SELECT DISTINCT country FROM `bigquery-public-data.noaa\_gsod.stations` ORDER BY country ASC

To find what country code is for America (it’s US)

SELECT DISTINCT state FROM `bigquery-public-data.noaa\_gsod.stations` WHERE country = 'US'

To see what the state codes are. Chicago is in Illinois, represents by IL in the database

SELECT \* FROM `bigquery-public-data.noaa\_gsod.stations` WHERE country = 'US' AND state = 'IL' AND lat BETWEEN 41.836206 AND 41.878654 AND lon BETWEEN -87.687337 AND -87.589833

I did this query, but it only returned 3 stations and they didn’t look that good, so I tried this:

SELECT \* FROM `bigquery-public-data.noaa\_gsod.stations` WHERE name LIKE '%chic%'

Which for some reason was saying there was no data so maybe I’ve forgotten how to write SQL? Next step was this

SELECT \* FROM `bigquery-public-data.noaa\_gsod.stations` WHERE country = 'US' and state = 'IL'

And I just had to scroll through the results and look for Chicago-ish names:

* CHIGAGO-WAUKEE ARPT
* CHICAGO/MEIGS (there’s 2 Chicago/Meigs)
* FOSTER AVE CHICAGO
* CHICAGO MEIGS FIELD
* CHICAGO MIDWAY AP
* CHICAGO OHARE INTL AP
* CHICAGO/WAUKEGAN
* CHICAGO
* CHICAGO O'HARE INTERNATIONAL
* CHICAGO MIDWAY INTL ARPT

Ok I finally got some fucking station names. Now I’m going to look at the dates because my crime data only starts in 2001.

* CHIGAGO-WAUKEE ARPT 2001-2002
* CHICAGO/MEIGS (there’s 2 Chicago/Meigs) 1973-2008 & 2000-2003
* FOSTER AVE CHICAGO 2012-2020
* CHICAGO MEIGS FIELD 1966-1970
* CHICAGO MIDWAY AP 1948-1972
* CHICAGO OHARE INTL AP 1970-1972
* CHICAGO/WAUKEGAN 1989-2005
* CHICAGO 2208-2021
* CHICAGO O'HARE INTERNATIONAL 1946-2021
* CHICAGO MIDWAY INTL ARPT 1973-2021

Narrowing down to my time period leaves

* CHIGAGO-WAUKEE ARPT 2001-2002
* CHICAGO/MEIGS (there’s 2 Chicago/Meigs) 1973-2008 & 2000-2003
* FOSTER AVE CHICAGO 2012-2020
* CHICAGO/WAUKEGAN 1989-2005
* CHICAGO 2008-2021
* CHICAGO O'HARE INTERNATIONAL 1946-2021
* CHICAGO MIDWAY INTL ARPT 1973-2021

Time to have a look at where these stations are in Chicago.

CHICAGO-WAUKEE-ARPT – probs a no

Map

Description automatically generated

CHICAGO/MEIGS – hmm idk probs a no too

Map

Description automatically generated

FOSTER AVE CHICAGO – idk hard to decide

Map

Description automatically generated

CHICAGO/WAUKEGAN – deffo no

Map

Description automatically generated

CHICAGO – nah

Map

Description automatically generated

CHICAGO O’HARE INTERNATIONAL – maybe this one’s not too bad

Map

Description automatically generated

CHICAGO MIDWAY INTL ARPT – this looks kinda good

Map

Description automatically generated

Weighing up these locations leaves me with

* CHICAGO O’HARE INTERNATIONAL 1946-2021 (nice date range)
* CHICAGO MIDWAY INTL ARPT 1973-2021 (nice date range)
* FOSTER AVE CHICAGO 2012-2020 (good date range)
* CHICAGO/MEIGS 1973-2008 & 2000-2003 (shit date range)

CHICAGO/MEIGS is getting dropped.

Let’s sample a 5 year period and see how full these data sets are, as recent as possible while keeping the years the same so 2016-2020 inclusive.

