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UM001 CORAC Google Sheet – Install Map Data tab

Overview

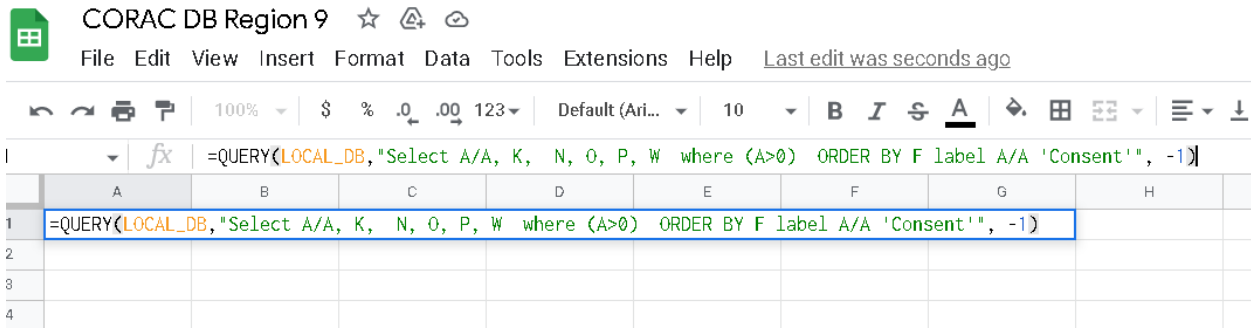
This task involves making two tabs in the Google Sheet and providing an integration to a Google Map with the data from the Map Data tab. The Map tab is used to provide any links for people to get to the map quickly from the Regional Google sheet.

- 1) Create a Map Data tab with a feed from the internally hidden “Region Copy – Read Only” tab. The Read Only tab has an internal name of “LOCAL DB” and a reference to that name is the same as a range definition for the entire stream of data.
- 2) Create Google Map of the Map Data tab.
- 3) Copy links of the Google Map with the integrated Map Data tab.

Create a Map Data tab

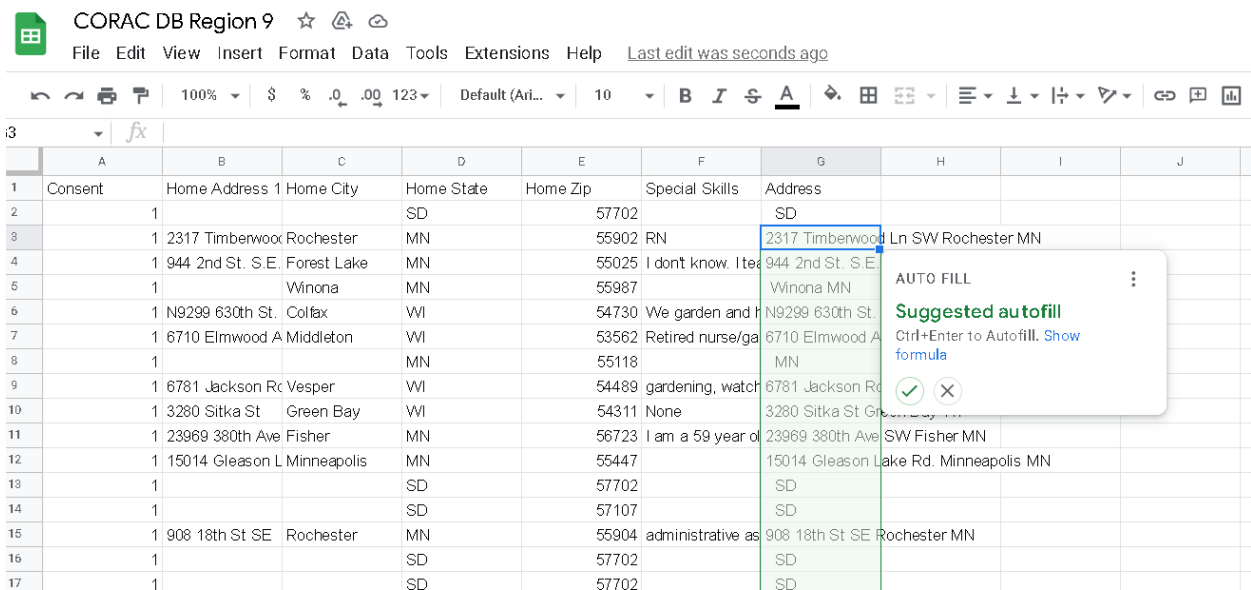
Create a new tab and name it Map_Data. Put the following formula into cell A1.

```
=QUERY(LOCAL_DB,"Select A/A, K, N, O, P, W where (A>0) ORDER BY F label A/A 'Consent'", -  
1)
```



Insert the label "Address" in cell G1. Insert the formula `'=B2 & " " & C2 & " " & D2'` in Cell G2. Copy G2 to cell G in all rows in the sheet.

