record in the database. It the outputs a message box warning the user of the issue. Pass

14.3-



```
        End If

        If String.IsNullOrEmpty(TxtAnimal.Text) Th
            MsgBox("Please enter animal name")
            Exit Sub
        End If

        If String.IsNullOrEmpty(TxtFirstName.Text)
            MsgBox("Please enter first name")
            Exit Sub
        End If

        If String.IsNullOrEmpty(TxtSurname.Text) T
            MsgBox("Please enter Surname")
            Exit Sub
        End If

        Dim regex As New Regex("^(\+44\s?\d{10}|(\
        If Not regex.IsMatch(TxtPhoneNum.Text) The
            MsgBox("Please enter a valid European
            Exit Sub
        End If

        ' Validation for Email field
        If Not String.IsNullOrEmpty(TxtEmail.Text)
            If Not TxtEmail.Text.Contains("@") Or
```

frmstaffsearch

Staff Search

Search:

Staff ID: 473

Name: Sandra Sheils

Role: Head vet/owner

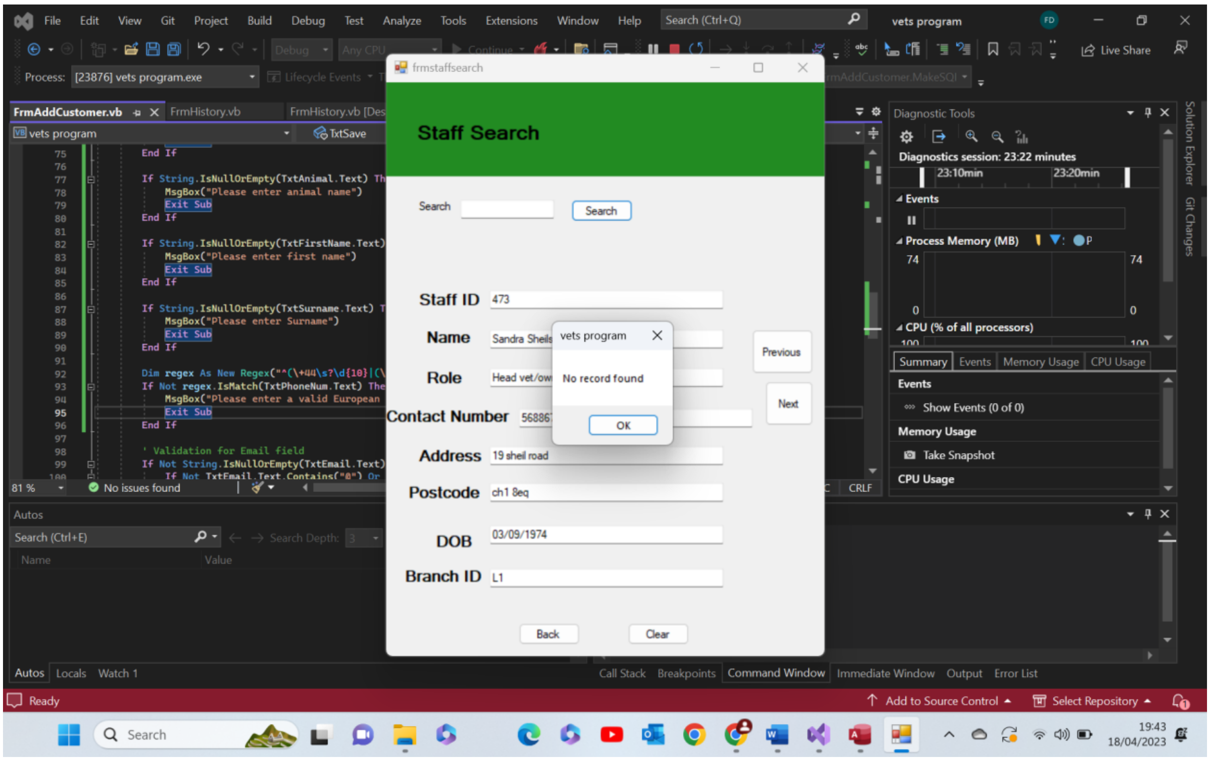
Contact Number: 56886786

Address: 19 sheil road

Postcode: ch1 8eq

DOB: 03/09/1974

Branch ID: L1



```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Th
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text)
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) T
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\
            If Not regex.IsMatch(TxtPhoneNum.Text) The
                MsgBox("Please enter a valid European
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text)
                If Not TxtEmail.Text.Contains("@") Or
```

frmstaffsearch

Staff Search

Search:

Staff ID: 473

Name: Sandra Sheils

Role: Head vet/ow

Contact Number: 56886

Address: 19 sheil road

Postcode: ch1 8eq

DOB: 03/09/1974

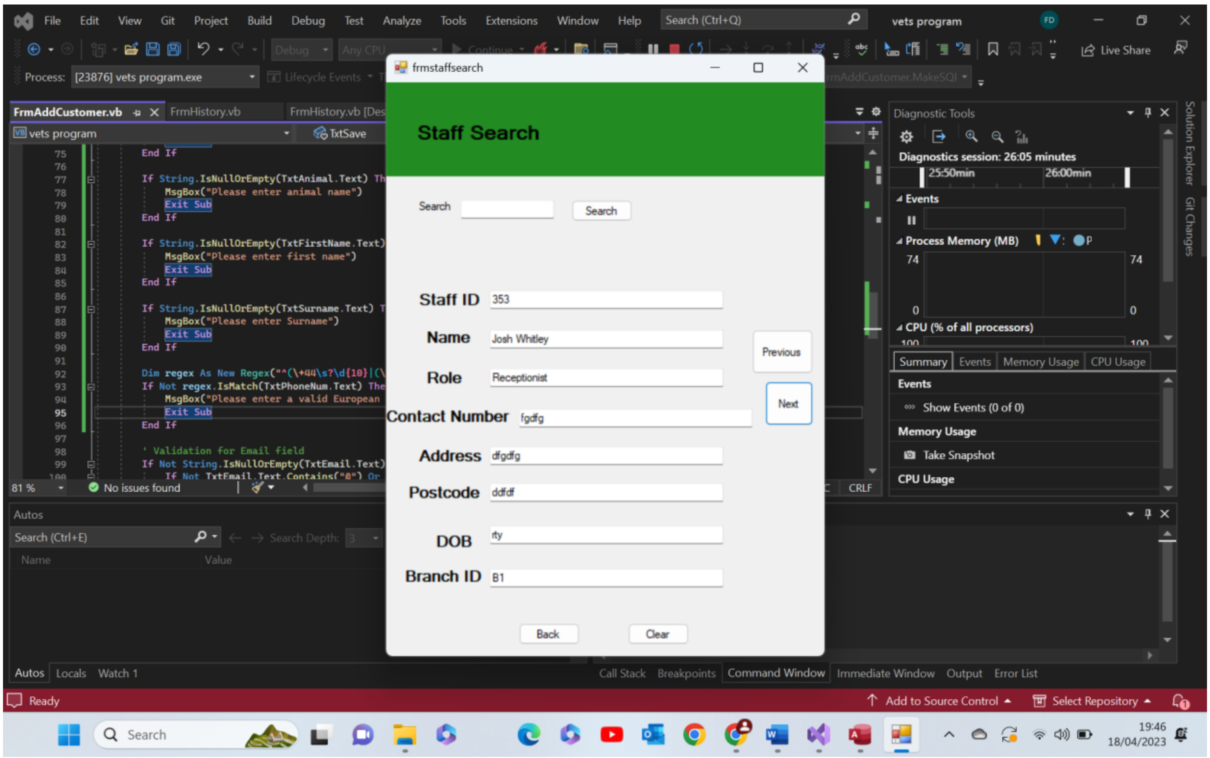
Branch ID: L1

vets program

No record found

Test 14.3 comments – as we can see when extreme data in entered, in this case a null text box, the program also recognises this data does not exists in the database and so outputs an appropriate message box. One improvement I could imagine is adding a specific function for when the search bar is null saying 'no data entered' just so the user can distinguish between them. Pass

14.4-



```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Th
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text)
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) T
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\
            If Not regex.IsMatch(TxtPhoneNum.Text) The
                MsgBox("Please enter a valid European
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text)
                If Not TxtEmail.Text.Contains("@") Or
```

frmstaffsearch

Staff Search

Search:

Staff ID: 353

Name: Josh Whitley

Role: Receptionist

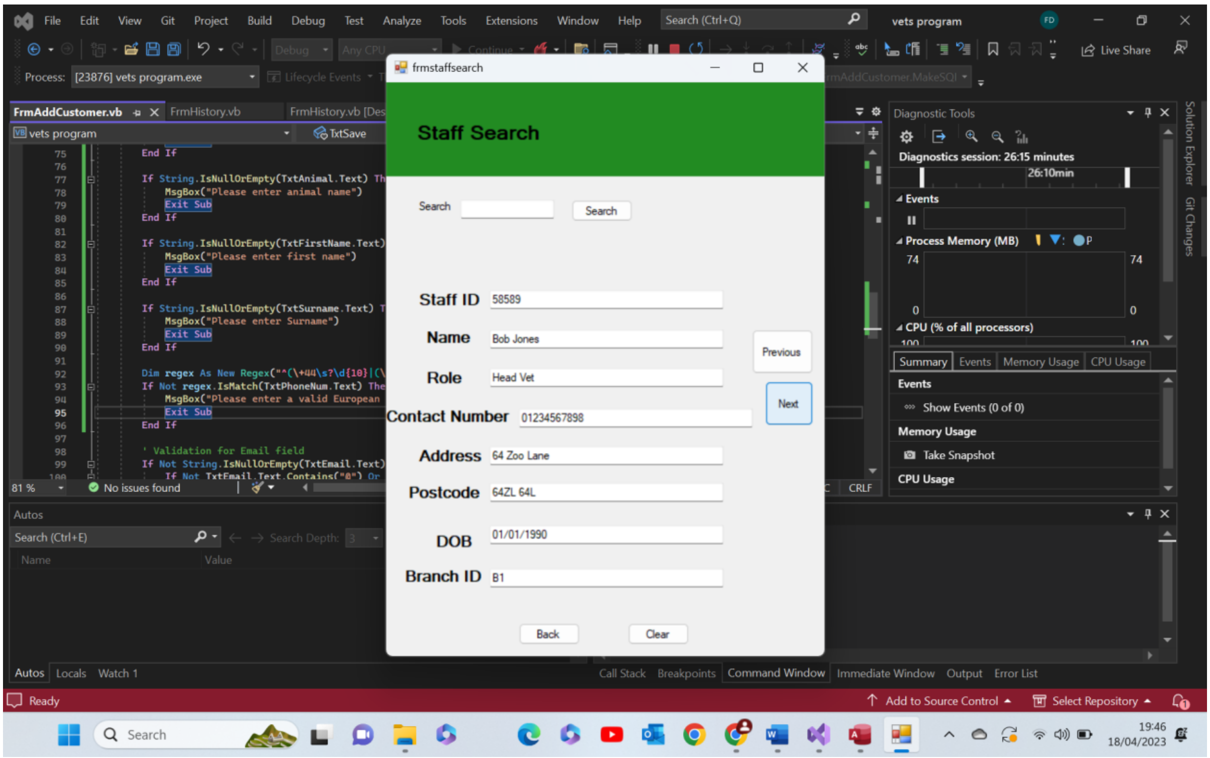
Contact Number: fgdfg

Address: dfgdfg

Postcode: ddfdf

DOB: fty

Branch ID: B1



```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Th
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text)
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) T
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\
            If Not regex.IsMatch(TxtPhoneNum.Text) The
                MsgBox("Please enter a valid European
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text)
                If Not TxtEmail.Text.Contains("@") Or
```