CHICAGO O’HARE INTERNATIONAL 2016 (366), 2017 (365), 2018 (365), 2019 (365), 2020 (366)

CHICAGO MIDWAY INTL ARPT 2016 (366), 2017 (365), 2018 (365), 2019 (365), 2020 (366)

FOSTER AVE CHICAGO 2016 (365), 2017 (361), 2018 (115), 2019 (250), 2020 (64)

As I was running FOSTER AVE CHICAGO, I noticed not only that there are a lot of entries missing year on year but that many data points have default values, making this unsuitable for the purposes of this assignment.

CHICAGO MIDWAY INTL ARPT appears to be the most useful weather station to me because of the 2 remaining, it is closest to the centre of Chicago. The most recent data is generally the most useful for predictions so I will be running probably something like 2017 to 2021 but if time allows I could go further back and see how/if the prediction changes. The WBAN is 14819 for this station.

Next I need to create a view with these years of weather data that I can mash up with the crime data to analyse. (if I can remember how to create a view). I checked the flag\_prcp values to make sure they were G (24hr prcp report) or I(no prcp reported so incomplete data)

SELECT year, mo, da, temp, dewp, slp, stp, visib, wdsp, mxpsd, max, min, prcp, sndp, fog FROM `bigquery-public-data.noaa\_gsod.gsod2017` where wban = '14819' LIMIT 1000

Got my 2017 view and repeated basically the same thing for my 2018, 2019, 2020 and 2021 views. Now I need to combine these into one 5-year view, hoping this will do the trick:

create view `data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate`

as select DATE(CAST(year as INT64), CAST(mo as INT64), CAST(da as INT64)) as date, year, mo, da, temp, dewp, slp, stp, visib, wdsp, mxpsd, max, min, prcp, sndp, fog

from `data-analytics-346918.chicago\_midway\_intl\_arpt.2017`

union all

select DATE(CAST(year as INT64), CAST(mo as INT64), CAST(da as INT64)) as date, year, mo, da, temp, dewp, slp, stp, visib, wdsp, mxpsd, max, min, prcp, sndp, fog

from `data-analytics-346918.chicago\_midway\_intl\_arpt.2018`

union all

select DATE(CAST(year as INT64), CAST(mo as INT64), CAST(da as INT64)) as date, year, mo, da, temp, dewp, slp, stp, visib, wdsp, mxpsd, max, min, prcp, sndp, fog

from `data-analytics-346918.chicago\_midway\_intl\_arpt.2019`

union all

select DATE(CAST(year as INT64), CAST(mo as INT64), CAST(da as INT64)) as date, year, mo, da, temp, dewp, slp, stp, visib, wdsp, mxpsd, max, min, prcp, sndp, fog

from `data-analytics-346918.chicago\_midway\_intl\_arpt.2020`

union all

select DATE(CAST(year as INT64), CAST(mo as INT64), CAST(da as INT64)) as date, year, mo, da, temp, dewp, slp, stp, visib, wdsp, mxpsd, max, min, prcp, sndp, fog

from `data-analytics-346918.chicago\_midway\_intl\_arpt.2021`

Ok got some sweet weather data now. Lets make a day of the week column

create table `data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`

as select date, FORMAT\_DATE("%u", date) as day, year, mo, da, temp, dewp, slp, stp, visib, wdsp, mxpsd, max, min, prcp, sndp, fog

from `data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate`

DONE now time to pull together that sweet, sweet crime data

create view `data-analytics-346918.crime.2017\_2021`

as SELECT unique\_key, date, iucr, primary\_type, description, location\_description, arrest, district, ward, community\_area, x\_coordinate, y\_coordinate, year

FROM `bigquery-public-data.chicago\_crime.crime`

WHERE year = 2017 OR year = 2018 OR year = 2019 OR year = 2020 or year = 2021

Done this to get all the crime data from 2017-2021 in a view. Now want to make a couple more views thinking about total num crimes in a day, num of different crime types in a day, locations too and stuff so we can analyse the whole lot.

Maybe want my headings to be like num\_crimes then things like murders, negligent deaths, sex offenses, robbery & theft, assault & battery, arson, fraud/forgery/counterfeiting/embezzlement, vandalism, weapons violation, drug related, gambling, kidnapping, alcohol, breach of the peace, trespass think that’s about it.