If you use the autofill feature of some version of Google Sheet, it will only copy to the current end of data.



A new addition might have that column G as blank. I prefer to copy the formula to Row 1,000 to start. After there are a 1,000 people in your region the sheets will need to be updated.

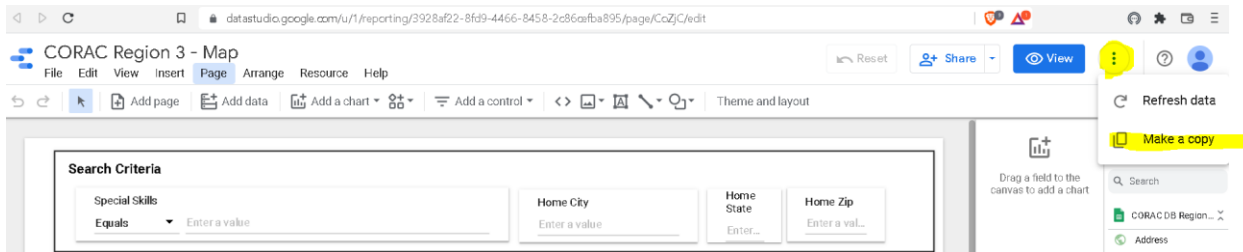
After filling column G correctly, your Map_Data tab is done. You can now integrate that with Google Maps, proceed to the next section.

Create a Google Map of the data

Review [this tutorial](https://www.bpwebs.com/link-google-sheets-to-google-maps/) before starting. <https://www.bpwebs.com/link-google-sheets-to-google-maps/>

Creating from another Region's Map Report

Let's use the Region 3 Map Report as a template. In Region 3 Map Report, select make a copy in the far right triple dot selection.



You will need to change the Data Source for the copy.

Copy this report

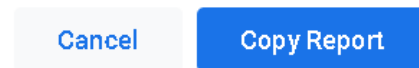
Select a data source(s) to be added to the new report.

Original Data Source

New Data Source

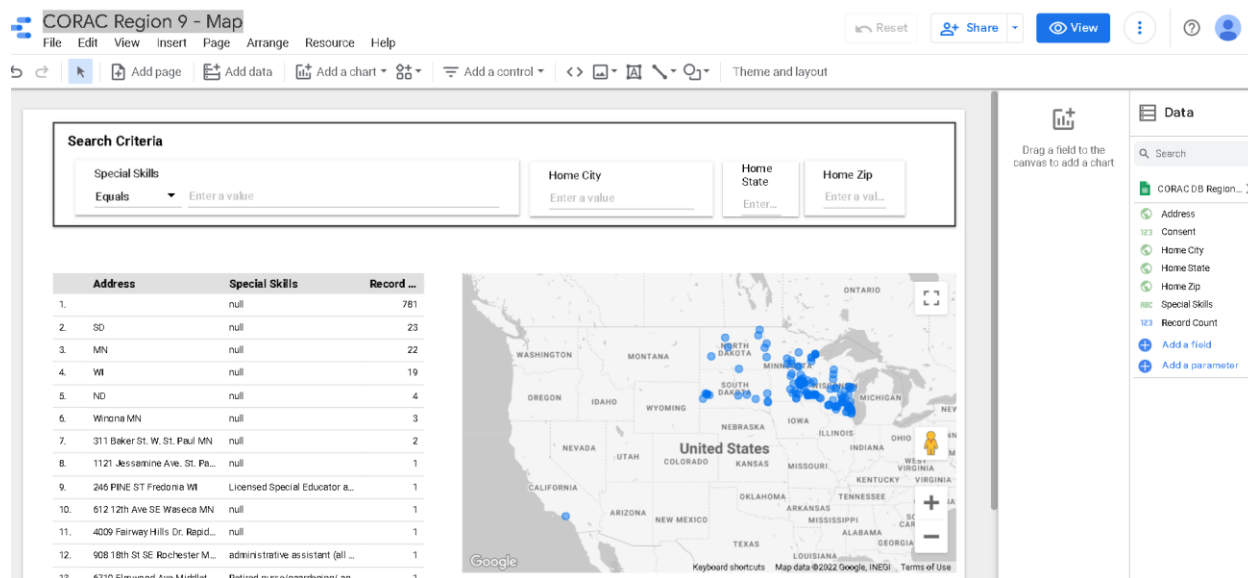


Note that **report editors** can create charts using the new data sources and can add dimensions and metrics not currently included in the report.