81 % No issues found

frmstaffsearch

Staff Search

Search [ ] Search

Staff ID 58589

Name Bob Jones

Role Head Vet

Contact Number 01234567898

Address 64 Zoo Lane

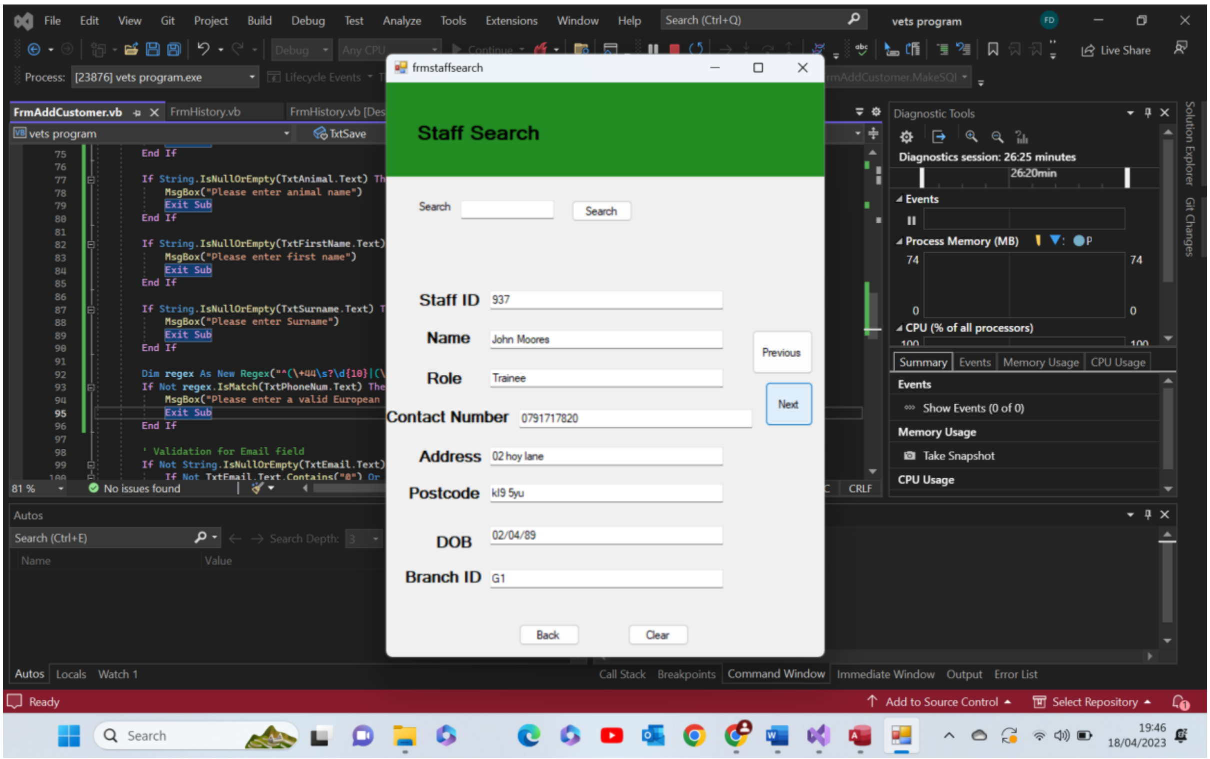
Postcode 64ZL 64L

DOB 01/01/1990

Branch ID B1

Previous Next Back Clear

Diagnostics session: 26:15 minutes



frmstaffsearch

Staff Search

Search [ ] Search

Staff ID 937

Name John Moores

Role Trainee

Contact Number 0791717820

Address 02 hoy lane

Postcode kl9 5yu

DOB 02/04/89

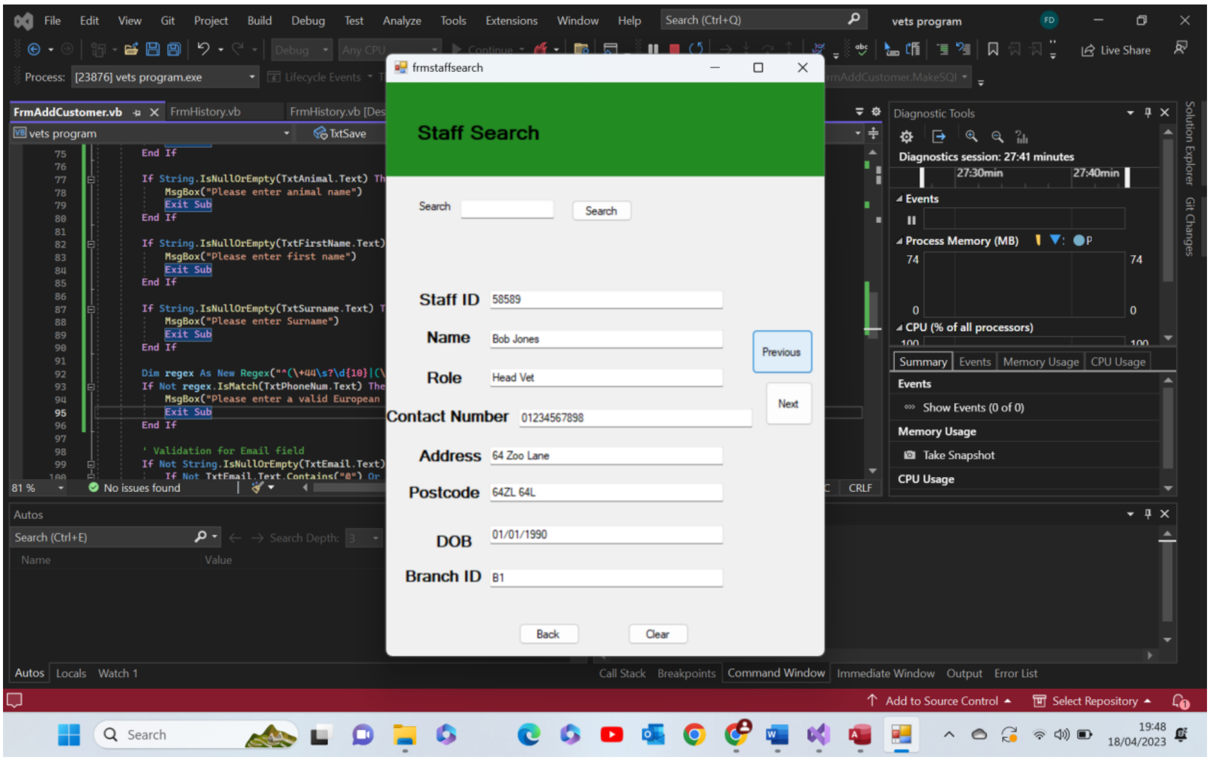
Branch ID G1

Previous Next Back Clear

Diagnostics session: 26:25 minutes

Test 14.4 comments- as we can see when the next button is selected the program cycles through all the records saved in the staff table in the database and writes the new data into the text boxes in place of the old. Pass

14.5-



```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Th
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text)
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) T
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\
            If Not regex.IsMatch(TxtPhoneNum.Text) The
                MsgBox("Please enter a valid European
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text)
                If Not TxtEmail.Text.Contains("@") Or
```

Staff Search

Search

Staff ID 58589

Name Bob Jones

Role Head Vet

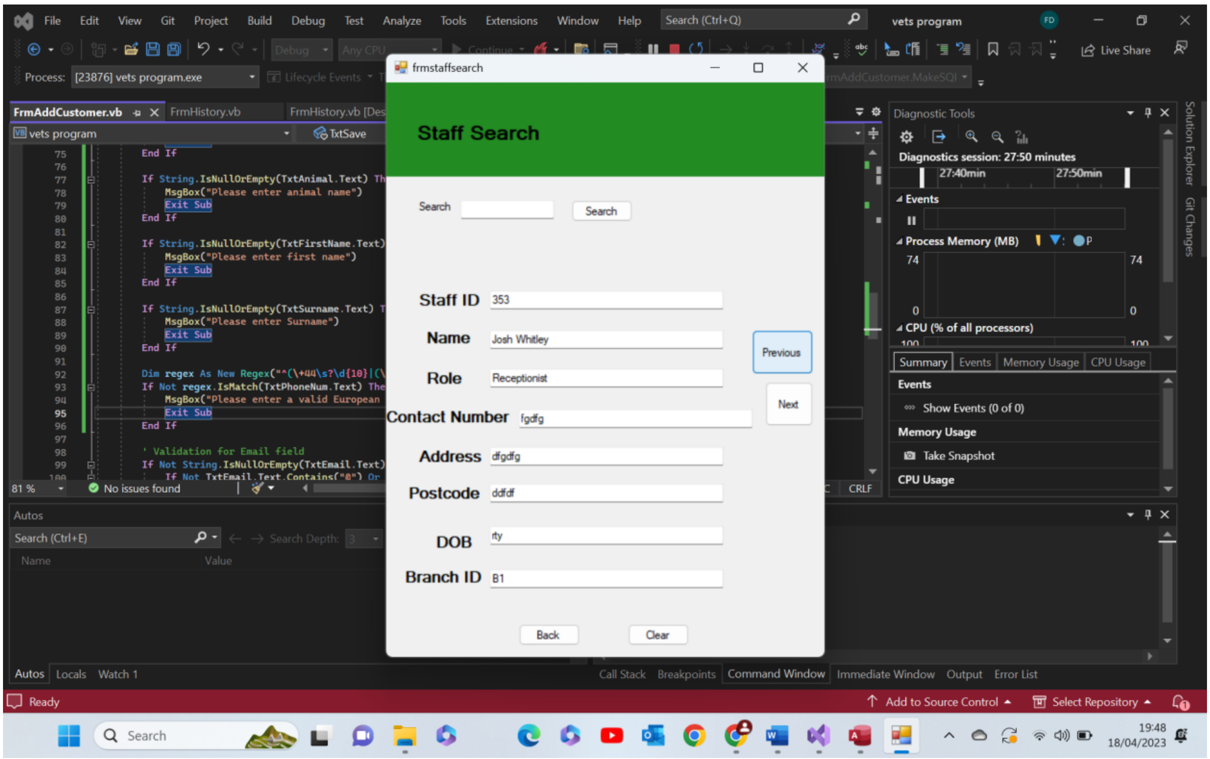
Contact Number 01234567898

Address 64 Zoo Lane

Postcode 64ZL 64L

DOB 01/01/1990

Branch ID B1



```
            End If

            If String.IsNullOrEmpty(TxtAnimal.Text) Th
                MsgBox("Please enter animal name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtFirstName.Text)
                MsgBox("Please enter first name")
                Exit Sub
            End If

            If String.IsNullOrEmpty(TxtSurname.Text) T
                MsgBox("Please enter Surname")
                Exit Sub
            End If

            Dim regex As New Regex("^(\+44\s?\d{10}|(\
            If Not regex.IsMatch(TxtPhoneNum.Text) The
                MsgBox("Please enter a valid European
                Exit Sub
            End If

            ' Validation for Email field
            If Not String.IsNullOrEmpty(TxtEmail.Text)
                If Not TxtEmail.Text.Contains("@") Or
```

Staff Search

Search

Staff ID 353

Name Josh Whitley

Role Receptionist

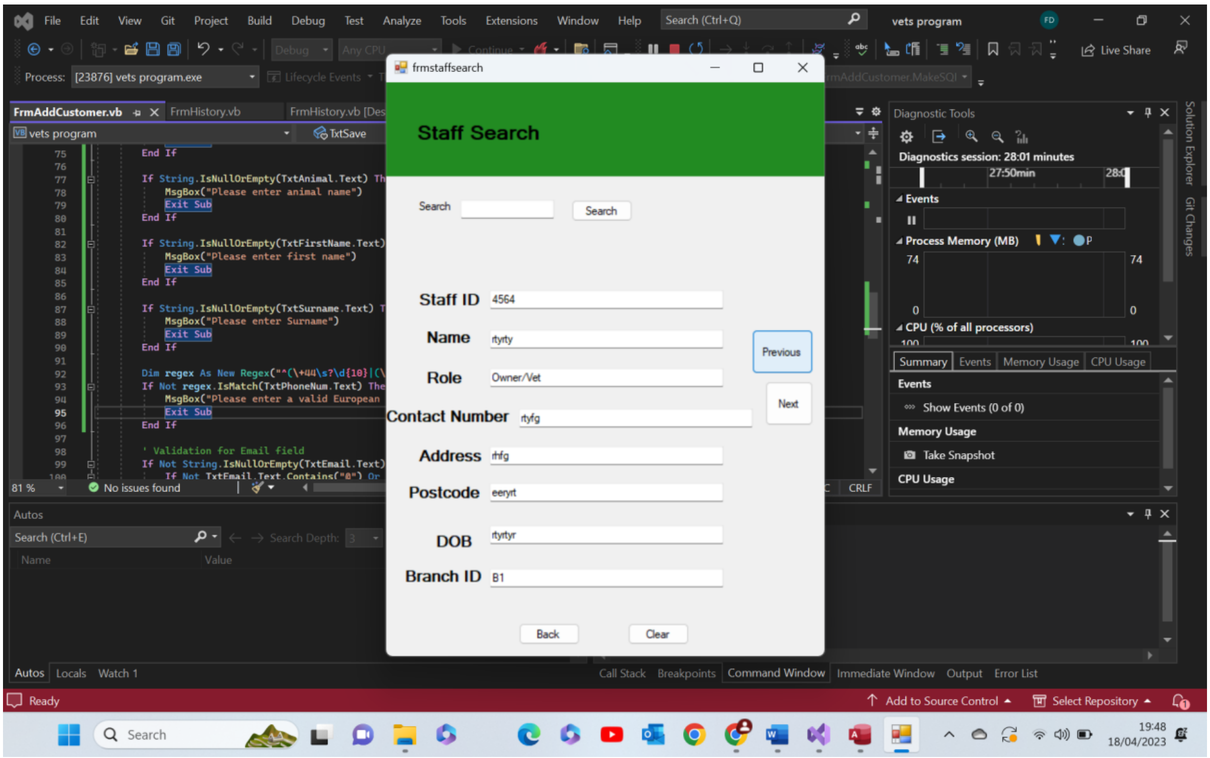
Contact Number fgdfg

Address dfgdfg

Postcode ddfdf

DOB rty

Branch ID B1



```
End If

If String.IsNullOrEmpty(TxtAnimal.Text) Th
    MsgBox("Please enter animal name")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtFirstName.Text)
    MsgBox("Please enter first name")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtSurname.Text) T
    MsgBox("Please enter Surname")
    Exit Sub
End If

Dim regex As New Regex("^(\+44\s?\d{10}|(\
If Not regex.IsMatch(TxtPhoneNum.Text) The
    MsgBox("Please enter a valid European
    Exit Sub
End If

' Validation for Email field
If Not String.IsNullOrEmpty(TxtEmail.Text)
    If Not TxtEmail.Text.Contains("@") Or
```

frmstaffsearch

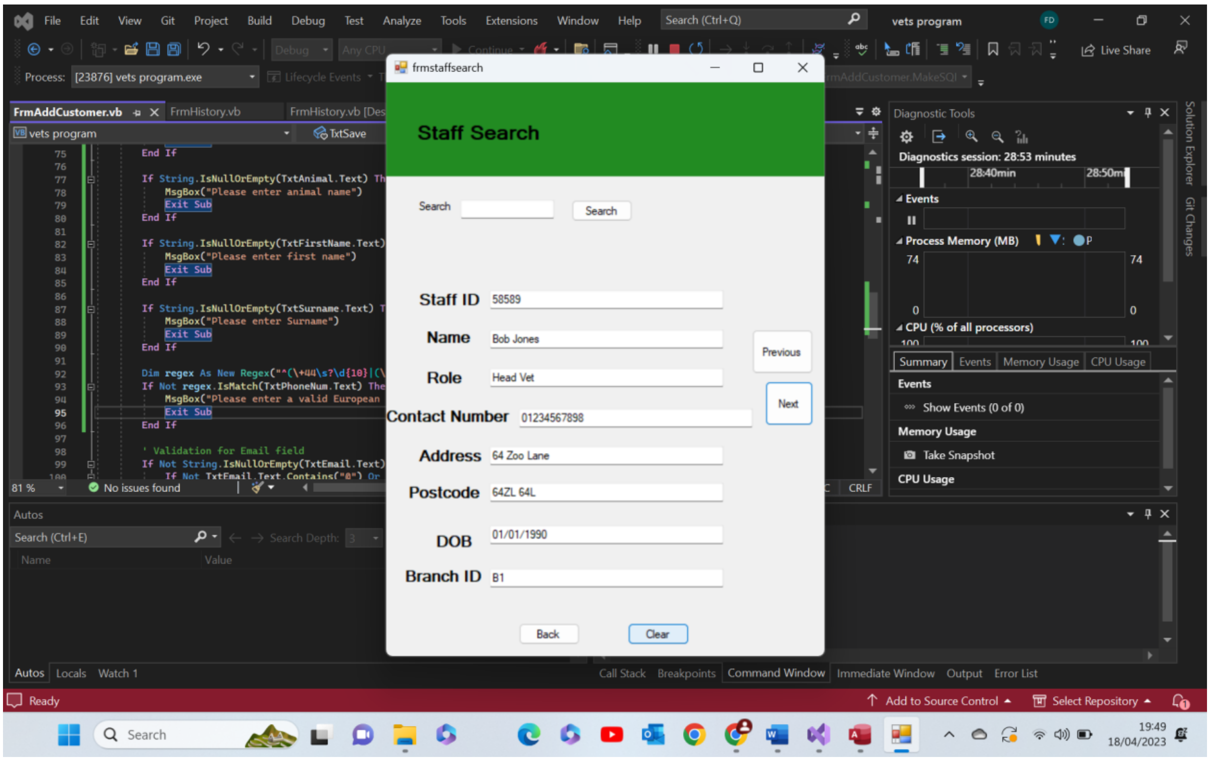
Staff Search

Search	
Staff ID	4564
Name	rtyrty
Role	Owner/Vet
Contact Number	rtyfg
Address	rhfg
Postcode	eeryrt
DOB	rtyrtyr
Branch ID	B1

