

DOUGIEBASE

A DataBase

A PWA coded in JavaScript and jQuery



Doug Dyer Victoria BC

Chapter 4

Table of Contents

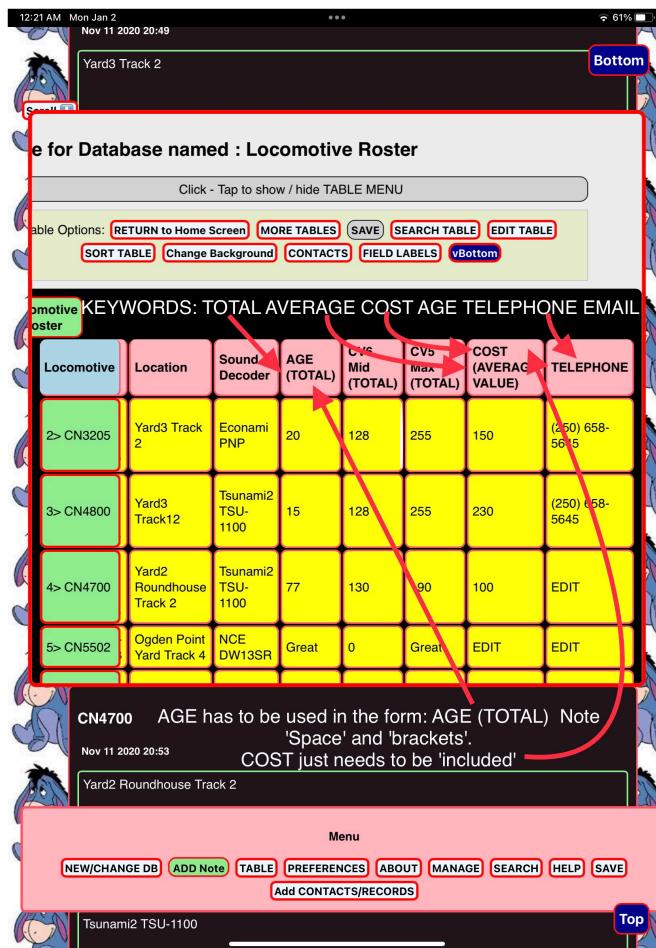
DOUGIEBASE CHAPTER 4	4
Additional Options and some minor details ...	4
The use of Keywords to increase functionality	4
The TOTAL KEYWORD	5
CALCULATION ALERTS	6
The AVERAGE keyword	7
The AGE keyword	7
The COST and \$ keywords	7
The SUM ACROSS keyword	8
The EMAIL and TELEPHONE keywords	10
A BUDGET SPREADSHEET	11
RENAME A DOUGIEBASE DATABASE FILENAME	14
AN ENHANCED SCROLL BUTTON	14
USING THE NATIVE FILES APP FOR EXTERNAL STORAGE	14
FAQ's	15

DOUGIEBASE CHAPTER 4

Additional Options and some minor details ...

The use of Keywords to increase functionality

DougieBase uses these keywords in the Field/Column Headings to perform actions on its column of data. These keywords are : TOTAL, AVERAGE, COST, \$, EMAIL, TELEPHONE. The keywords are case sensitive, that is you must use upper case, but the field heading only has to 'include' the keyword. 'EMAIL Address', 'TELEPHONE Number' will work as will just EMAIL or TELEPHONE but 'Email' or 'Telephone' will not work. The action they perform is initiated by 'DOUBLE-TAPPING' on the Field Name containing the appropriate label. 'Email' can still be used as a Field Label, but will not activate the action when 'double-clicked'. Some of these keywords have their own specific criteria for use.



The TOTAL KEYWORD

Search...

Table for Database named : Locomotive Roster

Click - Tap to show / hide TABLE MENU

Table Options: RETURN to Home Screen MORE TABLES SAVE SEARCH TABLE EDIT TABLE
SORT TABLE Change Background CONTACTS FIELD LABELS vBottom

Locomotive Roster TELEPHONE \$112.00

After double-tapping the field header, header background turns blue and the result of the action specified by the keyword is calculated.

Locomotive	Location	Sound Decoder	AGE (TOTAL) 112.00 yrs	CV6 Mid (TOTAL)	CV5 Max (TOTAL)	COST (AVERAGE VALUE)	TELEPHONE
2> CN3205	Yard3 Track 2	Economi PNP	20	128	255	150	(250) 658-5645
3> CN4800	Yard3 Track12	Tsunami2 TSU-1100	15	128	255	230	(250) 658-5645
4> CN4700	Yard2 Roundhouse Track 2	Tsunami2 TSU-1100	77	130	190	100	EDIT

fields. FIXED fields are columns 1 to 4, DYNAMIC fields are columns 5 and greater. The keyword 'AGE' if used with keywords TOTAL or 'AVERAGE' simply appends the word 'yrs' to the end of the calculated result. The COST keyword or the '\$' keyword pre-appends the symbol '\$' to the front of the calculated result. COST and \$ must be used in conjunction with TOTAL or AVERAGE.

If data has not been entered in every data cell of the column DougieBase has a built in mechanism to warn the user that the calculation takes the missing data into account. See the section titled CALCULATION ALERTS below.

TOTAL applied to any DYNAMIC field will sum all the numerical data in the vertical column of the table, WHEN THE FIELD NAME IS DOUBLE-TAPPED. Note that the keyword must all be in capital letters, and can be used by itself or with other words in the label ... i.e. 'TOTAL' or 'TOTAL items' etc. but 'Total' (can still be used as a Field Label) will not activate the summing function when 'double-tapped'. After 'double-tapping' the Field Header for this column turns pale blue and the calculated result appears under the TOTAL label in the Field Heading. The TOTAL keyword can only be used to activate summation in the Dynamic fields, not the FIXED

Tap - Click to show / hide TABLE MENU

Table Options: RETURN to Home Screen MORE TABLES SAVE SEARCH TABLE EDIT TABLE
SORT TABLE Change Background CONTACTS FIELD LABELS vBottom