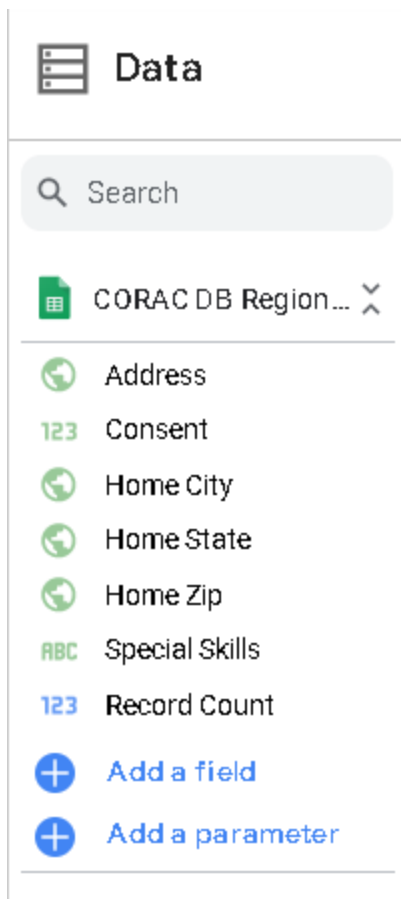


After you select the data source you just created, name the new Map Report with your regional number following this convention.

CORAC Region 9 – Map



You're almost there. Check the side panel to ensure the data fields are the correct style.

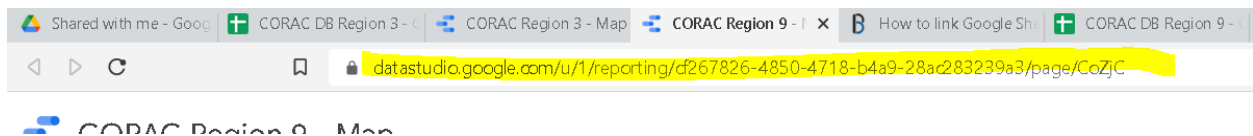


Hover over the sheet tab name and make sure it is the right google sheet.

Click the View button.



Now grab the URL and proceed to the insert links section..



Creating from scratch

Create a new Data source in [Google Data Studio](#).

datastudio.google.com/u/1/

Data Studio Search Data Studio

Create Recent Reports Data sources Explorer

Recent

Shared with me

Owned by me

Trash

Templates

Start with a Template

Blank Report Data Studio

Tutorial Report Data Studio

Acme Marketing Google Analytics

Search Search

Name	Owned by anyone
CORAC Region 7 - Map	Charlie Johnston
CORAC Region 3 - Map	Charlie Johnston

Click on the Create button.


datastudio.google.com/u/1/navigation/datasources

Data Studio Search Data Studio

Create Recent Reports Data sources Explorer

Data source editors can now refresh fields, edit connections, and edit custom SQL.

Name	Owned by
------	----------



Create a Data Source.

Use the Create button to add one.

If you need to, accept the terms and conditions.

To get started, let's complete your account setup

Step 1 of 2

Enter your basic info

Country

Company

Terms of service

I agree to the [Data Studio Terms of Service](#) and the [Google Ads Data Processing Terms](#)