File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
vets program
Process: [23876] vets program.exe
FrmAddCustomer.vb
FrmHistory.vb
TxtSave
Search
Previous
Next
Back
Clear
Diagnostic Tools
Diagnostics session: 28:01 minutes
Events
Process Memory (MB)
CPU (% of all processors)
Summary Events Memory Usage CPU Usage
Show Events (0 of 0)
Take Snapshot
81 %
No issues found
Autos
Name
Value
Call Stack Breakpoints Command Window Immediate Window Output Error List
Ready
Add to Source Control
Select Repository
19:48
18/04/2023

Test 15.5 comments - as we can see when the previous button is selected the program cycles through all the records saved in the staff table in the database and writes the new data into the text boxes in place of the old. Pass

14.6-



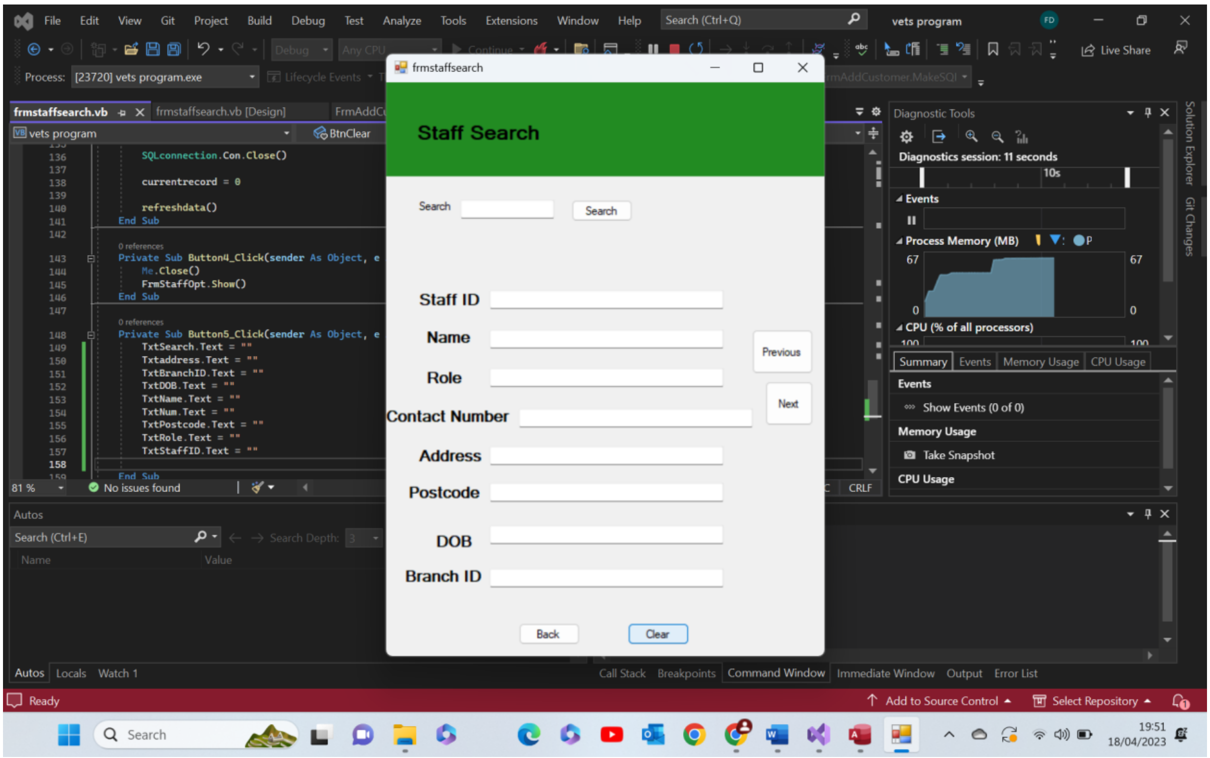
```
End If

If String.IsNullOrEmpty(TxtAnimal.Text) Th
    MsgBox("Please enter animal name")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtFirstName.Text)
    MsgBox("Please enter first name")
    Exit Sub
End If

If String.IsNullOrEmpty(TxtSurname.Text) T
    MsgBox("Please enter Surname")
    Exit Sub
End If

Dim regex As New Regex("^(\+44\s?\d{10}|(\
If Not regex.IsMatch(TxtPhoneNum.Text) The
    MsgBox("Please enter a valid European
    Exit Sub
End If

' Validation for Email field
If Not String.IsNullOrEmpty(TxtEmail.Text)
    If Not TxtEmail.Text.Contains("@") Or
```

frmstaffsearch

Staff Search

Search	
Staff ID	58589
Name	Bob Jones
Role	Head Vet
Contact Number	01234567898
Address	64 Zoo Lane
Postcode	64ZL 64L
DOB	01/01/1990
Branch ID	B1

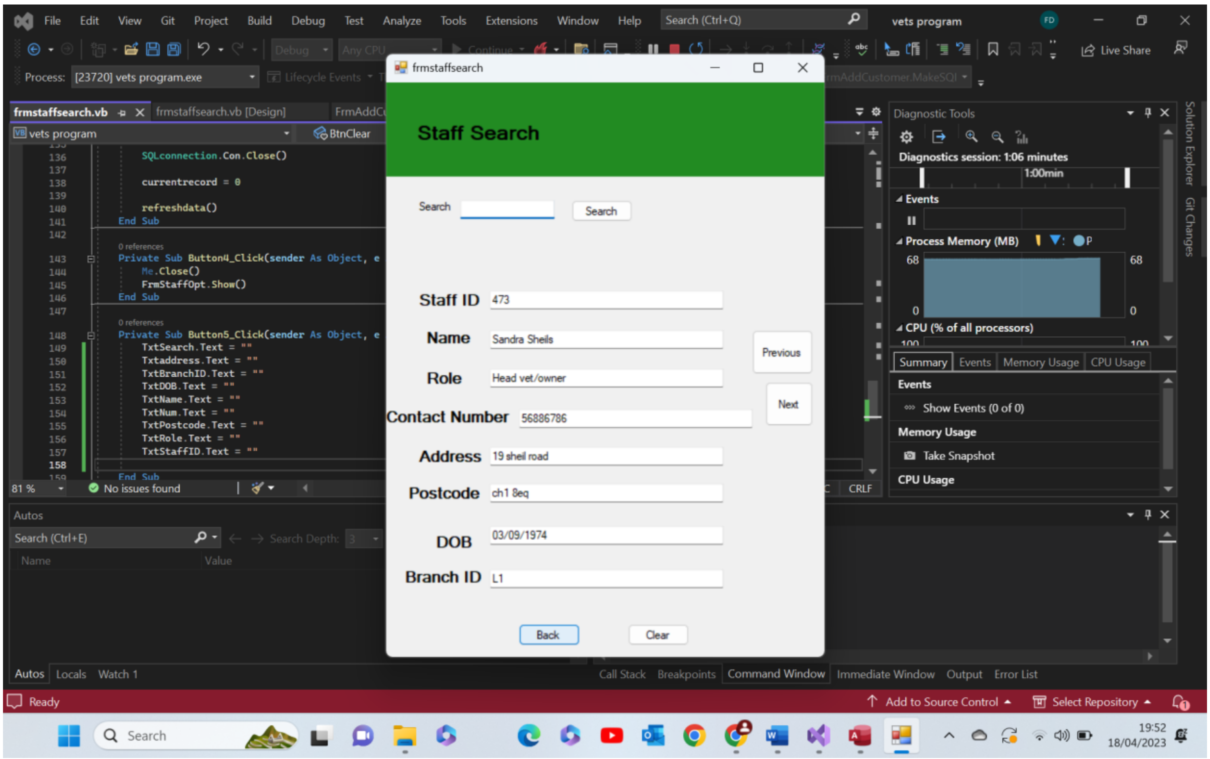
File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
vets program
Process: [23876] vets program.exe
FrmAddCustomer.vb
FrmHistory.vb
TxtSave
Search
Previous
Next
Back
Clear
Diagnostic Tools
Diagnostics session: 28:53 minutes
Events
Process Memory (MB)
CPU (% of all processors)
Summary Events Memory Usage CPU Usage
Show Events (0 of 0)
Take Snapshot
81 %
No issues found
Autos
Name
Value
Call Stack Breakpoints Command Window Immediate Window Output Error List
Ready
Add to Source Control
Select Repository
19:49
18/04/2023



```
        SQLconnection.Con.Close()

        currentrecord = 0

        refreshdata()
    End Sub

    Private Sub Button4_Click(sender As Object, e
        Me.Close()
        FrmStaffOpt.Show()
    End Sub

    Private Sub Button5_Click(sender As Object, e
        TxtSearch.Text = ""
        Txtaddress.Text = ""
        TxtBranchID.Text = ""
        TxtDOB.Text = ""
        TxtName.Text = ""
        TxtNum.Text = ""
        TxtPostcode.Text = ""
        TxtRole.Text = ""
        TxtStaffID.Text = ""

    End Sub
```

Test 14.6 comments- as we can see when the clear button is pressed all text boxes are set = “” and so become clear. Pass

14.7-



```
        SQLconnection.Con.Close()

        currentrecord = 0

        refreshdata()
    End Sub

    Private Sub Button4_Click(sender As Object, e
        Me.Close()
        FrmStaffOpt.Show()
    End Sub

    Private Sub Button5_Click(sender As Object, e
        TxtSearch.Text = ""
        Txtaddress.Text = ""
        TxtBranchID.Text = ""
        TxtDOB.Text = ""
        TxtName.Text = ""
        TxtNum.Text = ""
        TxtPostcode.Text = ""
        TxtRole.Text = ""
        TxtStaffID.Text = ""

    End Sub
```

Staff ID 473

Name Sandra Sheils

Role Head vet/owner

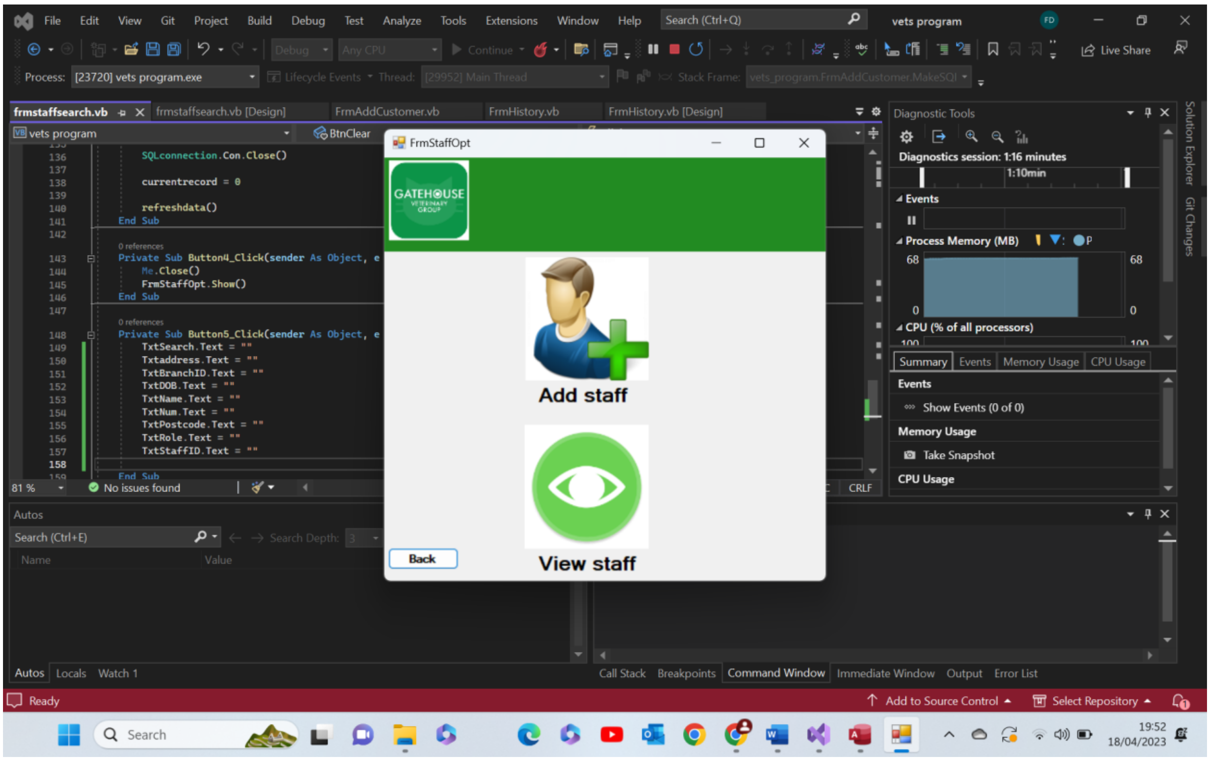
Contact Number 56886786

Address 19 sheil road

Postcode ch1 8eq

DOB 03/09/1974

Branch ID L1



Process: [23720] vets program.exe

```
            SQLconnection.Con.Close()

            currentrecord = 0

            refreshdata()
        End Sub

        0 references
        Private Sub Button4_Click(sender As Object, e
            Me.Close()
            FrmStaffOpt.Show()
        End Sub

        0 references
        Private Sub Button5_Click(sender As Object, e
            TxtSearch.Text = ""
            Txtaddress.Text = ""
            TxtBranchID.Text = ""
            TxtDOB.Text = ""
            TxtName.Text = ""
            TxtNum.Text = ""
            TxtPostcode.Text = ""
            TxtRole.Text = ""
            TxtStaffID.Text = ""

        End Sub
```

81 % No issues found

Diagnostics session: 1:16 minutes

Test 14.7 comments- as we can see when the back button is selected the view staff form is hidden and the staff option form is shown.

