



# Database Test Document

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# Version Control

Version control is an important part of any project. It provides us with an ‘insurance policy’ in the event of any accidents or lost data. A simple and effective way of version control is to simply copy your document every time you go to work on it, renaming it in steps (Ver 1, 2, 3, etc.) If you are consistently working on the most up to date / latest version, and something goes wrong, you have the previous version available to roll back too. This saves time and the hassle of having to redo your entire document in the event of an accident. It is also worth noting that “Version control and backups run side by side and are done separately. Within each of your backups (ideally done at least once a week), you should have up to date versions of your documents for additional safety. Although there are programs online that autonomously do version control for you, in this project I have decided to do it manually myself. By the end of my database, I reached 10 versions (including the initial and final versions) of the database itself. I also ran version control for all my documents (Test Document, Design Document, and User guide) and ran up to 5 versions of each of those. Throughout this document, I will detail the steps taken and challenges faced, whilst building my database throughout the various versions.

## Version 1

To start the database off I have mainly just started creating the tables, these were all relatively simple and I spent my time mainly making sure that each table had the right field in it. I have managed to get through both the customer and the hire tables and have made a start on the DVD table. I had to resize a couple of the fields, mainly the address field as some of the addresses I think could be quite long. Time will tell as I start entering the information if there are any other fields that I think need to be adjusted.

## Version 2

Most of my time was spent trying to import my DVD spreadsheet from Excel into Access. When starting this I had originally tried to import the excel sheet into my existing DVD table that I had made but found that that the formatting went completely out. The columns on the table didn’t line up with what I had in my Excel sheet and it had thrown random blank spaces everywhere. As a pose to trying to line everything up manually between the two programs, I decided to scrap the existing DVD table I had already made. I proceeded to just use the import wizard and it set everything up for me. This went relatively smoothly except for a huge number of blank rows that had imported in from the spreadsheet for some reason, it was an easy fix to just delete these though. I finished off this session by using the form wizard to create forms for both “New Customers” and “New DVDs.” The fields in the customer form are now probably too long and the field size in the DVD form needs to be changed as 255 is giving me horrible large text boxes.

## Version 3

I started this version by importing a genre table in. I just used the import wizard again to make a table. Nothing went Wrong although I need to look to see if I have all the genres that I need. I finally finished adding the fields to my hire table and Linked everything with the relationship wizard so that all my combo boxes work properly. Now that my tables seem to be working I have started on my queries, with everything added to the same table I can see that my relationships are linked which is good. I keep getting a syntax error when I try and close my expression builder for my due date function though. It seems to be fixed by removing the '3-day' statement, and just stating the true options for 'overnight' and 'weekly,' whilst leaving the '3-day' outcome as the final 'if false.' I'm not sure if there were too many different '3 days' in the table or if there was maybe a comma I missed somewhere but it seemed to be fixed past this point.

## Version 4

Everything went well entering the rest of the expressions for cost, days late and late fees. Once these were entered I have made the Overdue Query and the Returns Query both based on the Hire Query. I spent a lot of time this version simply adding customers to the customer table. I did this because when I went to see if the formulas were working I realized I didn't have any information on the table to work with. I've scrapped the old formula for 'day's late' as well. It was showing me negative numbers on the table and I wanted to remove this completely. The new formula is, *'Late\_Fees: If([Days\_late]>0,If([Hire Length]="Overnight",[Days\_late]\*6,[Days\_late]\*1),0)'* This formula still checks if the days late are over 0 however now if that statement is false, instead of displaying how many days it is under, it simply just displays 0.

## Version 5

This was just a quick interim version as I filled the rest of the customer table up to 20 customers and added the alternate contact details. It was a tedious task to make up and enter details for 40 people but there were no real problems along the way which was nice. All my masks and fields for the date/time and cell phone details are working well which is nice and I haven't had any problem with my field sizing, I will resize all the text boxes on the forms when the time comes.