How Data Studio can help



Connect to all your data sources, bring your insights together



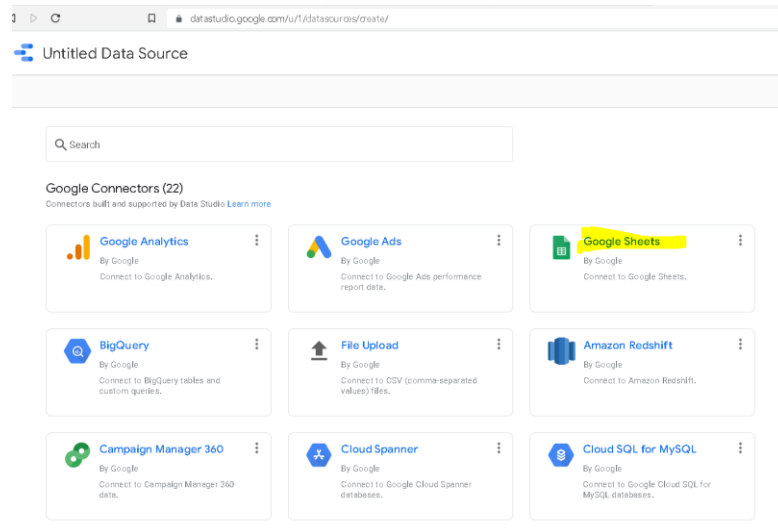
Create meaningful visualizations, reports, and dashboards with a few clicks



Easily collaborate and share information across your organization

[Cancel](#) [Continue](#)

After accepting the terms and conditions and subsequent requests, you should be allowed to define the Google Sheet source.



After you authorize the app to allow access to your google sheets, you should see a list. Choose the sheet and tab within the sheet where the data is at, Map_Data.

Untitled Data Source

← SELECT CONNECTOR



Google Sheets

By Google

The Google Sheets connector allows you to access data stored in a Google Sheets worksheet.

[LEARN MORE](#)

[REPORT AN ISSUE](#)

ALL ITEMS

Spreadsheet



OWNED BY ME

CORAC DB Region 3

SHARED WITH ME

CORAC DB Region 9

CORAC DB Region 7


STARRED

CORAC DB Test Bin

CORAC Leaders Group

URL

CORAC DB Region 15

OPEN FROM GOOGLE DRIVE 

CORAC DB Region 4

CORAC Region 12 Subregion D

CORAC DB Region 2

CORAC DB Region 6

CORAC DB Region 8

CORAC Region 12 Subregion C

CORAC DB Region 11

CORAC DB Region 1

CORAC Region 12 Subregion A

[Show more items](#)

← SELECT CONNECTOR



Google Sheets

By Google

The Google Sheets connector allows you to access data stored in a Google Sheets worksheet.

[LEARN MORE](#) [REPORT AN ISSUE](#)

ALL ITEMS	Spreadsheet	Worksheet	Options
OWNED BY ME	CORAC DB Region 3	Region Copy - Read Only	<input checked="" type="checkbox"/> Use first row as headers
SHARED WITH ME	CORAC DB Region 9	Instructions	<input checked="" type="checkbox"/> Include hidden and filtered cells
STARRED	CORAC DB Region 7	Map_Data	Column headers must be unique. Columns with empty headers will not be added to the data source.
URL	CORAC DB Test Bin	Search	Optional Range, e.g. A1:B52
OPEN FROM GOOGLE DRIVE <input checked="" type="checkbox"/>	CORAC Leaders Group	CoordinatorNotes	
	CORAC DB Region 15	Updates	
	CORAC DB Region 4	New members	
	CORAC Region 12 Subregion D	Contact Info	
	CORAC DB Region 2	Mailing Labels	
	CORAC DB Region 6		
	CORAC DB Region 8		
	CORAC Region 12 Subregion C		

Click Connect in the upper right part of the screen.

You will now define a mapping for each column in your Map_Data tab. Here's the final styles we will end up with as a guide.

	Address
123	Consent
	Home City
	Home State
	Home Zip
ABC	Special Skills
123	Record Count

Change Address from a text style to a Geo->Address style.

Remove Home Address 1 by selecting the Hide Button

DIMENSIONS (7)

- Address
- Consent
- Home Address 1
- Home City
- Home State
- Home Zip
- Special Skills

METRICS (1)

- Record Count

Context menu for Home Address 1:

- Count
- Count Distinct
- Duplicate
- Remove
- Hide

Change City to Geo->City

Change State to Country subdivision (1st Level)

Change Home Zip to Geo->Postal Code

Click Create report.