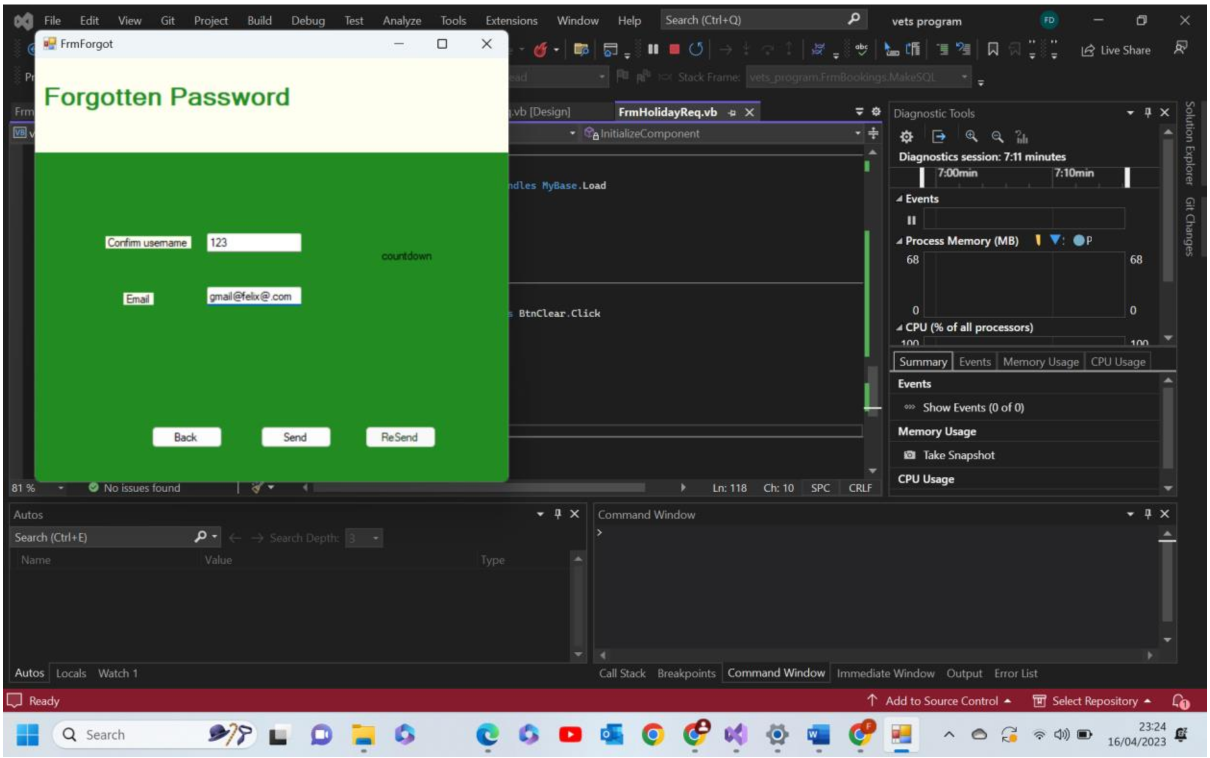
Test group 15- Forgotten Password form:

Test number	Test data	Actual outcome	Verdict	Comments
1	Invalid data used ‘gmail@felix@.com’	As expected the program checked the email against the valid example it has in the code and recognised it had failed the format check. A message box was then output and the email not sent	Pass	N/A
2	Extreme data used	As expected the program recognised the lack of data, output a message box and didn’t	Pass	N/A

		send the email		
3	Extreme data used	As expected the program recognised the lack of data, output a message box and didn’t send the email	Pass	N/A
4	Valid data used Username: 123 Email: Felixvandijkk@gmail.com	As expected the program attempted to send an email and of course failed as I have not paid for an smtp. Instead a message box appeared showing what the email would have looked like along with an explanation of why it didn’t work.	Pass	N/A
5	Valid data used Username: 123 Email: Felixvandijkk@gmail.com	As expected the program attempted to send a follow up email and of course failed as I have not paid for an smtp. Instead a message box appeared showing what the email would have looked like along with an explanation of why it hasn’t worked	Pass	N/A
6	Functional test Re send pressed Valid data entered Username: 123 Email: Felixvandijkk@gmail.com	As expected when valid data was entered and the re send button was pressed a timer appeared	Pass	N/A

		counting down from 60 which indicates when you can attempt to send the email again		
7	Functional test Form loaded	As expected when the send button is pressed it becomes read only leaving only the re send button. Additionally when re send was pressed it became read only until the timer ran out. This is to prevent spamming	Pass	N/A
8	Functional test Back Button pressed	Current form closed and main menu login form opened.	Pass	N/A

15.1-



FrmForgot

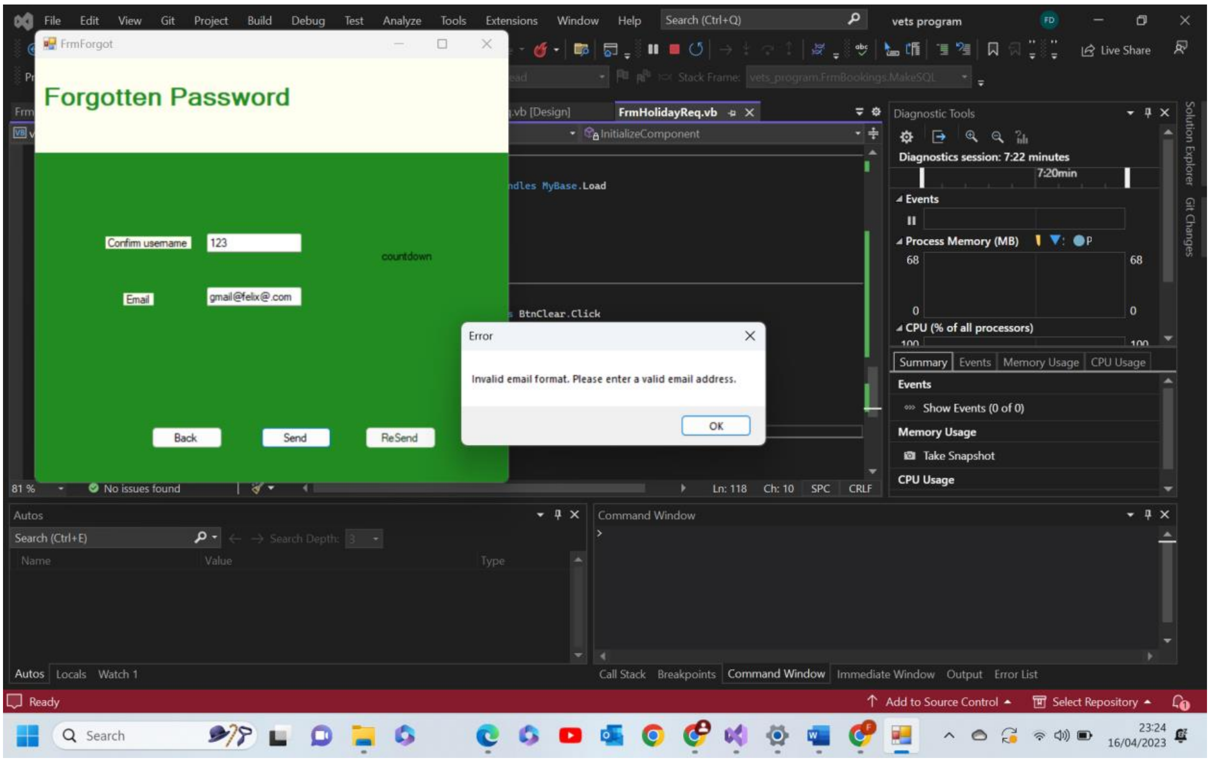
Forgotten Password

Confirm username: 123

Email: gmail@felix@ com

countdown

```
ndles MyBase.Load
s BtnClear.Click
```



FrmForgot

Forgotten Password

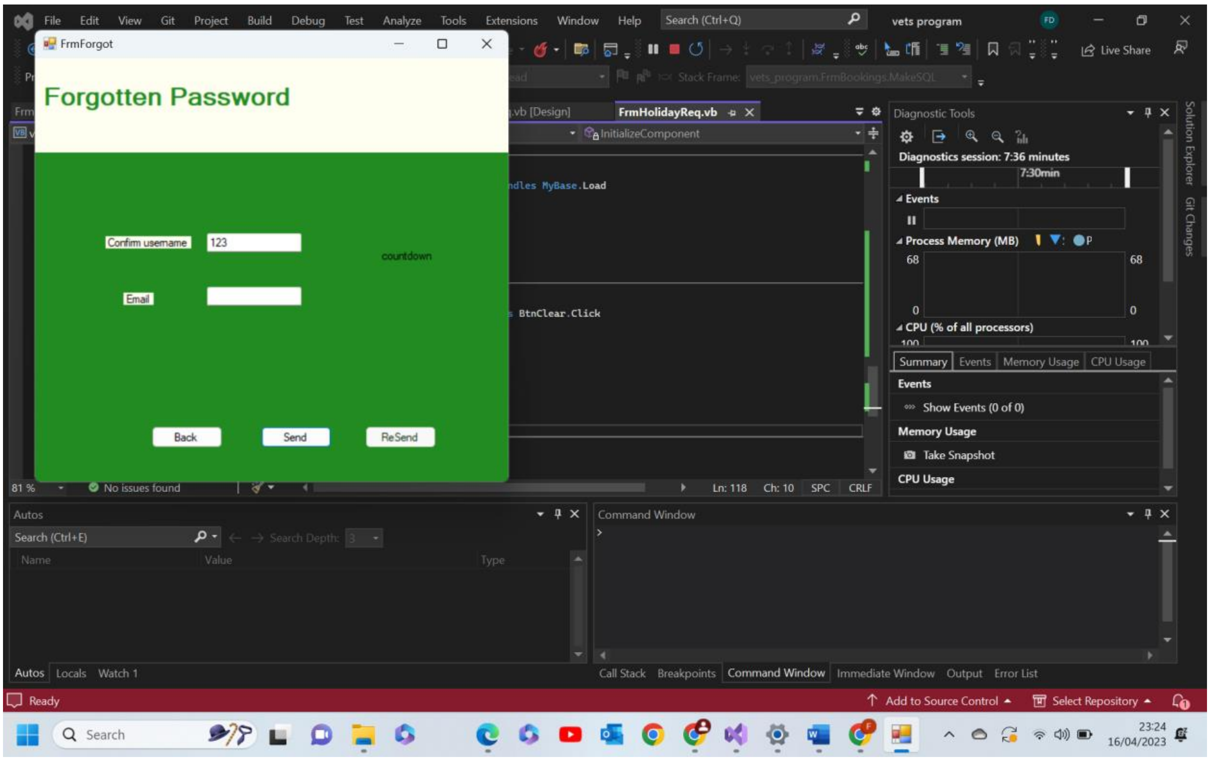
Confirm username: 123

Email: gmail@felix@ com

countdown

Error

Invalid email format. Please enter a valid email address.



FrmForgot

Forgotten Password

Confirm username: 123

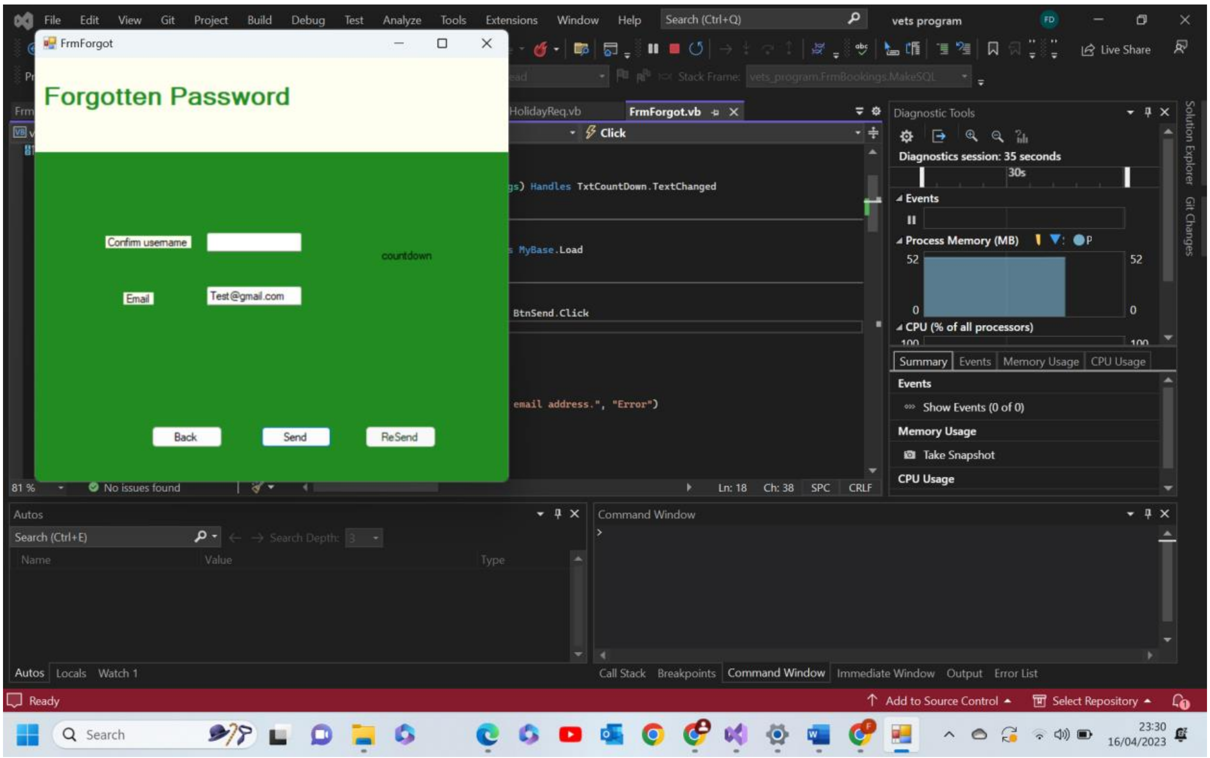
Email:

```
ndles MyBase.Load
```

```
 BtnClear.Click
```