This is about to be a pain in the arse.

select DATE(date) as date\_, count(date) as total\_crimes from `data-analytics-346918.crime.2017\_2021` group by date\_ order by date\_

gets me the number of crimes per day.

Now lets do murders

select DATE(date) as date\_, count(date) as murders from `data-analytics-346918.crime.2017\_2021` where primary\_type = 'HOMICIDE' AND description like '%MURDER' group by date\_ order by date\_

next is negligent deaths

select DATE(date) as date\_, count(date) as negligent\_deaths from `data-analytics-346918.crime.2017\_2021` where primary\_type = 'HOMICIDE' AND description = 'INVOLUNTARY MANSLAUGHTER' or description = 'RECKLESS HOMICIDE' group by date\_ order by date\_

sweet next is sex offenses, gonna be more difficult as multiple categories can apply:

0261 CRIM SEXUAL ASSAULT AGGRAVATED: HANDGUN  
0262 CRIM SEXUAL ASSAULT AGGRAVATED: OTHER FIREARM  
0263 CRIM SEXUAL ASSAULT AGGRAVATED: KNIFE/CUT INSTR  
0264 CRIM SEXUAL ASSAULT AGGRAVATED: OTHER DANG WEAPON  
0265 CRIM SEXUAL ASSAULT AGGRAVATED: OTHER  
0266 CRIM SEXUAL ASSAULT PREDATORY  
0271 CRIM SEXUAL ASSAULT ATTEMPT AGG: HANDGUN  
0272 CRIM SEXUAL ASSAULT ATTEMPT AGG: OTHER FIREARM  
0273 CRIM SEXUAL ASSAULT ATTEMPT AGG: KNIFE/CUT INSTR  
0274 CRIM SEXUAL ASSAULT ATTEMPT AGG: OTHER DANG WEAPON  
0275 CRIM SEXUAL ASSAULT ATTEMPT AGG: OTHER  
0281 CRIM SEXUAL ASSAULT NON-AGGRAVATED  
0291 CRIM SEXUAL ASSAULT ATTEMPT NON-AGGRAVATED  
1753 OFFENSE INVOLVING CHILDREN SEX ASSLT OF CHILD BY FAM MBR  
1754 OFFENSE INVOLVING CHILDREN AGG SEX ASSLT OF CHILD FAM MBR

1505 PROSTITUTION CALL OPERATION  
1506 PROSTITUTION SOLICIT ON PUBLIC WAY  
1507 PROSTITUTION SOLICIT OFF PUBLIC WAY  
1510 PROSTITUTION CAB OPERATION  
1511 PROSTITUTION IN TAVERN  
1512 PROSTITUTION SOLICIT FOR PROSTITUTE  
1513 PROSTITUTION SOLICIT FOR BUSINESS  
1515 PROSTITUTION PANDERING  
1520 PROSTITUTION KEEP PLACE OF PROSTITUTION  
1521 PROSTITUTION KEEP PLACE OF JUV PROSTITUTION  
1525 PROSTITUTION PATRONIZING A PROSTITUTE  
1526 PROSTITUTION PATRONIZE JUVENILE PROSTITUTE  
1530 PROSTITUTION PIMPING  
1531 PROSTITUTION JUVENILE PIMPING  
1537 OFFENSE INVOLVING CHILDREN POS: PORNOGRAPHIC PRINT  
1542 OBSCENITY SALE OF OBSCENE MATERIALS  
1544 SEX OFFENSE SEXUAL EXPLOITATION OF A CHILD  
1549 PROSTITUTION OTHER PROSTITUTION OFFENSE

1535 OBSCENITY OBSCENITY  
1536 PUBLIC INDECENCY LICENSED PREMISE  
1540 OBSCENITY OBSCENE MATTER  
1541 OBSCENITY SALE/DIST OBSCENE MAT TO MINOR  
1562 SEX OFFENSE AGG CRIMINAL SEXUAL ABUSE  
1563 SEX OFFENSE CRIMINAL SEXUAL ABUSE  
1564 SEX OFFENSE CRIMINAL TRANSMISSION OF HIV  
1565 SEX OFFENSE INDECENT SOLICITATION/CHILD  
1566 SEX OFFENSE INDECENT SOLICITATION/ADULT  
1570 SEX OFFENSE PUBLIC INDECENCY  
1572 SEX OFFENSE ADULTRY  
1574 SEX OFFENSE FORNICATION  
1576 SEX OFFENSE BIGAMY  
1578 SEX OFFENSE MARRYING A BIGAMIST  
1580 SEX OFFENSE SEX RELATION IN FAMILY  
1582 OFFENSE INVOLVING CHILDREN CHILD PORNOGRAPHY  
1585 SEX OFFENSE OTHER  
1590 SEX OFFENSE ATT AGG CRIMINAL SEXUAL ABUSE  
2830 OTHER OFFENSE OBSCENE TELEPHONE CALLS  
5004 SEX OFFENSE ATT CRIM SEXUAL ABUSE

