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# DEVELOPMENTAL TESTING

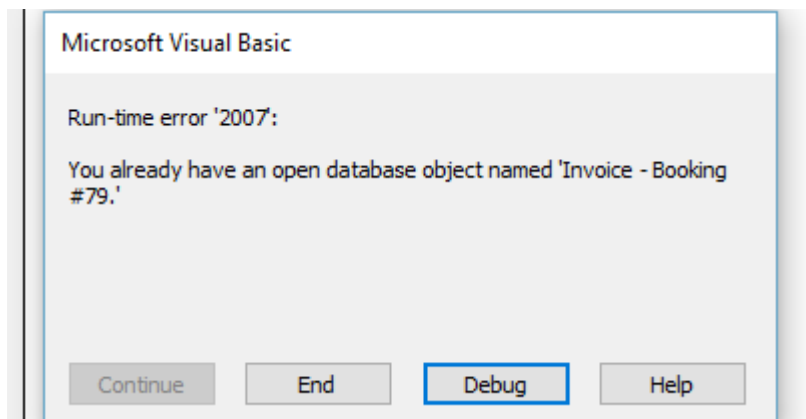
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CARDIFF AND VALE COLLEGE

I have documented all of the issues in my system which have arisen while I was testing the system. I have taken screenshots and explained how the problems originated as well as how I solved them.

- 1) **Clashing Invoices – If one customer makes two invoices, the error message is produced.**




The problem is that the booking currently saves with the booking ID # being used as an identifier. A quick to solve this problem would be adding code which adds a random additional identifier to the end of the invoice title:

```
Dim RepName As String
RepName = "Invoice - Booking #" & bookid
```

Becomes

```
Dim RepName As String
RepName = "Invoice - Booking #" & bookid & " InvID: " & Int((300000 - 1 + 1) * Rnd + 300000)|
```

This will add a random number between 1 and 300,000 as an ID, making a 0.00003% chance that the clash error will happen.

 Invoice - Booking #80 InvID: 460027

 Invoice - Booking #80 InvID: 511664

- 2) **While testing each feature, I found that one of the back buttons wasn't programmed.**



## Booking Information



| BookingID | BookingStart | BookingEnd | BookingDate | EquipmentLend | Area            |
|-----------|--------------|------------|-------------|---------------|-----------------|
| 79        | 08:00:00     | 10:00:00   | 15/03/2018  |               | Practice Room 1 |
| 80        | 08:00:00     | 10:00:00   | 17/03/2018  |               | Main Hall       |
|           |              |            |             |               |                 |
|           |              |            |             |               |                 |
|           |              |            |             |               |                 |
|           |              |            |             |               |                 |
|           |              |            |             |               |                 |
|           |              |            |             |               |                 |
|           |              |            |             |               |                 |
|           |              |            |             |               |                 |



(Booking ID)

Upon clicking the back button, nothing would happen, when it is supposed to return the user to their control panel. This can be simply fixed by adding the necessary code.

```
Private Sub Command6_Click()
|

End Sub
```

Becomes

```
Private Sub Command6_Click()

    DoCmd.Close , acForm("BookingInfo")
    'Closes the form

End Sub
```

### 3) The 'modify user' form shows a data type mismatch error when trying to save the modifications.

When modifying a customer and clicking save, a data type mismatch error is displayed.

The screenshot shows a 'Modify User' form with the following fields and values:

- \*ID: 5
- \*Act Name: Trent Reznor
- \*Manager Title: Mr.
- \*Manager Name: Trent Reznor
- \*Username: TReznor5
- \*Password: \*\*\*\*\*
- \*Email Address: Trent@gmail.com
- \*# Of Members: 1
- \*Under 18?: ☐
- Card Details:
  - Card Number: [empty]
  - CCV: 635
  - Expiry Date: [empty]