Test 15.1 comments- as we can see from above when an invalid email address is entered that does not comply with the format check, the program recognises the fault and outputs an appropriate message box. It also does not attempt to send the email as it has not passed the validation then clearing the email text box so the user can try again. Pass

15.2-



FrmForgot

Forgotten Password

Confirm username:

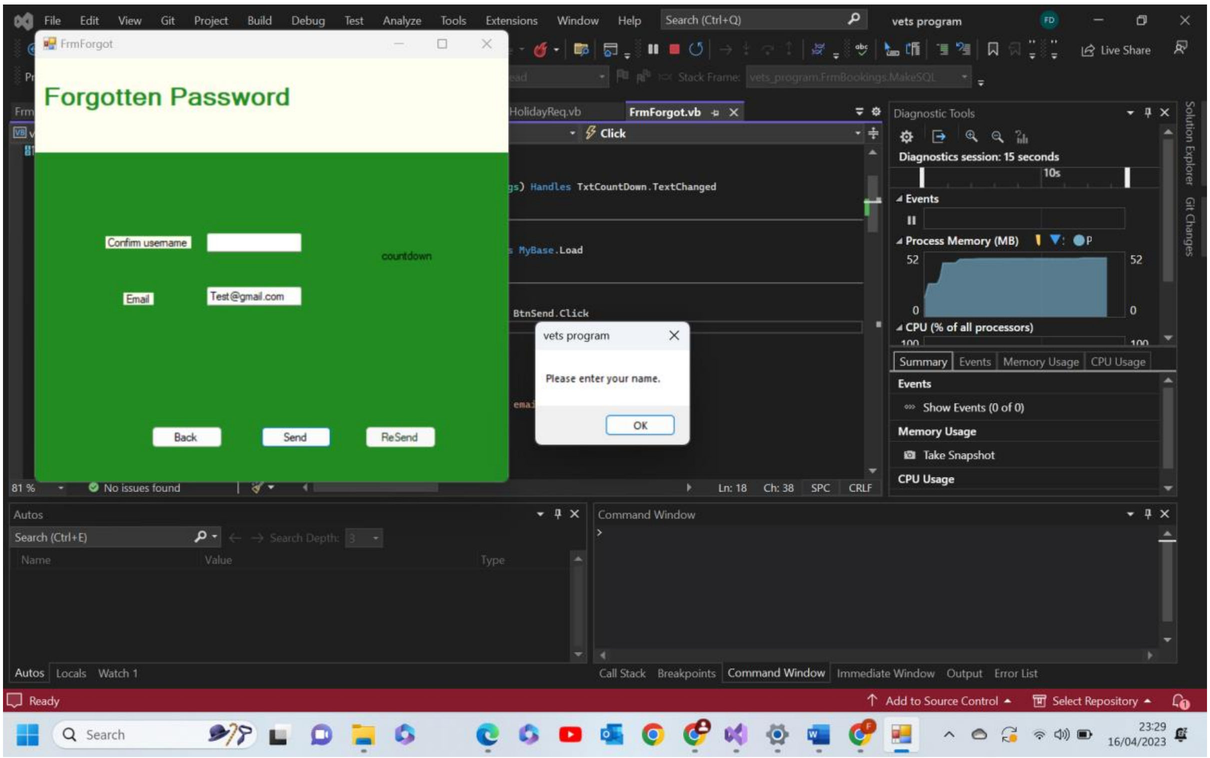
Email: Test@gmail.com

```
gs) Handles TxtCountDown.TextChanged
```

```
 MyBase.Load
```

```
BtnSend.Click
```

```
email address.", "Error")
```



FrmForgot

Forgotten Password

Confirm username:

Email: Test@gmail.com

vets program

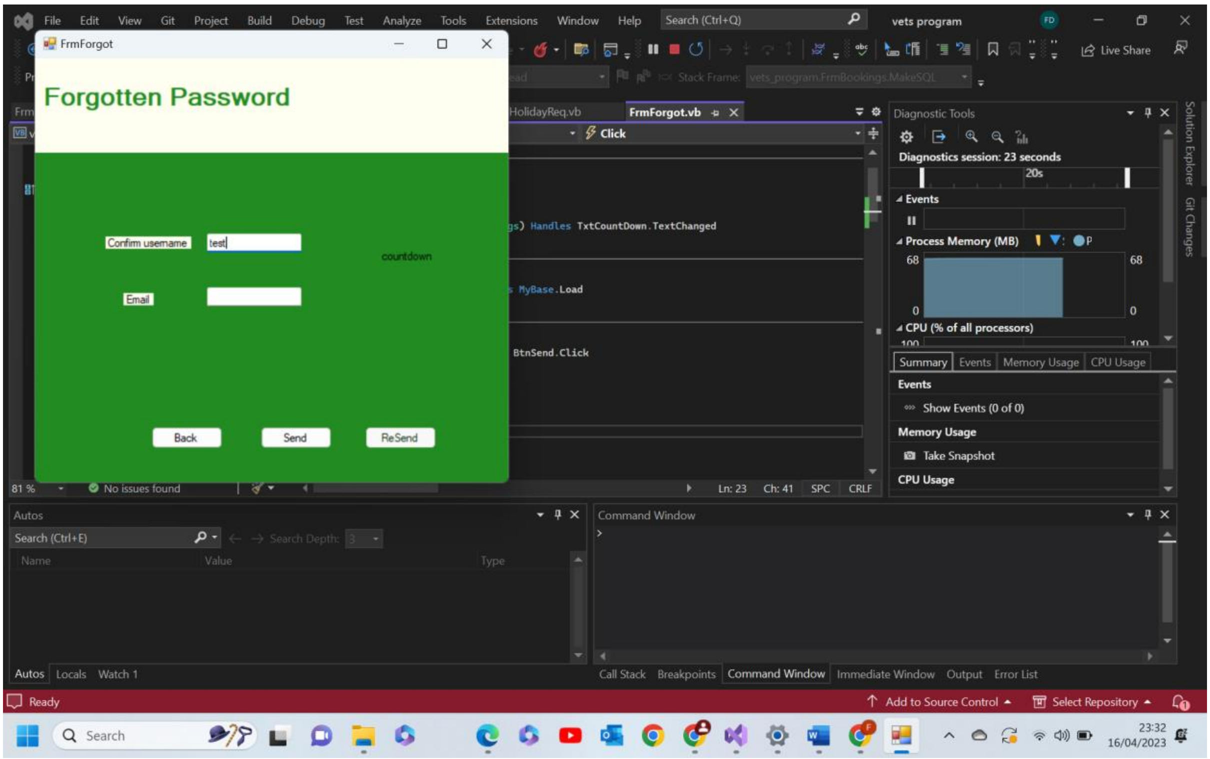
Please enter your name.

OK

```
gs) Handles TxtCountDown.TextChanged
s MyBase.Load
BtnSend.Click
```

Test 15.2 comments- as we can see a successful presence check has been ran on the data in text box Username, the data was not sent due to this failure of validation. Pass

15.3-



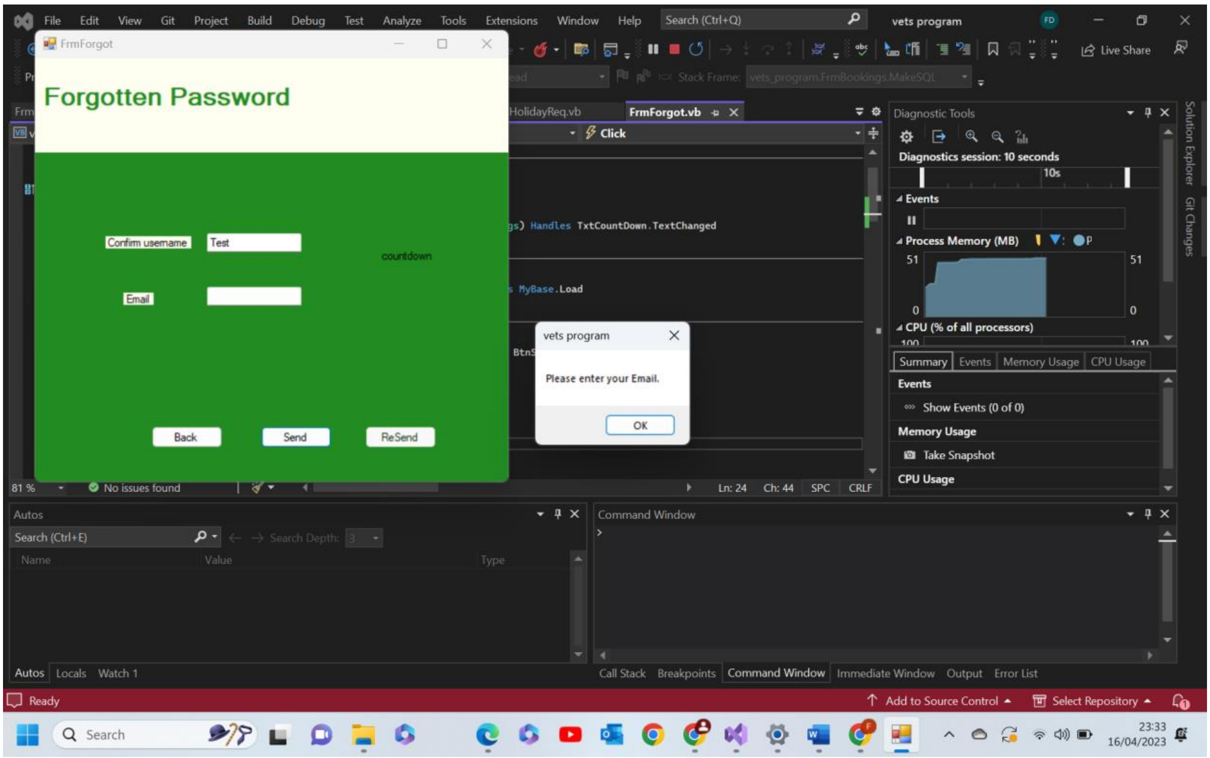
FrmForgot

Forgotten Password

Confirm username: test

Email:

```
gs) Handles TxtCountDown.TextChanged
s MyBase.Load
BtnSend.Click
```



FrmForgot

Forgotten Password

Confirm username: Test

Email:

countdown

Back Send ReSend

vets program

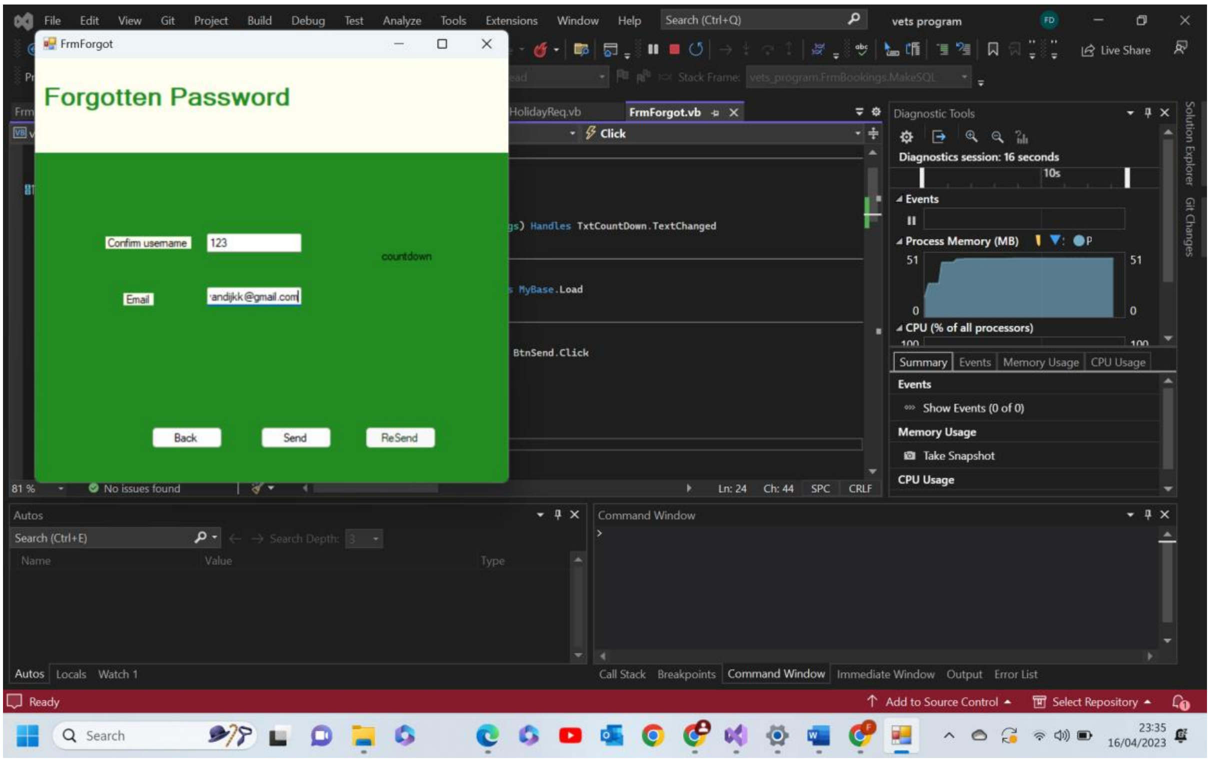
Please enter your Email.