CORAC DB Region 9 - Map_Data

Data credentials: David Roll | Data freshness: 15 minutes | Community visualizations access: On | Field editing in reports: On

CREATE REPORT EXPLORE

EDIT CONNECTION | FILTER BY EMAIL

ADD A FIELD | ADD A PARAMETER

Data source editors can now refresh fields, edit connections, and edit custom SQL. Dismiss

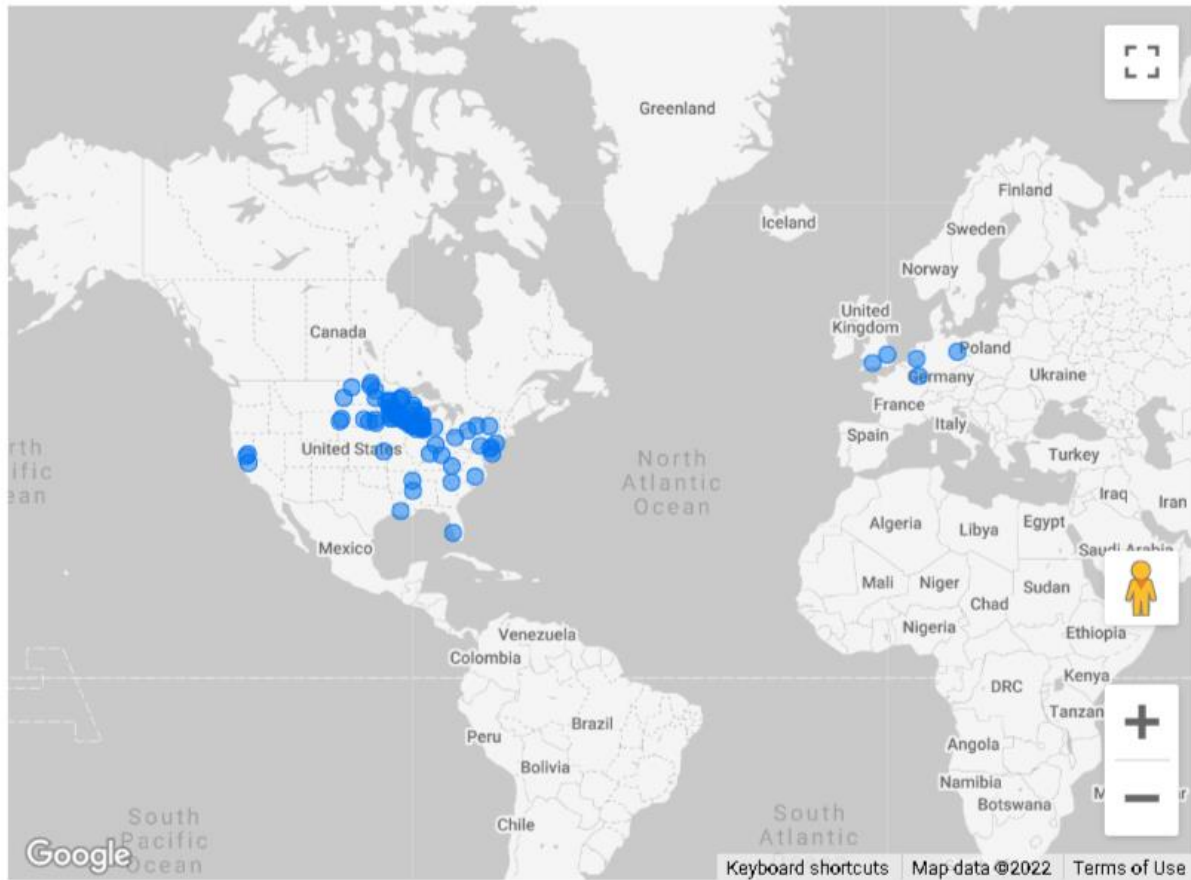
Put a dummy title in there like R9-Map.

R9-Map

	Home City	Record Count
1.	null	850
2.	Winona	6
3.	Rapid City	6
4.	Rochester	6
5.	Two Harbors	4
6.	St. Paul	4
7.	Beaver Dam	4
8.	Bloomington	3
9.	Long Beach	2

1 - 100 / 105

Now you can add what ever map elements you want from that data source. To add a geo map, click the edit button (if not editing to begin with). Select the Add a Chart and select the Bubble map from Google Maps area. When you see the map it may show dots in another country.



The reason is that it is not using your calculated Address field for the mapping. Make sure the map is the object in focus. Drag the field for Address and place it in the Location area of the Data Source.

