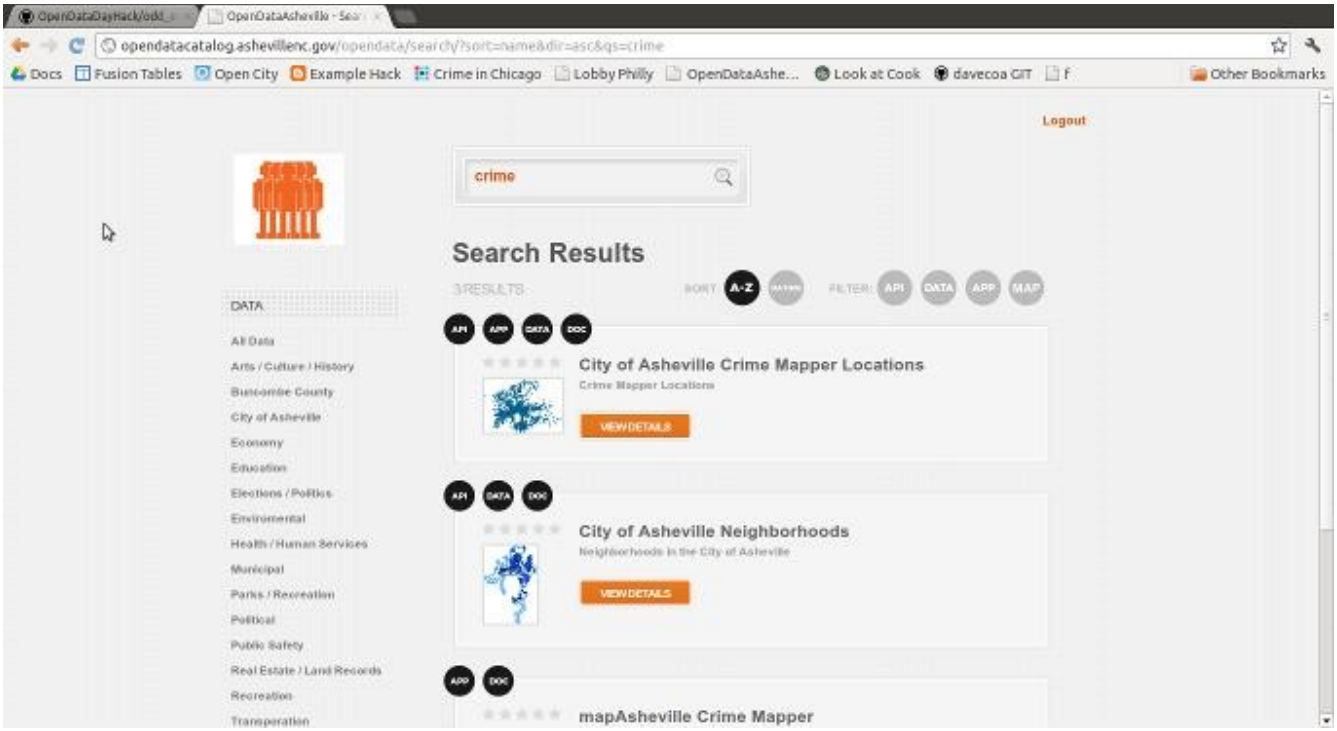
My ODD Sample Hack Directions.

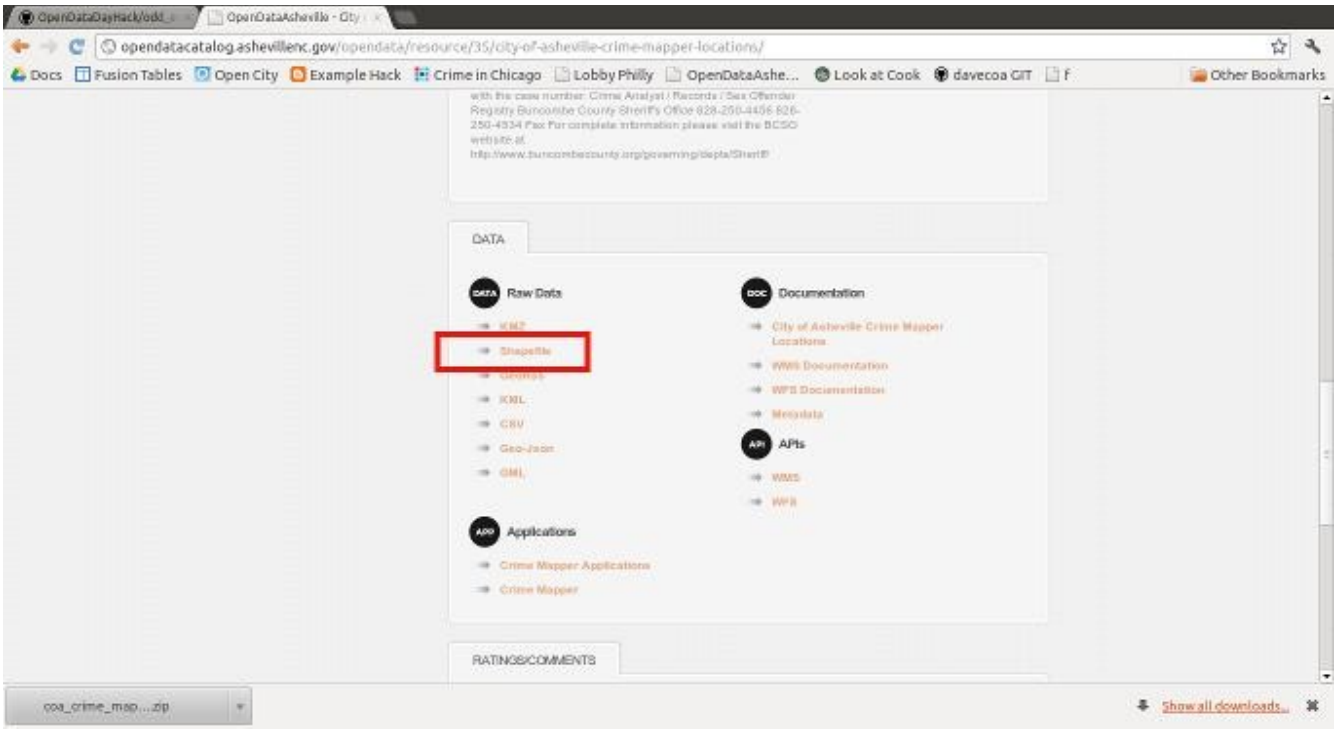
This hack took me about an hour here is what I did. I would speculate that if several people worked on the different parts then it would only take a 20 to 30 minutes with the potential of adding extra goodies.

Go to the Open Data Asheville Data Portal at http://opendatacatalog.ashevillenc.gov/

Search for Crime



Select the City of Asheville Crime Mapper Locations and under the Data area andclick on the shapefile link.



Hit back on the browser and select City of Asheville Neighborhoods

Once again click to download the shapefile from the data area.

Unzip coa_asheville_neighborhoods.zip
Unzip coa_crime_mapper_locations_view.zip

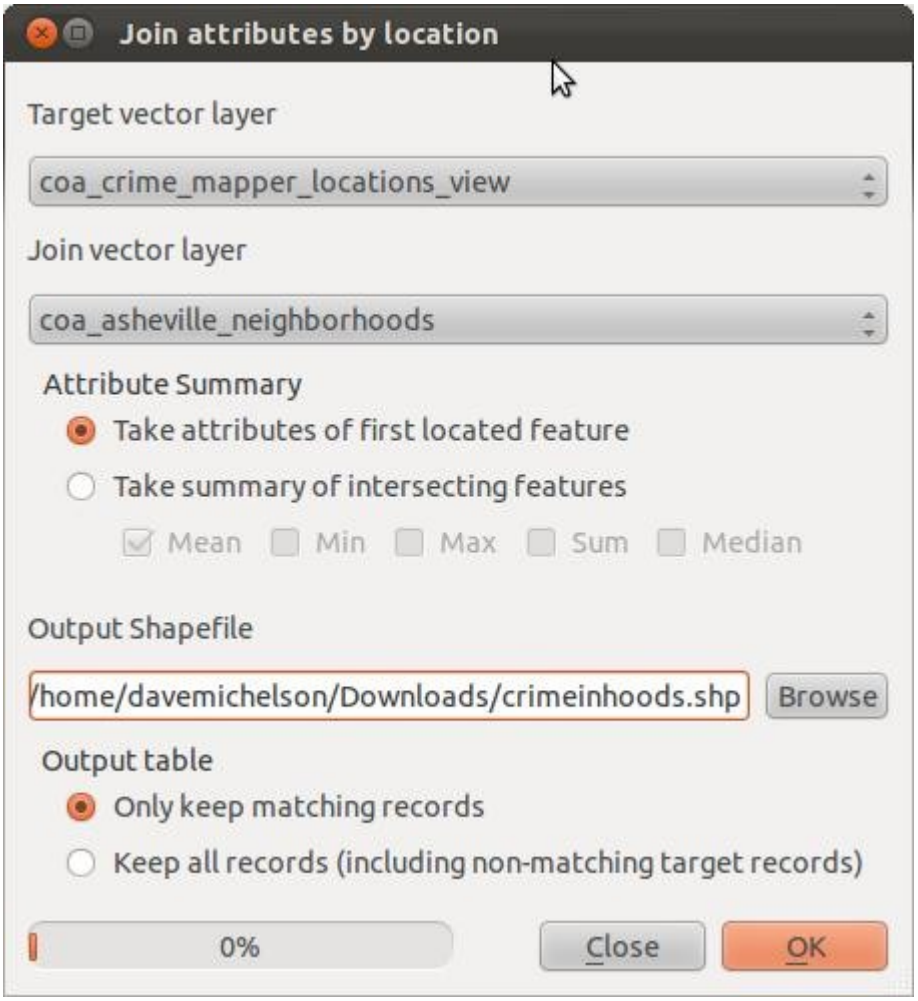
Open QGIS.