Locomotive Roster TELEPHONE \$112.00

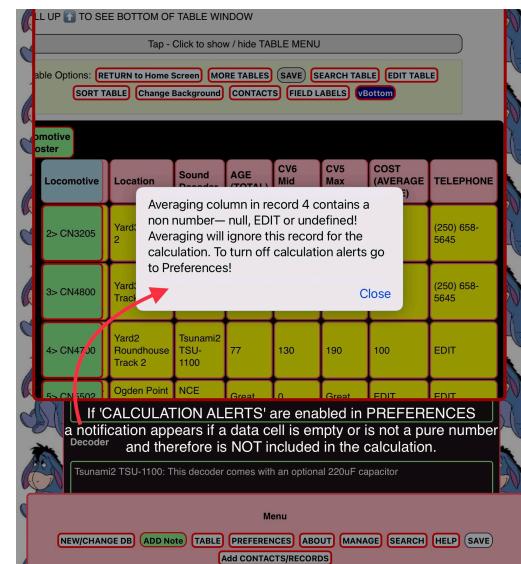
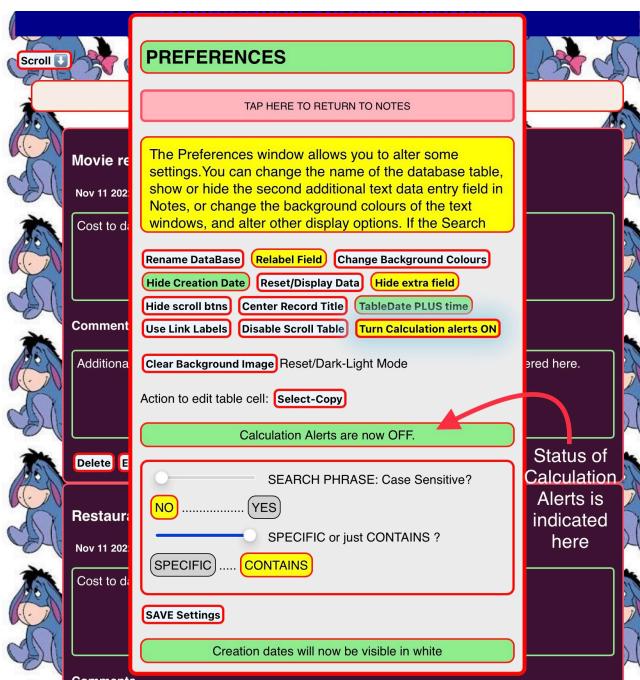
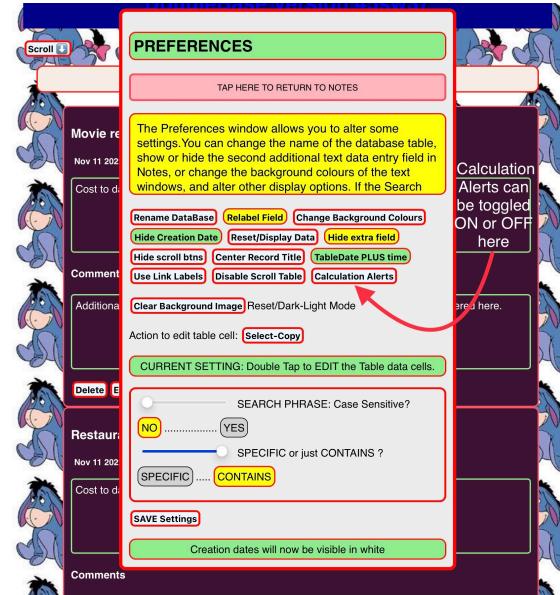
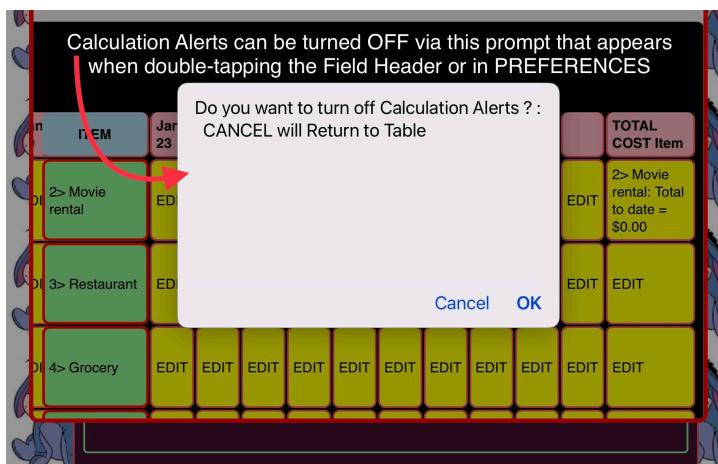
The COST keyword simply pre-appends the symbol '\$' to the result.

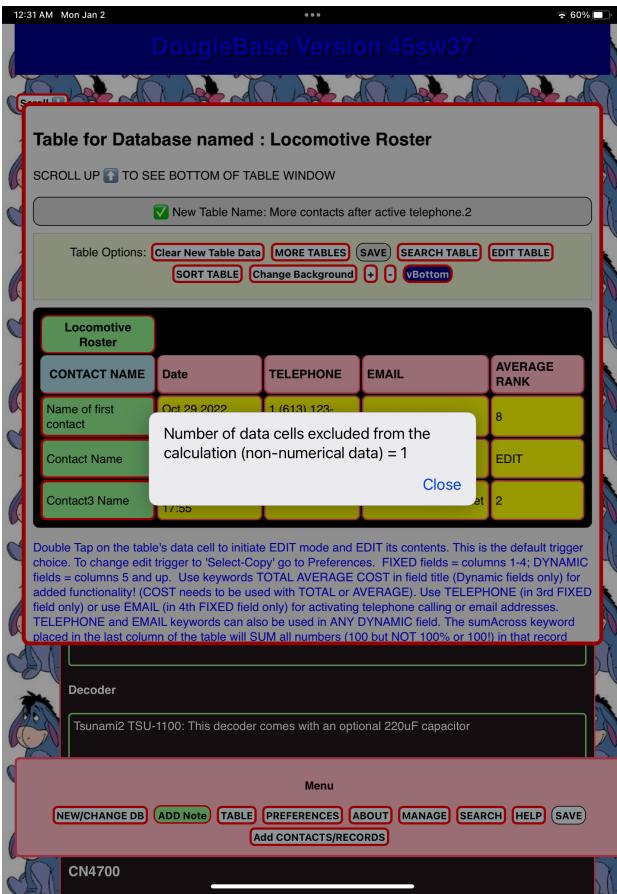
Locomotive	Location	Sound Decoder	AGE (TOTAL)	CV6 Mid (TOTAL)	CV5 Max (TOTAL)	COST (AVERAGE VALUE) \$166.00	TELEPHONE
2> CN3205	Yard3 Track 2	Economi PNP	20	128	255	150	(250) 658-5645
3> CN4800	Yard3 Track12	Tsunami2 TSU-1100	15	128	255	230	(250) 658-5645
4> CN4700	Yard2 Roundhouse Track 2	Tsunami2 TSU-1100	77	130	190	100	EDIT

