Mapping with Google Fusion Tables

You will learn how to transform location information stored in an Excel spreadsheet to a Google Fusion Table that can be geocoded and mapped directly or exported as .KML file.

Format of Data within the Excel Spreadsheet

Open the Excel spreadsheet found within the tutorial package, and see how the information is stored. It is very important to follow the proper format when imputing cell data for each heading so that the Fusion Tables can read it. For this tutorial, we will use the headings of **Name, Address, WiFi** and **DriveThru.** The address must include the street number, street name, city, province, and country – in that order. The image below displays the correct format of data within the cells. Once all the data is correctly imputed, it will be imported into the Google Fusion Tables. Lastly you will learn how to map the locations and share them with others or save it for future uses.

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1	Name	Address			Wi-Fi	Drive-Th	iru	
2	Tim Hortons	109 KING S	T N Waterloo Ontario	o Canada	YES	YES		
3	Tim Hortons	94 BRIDGE	PORT RD Waterloo O	ntario Canada	YES	NO		
4	Grand River Hospital	835 KING S	T W Kitchener Ontari	o Canada	NO	NO		
5	Wilfred Laurier University	200 KING S	T N Waterloo Ontario	o Canada	NO	NO		
6	Wilfred Laurier University	75 UNIVER	SITY AVE W Waterloo	Ontario Canada	NO	NO		
7	Tim Hortons	638 BELMO	ONT AVE W Kitchener	Ontario Canada	YES	YES		
8	Tim Hortons	65 UNIVER	SITY AVE E Waterloo	Ontario Canada	YES	YES		
9	Tim Hortons	730 KING S	T W Kitchener Ontari	o Canada	YES	YES		
10	University of Waterloo	200 UNIVE	RSITY AVE W Waterlo	o Ontario Canada	NO	NO		
11	Tim Hortons	200 UNIVE	RSITY AVE W Waterlo	o Ontario Canada	NO	NO		
12	Tim Hortons	200 UNIVE	RSITY AVE W Waterlo	o Ontario Canada	NO	NO		
13	Gas Station	151 COLUN	/IBIA ST Waterloo On	tario Canada	NO	YES		
14	Tim Hortons	384 KING S	T N Waterloo Ontario	o Canada	YES	YES		
15	Tim Hortons	415 KING S	T N Waterloo Ontario	o Canada	NO	NO		

Import an Excel table into Google Fusion Tables

1. Open the <u>home page of Google Drive</u>

[http://www.google.com/drive/apps.html] and log in to your Google Account. On the home page, click 'Go to your Drive' in the top right-hand corner. This will bring you to a log in page. Log into your Google Account. If you do not have an account, you will need to create one first. Google Fusion is an application that is a part of Google Drive and can be accessed through the 'Create' button. If you do not see the \swarrow symbol that represents a fusion table, click 'Connect more apps' and then select 'Fusion tables > Connect'.

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All items	
Trash	
 My collections 	
Pics	
Collections shared with me	

2. Create a Google Fusion Table.

You will create a Google Fusion table by importing the Excel spreadsheet that is given to you in the tutorial package. In Google Drive, click 'Create' and then click 'Fusion Table (exper...)'.

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	Folder	Fusion Table (exper	es. With (/ Drive.
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3. Browse to the Excel File and upload the data table In the 'Import new table' pop up window, select 'From this computer' and browse to find the

In the 'Import new table' pop up window, select 'From this computer' and browse to find the Excel Spreadsheet titled 'Data Table'. Click 'Next' when finished.

From this computer	Browse Data_Table xisx
Google Spreadsheets	You can upload spreadsheets, delimited text files (csv, tsv, or td), and Keyhole Markup Language files (kml) Learn more
Create empty table	
	Or search public data tables
	<u>q</u>

4. Review your table's information and assign it a name

Review that the column names are being taken from 'row 1', and then click 'next'.

1	Name	Address	WIFI	DriveThru	ŕ
2	Tim Hortons	109 KING ST N Waterloo Ontario Canada	YES	YES	
3	Tim Hortons	94 BRIDGEPORT RD Waterloo Ontario Canada	YES	NO	
4	Grand River Hospital	835 KING ST W Kitchener Ontario Canada	NO	NO	
5	Wilfred Laurier University	200 KING ST N Waterloo Ontario Canada	NO	NO	
6	Wilfred Laurier	75 UNIVERSITY AVF W Waterloo	NO	NO	-
Rows before the header	row will be ignored				

Assign your table a name and fill in other essential information as shown below, then click 'Finish'.