Add the layers coa_asheville_neighborhoods.shp and coa_crime_mapper_locations_view.shp to QGIS

Layer – add vector layer –
navigate to where you downloaded and unziped the shapefiles

Now go to the menu choice Vector – Data Management Tools – Join attributes by location

Target vector layer: coa_crime_mapper_locations_view
join vector layer: coa_asheville_neighborhood
output is crimeinhoods.shp



Click apply and when you are asked to add the layer to the TOC choose yes.

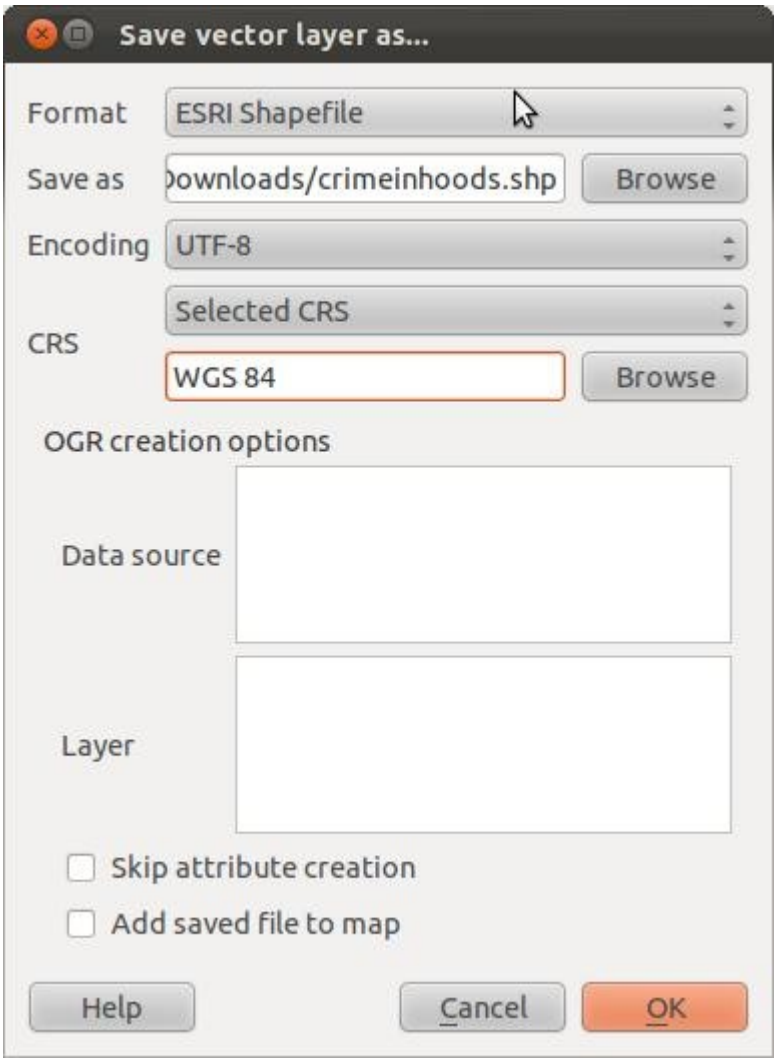
Then close when finished.

Now we need to re-project the shapefile to wgs84 to get latitude and logitude.

Right click the crimeinhoods layer in the table of contents and click on save as...

Name it crimeinhoods_4326.shp

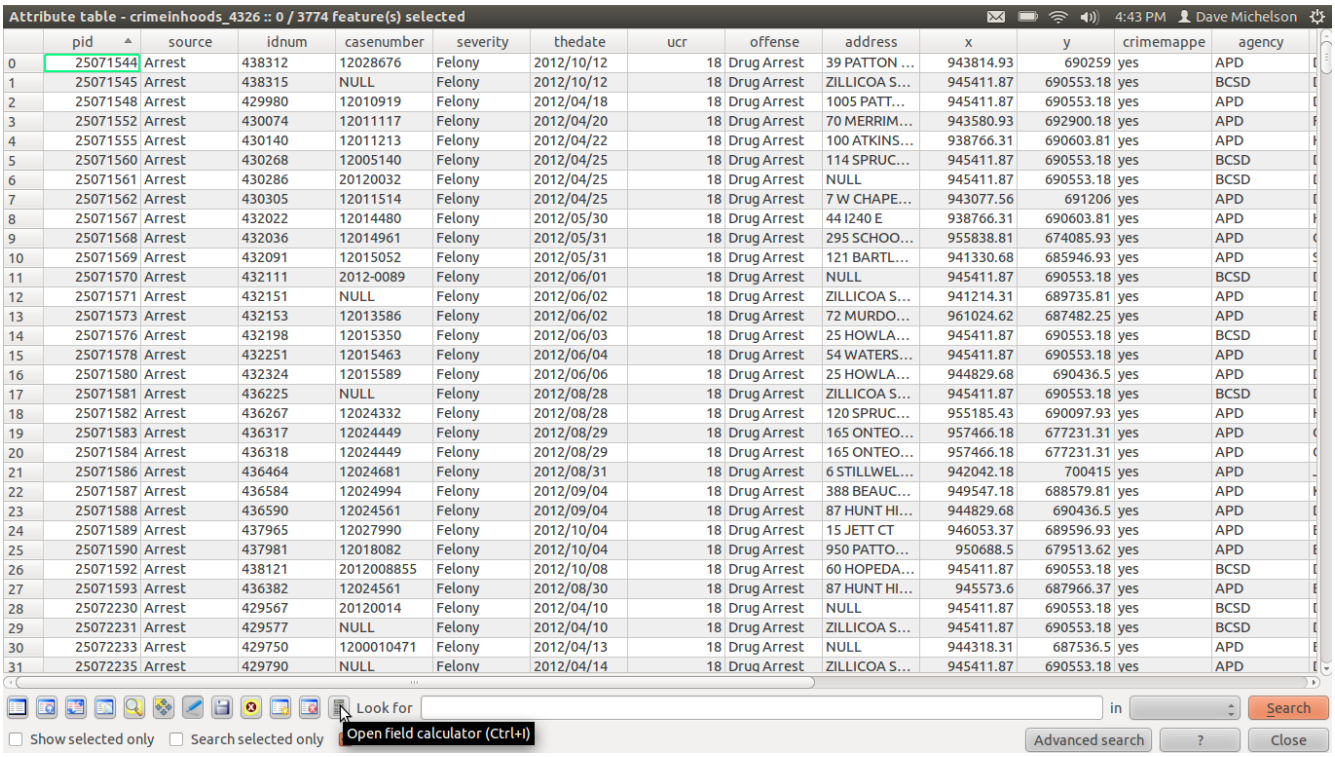
now browse for a new project wgs84



Click OK.