A 'Find' button is located next to the ID field, and a 'Modify User' button is at the bottom. In the background, a table lists band names and usernames:

| ActName          | Username  |
|------------------|-----------|
| John Mayer       | JMan12    |
| Childish Gambino | DoGlover2 |
| Oasis            | Lgal9     |
| Nirvana          | KKB12     |
| Trent Reznor     | TReznor5  |
| Rush             |           |
| Led Zeppelin     |           |
| The Beatles      |           |
| Test             |           |

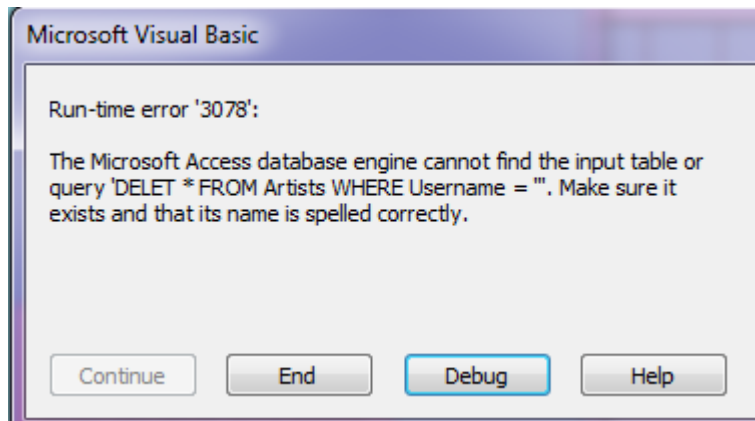
A 'Microsoft Visual Basic' error dialog box is displayed in the foreground, showing the message: 'Run-time error '3464': Data type mismatch in criteria expression.' The dialog box has buttons for 'Continue', 'End', 'Debug', and 'Help'.

```
table.MoveFirst
table.FindFirst ("ArtistID = ' " & Me.IDBox.Value & "'")
```

The debugger has pointed me to this snippet of code, and the error is immediately obvious. In VBA, numbers must be passed as variables differently to strings. Had I been using the customer username as an identifier, this format would be fine, however I am using a number. The correction is as follows:

```
table.MoveFirst
table.FindFirst ("ArtistID = " & Me.IDBox.Value)
```

4) **A syntax error was displayed upon trying to delete an account.**



This is due to a spelling error in the SQL code, therefore this must be fixed before being able to delete the account.

```
CurrentDb.Execute ("DELETE * FROM Artists WHERE Username = ' " & globUsername & "'")
```

5) **A logical error has occurred where the user log doesn't display the events in any order.**

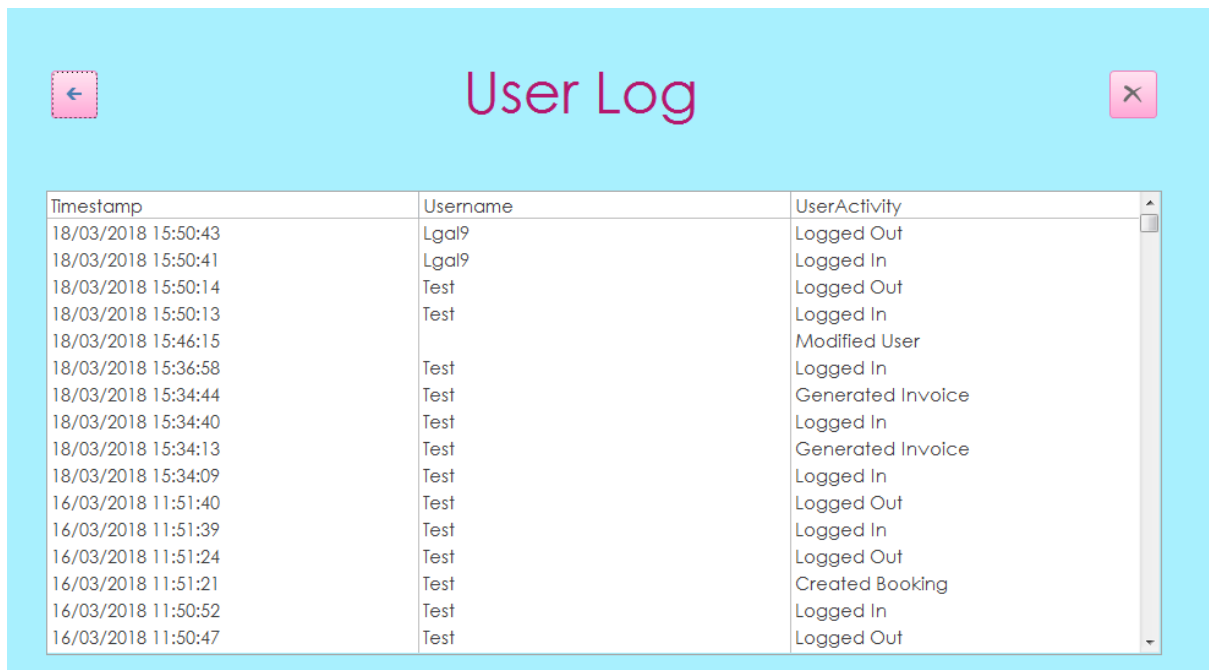
This would make it very difficult to search through logs. Ideally, they should be sorted in order. This can easily be done by modifying the SQL to contain:

ORDER BY UserActivityLog.Timestamp DESC;

Before:

| User Log            |          |                   |
|---------------------|----------|-------------------|
| Timestamp           | Username | UserActivity      |
| 16/03/2018 11:51:24 | Test     | Logged Out        |
| 18/03/2018 15:50:43 | Lgal9    | Logged Out        |
| 18/03/2018 15:34:40 | Test     | Logged In         |
| 16/03/2018 11:50:46 | Test     | Logged In         |
| 18/03/2018 15:36:58 | Test     | Logged In         |
| 16/03/2018 11:50:52 | Test     | Logged In         |
| 18/03/2018 15:46:15 |          | Modified User     |
| 16/03/2018 11:08:10 | Lgal9    | Logged In         |
| 16/03/2018 11:51:39 | Test     | Logged In         |
| 16/03/2018 11:51:40 | Test     | Logged Out        |
| 18/03/2018 15:50:41 | Lgal9    | Logged In         |
| 16/03/2018 11:50:47 | Test     | Logged Out        |
| 16/03/2018 11:51:21 | Test     | Created Booking   |
| 18/03/2018 15:34:09 | Test     | Logged In         |
| 18/03/2018 15:50:13 | Test     | Logged In         |
| 18/03/2018 15:34:44 | Test     | Generated Invoice |

After:



| Timestamp           | Username | UserActivity      |
|---------------------|----------|-------------------|
| 18/03/2018 15:50:43 | Lgal9    | Logged Out        |
| 18/03/2018 15:50:41 | Lgal9    | Logged In         |
| 18/03/2018 15:50:14 | Test     | Logged Out        |
| 18/03/2018 15:50:13 | Test     | Logged In         |
| 18/03/2018 15:46:15 |          | Modified User     |
| 18/03/2018 15:36:58 | Test     | Logged In         |
| 18/03/2018 15:34:44 | Test     | Generated Invoice |
| 18/03/2018 15:34:40 | Test     | Logged In         |
| 18/03/2018 15:34:13 | Test     | Generated Invoice |
| 18/03/2018 15:34:09 | Test     | Logged In         |
| 16/03/2018 11:51:40 | Test     | Logged Out        |
| 16/03/2018 11:51:39 | Test     | Logged In         |
| 16/03/2018 11:51:24 | Test     | Logged Out        |
| 16/03/2018 11:51:21 | Test     | Created Booking   |
| 16/03/2018 11:50:52 | Test     | Logged In         |
| 16/03/2018 11:50:47 | Test     | Logged Out        |