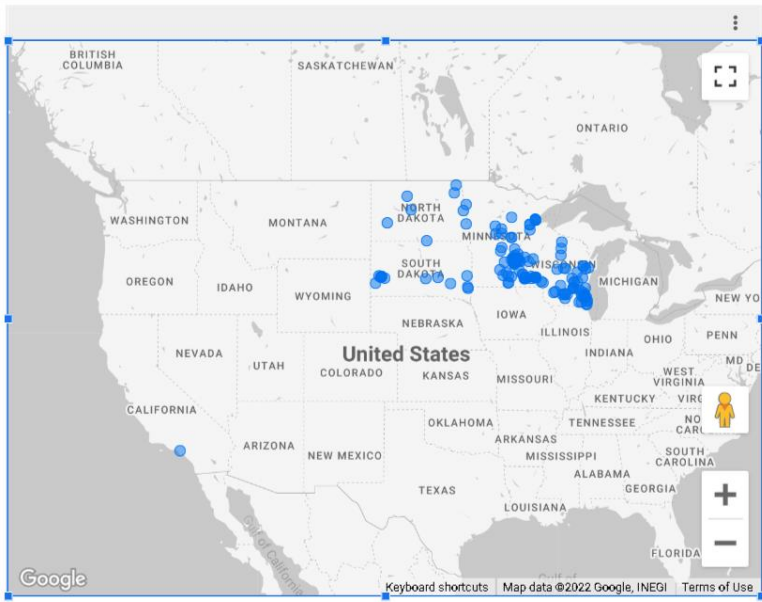


Chart **Data**

SETUP STYLE

Data source
CORAC DB ...

BLEND DATA

Date Range Dimension
Add dimension

Fields
Location
Address

Tooltip
Add dimension

Color dimension
Add dimension

Size
Add metric

Search

CORAC DB Region...

Address

123 Consent

Home City

Home State

Home Zip

Special Skills

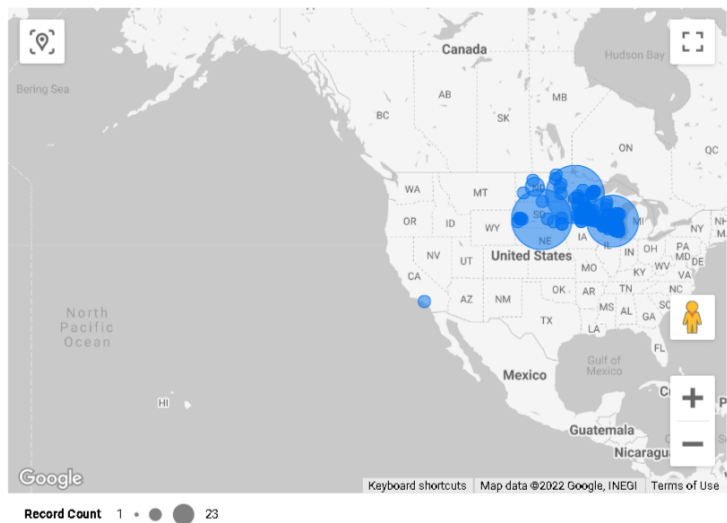
123 Record Count

Add a field

Add a parameter

Final product:

	Address	Special ...	Recor...
101.	23969 380th Ave SW Fisher MN	I am a 59 y...	1
102.	w2170 Debra Ct Chilton WI	I am a Dea...	1
103.	116 Pleasant St Beaver Dam WI	I am a com...	1
104.	W9435 Zimmerman Dr. Beaver ...	I am a fam...	1
105.	25414 Wind Song Valley Rd. Cu...	I am a very ...	1
106.	944 2nd St. S.E., Forest Lake MN	I don't kno...	1
107.	717 Heritage Rd Luxemburg WI	I work full-1...	1
108.	2211 Clinton AVE Minneapolis ...	I'm a ment...	1
109.	Duluth MN	I'm an RN, ...	1
110.	490 Hall Av St. Paul MN	Iconograph...	1
111.	214 Grove St Beaver Dam WI	Im beginnin...	1
112.	18855 84th Street Norwood Yo...	I'm a paten...	1
113.	W4157 County Road M Coon V...	Law Enforc...	1
114.	385 Betty Ln Saint Paul MN	Lawyer by 1...	1
115.	246 PINE ST Fredonia WI	Licensed S...	1
116.	S10448 Strang Hollow Road Lo...	My husban...	1
117.	46046 Ridgetop Rd. Cleveland ...	No speical ...	1
118.	3280 Sitka St Green Bay WI	None	1
119.	821 Fox Run Drive Rapid City SD	Occupation...	1
120.	2501 Minnewasta Rd Rapid City...	Organizing, ...	1
121.	New Berlin WI	Physician ...	1