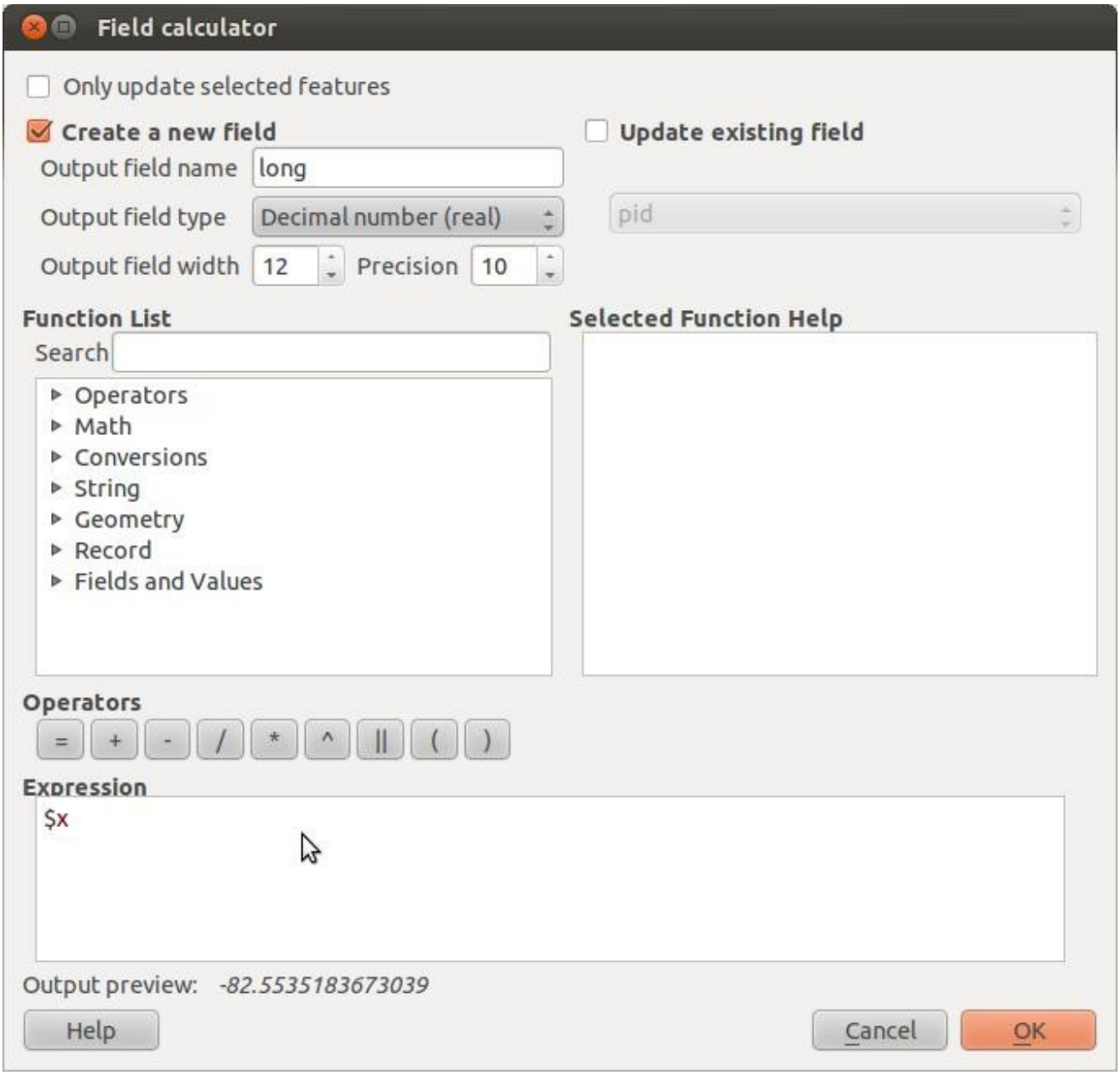
Add the crimeinhoods_4326.shp layer into QGIS, you will not be asked to add it to the TOC. Layer – add vector layer – browse to crimeinhoods_4326.shp

Open the attribute table and toggle editing on.



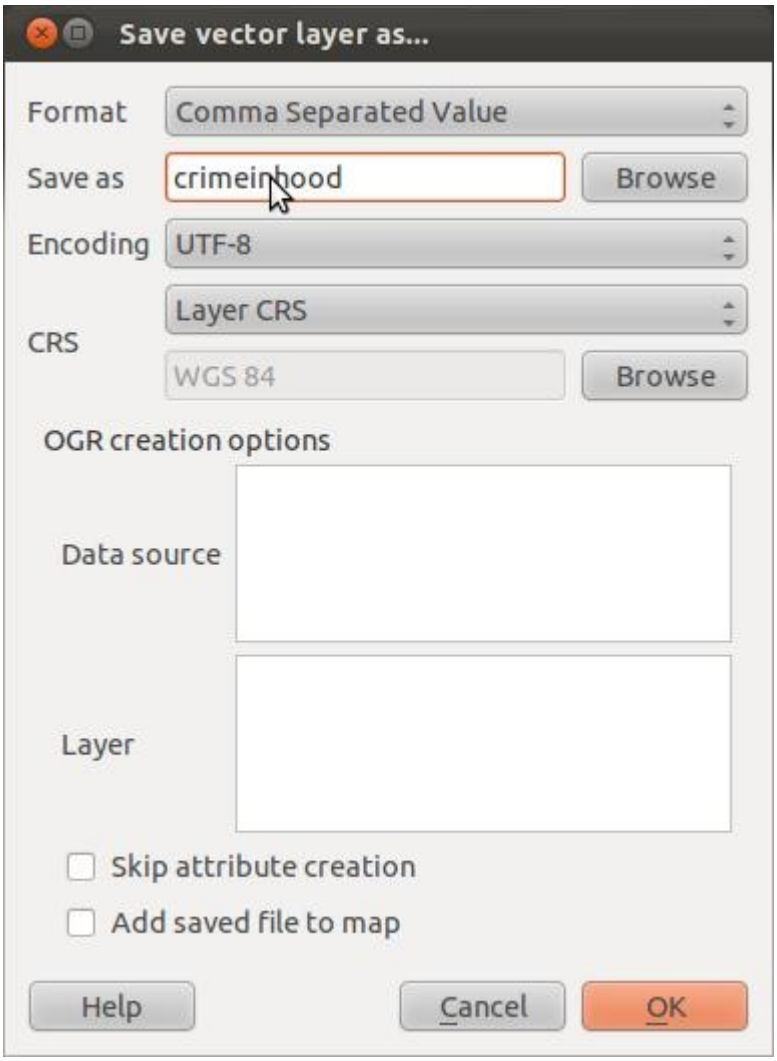
	pid	source	idnum	casenumber	severity	thedate	ucr	offense	address	x	y	crimemappe	agency
0	25071544	Arrest	438312	12028676	Felony	2012/10/12	18	Drug Arrest	39 PATTON ...	943814.93	690259	yes	APD
1	25071545	Arrest	438315	NULL	Felony	2012/10/12	18	Drug Arrest	ZILLICOA S...	945411.87	690553.18	yes	BCSD
2	25071548	Arrest	429980	12010919	Felony	2012/04/18	18	Drug Arrest	1005 PATT...	945411.87	690553.18	yes	APD
3	25071552	Arrest	430074	12011117	Felony	2012/04/20	18	Drug Arrest	70 MERRIM...	943580.93	692900.18	yes	APD
4	25071555	Arrest	430140	12011213	Felony	2012/04/22	18	Drug Arrest	100 ATKINS...	938766.31	690603.81	yes	APD
5	25071560	Arrest	430268	12005140	Felony	2012/04/25	18	Drug Arrest	114 SPRUC...	945411.87	690553.18	yes	BCSD
6	25071561	Arrest	430286	20120032	Felony	2012/04/25	18	Drug Arrest	NULL	945411.87	690553.18	yes	BCSD
7	25071562	Arrest	430305	12011514	Felony	2012/04/25	18	Drug Arrest	7 W CHAPE...	943077.56	691206	yes	APD
8	25071567	Arrest	432022	12014480	Felony	2012/05/30	18	Drug Arrest	44 I240 E	938766.31	690603.81	yes	APD
9	25071568	Arrest	432036	12014961	Felony	2012/05/31	18	Drug Arrest	295 SCHOO...	955838.81	674085.93	yes	APD
10	25071569	Arrest	432091	12015052	Felony	2012/05/31	18	Drug Arrest	121 BARTL...	941330.68	685946.93	yes	APD
11	25071570	Arrest	432111	2012-0089	Felony	2012/06/01	18	Drug Arrest	NULL	945411.87	690553.18	yes	BCSD
12	25071571	Arrest	432151	NULL	Felony	2012/06/02	18	Drug Arrest	ZILLICOA S...	941214.31	689735.81	yes	APD
13	25071573	Arrest	432153	12013586	Felony	2012/06/02	18	Drug Arrest	72 MURDO...	961024.62	687482.25	yes	APD
14	25071576	Arrest	432198	12015350	Felony	2012/06/03	18	Drug Arrest	25 HOWLA...	945411.87	690553.18	yes	BCSD
15	25071578	Arrest	432251	12015463	Felony	2012/06/04	18	Drug Arrest	54 WATERS...	945411.87	690553.18	yes	APD
16	25071580	Arrest	432324	12015589	Felony	2012/06/06	18	Drug Arrest	25 HOWLA...	944829.68	690436.5	yes	APD
17	25071581	Arrest	436225	NULL	Felony	2012/08/28	18	Drug Arrest	ZILLICOA S...	945411.87	690553.18	yes	BCSD
18	25071582	Arrest	436267	12024332	Felony	2012/08/28	18	Drug Arrest	120 SPRUC...	955185.43	690097.93	yes	APD
19	25071583	Arrest	436317	12024449	Felony	2012/08/29	18	Drug Arrest	165 ONTEO...	957466.18	677231.31	yes	APD
20	25071584	Arrest	436318	12024449	Felony	2012/08/29	18	Drug Arrest	165 ONTEO...	957466.18	677231.31	yes	APD
21	25071586	Arrest	436464	12024681	Felony	2012/08/31	18	Drug Arrest	6 STILLWEL...	942042.18	700415	yes	APD
22	25071587	Arrest	436584	12024994	Felony	2012/09/04	18	Drug Arrest	388 BEAUC...	949547.18	688579.81	yes	APD
23	25071588	Arrest	436590	12024561	Felony	2012/09/04	18	Drug Arrest	87 HUNT HI...	944829.68	690436.5	yes	APD
24	25071589	Arrest	437965	12027990	Felony	2012/10/04	18	Drug Arrest	15 JETT CT	946053.37	689596.93	yes	APD
25	25071590	Arrest	437981	12018082	Felony	2012/10/04	18	Drug Arrest	950 PATTO...	950688.5	679513.62	yes	APD
26	25071592	Arrest	438121	2012008855	Felony	2012/10/08	18	Drug Arrest	60 HOPEDA...	945411.87	690553.18	yes	BCSD
27	25071593	Arrest	436382	12024561	Felony	2012/08/30	18	Drug Arrest	87 HUNT HI...	945573.6	687966.37	yes	APD
28	25072230	Arrest	429567	20120014	Felony	2012/04/10	18	Drug Arrest	NULL	945411.87	690553.18	yes	BCSD
29	25072231	Arrest	429577	NULL	Felony	2012/04/10	18	Drug Arrest	ZILLICOA S...	945411.87	690553.18	yes	BCSD
30	25072233	Arrest	429750	1200010471	Felony	2012/04/13	18	Drug Arrest	NULL	944318.31	687536.5	yes	APD
31	25072235	Arrest	429790	NULL	Felony	2012/04/14	18	Drug Arrest	ZILLICOA S...	945411.87	690553.18	yes	APD