OK

```
gs) Handles TxtCountDown.TextChanged
MyBase.Load
```

Test 15.3 comments- as we can see a successful presence check has been ran on the data in text box email, the data was not sent due to this failure of validation. Pass

15.4-



FrmForgot

Forgotten Password

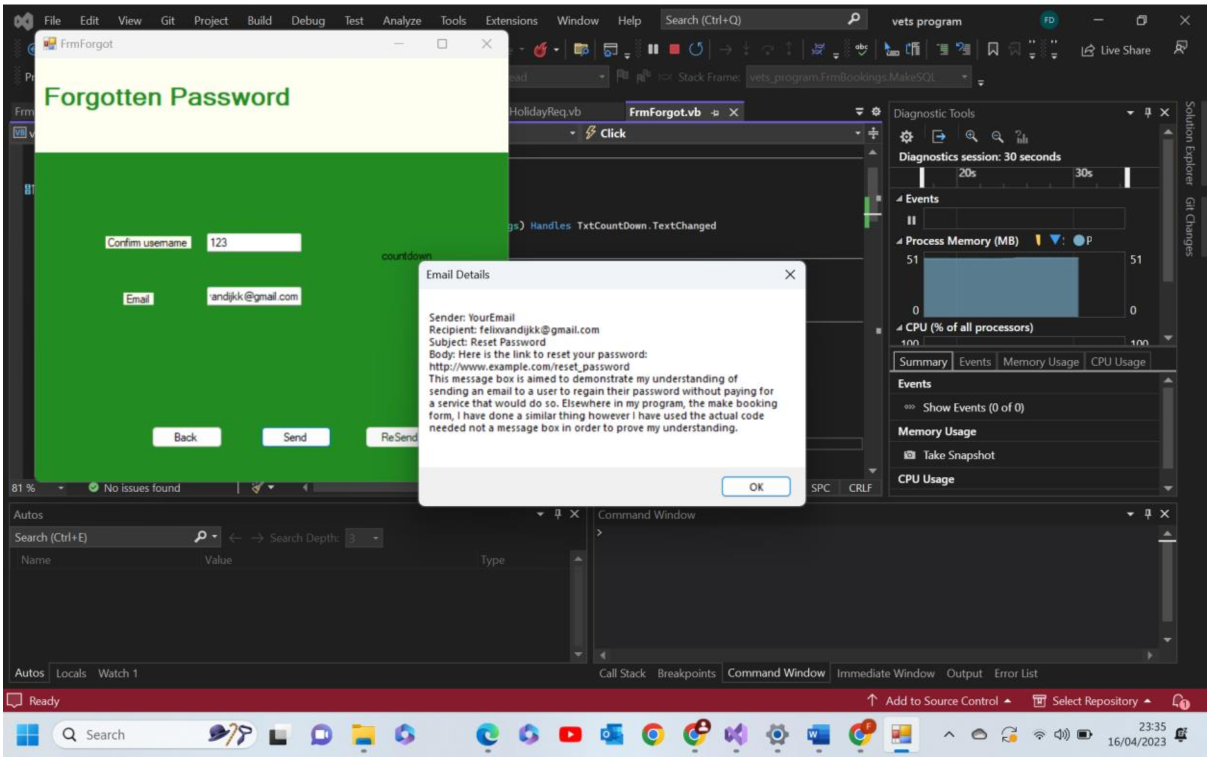
Confirm username: 123

Email: andijkk@gmail.com

countdown

Back Send ReSend

```
gs) Handles TxtCountDown.TextChanged
MyBase.Load
BtnSend.Click
```



Forgotten Password

Confirm username: 123

Email: andijkk@gmail.com

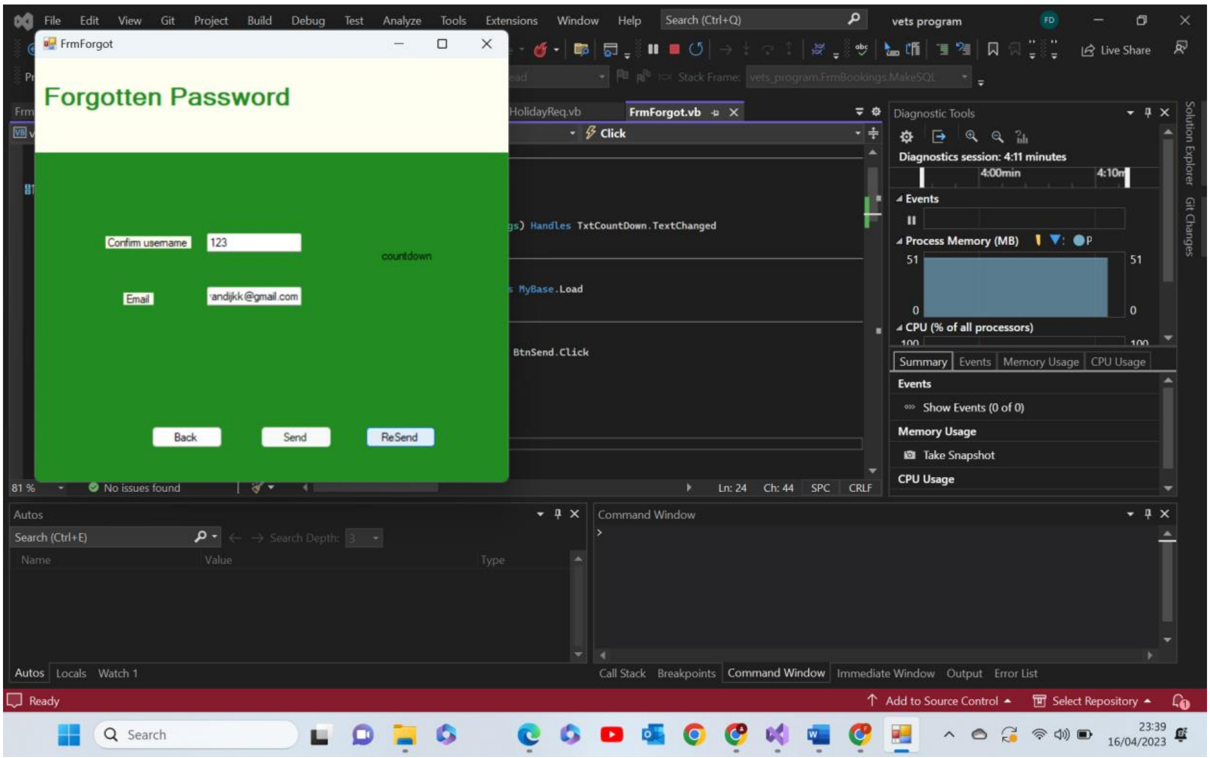
```
gs) Handles TxtCountDown.TextChanged
```

Email Details

Sender: YourEmail
Recipient: felixvandijkk@gmail.com
Subject: Reset Password
Body: Here is the link to reset your password:
http://www.example.com/reset_password
This message box is aimed to demonstrate my understanding of sending an email to a user to regain their password without paying for a service that would do so. Elsewhere in my program, the make booking form, I have done a similar thing however I have used the actual code needed not a message box in order to prove my understanding.

Test 15.4 comments- as we can see above when a valid username/ID and email address is used the programs shows how an email would look If I had paid for the SMTP to be able to send emails. This shows the header the recipient the sender and all the info in the email as it would appear, that being the link to regain ones password. This is accompanied by a message explaining what's happening. Pass

15.5-

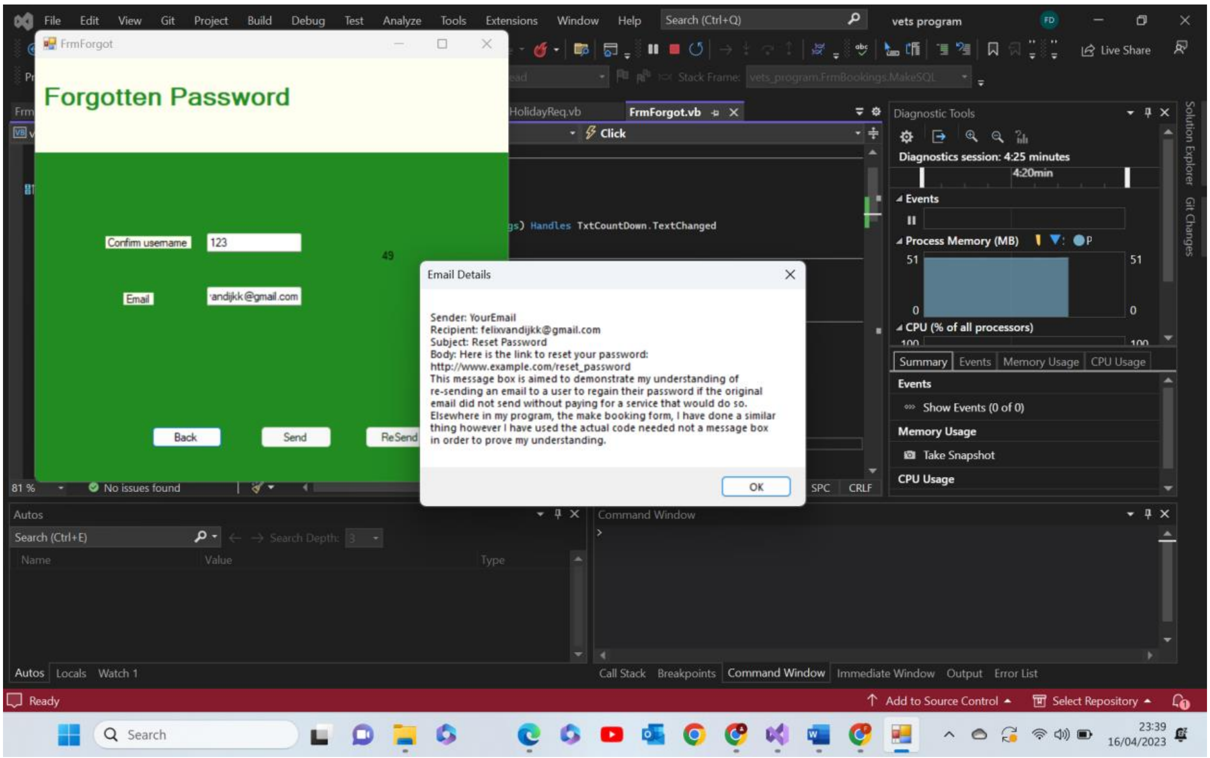


Forgotten Password

Confirm username: 123

Email: andijkk@gmail.com

```
gs) Handles TxtCountDown.TextChanged
s MyBase.Load
BtnSend.Click
```



Forgotten Password

Confirm username: 123

Email: 'andijkk@gmail.com

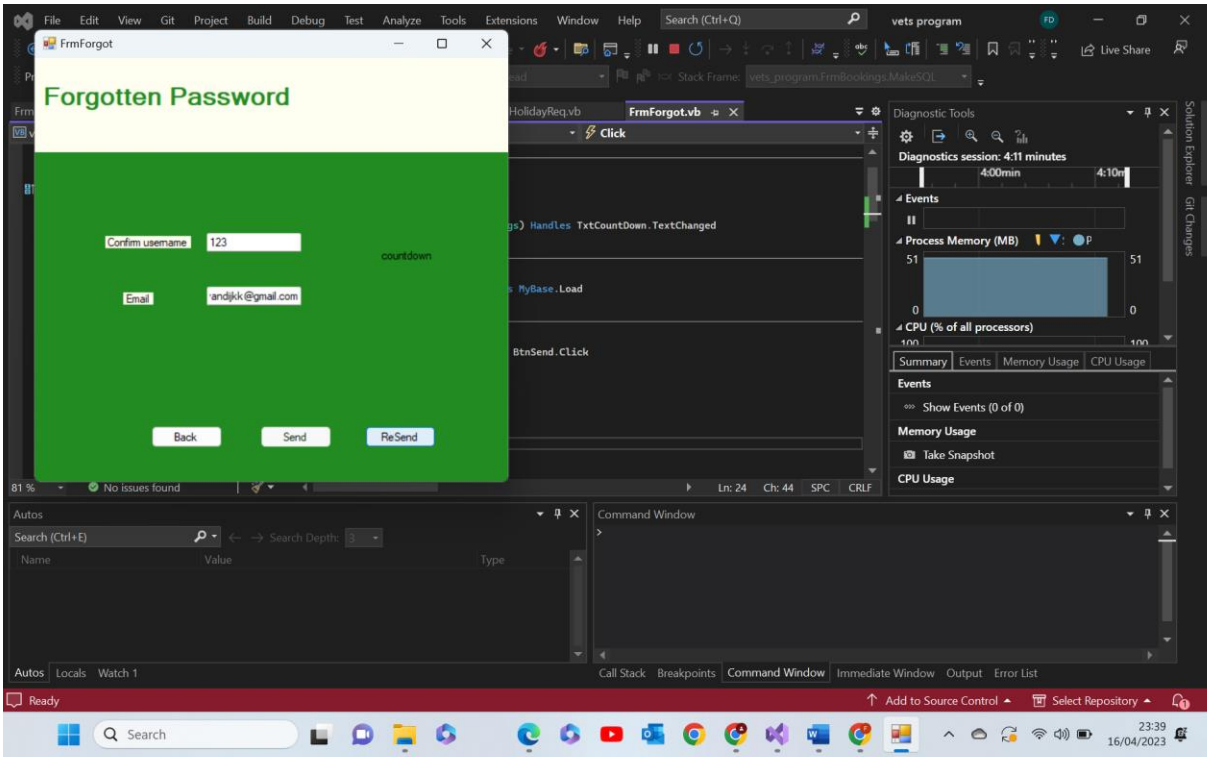
49

Email Details

```
Sender: YourEmail
Recipient: felixvandijkk@gmail.com
Subject: Reset Password
Body: Here is the link to reset your password:
http://www.example.com/reset_password
This message box is aimed to demonstrate my understanding of
re-sending an email to a user to regain their password if the original
email did not send without paying for a service that would do so.
Elsewhere in my program, the make booking form, I have done a similar
thing however I have used the actual code needed not a message box
in order to prove my understanding.
```

Test 15.5 comments- as we can see above when a valid username/ID and email address is used the programs shows how an re sent email would look If I had paid for the SMTP to be able to send emails. This shows the header the recipient the sender and all the info in the follow up email as it would appear, that being the link to regain ones password. This, again, is accompanied by a message explaining what's happening. Pass