Import new table				
Table name	Tim Horton's Locations in the Region of	f Waterloo		
Allow export	Ø 3			
Attribute data to	Tim Horton's Locations			
Attribution page link				
Description	Imported at Thu Dec 19 12:26: Data_Table.xlsx.	57 PST 2013 from		al
	For example, what would you like to remembe	r about this table in a yea	n	
New to Fusion Table	s?	Cancel	« Back	Finish
Take a peek! Play with a d	ata set or try a tutorial.			618011046

5. The imported table will look like the image below.

Your imported table will be available under the 'Rows 1' tab. Note that Google Fusion automatically recoginizes the addresses and highlights the locations in yellow. Scroll down and check to make sure all addresses are highlighted.

File Edit Te	ools Help	ows 1 -	R Cards 1	Map of Address +
Filter 👻 N	o filters applied			
1-2	6 of 26 🕑 🕨			
Name	Address	WiFi 📼	Dr	
Tim Hortons	109 KING ST N Waterloo Ontario Canada	YES	YES	
Tim Hortons	94 BRIDGEPORT RD Waterloo Ontario Canada	YES	NO	
Grand River Hospital	835 KING ST W Kitchener Ontario Canada	NO	NO	
Wilfred Laurier University	200 KING ST N Waterloo Ontario Canada	NO	NO	
Wilfred Laurier University	75 UNIVERSITY AVE W Waterloo Ontario Canada	NO	NO	
Tim Hortons	638 BELMONT AVE W Kitchener Ontario Canada	YES	YES	
Tim Hortons	65 UNIVERSITY AVE E Waterloo Ontario Canada	YES	YES	
Tim Hortons	730 KING ST W Kitchener Ontario Canada	YES	YES	
University of Waterloo	200 UNIVERSITY AVE W Waterloo	NO	NO	

Tim Horton's Locations in the Region of Waterloo

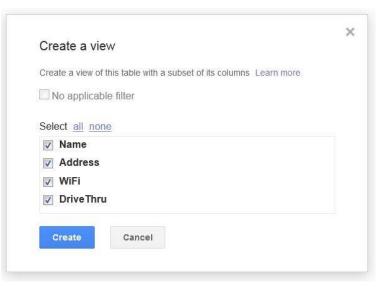
6. Editing Information in Fusion Tables

Under the 'Cards 1' tab, you can edit the attribute information that is available for each Tim Horton's location. They can be filtered to include or exclude information based on your mapping choices and needs. Within this tab, there are also options to delete, or create duplicates of specific locations.

Tim Hortons 94 BRIDGEPORT RD Waterloo Ontari Canada	ih. O	×	
94 BRIDGEPORT RD Waterloo Ontari			
Canada			
edit geocode	414		
YES			
	YES NO	♥ edit geocode YES NO	YES NO

7. Create a new table view.

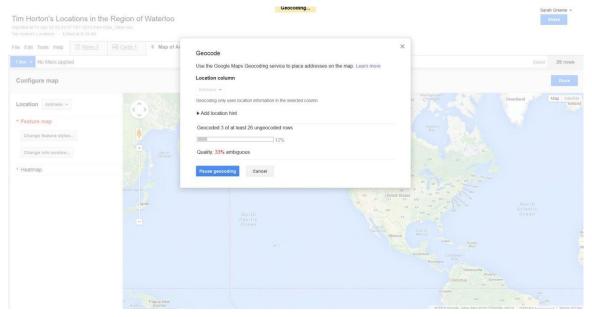
To change the table view, from the 'File' menu select 'Create View'. Here you can select the columns that you want to display and assign a name to the table view. For example, you can make a new table omitting WiFi information.



Mapping the Tim Horton's Locations

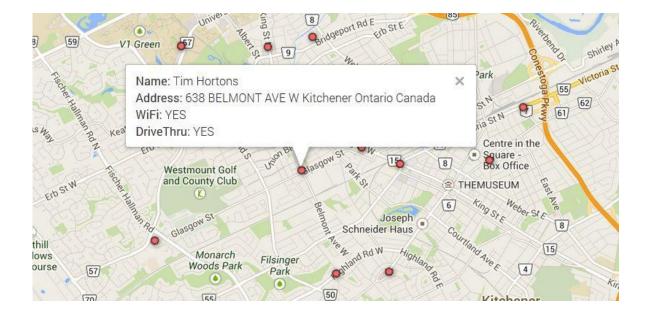
8. Geocoding the Tim Horton's locations.