Click the field calculate utility and create two numeric (12,10) fields. One name lat on name long and calculate lat to $y and long to $x



Toggle the editing off and save the changes.

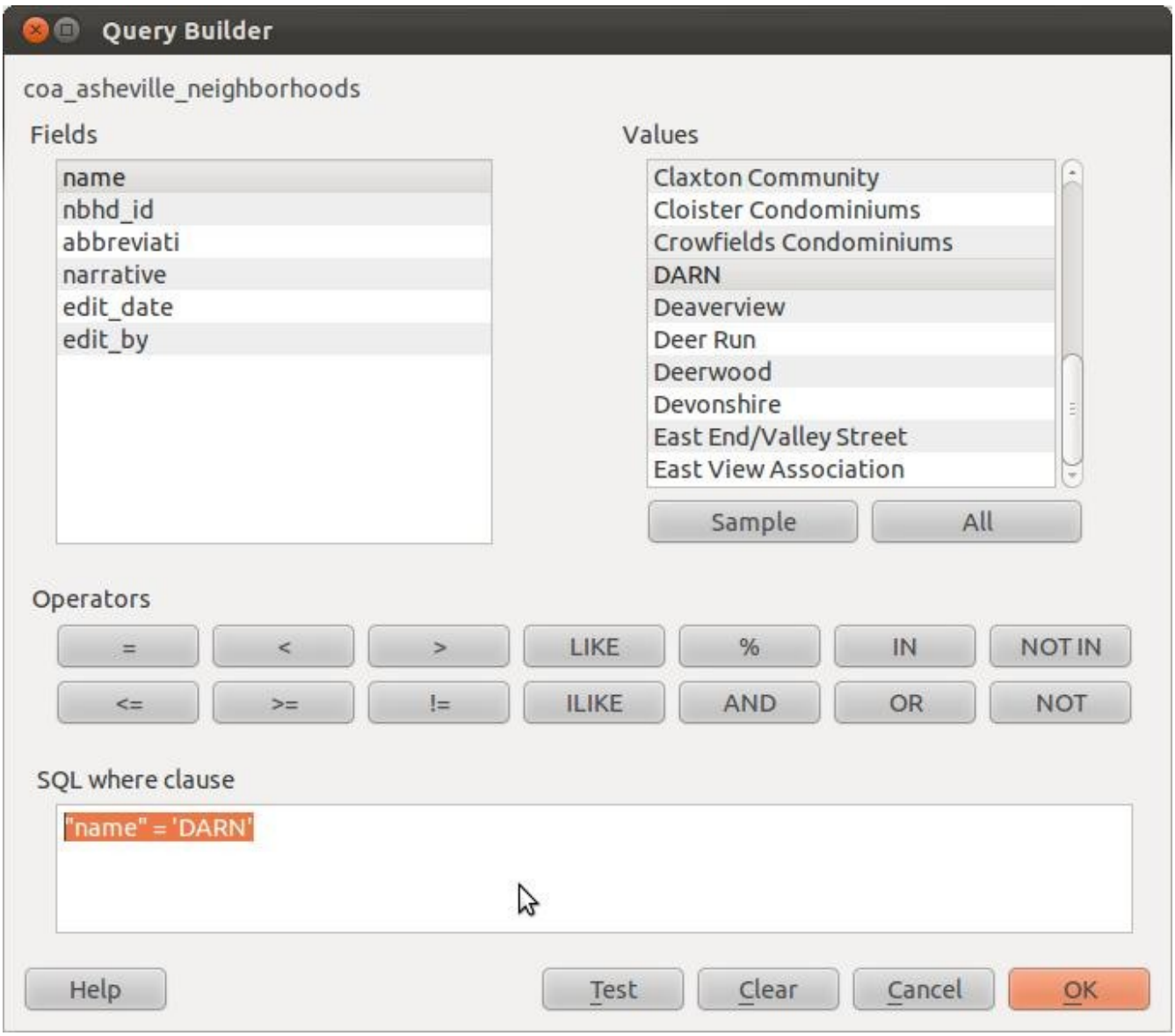
Right click the crimeinhoods layer and select save as....



Change the format to CSV comma separated value.

save as crimeinhood.csv

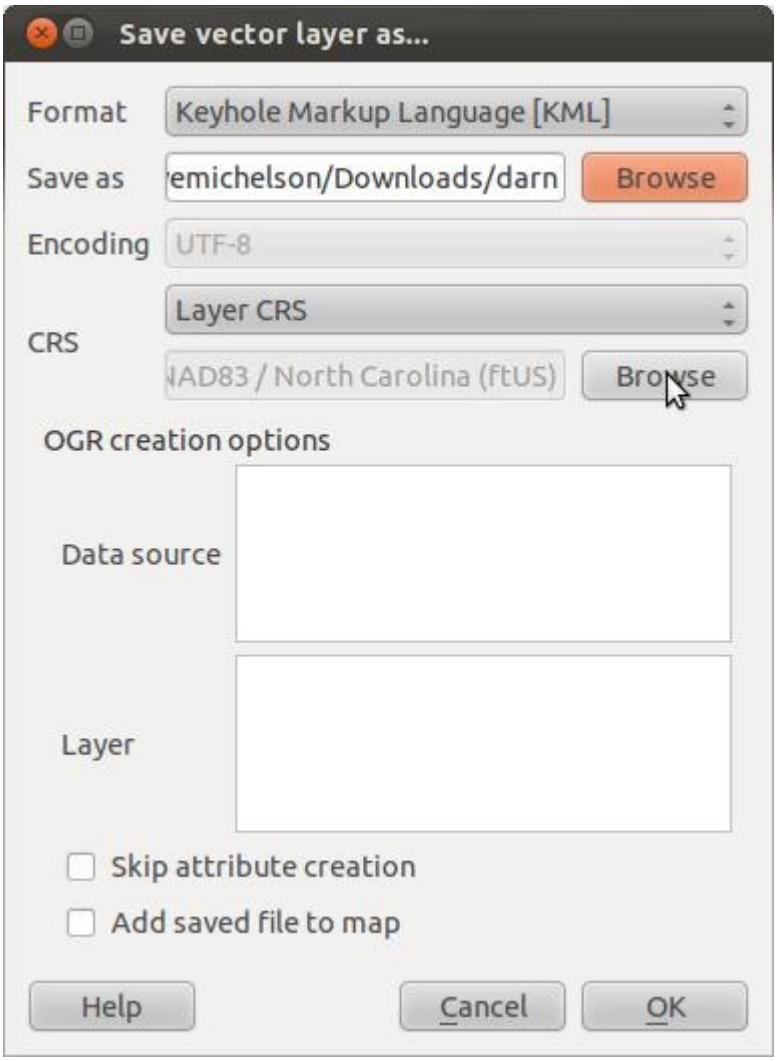
Next in QGIS select the neighbored name = DARN – right the neighborhood layer and select query.