1751 OFFENSE INVOLVING CHILDREN CRIM SEX ABUSE BY FAM MEMBER  
1752 OFFENSE INVOLVING CHILDREN AGG CRIM SEX ABUSE FAM MEMBER

4650 OTHER OFFENSE SEX OFFENDER: FAIL TO REGISTER  
4651 OTHER OFFENSE SEX OFFENDER: FAIL REG NEW ADD  
4652 OTHER OFFENSE SEX OFFENDER: PROHIBITED ZONE

So

Primary\_type = ‘crim sexual assault’

Primary\_type = ‘prostitution’

Primary\_type = ‘sex offense’

Description like ‘%sex%’

Primary\_type = ‘obscenity’

Description = ‘pos: pornographic print’

Primary\_type = ‘public indecency’

Description = ‘child pornography’

Description = ‘obscene telephone calls’

That’s a headache but here we go

select DATE(date) as date\_, count(date) as sex\_offenses from `data-analytics-346918.crime.2017\_2021` where primary\_type = 'CRIM SEXUAL ASSAULT' or primary\_type = 'PROSTITUTION' or primary\_type = 'SEX OFFENSE' or primary\_type = 'OBSCENITY' or primary\_type = 'PUBLIC\_INDECENCY' or description like '%SEX%' or description = 'POS: PORNOGRAPHIC PRINT' or description = 'CHILD PORNOGRAPHY' or description = 'OBSCENE TELEPHONE CALLS' group by date\_ order by date\_

Ok so that’s the sex crimes

Next is robbery/theft/larceny/burglary etc. Taking other peoples stuff that doesn’t belong to you. Applicable categories:

0312 ROBBERY ARMED:KNIFE/CUTTING INSTRUMENT  
0313 ROBBERY ARMED: OTHER DANGEROUS WEAPON  
031A ROBBERY ARMED: HANDGUN  
031B ROBBERY ARMED: OTHER FIREARM  
0320 ROBBERY STRONGARM - NO WEAPON  
0325 ROBBERY VEHICULAR HIJACKING  
0326 ROBBERY AGGRAVATED VEHICULAR HIJACKING  
0330 ROBBERY AGGRAVATED  
0331 ROBBERY ATTEMPT: AGGRAVATED  
0334 ROBBERY ATTEMPT: ARMED-KNIFE/CUT INSTR  
0337 ROBBERY ATTEMPT: ARMED-OTHER DANG WEAP  
033A ROBBERY ATTEMPT: ARMED-HANDGUN  
033B ROBBERY ATTEMPT: ARMED-OTHER FIREARM  
0340 ROBBERY ATTEMPT: STRONGARM-NO WEAPON

0610 BURGLARY FORCIBLE ENTRY  
0620 BURGLARY UNLAWFUL ENTRY  
0630 BURGLARY ATTEMPT FORCIBLE ENTRY  
0650 BURGLARY HOME INVASION

0810 THEFT OVER $300  
0820 THEFT $300 AND UNDER  
0840 THEFT FINANCIAL ID THEFT: OVER $300  
0841 THEFT FINANCIAL ID THEFT:$300 &UNDER  
0842 THEFT AGG: FINANCIAL ID THEFT  
0843 THEFT ATTEMPT FINANCIAL IDENTITY THEFT  
0850 THEFT ATTEMPT THEFT  
0860 THEFT RETAIL THEFT  
0865 THEFT DELIVERY CONTAINER THEFT  
0870 THEFT POCKET-PICKING  
0880 THEFT PURSE-SNATCHING  
0890 THEFT FROM BUILDING  
0895 THEFT FROM COIN-OP MACHINE/DEVICE