## Version 6

In this version, I have created both the Hire form and the sub hire form which will reside within it. This was possibly more fiddley than I had first anticipated. Dropping all of the fields from the customer table was simple, although it was a complete mess, so I have decided to separate out the identification details and the alternate contact details for clarity. My Sub hire form just would not work though. Firstly, there was a lot of blank space at the bottom which I've realized was due to the fact I'd extended my footer at some point. My Subtotal wouldn't work and after a while of fiddling, I realized id simply just missed the closing bracket of the end of the formula. Upon entering the first DVD the form appeared to be working fine, this until I tried to click away or enter any other

information. After which an error message would repeatedly pop up telling me it couldn't find a record in the customer table for the customer key. It also wouldn't let me close the form without popping up with the same message and telling me it couldn't save the record because of the error. I figured out that you can't enter information into the sub hire form on its own as its looking for the customer data that will also be in the hire form to relate the movie `hires` too. This meant there was no fix needed and technically the form was working fine. After I had dropped the sub hire form into the hire form, I could see that the data was relating fine, the cost total was adding up and my drop-down boxes were working fine, except for the Hire Length box.

## Version 7

Created a search box for inside my edit customer form. It wouldn't work to start with, so I had to make another one. I'm 90 percent sure I didn't click the third option down on the first box when I created and that's why it wasn't working. Created a blank report for my main menu, added some blank text boxes and assigned them macros to open the correct forms. No issues here, but I need to create close buttons and reformat the layout of each of the forms as it becomes tedious closing the tiny tabs and the layouts are not very functional.

## Version 8

I added close buttons to the forms. They are bright orange for now but that's just, so I don't forget to resize and fix them later, the macros are working perfectly on them. Created an overdue form, it's was blank though which is not great. After Trying to fix it for ages I realized I simply just didn't have any overdue items for the form to display, which was both annoying and a simple fix. I did a whole lot of fixes through the forms including, adding a search bar to the Hire form and edit DVD form. And I fixed the Dropdown box for hire length so that it dropped down and displayed something. I did this by making sure it was set to be a value list and then just defined the values manually. I also took the annoying tabs out of the side of the forms by making sure 'record selectors' was set to no. lastly, I Changed the `data entry` option to yes on the Hire, new customer, and new DVD forms. This was to stop them from showing information when they are opened.

## Version 9

This was my final `fix it` session. I realized I hadn't even created a returns Query yet so had to set that up. I scrapped the main menu completely as I realized I had set it up as a report instead of a form. The new menu was easy enough to set up though, I used the button Wizard this time as a posed to making macros on text boxes and the process was somewhat quicker. I scrapped my overdue Query as I hadn't grouped it by first name the first time and I couldn't get it to sit the way I wanted. Once I had set it up to be grouped properly, I added some space so that I could include the customer details in the form. The process was quick to repeat for the late fee for just changing the record source. I also had to lock down some of the text boxes in my forms as I realized it was far too easy for someone too accidentally corrupt the data in my tables by accidentally changing the

information contained in them. I also had to add a new record and next/previous record buttons to my forms to finish them off, again I used the button wizard as I found it to be a lot faster than editing text boxes. I found out that I could get my database to display my main menu form upon opening as well by changing the application options in the options menu.

## Version 10

This version ended up being my final version. I did a lot of work formatting the look of things. I spent a solid hour frustrated because every time I moved something in design view, it would shift out of place as soon as I hit form view. I realized this is what the layout view tab was for and after I got used to using all three in conjunction together I quickly got a flow going. I would use the design form to get everything in around about the right position, and then fine tune where I wanted it to be using the layout view. The only annoying thing I found about this, which I could not find a fix for, was selecting multiple items within the layout view. I ended up just using the select all function and de-selecting what I didn't want to move, as this was quicker. I added borders around the buttons and some of the form options to add a bit of clarity and decided the preset button options looked bad. I proceeded to make my own manually. To make the task a little bit quicker I spent some time on one button, getting the shape size and color scheme I wanted, and then copied that button over changing the macros if necessary. This sped up what could have been a lengthy process. adding a background to the database was also relatively simple. Just before I sent it off I realized I'd nearly forgotten to add a 'close database' button to the main menu. This was simple to fix again though with the button wizard.

## Conclusion

I am happy with how the final database came together. Although I had quite some frustration with the forms, the problems that I ran into had easy and quick fixes once I had identified the causes. Learning and understanding how to switch between all three views effectively helped me speed up the formatting process considerably. I would say the final result of this database is what I had envisioned in my design document. I have learned a lot about access and database design by practically self-finding solutions and have enjoyed the process of putting my first database together.