Then hit okay

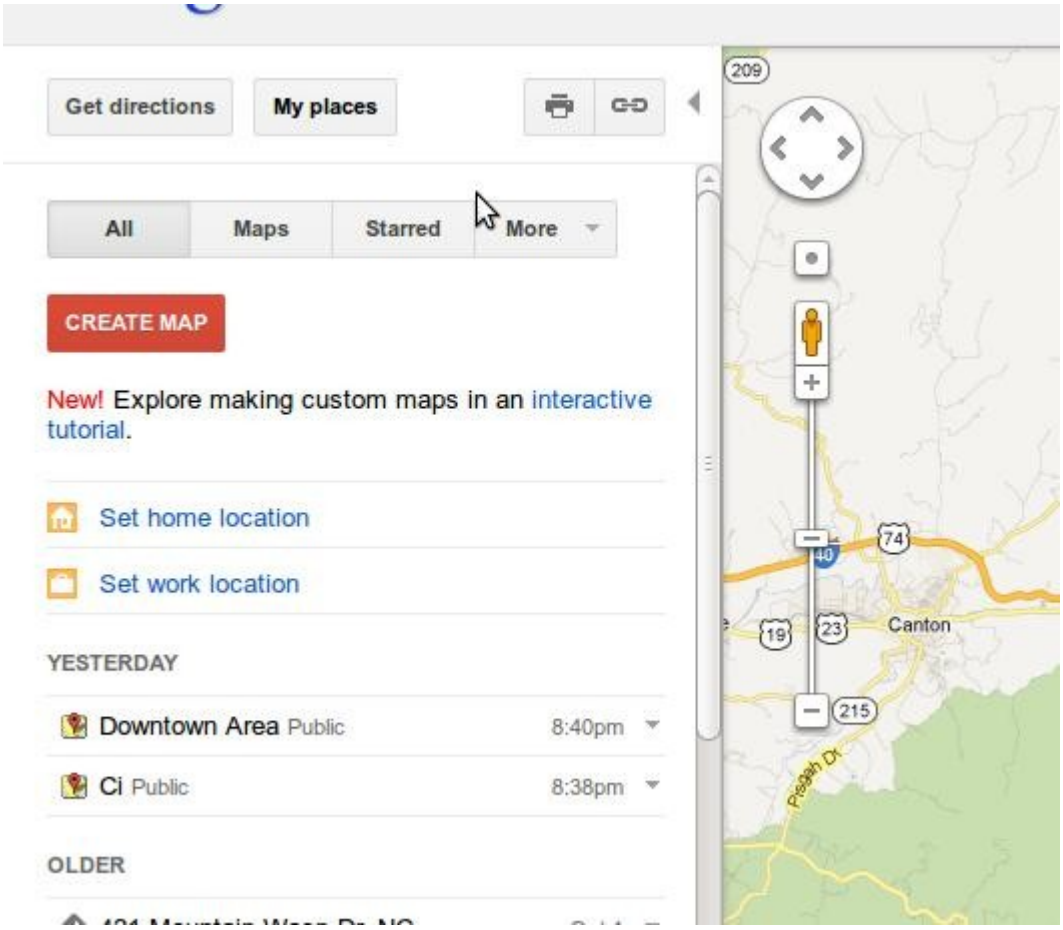
Right the neighborhood layer and choose save as...

Choose the type as kml and name it darn.kml

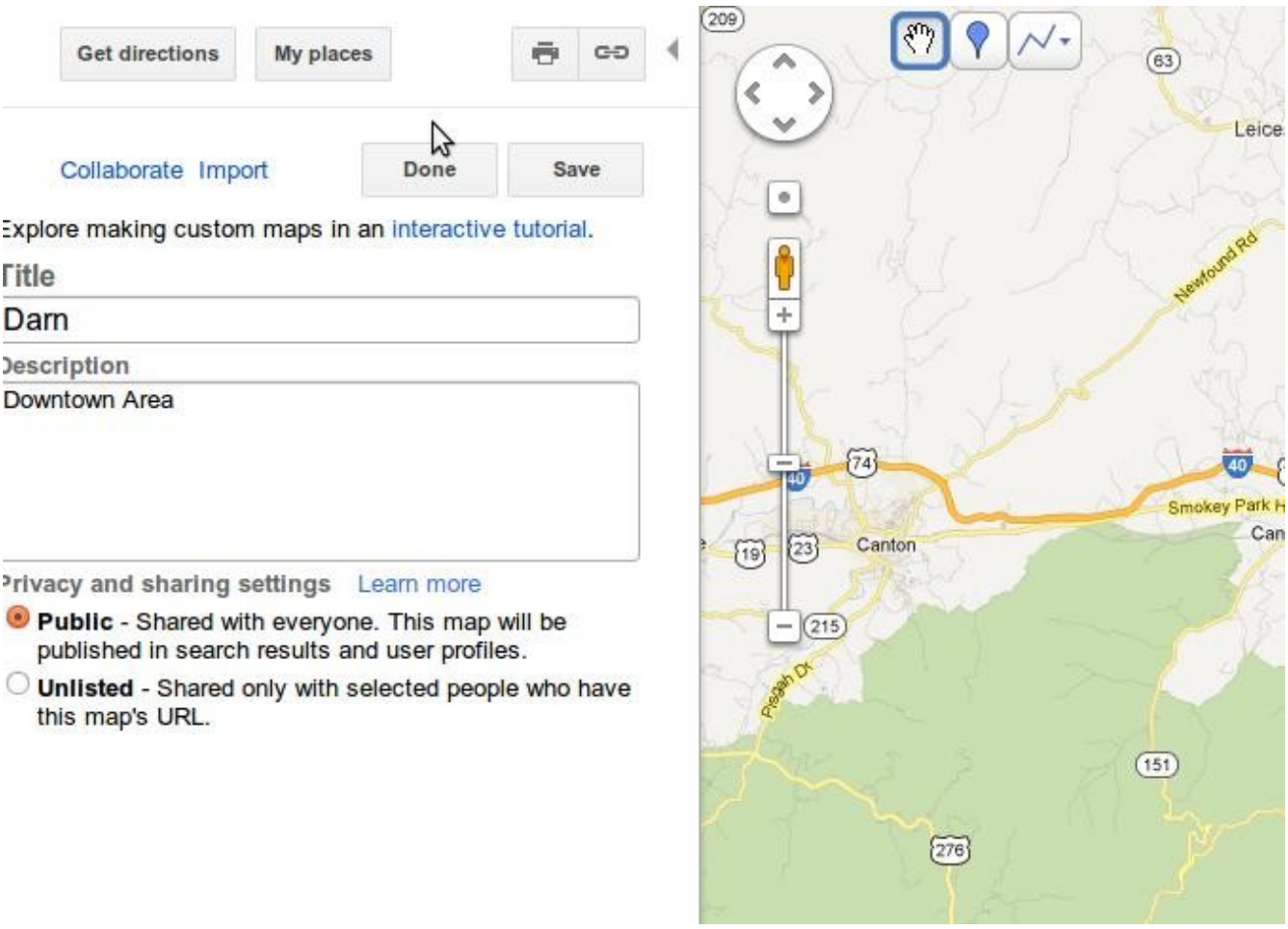


Next you will have to use a Google account to create a custom map...

In the menu of your Google account find maps and click on the link – use the my places and choose create map

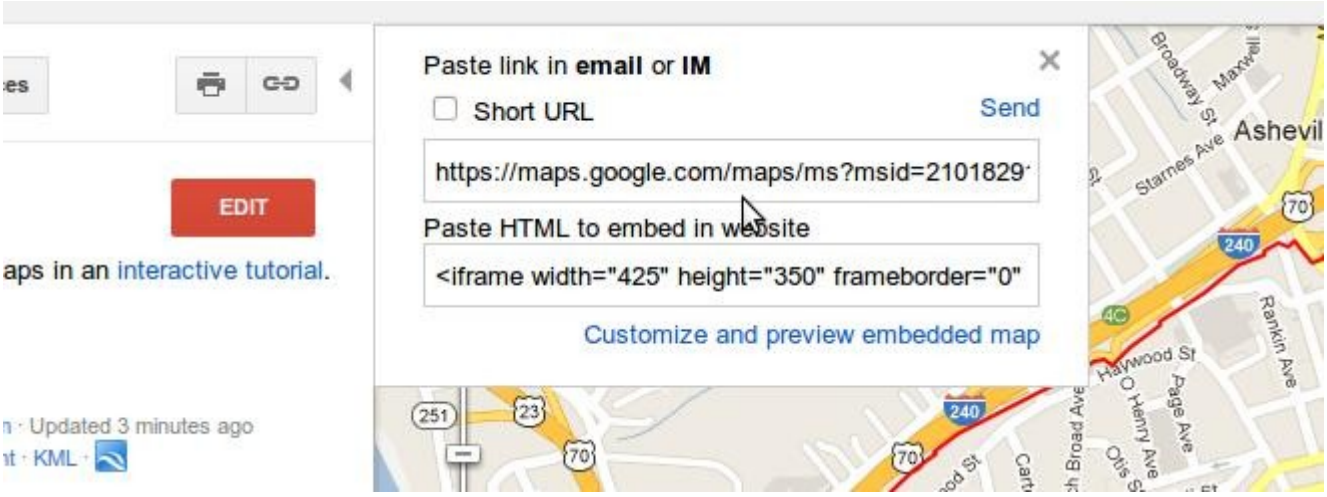


Then title it something meaningful.. Click on the import link and import the darn KML file.