15.6-

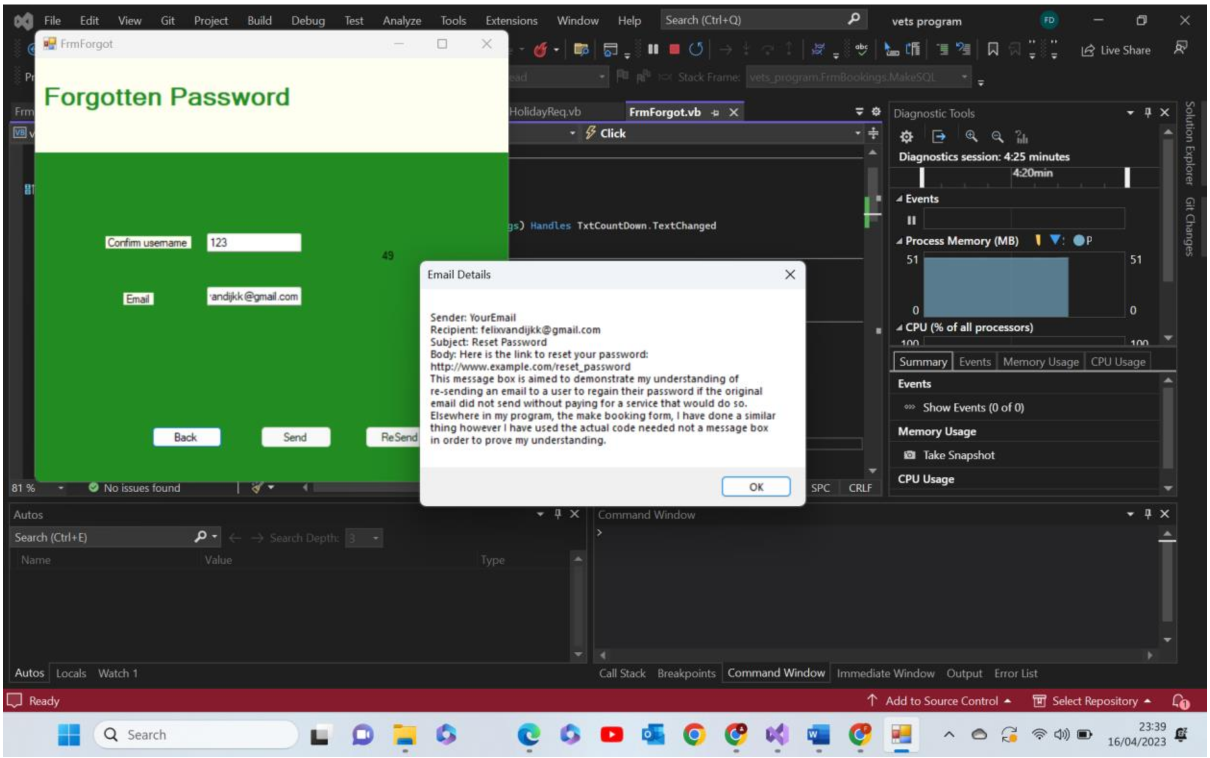


Forgotten Password

Confirm username: 123

Email: 'andijkk@gmail.com

countdown



```
gs) Handles TxtCountDown.TextChanged
```

Forgotten Password

Confirm username: 123

Email: andijkk@gmail.com

49

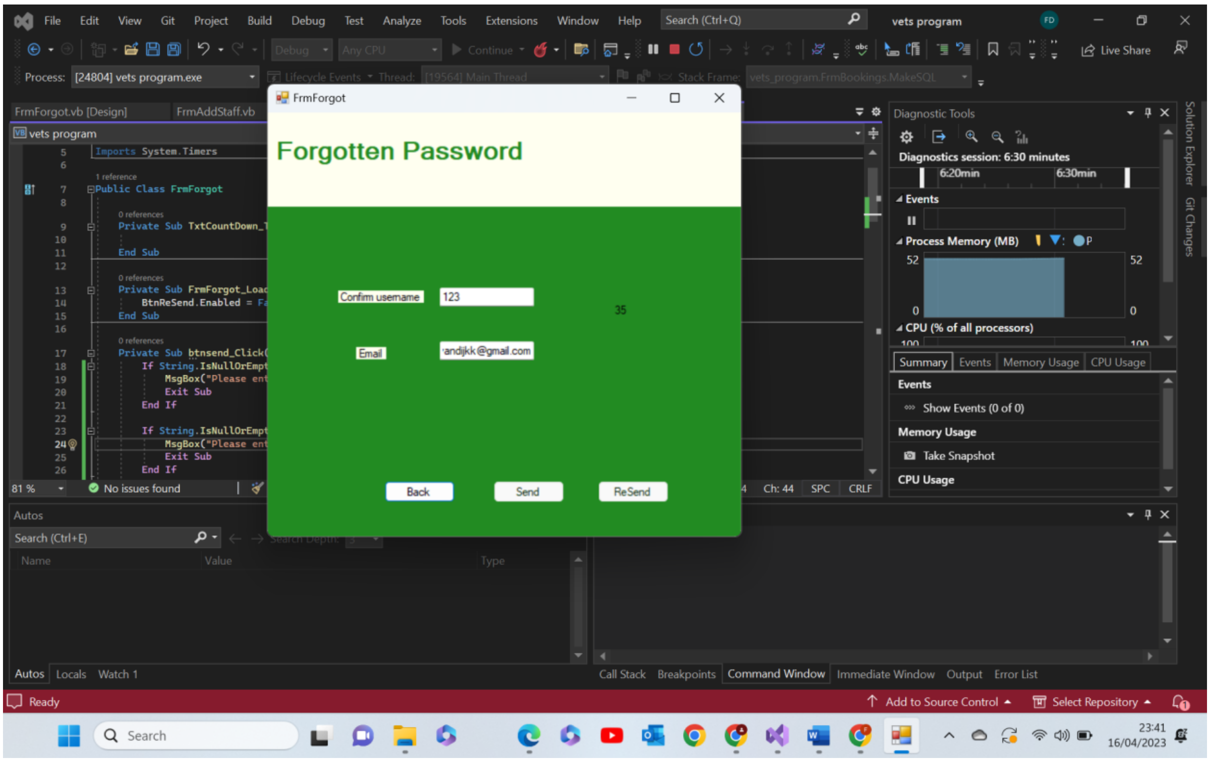
Back | Send | ReSend

Email Details

Sender: YourEmail
Recipient: felixvandijkk@gmail.com
Subject: Reset Password
Body: Here is the link to reset your password:
http://www.example.com/reset_password
This message box is aimed to demonstrate my understanding of re-sending an email to a user to regain their password if the original email did not send without paying for a service that would do so.
Elsewhere in my program, the make booking form, I have done a similar thing however I have used the actual code needed not a message box in order to prove my understanding.

OK

81 % No issues found



Process: [24804] vets program.exe

```
Imports System.Timers

1 reference
Public Class FrmForgot

    0 references
    Private Sub TxtCountDown_T

    End Sub

    0 references
    Private Sub FrmForgot_Load
        BtnReSend.Enabled = Fa
    End Sub

    0 references
    Private Sub btnsend_Click(
        If String.IsNullOrEmpt
            MsgBox("Please ent
            Exit Sub
        End If

        If String.IsNullOrEmpt
            MsgBox("Please ent
            Exit Sub
        End If
```

Forgotten Password

Confirm username: 123

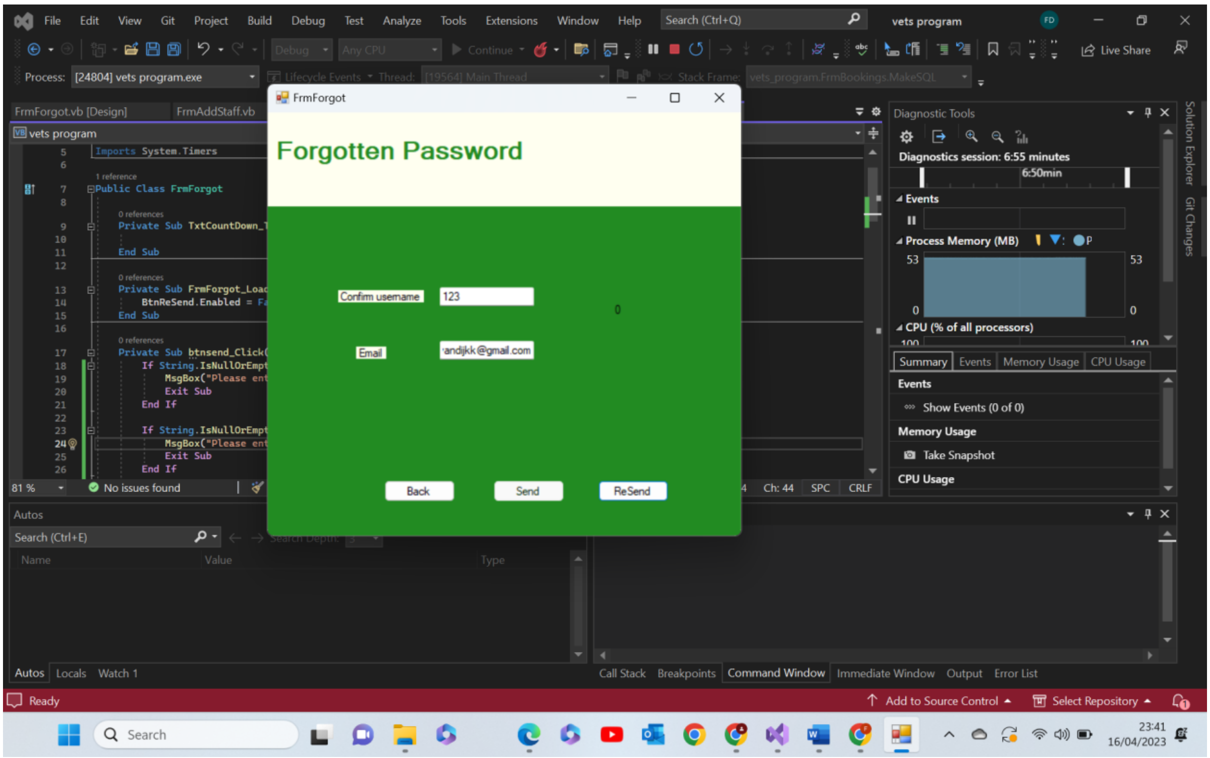
Email: andijkk@gmail.com

35

Back | Send | ReSend

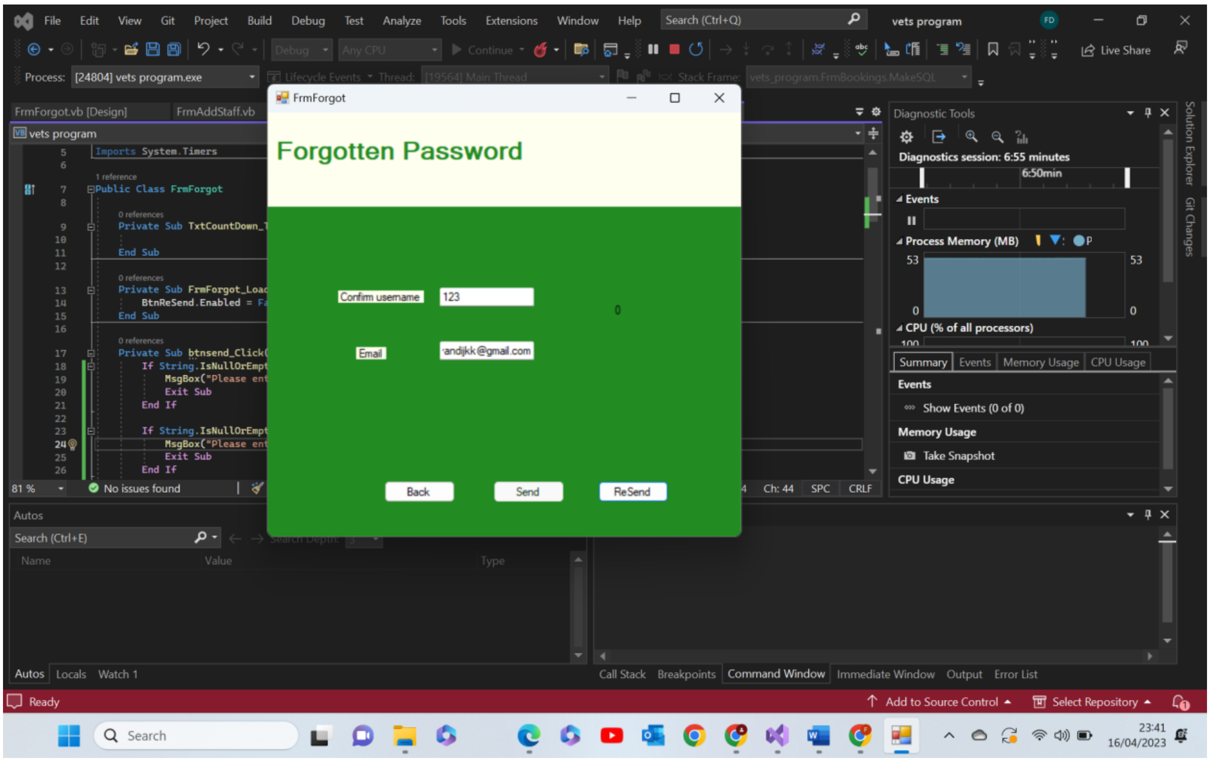
81 % No issues found

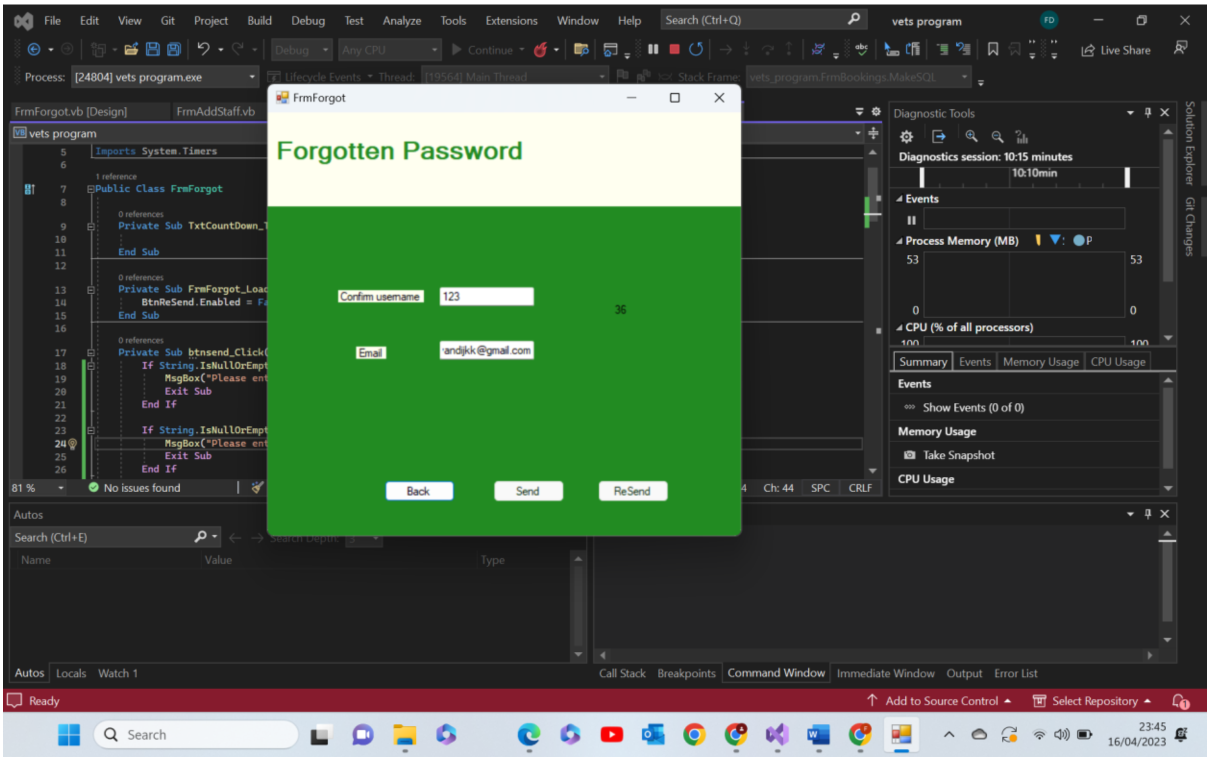
Ch: 44 SPC CRLF



Test 15.6 comments- as we can see above I have shown the process of the timer. Once the re send button is pressed the small pop up form appears showing the mock email, and in the back appears a timer, in the first screenshot it reads 49 and in the second once I have clicked of the mock email message box it shows 39. In the last screenshot we can see it showing 0. This is to prove it has counted down and prove that it is the re send button that initiates it. Pass