Copy Links For Quick Access

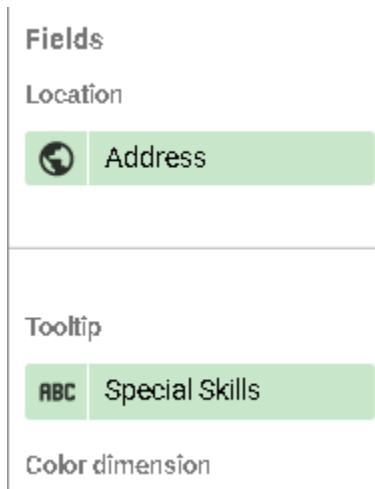
With the first URL in the clipboard. This is the URL to you Map Report. Create a new tab in your Regional Google Sheet and name it Map.

Insert you're the title "CORAC Region 9 - Map" into cell A3 (Change the region number to your own).
Add a link to your URL, <https://datastudio.google.com/u/1/reporting/cf267826-4850-4718-b4a9-28ac283239a3/page/CoZiC>

Add cells from another regional sheet to yours for cells A5..B12

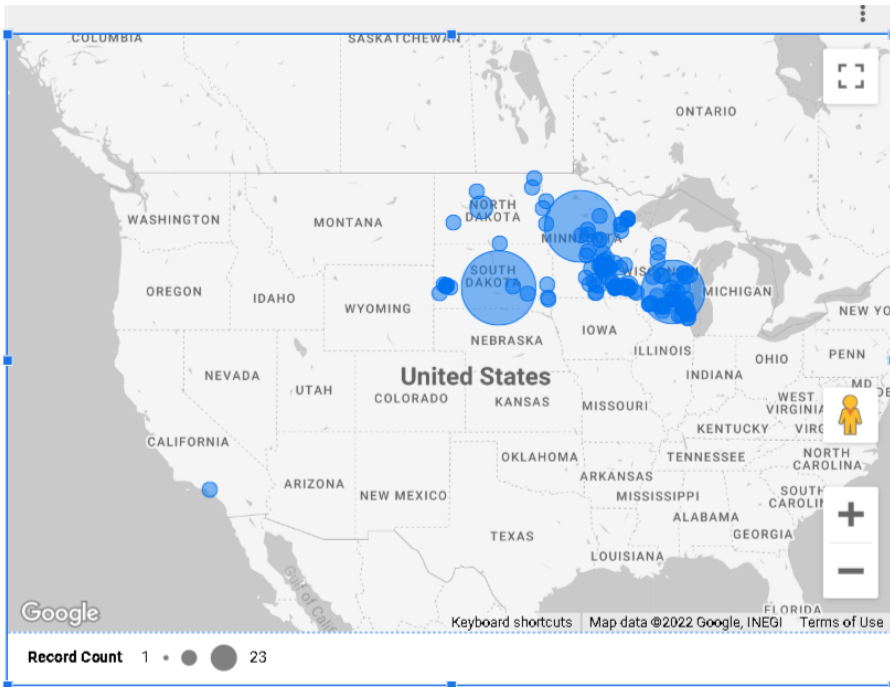
Showing Skills for the Tooltip

If you want Special Skills on your bubbles, drag that field onto the Tooltip Dimension.



Showing Bubble Size based on RecordCount

If you want to see large bubbles to indicate the number at that address, drag record count onto the Size dimension.



SETUP STYLE

Data source
CORAC DB ...

+ BLEND DATA ?

Date Range Dimension
+ Add dimension

Fields
Location
Address

Tooltip
ABC Special Skills

Color dimension
+ Add dimension

Size
AUT Record Count

Color metric
+ Add metric

Excluding Blank Address

If you want to exclude certain records (like null records), add a filter and give the criteria.

Create Filter

Name

Exclude Is Null

AND

From: <https://stackoverflow.com/questions/3012788/how-to-check-if-a-line-is-blank-using-regex>

If you want to remove all addresses that are blank, include a filter to exclude records that match this regular expression: `^\s*$`

Explanation:

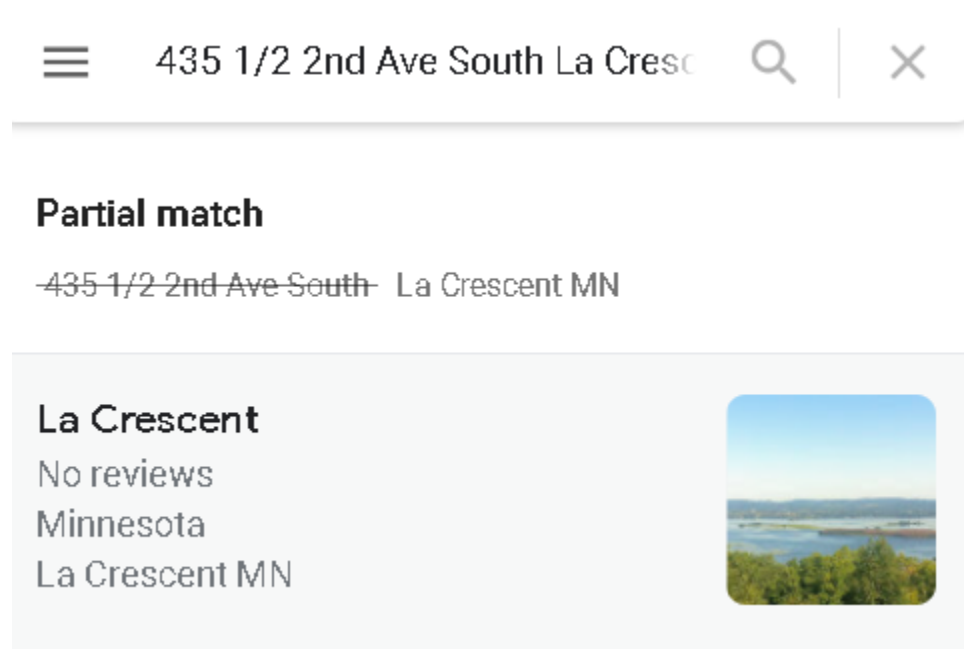
- `^` is the beginning of string anchor.
- `$` is the end of string anchor.
- `\s` is the whitespace character class.
- `*` is zero-or-more repetition of.

In multiline mode, `^` and `$` also match the beginning and end of the line.

You will have to include this filter on every object you want to exclude blanks on.

Diagnosing Location Issues

There may be issues with some dots showing up outside your region. In Region 9 data there is an address “435 1/2 2nd Ave South La Crescent MN” It throws Google maps off because it can’t figure it out. Putting this into maps.google.com, you end up with this:



When a partial match happens, it can sometimes place them somewhere outside where you expected. In this case, the address can be corrected to “435 South 2nd Street, La Crescent, MN” and yield a much better outcome but only the volunteer can give you the right google location they are at.

Finding anomalies using Address for Tooltip

Tip: If you want to find these anomalies quickly, place the Address into the Tooltip and it will show you the address for that bubble.

Using Regular Expressions for filtering

If you want to remove all addresses that are blank, include a filter to exclude records that match this regular expression: `^\s*$`

Explanation:

- `^` is the beginning of string anchor.
- `$` is the end of string anchor.
- `\s` is the whitespace character class.
- `*` is zero-or-more repetition of.

In multiline mode, `^` and `$` also match the beginning and end of the line.

Top Regular Expressions

<https://www.regextester.com/1924>

[Match string not containing string](#)
[Check if a string only contains numbers](#)
[Match elements of a url](#)
[Match an email address](#)
[Validate an ip address](#)
[Match or Validate phone number](#)
[Match dates \(M/D/YY, M/D/YYYY, MM/DD/YY, MM/DD/YYYY\)](#)
[Match a valid hostname](#)
[Match IPv6 Address](#)
[email validation](#)
[RegEx Allowing Number Only](#)
[Match an MD5 hash](#)
[Match a bitcoin address](#)
[search params](#)
[pcr-email](#)

Regex Cheat Sheet

Character classes

`.` any character except newline
`\w \d \s` word, digit, whitespace
`\W \D \S` not word, digit, whitespace
`[abc]` any of a, b, or c
`[^abc]` not a, b, or c
`[a-g]` character between a & g

Anchors

`^abc$` start / end of the string
`\b` word boundary

Escaped characters

`\. * \\` escaped special characters
`\t \n \r` tab, linefeed, carriage return
`\u00A9` unicode escaped ©

Groups & Lookaround

`(abc)` capture group
`\1` backreference to group #1

(?:abc) non-capturing group

(?=abc) positive lookahead

(?!abc) negative lookahead

Quantifiers & Alternation

a* a+ a? 0 or more, 1 or more, 0 or 1

a{5} a{2,} exactly five, two or more

a{1,3} between one & three

a+? a{2,}? match as few as possible

ab|cd match ab or cd