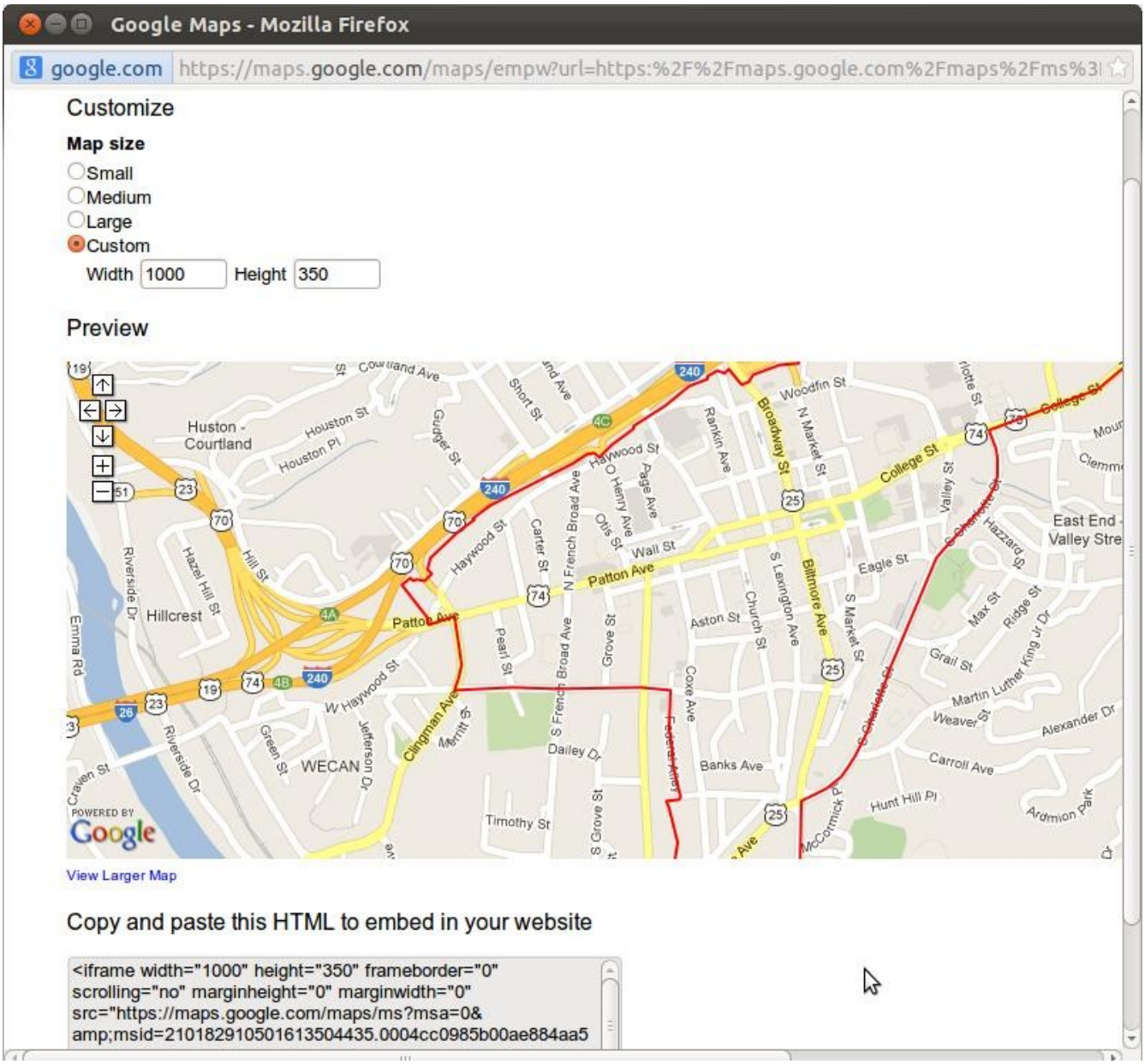


Click save then done.

Click the embed link then customize and preview embedded map link.



Then choose custom and width of 1000 and and height of 350



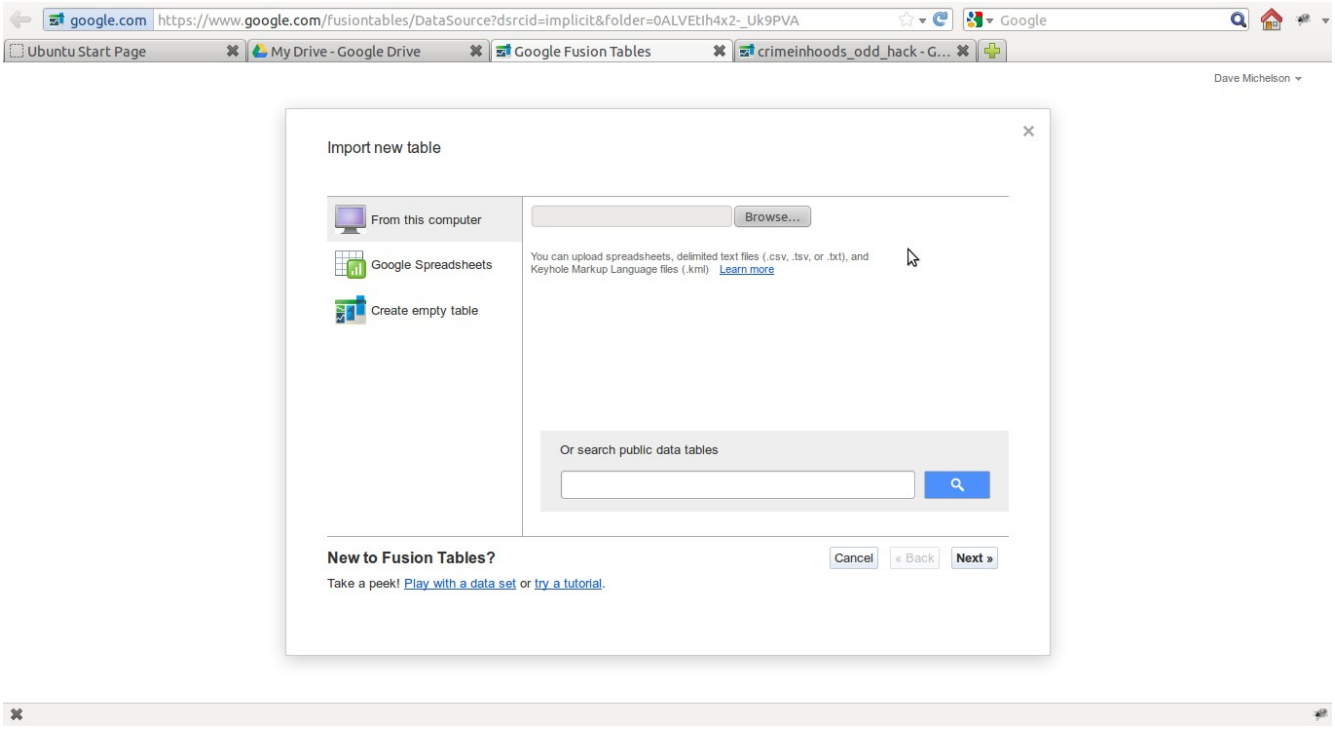
Copy and paste the HTML at the bottom into a HTML Editor or blog post.

<iframe width="1000" height="350" frameborder="0" scrolling="no" marginheight="0" marginwidth="0" src="https://maps.google.com/maps/ms?msa=0&msid=210182910501613504435.0004cc0985b00ae884aa5&hl=en&ie=UTF8&t=m&ll=35.593076,-82.552428&spn=0.012214,0.042915&z=15&output=embed"></iframe>
<small>View Darn in a larger map</small>

Go to your Google account and find Documents or Google Drive and add a new fusion table for the crime in hoods....