Decoder

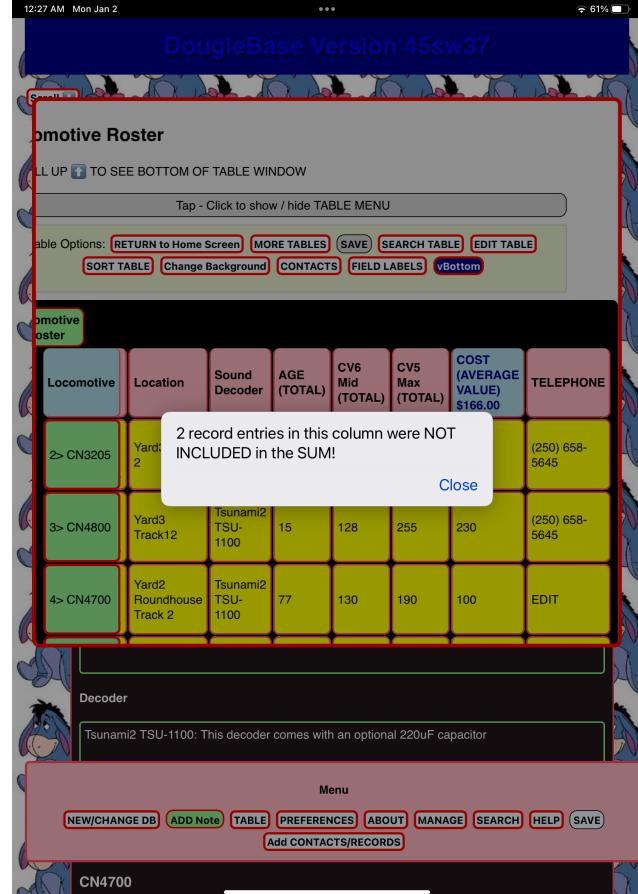
CALCULATION ALERTS

Calculation Alerts warn the user if a sum or average calculation is performed on a column that is missing numeric data in one or more of its table data cells. There is an option in PREFERENCES to turn Calculation Alerts ON or OFF. You are also given the opportunity to disable Calculation Alerts from a prompt that appears right after double-clicking on the Field Label. If Calculation Alerts are enabled (ON), DougieBase provides notification of the record and type of missing information and the calculation is performed ignoring those records with missing data. This is of particular importance when AVERAGING data in the column.





It is of course particularly important for a record without data not be included in the averaging calculation. A special case use for the TOTAL keyword is seen when TOTAL is included in the last column's Field Heading of a budget sheet. See page 11



The AVERAGE keyword

'AVERAGE' has the same criteria for use as does 'TOTAL'. Any column that has a Field Label containing 'AVERAGE' will calculate the average of all numerical data (vertically) in the column, and put the result at the end of the FIELD LABEL, which now will have a blue background. If 'COST' or '\$' is included in the Field Label, the '\$' symbol is pre-appended to the calculation result. The Calculation Alert system also monitors the Averaging function.

The AGE keyword

The Age keyword simply appends the word 'yrs' to the end of a calculation result for TOTAL or AVERAGE. It needs to be used with this specific format "AGE (TOTAL)" or "AGE (AVERAGE)". Note the space between AGE and TOTAL and note there are brackets around TOTAL, or AVERAGE.

The COST and \$ keywords

'COST' and '\$' need to be used in conjunction with 'TOTAL' and 'AVERAGE' Keywords. They only need to be 'included' in the Field Label. As with TOTAL and AVERAGE, COST needs to be in all capitals. Double-tapping a Field Header with 'COST' or '\$' in its context and with 'TOTAL' or 'AVERAGE' simply appends the symbol '\$' to the front of the calculated result.

The SUM ACROSS keyword

This is a special keyword entered in the table of the last column's data cell of any record you want to provide the ability to have its data summed using numeric data from all DYNAMIC fields across the record. (FIXED fields are columns 1 - 4; DYNAMIC fields are columns 5 and up) This functionality is very useful in a budget sheet for example. See below.

Airline	Country of Origin	AVERAGE Customer Satisfaction %	TELEPHONE	Fundraiser 1	Fundraiser 2	TOTAL \$ funds raised
Pete's Airline	Canada	100%	2000	3500	4500	Pete's Airline : Total to date = \$10000.00
Delta	USA	80	EDIT	2000	3000	Delta : Total to date = \$5080.00
United	USA	95	EDIT	EDIT	EDIT	EDIT Current value: undefined SumAcross Enter new value
South West	USA	95	1 (250) 658-5645	EDIT	EDIT	EDIT
Flare	Canada	EDIT	EDIT	EDIT	EDIT	EDIT

To initiate edit mode. This is the default trigger for entries.
and up.
(DYNAMIC fields only) for added functionality! (COST HONE (in 3rd FIXED field only) or use EMAIL (in

"SumAcross"

The SumAcross keyword must be entered in the first record's last data cell of the table, and in the last data cell of any other record in the table of which you want the ability to sum values horizontally across all DYNAMIC fields of the record. Only numerical values are added. and only 'pure' numbers. If there are values you do

not want included in the calculation, such as 100% just add any

Airline	Country of Origin	AVERAGE Customer Satisfaction %	TELEPHONE	Fundraiser 1	Fundraiser 2	TOTAL \$ funds raised
Rouge	Canada	EDIT	EDIT	250	250	Total to date = \$500
Pacific Coastal	Canada	80%	(250) 658-5645	800	200	Pacific Coastal : Total to date = \$1000.00
Pete's Airline	Canada	100%	2000	3500	4500	Pete's Airline : Total to date = \$10000.00
Delta	domestic	80	EDIT	2000	3000	Delta : Total to date = \$5080.00
United	USA	95	EDIT	EDIT	EDIT	United : Total to date = \$0.00
South West	USA	95	1 (250) 658-5645	EDIT	EDIT	EDIT
Flare	Canada	EDIT	EDIT	EDIT	EDIT	EDIT

Creation dates will now be visible in white

Decoder

We only want values added that reflect funds raised... not the 95 satisfaction rating... so exclude this value from the calculation by inserting a '%' character after the value.

