

Guide to recreate RNTV-Vlookup.xlsm

Steps

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1A Load raw data from text file

Create a new worksheet, and load to cell C4, data from file (RNTV-RawData.csv)(Data tab >> From Text/CSV).

The data is static (will not change) and so the query connection is not necessary and can be deleted.

Select the table (choose RNTV_RawData in the Name Box), and convert it to range (TableDesign tab >> Convert to Range).

Adjust formatting to make data easier to work with.

(Sheet 1A Raw Data)

1B Prepare data

Sort data on book column: select cell range C4:E31, sort ascending (A-Z). This step is optional if in step 2A exact match is used.

Select cell range E5:E31, and convert Text to Columns (Data tab).

The following steps are specific to how the raw data has been formatted. In the Wizard, choose Delimited conversion with Comma and Space as delimiters and Treat consecutive delimiters as one Checked. Do not import the first column.

Extend selection to AG.

With E5:AG31 selected, apply Autofit Column Width (Home tab >> Format), and remove right curly brace (Home tab >> Find & Select >> Replace } with nothing).

Reduce selection to E5:AF31, and insert 0 in blank cells (Ctrl-F >> Replace with 0).

To check that the number of verses is equal to number of chapters for each book.

In cell AH5 type =IF(COUNTIF(\$E5:\$AF5,"> 0")=\$D5,"T",FALSE). Use Autofill to copy this copy down to AH31.

If all results show 'T', transformation preserved data integrity, and the contents of AH can be cleared. Otherwise, check and correct data in rows indicated FALSE.

(Sheet 1B Prepared Data)

2A Pick a random verse from a randomly selected chapter in a NT book chosen at random

Configure automatic evaluation of formulations (Formulas >> Calculation Options >> Automatic), so that change in one cell triggers updates in dependent cells.

In cell C3, type =INDEX(\$C\$5:\$C\$31, RANDBETWEEN(1,27)). This chooses a random book.

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To select a random chapter from the chosen book, in cell D3 type =RANDBETWEEN(1, VLOOKUP(\$C\$3, \$C\$5:\$D\$31, 2)).

To pick a random verse from the selected chapter, in cell F3 type =RANDBETWEEN(1, VLOOKUP(\$C\$3, \$C\$5:\$AF\$31, \$D\$3+2)). A value of 2 is added to the column index number to account for the Book and Chapters columns.

By default, [VLOOKUP](#) does an approximate match, which does require the data in the leftmost column of the table array to be sorted. Set the range_lookup flag to FALSE for match to be exact (table array need not be sorted). As mentioned in the previous step, the data need not be sorted since matches are all exact.

To confirm that the randomly picked verse exists within the selected chapter and chosen book, name ranges C5:C31, D5:D31, and E5:AF31, Books, Chapters and Verses respectively (With the cell ranges including their header cells selected, Data tab >> Create from selection).

In cell AI2, type =MATCH(\$C\$3, Books, 0), to get the relevant row for the next two queries.

In cell AI3, type =INDEX(Chapters, \$AI\$2), to get the max value valid for D3.

In cell AI4, type =INDEX(Verses, \$AI\$2, \$D\$3), to get the max value valid for F3.

In cell AH4, type =IF(AND(\$D\$3 <= \$AI\$3, \$F\$3 <= \$AI\$4), "T", FALSE). Picked verse is valid if result is 'T'.

(Sheet 2A Random BCV)

2B Add user control (macro and button) to generate new random verse

Name cells C3, D3 and F3 respectively as Book, Chapter, and Verse

In cell AH3 type =CONCAT(Book," ",Chapter,"-",Verse).

Format result cell AH3 according to design taste: Use separator to widen column AH (or set column width to 27). Bold (Ctrl-B) content of AH3, change font colour.

Configure macro settings for workbook

(File >> Options >> TrustCentre(Settings) >> MacroSettings >> Disable all macros with notifications).

Add Developer tab (Right click ribbon >> Customize the Ribbon).

From the Developer tab, insert a Button (Form Control) close to cell AH3.

Create a new macro named NewVerse_Click, specific for ThisWorkbook.

In the View Code window for Module 1, type the following VB code and save.

```
Sub NewVerse()  
'  
' NewVerse Macro  
'  
'  
    Range("C3").Select  
    ActiveCell.Formula = "=INDEX($C$5:$C$31, RANDBETWEEN(1,27))"  
    Range("E3").Select  
End Sub
```

Relabel the button 'New Verse'. Test the button.

(Sheet 2B Add Button)

Save file as a macro-enabled workbook (.xlsm).

Hide columns C to AF, and make other design adjustments.

Format the button control so it moves but does not resize with cells.

Link to an online Bible source to obtain the text for the random verse. In cell AH4, type
=HYPERLINK (CONCAT("https://www.biblegateway.com/passage/?search=", \$AH\$3,"&version=RSVCE"), "Read
Verse here")

Test that the link retrieves the correct verse.

Optional: Read the verse and lookup its surrounding text for context.