Fusion tables are under Create then the more choice (my screen shots refused to capture some of this stuff sorry)

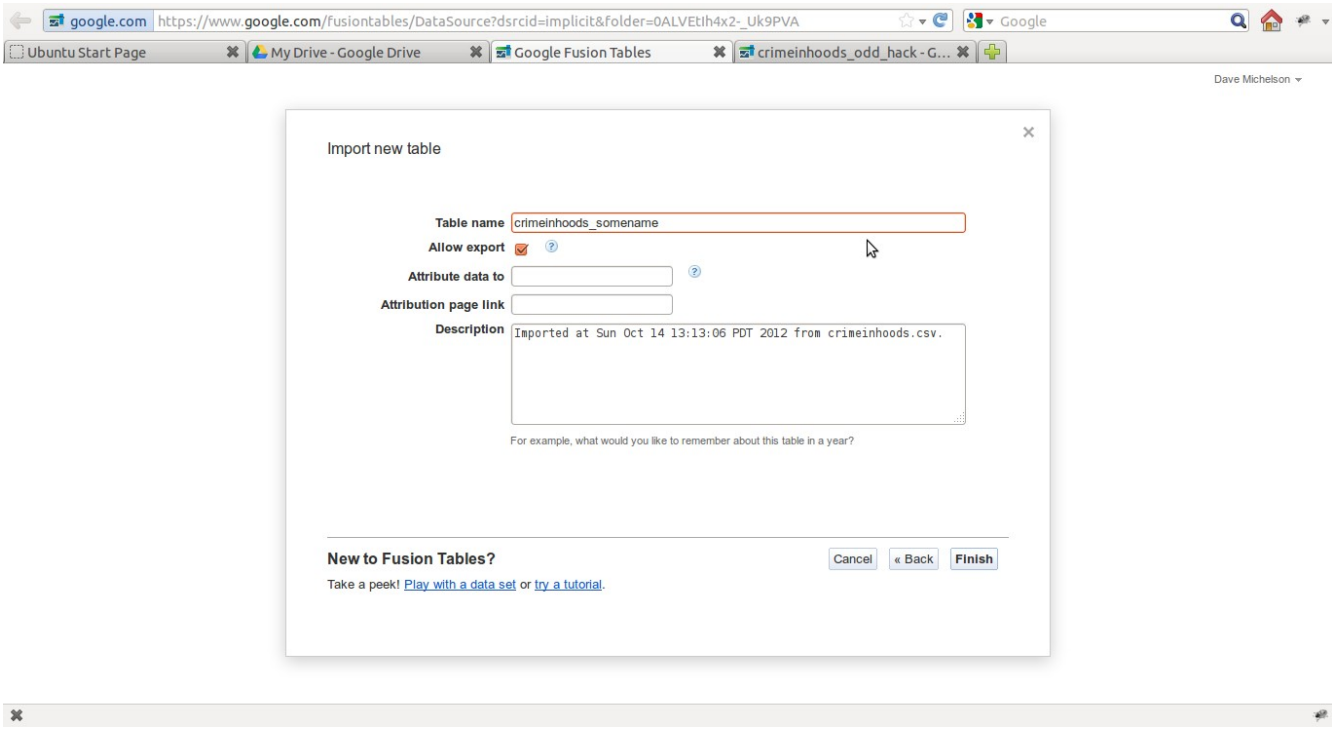
Choose to browse to a file from this computer. It should be named crimeinhoods.csv you may have named it differently which is fine



Use defaults and click next

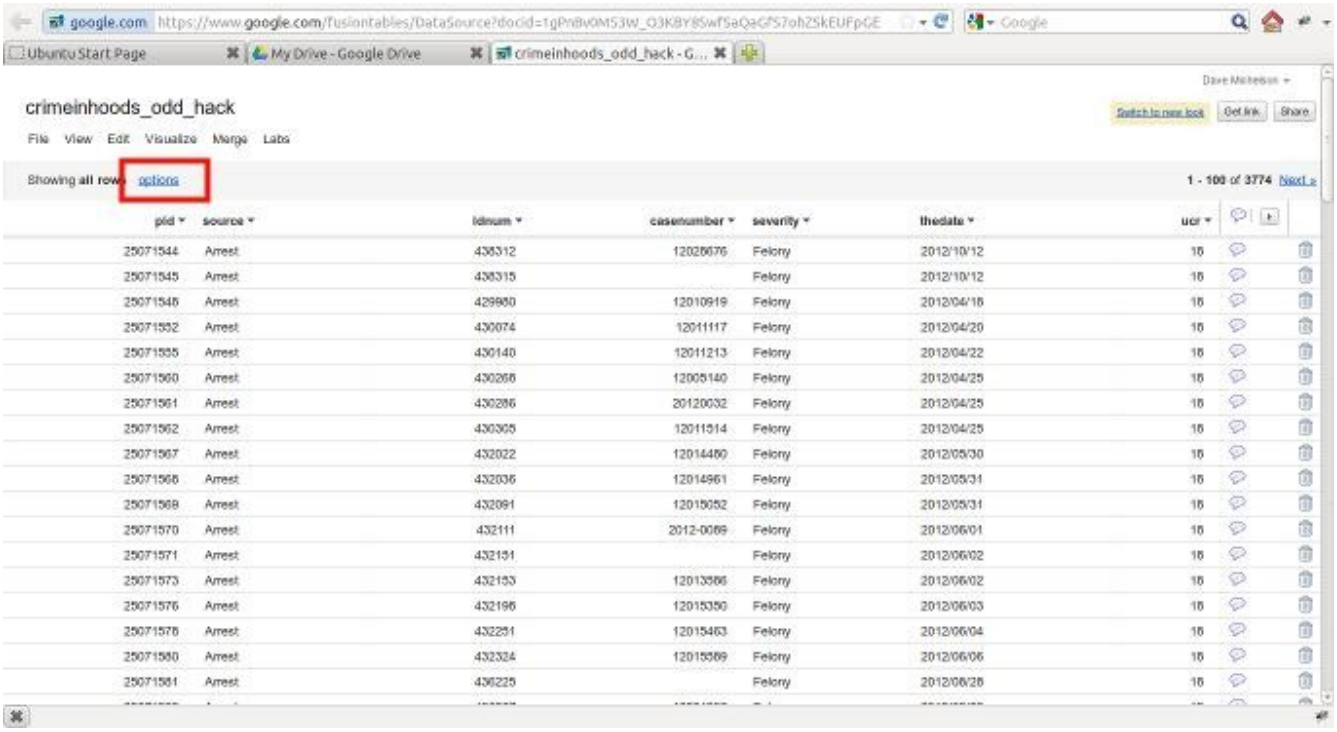
When the upload is completed click next again

Then rename it something like crimeinhoods_odd_hack

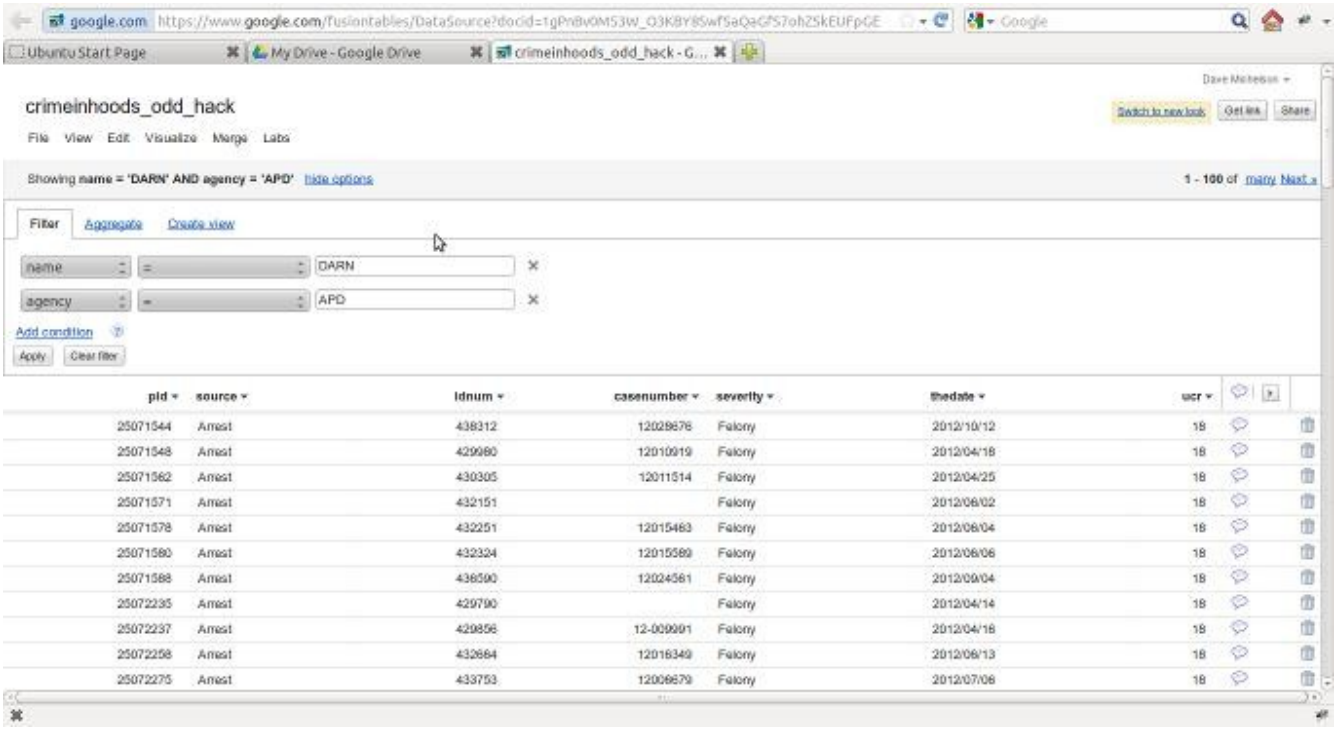


You will have to wait till it uploads to work with it...