0910 MOTOR VEHICLE THEFT AUTOMOBILE  
0915 MOTOR VEHICLE THEFT TRUCK, BUS, MOTOR HOME  
0917 MOTOR VEHICLE THEFT CYCLE, SCOOTER, BIKE W-VIN  
0918 MOTOR VEHICLE THEFT CYCLE, SCOOTER, BIKE NO VIN  
0920 MOTOR VEHICLE THEFT ATT: AUTOMOBILE  
0925 MOTOR VEHICLE THEFT ATT: TRUCK, BUS, MOTOR HOME  
0927 MOTOR VEHICLE THEFT ATTEMPT: CYCLE, SCOOTER, BIKE W-VIN  
0928 MOTOR VEHICLE THEFT ATTEMPT: CYCLE, SCOOTER, BIKE NO VIN  
0930 MOTOR VEHICLE THEFT THEFT/RECOVERY: AUTOMOBILE  
0935 MOTOR VEHICLE THEFT THEFT/RECOVERY: TRUCK,BUS,MHOME  
0937 MOTOR VEHICLE THEFT THEFT/RECOVERY: CYCLE, SCOOTER, BIKE W-VIN  
0938 MOTOR VEHICLE THEFT THEFT/RECOVERY: CYCLE, SCOOTER, BIKE NO VIN

So I think basically primary\_type = ‘robbery’ or ‘burglary’ or ‘theft’ or ‘motor vehicle theft’

select DATE(date) as date\_, count(date) as theft\_etc

from `data-analytics-346918.crime.2017\_2021`

where primary\_type = 'ROBBERY' or primary\_type = 'BURGLARY' or primary\_type like '%THEFT'

group by date\_

order by date\_

assault and battery now.

051A ASSAULT AGGRAVATED: HANDGUN  
051B ASSAULT AGGRAVATED: OTHER FIREARM  
0520 ASSAULT AGGRAVATED:KNIFE/CUTTING INSTR  
0530 ASSAULT AGGRAVATED: OTHER DANG WEAPON  
0550 ASSAULT AGGRAVATED PO: HANDGUN  
0551 ASSAULT AGGRAVATED PO: OTHER FIREARM  
0552 ASSAULT AGGRAVATED PO:KNIFE/CUT INSTR  
0553 ASSAULT AGGRAVATED PO: OTHER DANG WEAP  
0555 ASSAULT AGG PRO.EMP: HANDGUN  
0556 ASSAULT AGG PRO.EMP: OTHER FIREARM  
0557 ASSAULT AGG PRO.EMP:KNIFE/CUTTING INST  
0558 ASSAULT AGG PRO.EMP: OTHER DANG WEAPON

041A BATTERY AGGRAVATED: HANDGUN  
041B BATTERY AGGRAVATED: OTHER FIREARM  
0420 BATTERY AGGRAVATED:KNIFE/CUTTING INSTR  
0430 BATTERY AGGRAVATED: OTHER DANG WEAPON  
0450 BATTERY AGGRAVATED PO: HANDGUN  
0451 BATTERY AGGRAVATED PO: OTHER FIREARM  
0452 BATTERY AGGRAVATED PO: KNIFE/CUT INSTR  
0453 BATTERY AGGRAVATED PO: OTHER DANG WEAP  
0461 BATTERY AGG PO HANDS ETC SERIOUS INJ  
0462 BATTERY AGG PRO EMP HANDS SERIOUS INJ  
0479 BATTERY AGG: HANDS/FIST/FEET SERIOUS INJURY  
0480 BATTERY AGG PRO.EMP: HANDGUN  
0481 BATTERY AGG PRO.EMP: OTHER FIREARM  
0482 BATTERY AGG PRO.EMP:KNIFE/CUTTING INST  
0483 BATTERY AGG PRO.EMP: OTHER DANG WEAPON  
0485 BATTERY AGGRAVATED OF A CHILD  
0488 BATTERY AGGRAVATED DOMESTIC BATTERY: HANDGUN  
0489 BATTERY AGGRAVATED DOMESTIC BATTERY: OTHER FIREARM  
0490 RITUALISM AGG RITUAL MUT:HANDGUN  
0491 RITUALISM AGG RITUAL MUT:OTHER FIREARM  
0492 RITUALISM AGG RITUAL MUT:KNIFE/CUTTING I  
0493 RITUALISM AGG RITUAL MUT:OTH DANG WEAPON  
0495 BATTERY AGGRAVATED OF A SENIOR CITIZEN  
0496 BATTERY AGGRAVATED DOMESTIC BATTERY: KNIFE/CUTTING INST  
0497 BATTERY AGGRAVATED DOMESTIC BATTERY: OTHER DANG WEAPON  
0498 BATTERY AGGRAVATED DOMESTIC BATTERY: HANDS/FIST/FEET SERIOUS INJURY  
0510 RITUALISM AGG RIT MUT: HANDS/FIST/FEET SERIOUS INJURY