Tsunami2 TSU-1100

95% is not included in the calculation

Airline	Country of Origin	AVERAGE Customer Satisfaction %	TELEPHONE	Fundraiser 1	Fundraiser 2	TOTAL \$ funds raised
Rouge	Canada	EDIT	EDIT	250	250	Total to date = \$500
Pacific Coastal	Canada	80%	(250) 658-5645	800	200	Pacific Coastal : Total to date = \$1000.00
Pete's Airline	Canada	100%	2000	3500	4500	Pete's Airline : Total to date = \$10000.00
Delta	domestic	80	EDIT	2000	3000	Delta : Total to date = \$5080.00
United	USA	95%	EDIT	EDIT	EDIT	United : Total to date = \$0.00
South West	USA	95	1 (250) 658-5645	EDIT	EDIT	EDIT
Flare	Canada	EDIT	EDIT	EDIT	EDIT	EDIT

We only want values added that reflect funds raised... not the 95 satisfaction rating... so exclude this value from the calculation by inserting a '%' character after the value.

Tsunami2 TSU-1100

95% is not included in the calculation

Airline	Country of Origin	AVERAGE Customer Satisfaction %	TELEPHONE	Fundraiser 1	Fundraiser 2	TOTAL \$ funds raised
Rouge	Canada	EDIT	EDIT	250	250	\$500
Pacific Coastal	Canada	80%	(250) 658-5645	800	200	Pacific Coastal : Total to date = \$1000.00
Pete's Airline	Canada	100%	2000	3500	4500	Pete's Airline : Total to date = \$10000.00
Delta	domestic	80	EDIT	2000	3000	Delta : Total to date = \$5080.00
United	USA	95%	EDIT	5000.00	6000.00	United : Total to date = \$11000.00
South West	USA	95	1 (250) 658-5645	EDIT	EDIT	EDIT
Flare	Canada	EDIT	EDIT	EDIT	EDIT	EDIT

Decoder

Only numerical values in DYNAMIC fields (columns 5 and greater) are summed

character before or after the number and it will be excluded from the summation. For example 100 is included, but 100% or 100! or \$100 are not included in the calculation. However the TOTAL or AVERAGE keywords in all other Dynamic field labels will sum these numbers (even those with appended characters) vertically in the column.

The screenshot shows a table with several columns: Airline, Country of Origin, AVERAGE Customer Satisfaction %, TELEPHONE, Fundraiser 1, Fundraiser 2, and TOTAL \$ funds raised. The last column contains numerical values and a total. A tooltip is overlaid on the table, explaining the 'sumAcross' keyword and its usage. Below the table, a note mentions Eeyore's Roundhouse Track 2 and the entry of the 'SumAcross' keyword.

Airline	Country of Origin	AVERAGE Customer Satisfaction %	TELEPHONE	Fundraiser 1	Fundraiser 2	TOTAL \$ funds raised
Pete's Airline	Canada	100%	2000	3500	4500	Pete's Airline : Total to date = \$10000.00
Delta	USA	80%	2000	3500	4500	Delta : Total to date = \$10000.00
United	USA	90%	2000	3500	4500	United : Total to date = \$10000.00
South West	USA	90%	2000	3500	4500	South West : Total to date = \$10000.00
Flare	Canada	80%	2000	3500	4500	Flare : Total to date = \$10000.00

RULE: 'sumAcross' keyword inserted in last column of the FIRST record of the table and then subsequent records, will initiate summing of all numerical entries in DYNAMIC fields only, across that record row of the table. Any character(s) added to the number entry (i.e. 100% or 100!) will exclude that number from the 'sum across' addition. The TOTAL keyword in the field heading of the last column in the table will facilitate adding all numerical entries vertically in the table column, IF THE LAST DATA CELL (last column) OF THE FIRST RECORD was initialized with the 'sumAcross' keyword. The total is updated in the first data section of notes if the text 'Cost to date = \$' or 'Total to date = ' is pre-entered in the NOTES data cell. The TOTAL keyword in field headings of all other columns (DYNAMIC fields only) works as indicated.

Yard2 Roundhouse Track 2
Entering the 'SumAcross' keyword brings up a notification reminding the user of the criteria to be met to initialize horizontal summing of data in the table.

The RULE outlining the criteria needed to enable summing numerical values across all DYNAMIC fields in a record is as follows:
 "RULE: 'sumAcross' keyword inserted in last column of the FIRST record of the table and then subsequent records, will initiate summing of all numerical entries in DYNAMIC fields only, across that record row of the table. Any character(s) added to the number entry (i.e. 100% or 100!) will exclude that number from the 'sum across'

addition. The TOTAL keyword in the field heading of the last column in the table will facilitate adding all numerical entries vertically in the table column, IF THE LAST DATA CELL (last column) OF THE FIRST RECORD is initialized with the 'sumAcross' keyword. The total is updated in the first data section of notes if the text 'Cost to date = \$' or 'Total to date = ' is pre-entered in the NOTES data cell. The TOTAL keyword in field headings of all other columns (DYNAMIC fields only) works as indicated."

Double-tapping on the last field header of a table that has been enabled to have horizontal addition of data across all fields, will sum all the numerical values of the last column (vertically), giving a summation of all values in the table. This value is also automatically appended to the table's main title heading and updated each time the field header is double-tapped.

The Field Header of the last column that has been initialized with 'SumAcross' (in the first record's last data cell), when double-tapped, totals all numerical values vertically in the column... in this case reflecting total funds raised. This value automatically appears in the table's main title heading.