Click the 'Map of Addresses' tab. This will start the address geocoding process automatically. Please wait for a few minutes until it finishes.



9. Obtain Additional Information for the Locations.

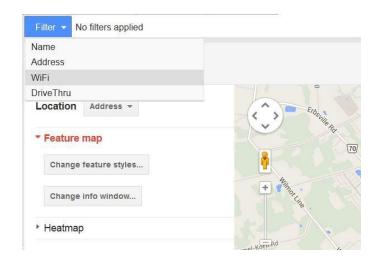
You can zoom in and click on one of the icons to acquire additional information for individual Tim Horton's. It will display summarized information from your original table.



Creating a Query

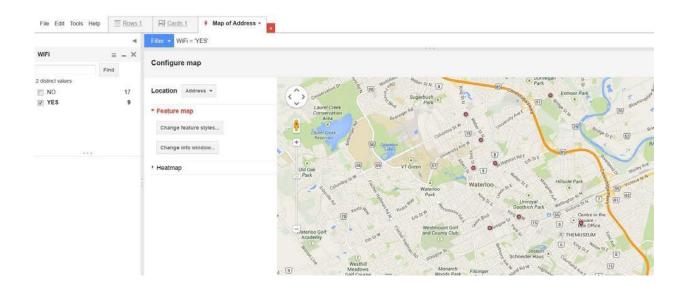
10. Display Selected Locations

With Google Fusion tables, you have the option of querying the data and then displaying it on the map. To create a query, click on the 'Filter' tab in the top left-hand corner of the map.



11. Set the Query Criteria

Set a condition by clicking on the attribute you wish to query, for example, 'WiFi'. This opens a pop-up on the left-hand side of the page. Check off 'Yes' for 'WIFI' which will only show locations which have this attribute. Immediately you will notice a change in the map - only the Tim Horton's locations with WIFI are shown.



12. Change the Icon Style.

You can make changes to the symbol style for the Tim Horton's locations. For instance, under the 'Configure map' section to the left of the map, click 'Change feature style...' This will open up a pop-up that contains options for you to change the style of the icon. Under 'Points', change the icon from its original colour ('small_red') to 'small_blue'.

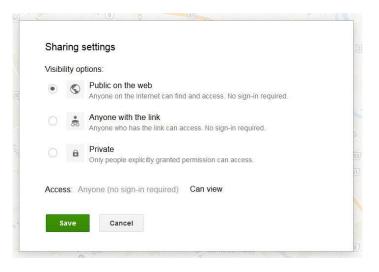
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Sharing Your Table and Map

13. Set up the Sharing Settings

On the top right side of the page, click 'Share'. In the 'Share setting' windows, set 'who has access' from 'Private' to 'Public on the web' by clicking 'Change...'.

	o share (only accessible by collaborators)	
http	os://www.google.com/fusiontables/DataSource?doci	d=1_5yltf3hjysMLIdJWdpuKYV
Shar	e link via: 💌 👥 🔽 🔽	
Who	has access	
6	Private - Only the people listed below can access	Change



14. Share the Link with Others via E-mail

On the top right side of the page, click 'Share' and then copy and paste the link into your e-mail.



15. Export the Locations out in KML Format

Additionally, you can export the locations out as a .KML file. It can be viewed in applications such as Google Earth. To download, click 'File > Download' in the top left-hand corner of the page.

Tim Horton's Locations in the Region of Waterloo Imported at Fri Dec 20 05:43:57 PST 2013 from Data_Table.xisx.

Tim Horton's Locations - Edited at 8:47 AM File Edit Tools Help Rows 1 Fredards 1 Map of Address + + Share. New table. 40 40 ۲ Benjamin Rd Open .. Rename.. Make a copy Laurel Creek Conservation Area About this table Geocode. 70 Merge .. 50 Find a table to merge with .. Create view. 6 58 59 Old Oak Import more rows. Park Download. Carmel-

This will open up a pop-up window as shown below. Select 'KML' under 'Format' and click 'Download'.

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Download	
Download this	s table's contents to a file on your computer. Learn more
Contents	All rows
	© Filtered rows
Format	© csv
	KML
	© KML network link
Download	Cancel

Save the file and view it in Google Earth or share it with others.

Katherine Frankovich Revised on August 8, 2012

Sarah Greene Revised on December 20, 2013

Allen Yu Revised on April 28, 2014