15.7-





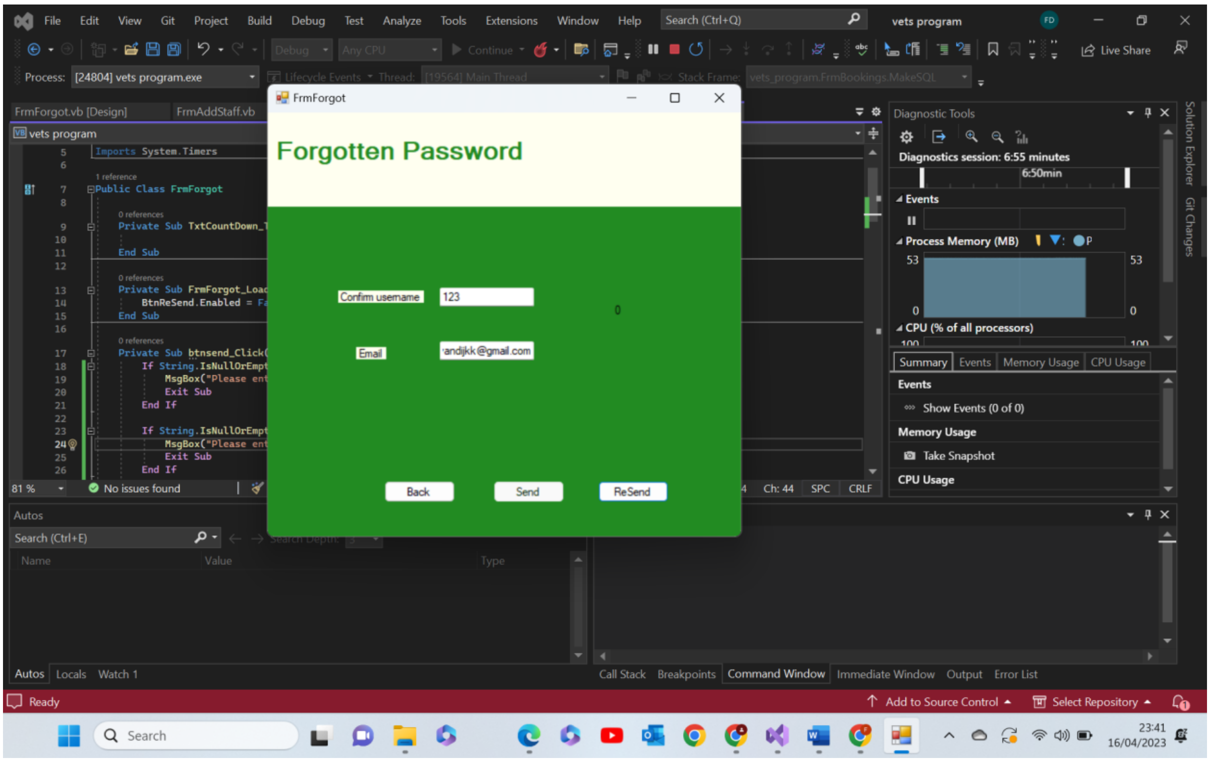
```
Imports System.Timers

Public Class FrmForgot

    Private Sub TxtCountDown_T

    End Sub

    Private Sub FrmForgot_Loac
        BtnReSend.Enabled = Fa
    End Sub

    Private Sub btnsend_Click(
        If String.IsNullOrEmpt
            MsgBox("Please ent
            Exit Sub
        End If

        If String.IsNullOrEmpt
            MsgBox("Please ent
            Exit Sub
        End If
```

Forgotten Password

Confirm username: 123

Email: andijkk@gmail.com

36



```
Imports System.Timers

Public Class FrmForgot

    Private Sub TxtCountDown_T

    End Sub

    Private Sub FrmForgot_Loac
        BtnReSend.Enabled = Fa
    End Sub

    Private Sub btnsend_Click(
        If String.IsNullOrEmpt
            MsgBox("Please ent
            Exit Sub
        End If

        If String.IsNullOrEmpt
            MsgBox("Please ent
            Exit Sub
        End If
```

Forgotten Password

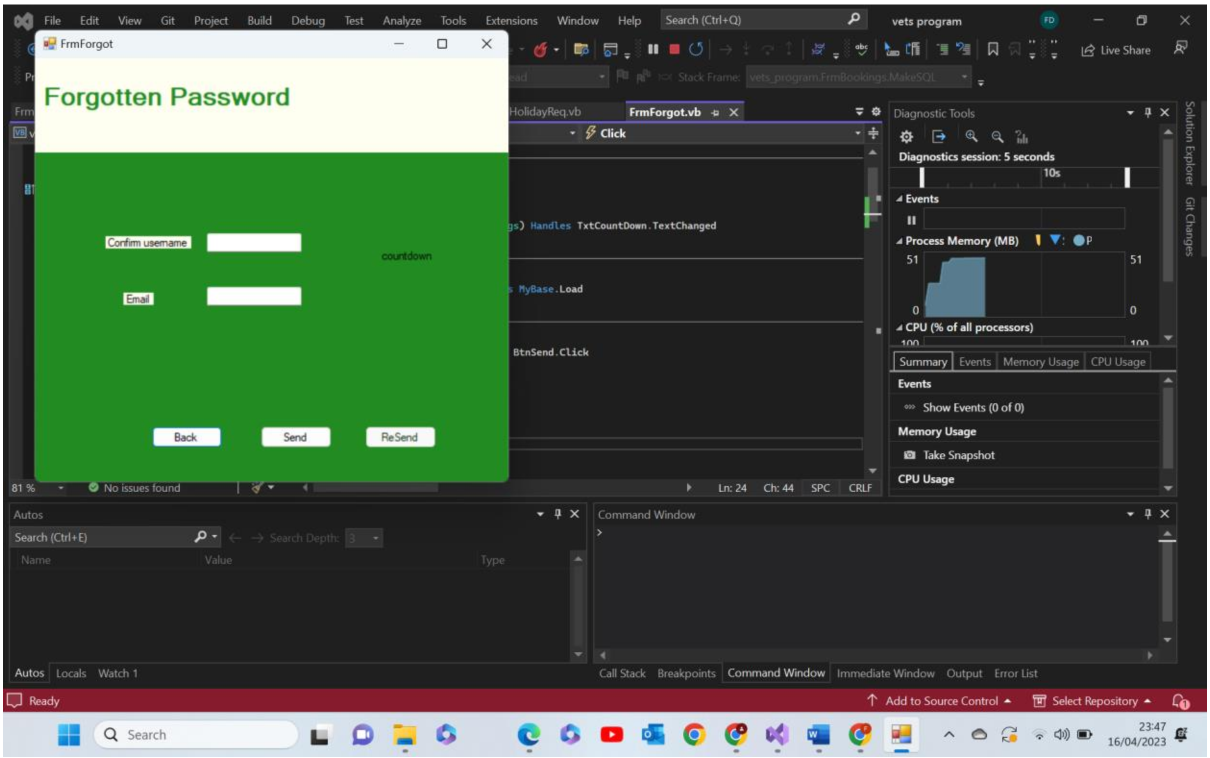
Confirm username: 123

Email: andijkk@gmail.com

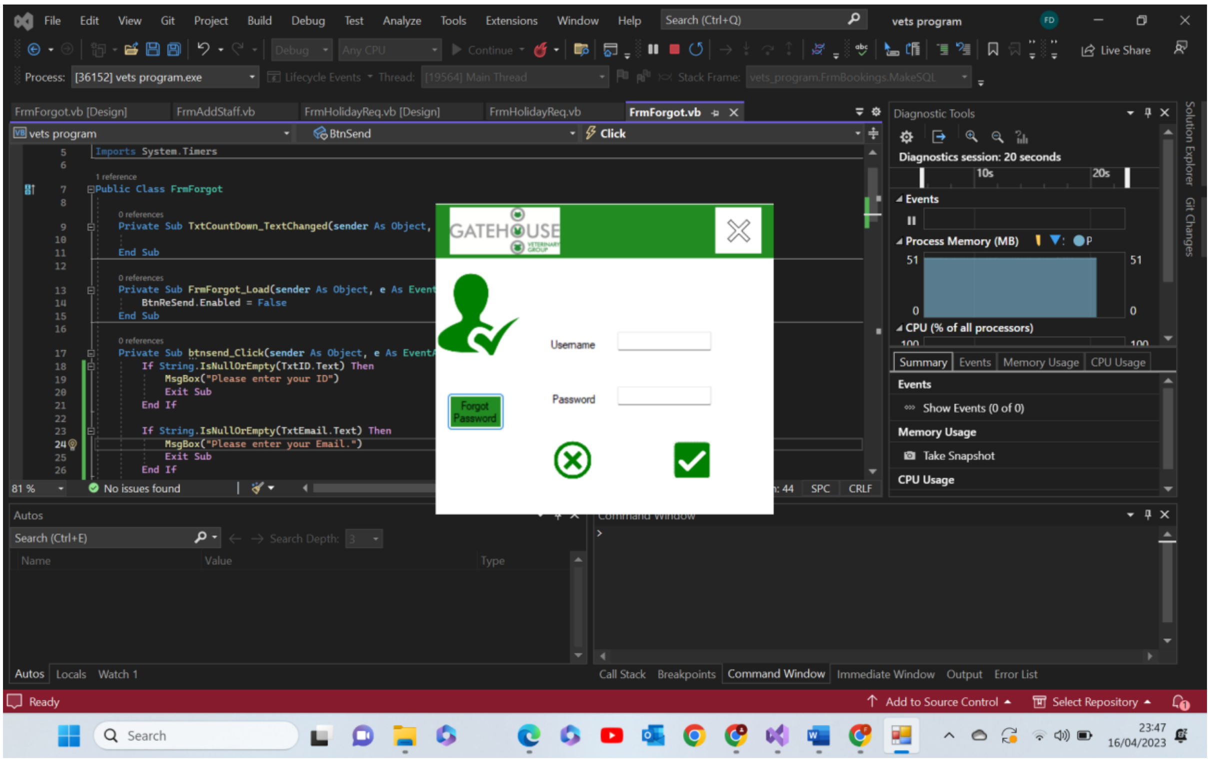
0

Test 15.7 comments- the initial screenshot shows that once the send button has been pressed it becomes read only for the rest of the running of the program. The second screenshot shows that whilst the timer is counting down both buttons are read only, the third screenshot, whilst it is similar to the first, is aimed to show that once the timer runs out the re send button becomes available again. Pass

15.8-



```
gs) Handles TxtCountDown.TextChanged
s MyBase.Load
BtnSend.Click
```



```
Imports System.Timers

Public Class FrmForgot

    Private Sub TxtCountDown_TextChanged(sender As Object,

    End Sub

    Private Sub FrmForgot_Load(sender As Object, e As Event
        BtnReSend.Enabled = False
    End Sub

    Private Sub btnsend_Click(sender As Object, e As EventA
        If String.IsNullOrEmpty(TxtID.Text) Then
            MsgBox("Please enter your ID")
            Exit Sub
        End If

        If String.IsNullOrEmpty(TxtEmail.Text) Then
            MsgBox("Please enter your Email.")
            Exit Sub
        End If
```

Test 15.8 comments- as we can see above when the back button is pressed the forgot password form Is hidden and the login form is shown. Pass

Suggestions to refine my system:

One refinement I could make to my system would be displaying altering message boxes when invalid and extreme data is searched for. Rather than one message box saying "no records found" regardless of whether the data is invalid extreme, null in this case, I could have message box saying " no data inputted" for when the user leaves the search box empty.

In a similar vein, another possible refinement I could make is that when the user attempts to delete a record when no record is present in the text boxes an error message should be displayed, something along the lines of "no data selected." As of now it acts as normal and attempts to delete despite the null data.

Another edit I could make to further refine my system would be the addition of an edit button on the programmatically generated booking information form. This would allow the staff member to quickly remove or change any information to do with the booking improving the efficiency and overall usefulness of the function.

Another edit of I could make to further refine my system would be that the program checks if the ID it has generated already exists as the form loads, if the ID already exists then the program would generate a new one and so on until it finds a unique one. As of now the program has a feature that checks if that ID exists before letting the user save however I believe this new refinement could be more efficient and time saving.