Airline	Country of Origin	AVERAGE Customer Satisfaction %	TELEPHONE	Fundraiser 1	Fundraiser 2	TOTAL \$ funds raised \$44780
West Jet	Caribbean	Canada	Great	1 800 345-6789	3200	4000 West Jet : Total to date = \$7200.00
Air Canada	International	Canada	90%	(250) 658-5645	3500	3000 Air Canada : Total to date = \$6500
Swoosh	cities	Canada	70%	EDIT	1500	2000 Swoosh : Total to date = \$3500.00
Rouge		Canada	EDIT	EDIT	250	250 Rouge : Total to date = \$500

The 'total' of the last column automatically updates in the table's main title

Airline	Date	Hub	Destinations	Country of Origin	AVERAGE Customer Satisfaction %	TELEPHONE
West Jet	2019-09-29T23:05	Calgary Alberta	Domestic,Mexico,Caribbean	Canada	Great	1 800 345-6789
Air Canada	Oct 29 2022 22:32	Montreal	Domestic and International	Canada	90%	(250) 658-5645
Swoosh	Oct 29 2022 22:32	Calgary Alberta	Domestic- minor cities	Canada	70%	EDIT

Given that it can sometimes be difficult to remember the exact format of keywords such as 'SumAcross', DougieBase has been coded to be forgiving in the exact entry of SumAcross..so that other variations will be accepted..sum across, sumAcross, sumacross will all be accepted. If you choose to make the first data entry in the NOTES section of the record "Cost to date = \$" or "Total to date =", then the sum across total calculated at the end of each record will be updated in real time in the first data section of the record in NOTES. Each time an edit is made to a table's data cell, the 'sum across' total is automatically updated.

SORT TABLE **Change Background** **+ - vBottom**

Double-tapping on the field header labelled EMAIL makes it flash, and notice appears indicating email addresses are now active.

CONTACT NAME	Date	TELEPHONE	EMAIL	AVERAGE RANK
Name of first contact	Oct 29, 2022	1 (613) 123-		8
Contact Name				EDIT
Contact3 Name	17:55			2

eMail address now active! Double click on email address to SEND EMAIL!

Double Tap on the table's data cell to initiate EDIT mode and EDIT its contents. This is the default trigger choice. To change edit trigger to 'Select-Copy' go to Preferences. FIXED fields = columns 1-4; DYNAMIC fields = columns 5 and up. Use keywords TOTAL AVERAGE COST in field title (Dynamic fields only) for added functionality! (COST needs to be used with TOTAL or AVERAGE). Use TELEPHONE (in 3rd FIXED field only) or use EMAIL (in 4th FIXED field only) for activating telephone calling or email addresses. TELEPHONE and EMAIL keywords can also be used in ANY DYNAMIC field. The sumAcross keyword placed in the last column of the table will SUM all numbers (100 but NOT 100% or 100!) in that record

Decoder

Then double tapping on the email address will open the devices native emailer

Tsunami2 TSU-1100: This decoder comes with an optional 220uF capacitor

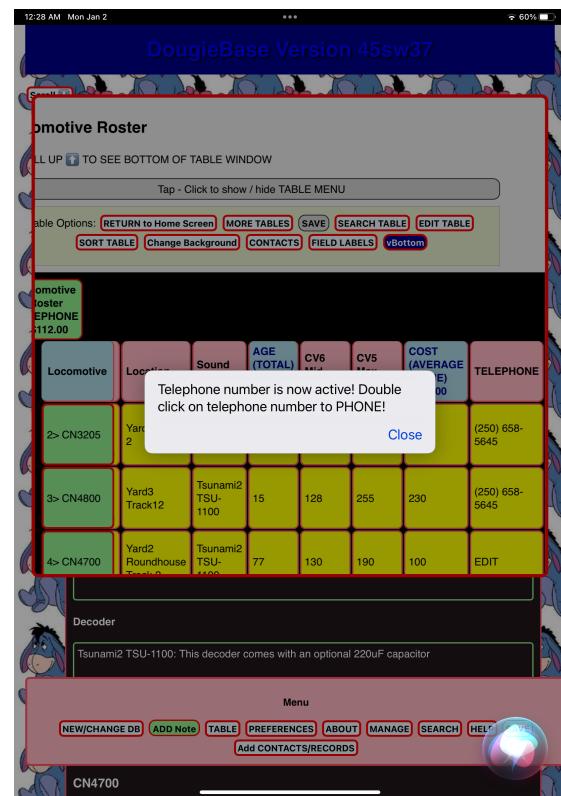
The EMAIL and TELEPHONE keywords

'EMAIL' and 'TELEPHONE' entered as field heading labels have special functionality. Double-tapping on a field name that contains 'EMAIL' in the 4th FIXED field or in any DYNAMIC field will activate the email addresses listed in the table's data cells of that column. The field label will flash indicating email addresses have been activated. Now IF you double-tap on any email address in the column, the native emailer app of the OS of the device will open with the email address already entered and is ready for entering text into

the body of the email. What ever email app is the default for your device is what DougieBase uses when opening the native emailer. For this to work the browser that you are running Dougiebase in must support this capability. Not all browsers are equal in this regard.. Most

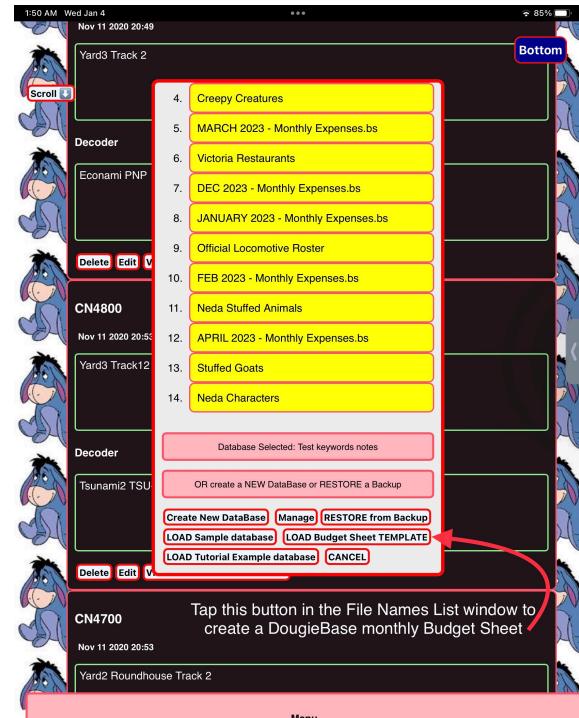
desktop browsers support this but not all mobile browsers do. For example Opera Brave and Firefox mobile browsers currently do not support this but Chrome mobile does. Safari, desktop and mobile, and EDGE do support this. Generally speaking if the browser supports sending emails, it will also support the TELEPHONE option too.