0545 ASSAULT PRO EMP HANDS NO/MIN INJURY  
0554 ASSAULT AGG PO HANDS NO/MIN INJURY  
0560 ASSAULT SIMPLE  
0580 STALKING SIMPLE  
0581 STALKING AGGRAVATED  
0583 STALKING CYBERSTALKING

0440 BATTERY AGG: HANDS/FIST/FEET NO/MINOR INJURY  
0454 BATTERY AGG PO HANDS NO/MIN INJURY  
0460 BATTERY SIMPLE  
0475 BATTERY OF UNBORN CHILD  
0484 BATTERY PRO EMP HANDS NO/MIN INJURY  
0486 BATTERY DOMESTIC BATTERY SIMPLE  
0487 BATTERY AGGRAVATED OF A UNBORN CHILD  
0494 RITUALISM AGG RIT MUT: HANDS/FIST/FEET NO/MINOR INJURY

So primary\_type like assault% or primary\_type like battery%

select DATE(date) as date\_, count(date) as assault\_etc

from `data-analytics-346918.crime.2017\_2021`

where primary\_type = 'ASSAULT' or primary\_type = 'BATTERY' or primary\_type = 'RITUALISM'

group by date\_

order by date\_

arson:

1010 ARSON BY EXPLOSIVE  
1020 ARSON BY FIRE  
1025 ARSON AGGRAVATED  
1090 ARSON ATTEMPT ARSON

1030 ARSON POS: EXPLOSIVE/INCENDIARY DEV  
1035 ARSON POS: CHEMICAL/DRY-ICE DEVICE

5003 OTHER OFFENSE OTHER ARSON/EXPLOSIVE INCIDENT

Note there is another description that features arson but comes under botp as just a threat.

Primary type = arson or (primary type = other offense and description like ‘%arson%’)

select DATE(date) as date\_, count(date) as arson

from `data-analytics-346918.crime.2017\_2021`

where primary\_type = 'ARSON' or (primary\_type = 'OTHER OFFENSE' and description like '%ARSON%')

group by date\_

order by date\_

vandalism:

1265 CRIMINAL DAMAGE LIBRARY VANDALISM  
1305 CRIMINAL DAMAGE CRIMINAL DEFACEMENT

1310 CRIMINAL DAMAGE TO PROPERTY  
1320 CRIMINAL DAMAGE TO VEHICLE  
1340 CRIMINAL DAMAGE TO STATE SUP PROP  
1345 CRIMINAL DAMAGE TO CITY OF CHICAGO PROPERTY  
1370 CRIMINAL DAMAGE TO FIRE FIGHT.APP.EQUIP  
1375 CRIMINAL DAMAGE INSTITUTIONAL VANDALISM

select DATE(date) as date\_, count(date) as vandalism

from `data-analytics-346918.crime.2017\_2021`

where primary\_type = 'CRIMINAL DAMAGE'

group by date\_

order by date\_

trespass:

1330 CRIMINAL TRESPASS TO LAND  
1335 CRIMINAL TRESPASS TO AIRPORT  
1350 CRIMINAL TRESPASS TO STATE SUP LAND  
1360 CRIMINAL TRESPASS TO VEHICLE  
1365 CRIMINAL TRESPASS TO RESIDENCE

select DATE(date) as date\_, count(date) as trespass

from `data-analytics-346918.crime.2017\_2021`

where primary\_type = 'CRIMINAL TRESPASS'

group by date\_

order by date\_

fraud/forgery/counterfeiting/embezzlement:

1120 DECEPTIVE PRACTICE FORGERY  
1121 DECEPTIVE PRACTICE COUNTERFEITING DOCUMENT  
1122 DECEPTIVE PRACTICE COUNTERFEIT CHECK

1110 DECEPTIVE PRACTICE BOGUS CHECK  
1130 DECEPTIVE PRACTICE FRAUD OR CONFIDENCE GAME  
1135 DECEPTIVE PRACTICE INSURANCE FRAUD  
1150 DECEPTIVE PRACTICE CREDIT CARD FRAUD  
1151 DECEPTIVE PRACTICE ILLEGAL POSSESSION CASH CARD  
1152 DECEPTIVE PRACTICE ILLEGAL USE CASH CARD  
1160 DECEPTIVE PRACTICE ALTER COINS  
1170 DECEPTIVE PRACTICE IMPERSONATION  
1185 DECEPTIVE PRACTICE DECEPTIVE COLLECTION PRACTICES  
1195 DECEPTIVE PRACTICE FINAN EXPLOIT-ELDERLY/DISABLED  
1205 DECEPTIVE PRACTICE THEFT BY LESSEE,NON-VEH  
1206 DECEPTIVE PRACTICE THEFT BY LESSEE,MOTOR VEH  
1210 DECEPTIVE PRACTICE THEFT OF LABOR/SERVICES  
1220 DECEPTIVE PRACTICE THEFT OF LOST/MISLAID PROP  
1230 DECEPTIVE PRACTICE POSS. KEYS OR DEV.TO COIN MACH  
1235 DECEPTIVE PRACTICE UNLAWFUL USE OF RECORDED SOUND  
1240 DECEPTIVE PRACTICE UNLAWFUL USE OF A COMPUTER  
1241 DECEPTIVE PRACTICE AGGRAVATED COMPUTER TAMPERING  
1242 DECEPTIVE PRACTICE COMPUTER FRAUD  
1245 DECEPTIVE PRACTICE PAY TV SERVICE OFFENSES  
1255 DECEPTIVE PRACTICE UNIDENTIFIABLE RECORDING SOUND  
1260 DECEPTIVE PRACTICE LIBRARY THEFT  
1261 DECEPTIVE PRACTICE UNAUTHORIZED VIDEOTAPING

1140 DECEPTIVE PRACTICE EMBEZZLEMENT

select DATE(date) as date\_, count(date) as fraud\_etc

from `data-analytics-346918.crime.2017\_2021`

where primary\_type = 'DECEPTIVE PRACTICE'

group by date\_

order by date\_

weapons violation (excl. assault & battery):

141A WEAPONS VIOLATION UNLAWFUL USE HANDGUN  
141B WEAPONS VIOLATION UNLAWFUL USE OTHER FIREARM  
141C WEAPONS VIOLATION UNLAWFUL USE OTHER DANG WEAPON  
142A WEAPONS VIOLATION UNLAWFUL SALE HANDGUN  
142B WEAPONS VIOLATION UNLAWFUL SALE OTHER FIREARM  
1435 WEAPONS VIOLATION POS: FIREARM AT SCHOOL  
143A WEAPONS VIOLATION UNLAWFUL POSS OF HANDGUN  
143B WEAPONS VIOLATION UNLAWFUL POSS OTHER FIREARM  
143C WEAPONS VIOLATION UNLAWFUL POSS AMMUNITION  
1440 WEAPONS VIOLATION REGISTER OF SALES BY DEALER  
1450 WEAPONS VIOLATION DEFACE IDENT MARKS OF FIREARM  
1460 WEAPONS VIOLATION POSS FIREARM/AMMO:NO FOID CARD  
1475 WEAPONS VIOLATION SALE OF METAL PIERCING BULLETS  
1476 WEAPONS VIOLATION USE OF METAL PIERCING BULLETS  
1477 WEAPONS VIOLATION RECKLESS FIREARM DISCHARGE  
2900 WEAPONS VIOLATION UNLAWFUL USE/SALE AIR RIFLE