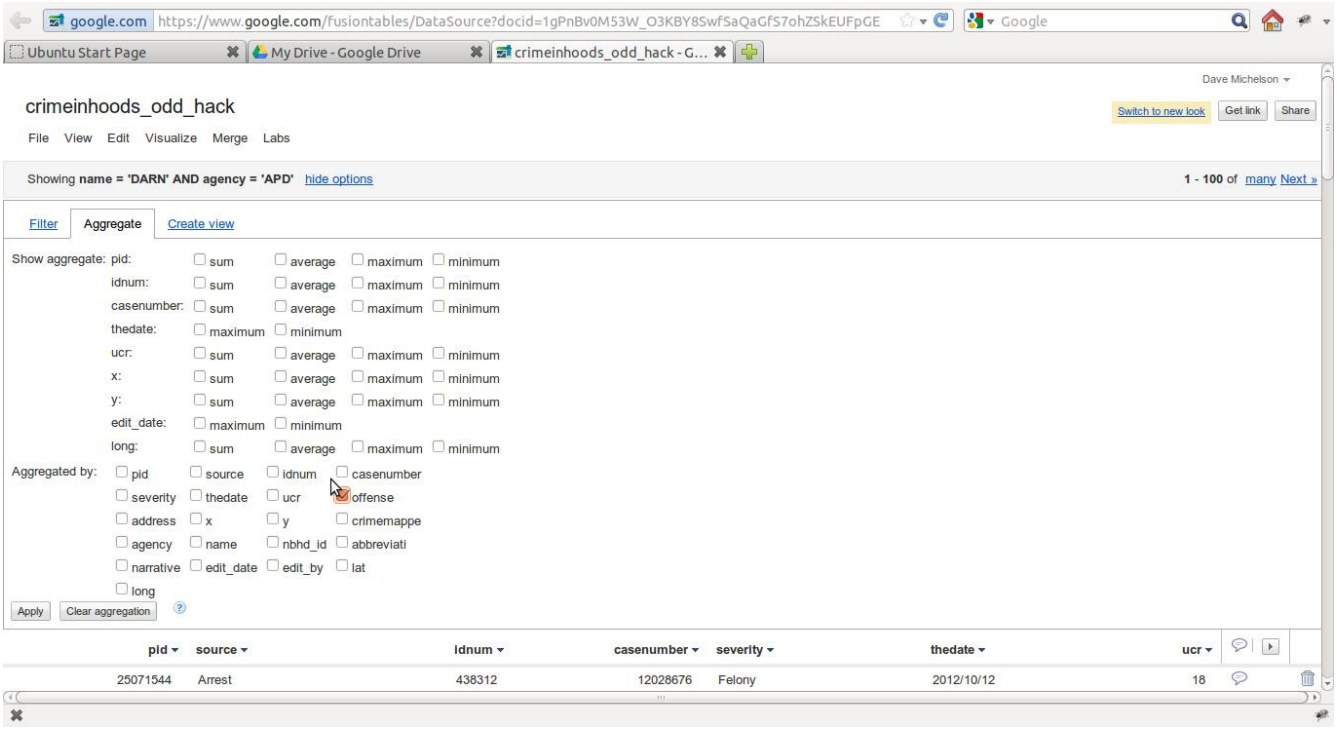
After import is complete start you analysis by clicking on the options link



Add filters for name(neighborhood) = DARN and agency = APD



Then add an aggregate for offense



From the fusion table menu choose visualize pie

Click the get embeddable code button, then the change visibility link, the choose share, and then the

Level of sharing you want. Open data day would lean towards public!

Click OK

Go back to the embeddable code and change the width to 1000 and height to 350

Copy and paste the HTML to a text editor HTML editor and make the HTML look nice. I copied to a blog post.

<iframe width="1000" height="350" scrolling="no" frameborder="no"
src="https://www.google.com/fusiontables/embedviz?
viz=GVIZ&t=PIE&containerId=gviz_canvas&q=select+col7%2C+count()
+from+1gPnBv0M53W_O3KBY8SwfSaQaGfS7ohZSkEUFpGE+where+col13+
%3D+'DARN'+and+col12+%3D+'APD'&qrs=+and+col7+%3E
%3D+&qre=+and+col7+%3C
%3D+&qe=+group+by+col7+limit+9&width=1000&height=350"></iframe>

repeat the copy and paste to the HTML editor or blog post

Go back to the visualize and choose bar.

Repeat the embeddable code process width 1000 and 350 width

<iframe width="1000" height="350" scrolling="no" frameborder="no"
src="https://www.google.com/fusiontables/embedviz?
viz=GVIZ&t=BAR&containerId=gviz_canvas&q=select+col7%2C+count()
+from+1gPnBv0M53W_O3KBY8SwfSaQaGfS7ohZSkEUFpGE+where+col13+
%3D+'DARN'+and+col12+%3D+'APD'&qrs=+and+col7+%3E
%3D+&qre=+and+col7+%3C
%3D+&qe=+group+by+col7+limit+9&att=true&width=1000&height=335"></ifra
me>

I found that the bar code did not sort by the count so I hacked it and added the syntax. See the addition in red below.

<iframe width="1000" height="350" scrolling="no" frameborder="no"
src="https://www.google.com/fusiontables/embedviz?
viz=GVIZ&t=BAR&containerId=gviz_canvas&q=select+col7%2C+count()
+from+1gPnBv0M53W_O3KBY8SwfSaQaGfS7ohZSkEUFpGE+where+col13+
%3D+'DARN'+and+col12+%3D+'APD'&qrs=+and+col7+%3E
%3D+&qre=+and+col7+%3C%3D+&qe=+group+by+col7+**order+by+count()**
+limit+9&att=true&width=1000&height=335"></iframe>

repeat the copy and paste to the HTML editor or blog post

Go to the aggregate again and change the aggregate from offense to thedate. Change the visualize to line and get the embeddable code the same way

<iframe width="1000" height="350" scrolling="no" frameborder="no"

src="https://www.google.com/fusiontables/embedviz?viz=GVIZ&t=LINE&containerId=gviz_canvas&isXyPlot=true&q=select+col5%2C+count()+from+1gPnBv0M53W_O3KBY8SwfSaQaGfS7ohZSkEUFpGE+where+col13+%3D+'DARN'+and+col12+%3D+'APD'&qrs=+and+col5+%3E%3D+&qre=+and+col5+%3C%3D+&qe=+group+by+col5+order+by+col5+asc+limit+250&att=true&width=1000&height=335"></iframe>

Again I noticed that the syntax did some things I did not like - it left out some months at the end of the graph. I hacked it like below. Change is in red.

<iframe width="1000" height="350" scrolling="no" frameborder="no" src="https://www.google.com/fusiontables/embedviz?viz=GVIZ&t=LINE&containerId=gviz_canvas&isXyPlot=true&q=select+col5%2C+count()+from+1gPnBv0M53W_O3KBY8SwfSaQaGfS7ohZSkEUFpGE+where+col13+%3D+'DARN'+and+col12+%3D+'APD'&qrs=+and+col5+%3E%3D+&qre=+and+col5+%3C%3D+&qe=+group+by+col5+order+by+col5+asc+limit+**10000**&att=true&width=1000&height=335"></iframe>

repeat the copy and paste to the HTML editor or blog post

Now add a new filter for offense. Start with Drug Arrest then Larceny, and then Vandalism

in each instance I hacked the limit to 10000 to force the graph to show all dates. ..

For the maps remove the aggregates you need the lat and long fields, which aggregation leaves off. Fusion tables auto-magically recognizes the field lat and long fields as location so you should be good.

You will also need to add another filter for date. Dates are formated like 2011/10/29 in the data to replicate may maps. Then visualize and map. It should be auto-magic.

I followed the same principle for each map as the charts. I changed the width to 1000 and height to 350. Got the embedded link and repeated the copy and paste to the HTML editor or blog post.

For the map notice the check box that says display as heat map and click it. The embedded link will use that option. Got the embedded link and repeated the copy and paste to the HTML editor or blog post.

For the blog I used the blogger simple template and removed all the extra stuff. And made the the width 1200. Since this is a hack you should hack it to what you want and do exactly what I did!

Then I added the pasted HTML from above into the blog. Saved and published viola, somewhat simple hack on Open Data from Asheville.

My complete HTML that I am using on the blog post is on git hub at:

https://github.com/davecoa/OpenDataDayHack/blob/master/odd_example_hack_post.html

feel free to us it and play with the settings and hack you own!