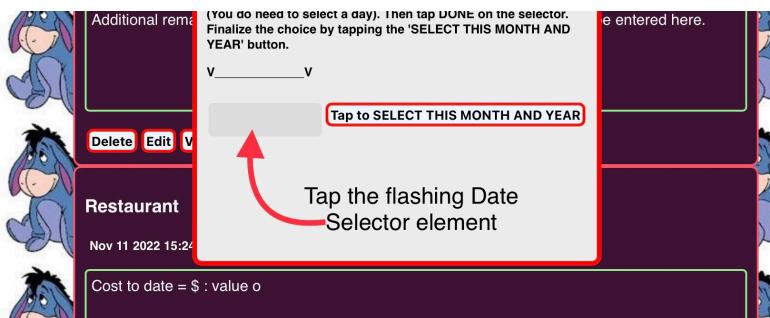
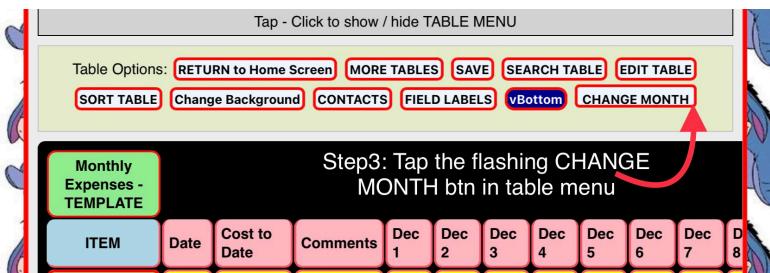
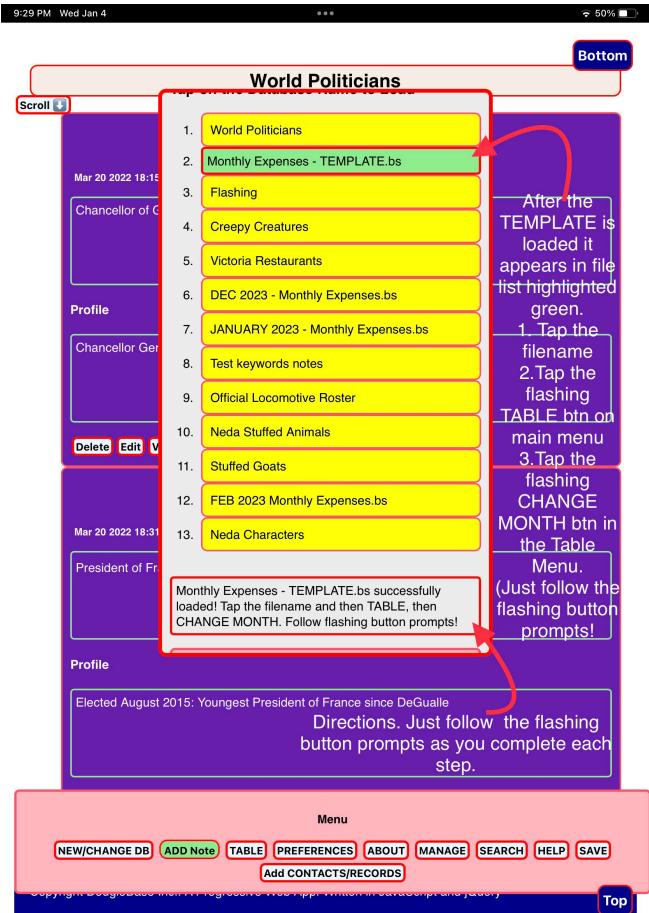
Double-tapping on a Field Header containing the keyword TELEPHONE in the 3rd FIXED field or any DYNAMIC field will activate the phone numbers listed in the column below. The field header will flash indicating phone numbers are active and double-tapping on any phone number will initiate a call to that number IF your browser supports this feature and if your device has a SIM card. Both the EMAIL. and TELEPHONE options are de-activated when you return to another table or load in a new database. In this case the double-tap action on a data cell reverts back to its default response that being EDIT mode.



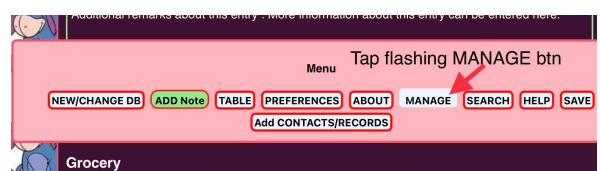
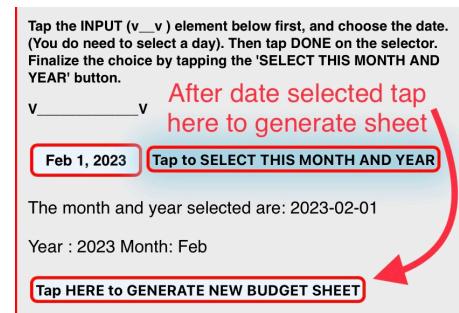
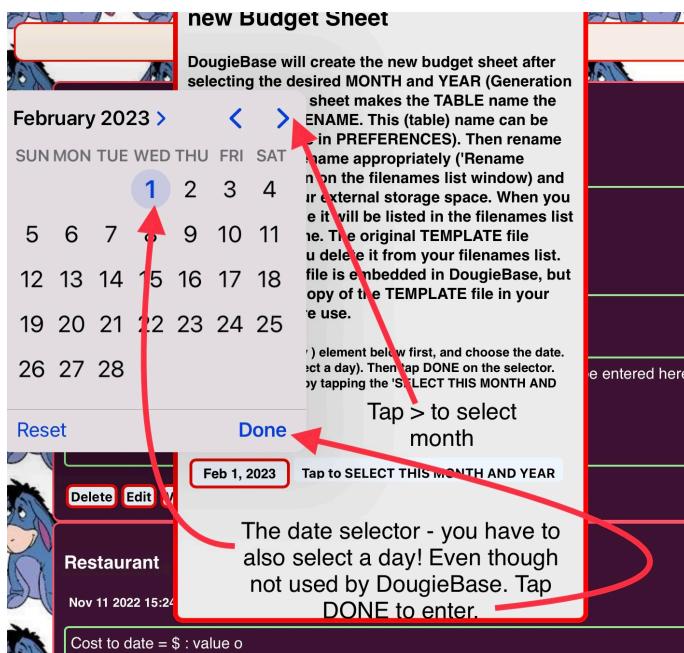
A BUDGET SPREADSHEET

The SUM ACROSS keyword is a very important component of a DougieBase Budget Spreadsheet. This is just an example application of using DougieBase for a simple budget organizer for keeping track of what's spent and where. The budget sheet is built into DougieBase and can be loaded in by tapping the 'LOAD Budget Sheet TEMPLATE' button in the FILE NAMES LIST WINDOW. (from main menu .. NEW/CHANGE DB). This is a template from which you create a budget sheet labelled with the correct month of the year. DougieBase creates the budget sheet using the TEMPLATE. The month of the budget sheet is updated and the sheet renamed by a number of actions performed by the user following the flashing button prompts.



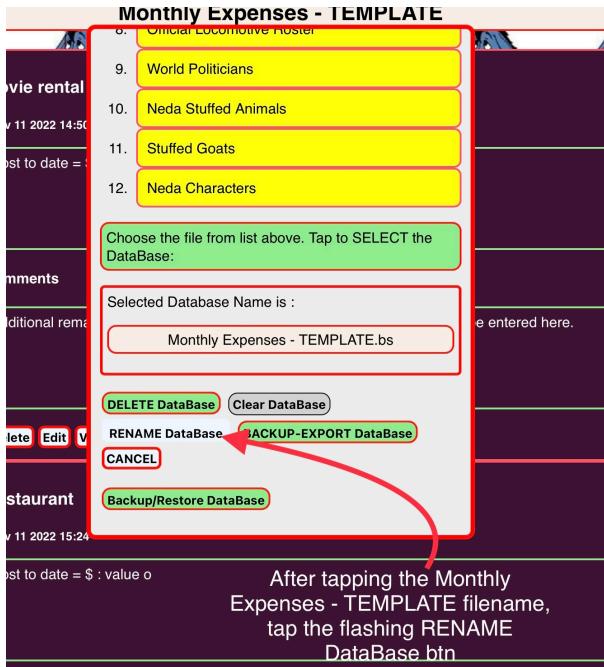


After completing the three steps above you use the date selector to select the desired Month



and year for the new budget sheet. Each month a new budget sheet can be

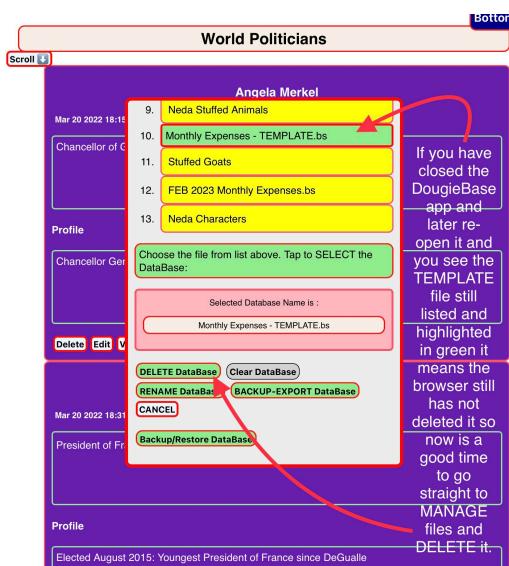
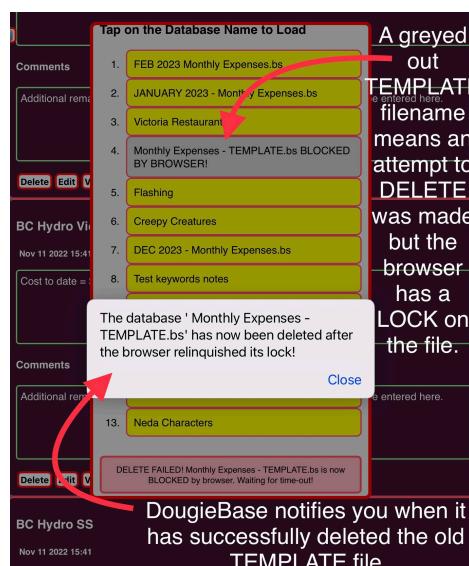
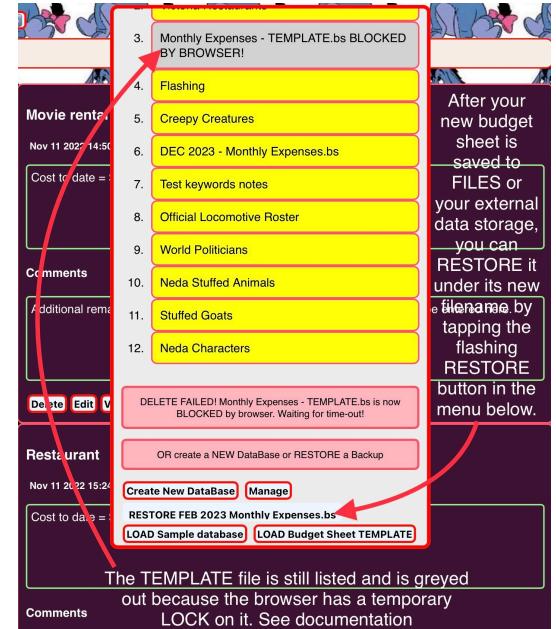
created by tapping the 'Load Budget Sheet' button in the File Names window.



After selecting the date you are directed to the MANAGE window to RENAME the budget sheet.

Tap the flashing RENAME DataBase button to rename the database file name for the appropriate month. You are then led through the steps to backup and then RESTORE the budget sheet under its new filename corrected for the month you selected. Currently Browsers using IndexedDB for file handling do not allow renaming of

database names. DougieBase gets around this limitation by saving and then restoring the new file under its new name. That is the reason the process seems a little awkward but it works! The old TEMPLATE file becomes dysfunctional in the process so DougieBase automatically deletes it. Sometimes the browser puts a LOCK on the file so DougieBase can not access it. In this case DougieBase waits until the browser releases its LOCK after a 'timeout'. A notification appears when the deletion has occurred. If you close the app prior to the browser releasing its LOCK, DougieBase remembers the file has not been deleted and highlights it in green when you reload the DougieBase app. If you see the



TEMPLATE file is still listed and in green after you or the browser was to have deleted it, then now is a good time to go straight to MANAGE, select the Template file and DELETE it. Don't open it because this will cause the browser to put a new LOCK on it.

RENAME A DOUGIEBASE DATABASE FILENAME

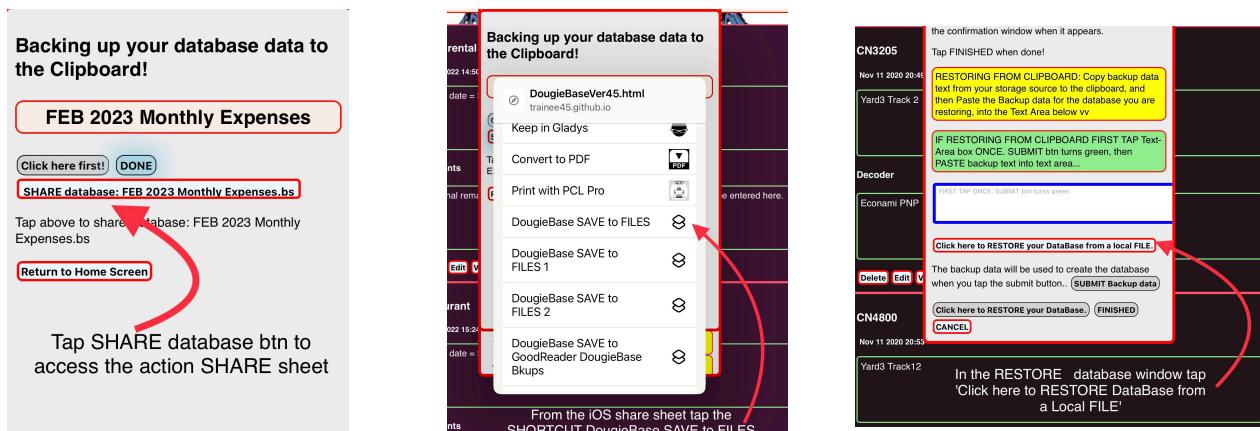
Currently Browsers using the IndexedDB file management protocol do not have the capability of renaming a database filename. DougieBase gets around this limitation by renaming the file within DougieBase, saving it to the clipboard and then to the user's external file storage, and then RESTORING the file back into DougieBase using the RESTORE function. The original file that has been renamed is deleted by DougieBase or by the user using the DELETE function in MANAGE. If the browser has put a temporary LOCK on the file DougieBase waits until the browser releases its LOCK. The same process used in creating a budget sheet as described above is used in RENAMING a database file. Follow the flashing button prompts as you complete the required steps. DougieBase will warn you if the deletion stage of the original file with the old filename, encounters a LOCK.

AN ENHANCED SCROLL BUTTON

The SCROLL button in the NOTES section now remembers where an EDIT was made in a table, or where a record was a target of a SEARCH, and when tapped scrolls directly to that record when returning to NOTES from the table. Subsequent taps of the scroll button move in the default increments.

USING THE NATIVE FILES APP FOR EXTERNAL STORAGE

In iOS and iPadOS DougieBase can use the native FILES app to store database files for backup and restore. When 'backing up' a database the file is sent to the clipboard. Using the SHARE action by tapping 'SHARE this database' button from the Backup window, you can choose multiple options including EMAIL, COPY, or an iOS SHORTCUT.. A database file's data can be saved directly to the FILES app using the choices available when you long press the file data in the sent email. (Send the email to your own address if you want to access the data this way in



order to save to FILES). If you have the APPLE SHORTCUTS .. DougieBase file extension 'DOUGIEBASE SAVE TO FILES', then tapping the SHORTCUTS name from the action share sheet will send the database data directly to a folder in your iCloud Drive labelled 'DougieBaseBKUPS'. You must create this folder using the exact same name in your iCloud Drive prior to using this option.

When you RESTORE files you have two options. 1. Use COPY/PASTE placing data you have copied from clipboard or your external storage in a notes app file etc., and pasting this data into the TextArea element on the restore window OR 2. DougieBase will RESTORE files from your device's local storage (FILES) by tapping the 'RESTORE from Local Storage' button in the RESTORE window. RESTORE from Local Storage accesses the native file picker from which you can navigate to any folder in FILES. FILES is the native file picker for iOS and iPadOS, and this works when using Safari, but this should work on other operating systems if your browser supports local file access. For more information see Chapter 2 File management page 21, and Chapter 3 USING THE iOS SHARE SHEET page 18.

FAQ's

What is the '.bs' file extension in a budget sheet filename?

No ! Its not what you think. .bs stands for 'budget sheet'. This is an internal protocol used by DougieBase for certain aspects of the program and is transparent to the user. DougieBase adds this extension to the file name internally when appropriate, and the user can ignore it. Do not add this extension when naming or renaming files.

If DougieBase automatically deletes the Monthly Expenses TEMPLATE file after creating a new budget sheet, how do we make a new budget sheet for the next upcoming month?

A new budget sheet is created using a new TEMPLATE sheet every time the user taps the 'LOAD Budget Sheet TEMPLATE' button in the File Names List window.

I deleted a database, but a notification appears saying unable to delete..file is LOCKED by browser. Now what?

If you have viewed or otherwise acted on a database you subsequently DELETE, you will find the browser has put a temporary LOCK on the file. If DougieBase initiated the DELETE such as during a RENAME process or during a creation of a new budget sheet, DougieBase waits for the 'time out' and then will DELETE the file. You will receive a notification when this occurs. If the user DELETED the file, wait for the browser to release its LOCK and try again. If you close the app and restart the app this sometimes releases the LOCK. In any case DougieBase remembers that a lock was placed on the file and on restart highlights the filename in green with a red border (if it has not yet been deleted) reminding the user to DELETE the file again. Go direct to MANAGE, tap on the highlighted file to be deleted and tap DELETE. Don't open the file before doing this as the browser will then put another LOCK on it.