4860 OTHER OFFENSE BOARD PLANE WITH WEAPON

5007 OTHER OFFENSE OTHER WEAPONS VIOLATION

select DATE(date) as date\_, count(date) as weapon

from `data-analytics-346918.crime.2017\_2021`

where primary\_type = 'WEAPONS VIOLATION' or (primary\_type = 'OTHER OFFENCE' and description like '%WEAPON%')

group by date\_

order by date\_

drug stuff:

1811 NARCOTICS POSS: CANNABIS 30GMS OR LESS  
1812 NARCOTICS POSS: CANNABIS MORE THAN 30GMS  
1821 NARCOTICS MANU/DEL:CANNABIS 10GM OR LESS  
1822 NARCOTICS MANU/DEL:CANNABIS OVER 10 GMS  
1840 NARCOTICS DELIVER CANNABIS TO PERSON <18  
1850 NARCOTICS CANNABIS PLANT  
1860 NARCOTICS CALCULATED CANNABIS CONSPIRACY  
1900 OTHER NARCOTIC VIOLATION INTOXICATING COMPOUNDS  
2010 NARCOTICS MANU/DELIVER:AMPHETAMINES  
2011 NARCOTICS MANU/DELIVER:BARBITUATES  
2012 NARCOTICS MANU/DELIVER:COCAINE  
2013 NARCOTICS MANU/DELIVER: HEROIN(BRN/TAN)  
2014 NARCOTICS MANU/DELIVER: HEROIN (WHITE)  
2015 NARCOTICS MANU/DELIVER: HALLUCINOGEN  
2016 NARCOTICS MANU/DELIVER:PCP  
2017 NARCOTICS MANU/DELIVER:CRACK  
2018 NARCOTICS MANU/DELIVER:SYNTHETIC DRUGS  
2019 NARCOTICS MANU/DELIVER:HEROIN(BLACK TAR)  
2020 NARCOTICS POSS: AMPHETAMINES  
2021 NARCOTICS POSS: BARBITUATES  
2022 NARCOTICS POSS: COCAINE  
2023 NARCOTICS POSS: HEROIN(BRN/TAN)  
2024 NARCOTICS POSS: HEROIN(WHITE)  
2025 NARCOTICS POSS: HALLUCINOGENS  
2026 NARCOTICS POSS: PCP  
2027 NARCOTICS POSS: CRACK  
2028 NARCOTICS POSS: SYNTHETIC DRUGS  
2029 NARCOTICS POSS: HEROIN(BLACK TAR)  
2030 NARCOTICS MANU/DELIVER:LOOK-ALIKE DRUG  
2031 NARCOTICS POSS: METHAMPHETAMINES  
2032 NARCOTICS MANU/DELIVER: METHAMPHETAMINES  
2040 NARCOTICS POSS: LOOK-ALIKE DRUGS  
2050 NARCOTICS CRIMINAL DRUG CONSPIRACY  
2060 NARCOTICS FAIL REGISTER LIC:CONT SUBS  
2070 NARCOTICS DEL CONT SUBS TO PERSON <18  
2080 NARCOTICS CONT SUBS:FAIL TO MAINT RECORD  
2090 NARCOTICS ALTER/FORGE PRESCRIPTION  
2094 NARCOTICS ATTEMPT POSSESSION CANNABIS  
2095 NARCOTICS ATTEMPT POSSESSION NARCOTICS  
2110 NARCOTICS POS: HYPODERMIC NEEDLE  
2170 NARCOTICS POSSESSION OF DRUG EQUIPMENT

2091 NARCOTICS FORFEIT PROPERTY  
2092 NARCOTICS SOLICIT NARCOTICS ON PUBLICWAY  
2093 NARCOTICS FOUND SUSPECT NARCOTICS  
2111 NARCOTICS SALE/DEL HYPODERMIC NEEDLE  
2120 NARCOTICS FAILURE TO KEEP HYPO RECORDS  
2160 NARCOTICS SALE/DEL DRUG PARAPHERNALIA

select DATE(date) as date\_, count(date) as drugs

from `data-analytics-346918.crime.2017\_2021`

where primary\_type like '%NARCOTIC%'

group by date\_

order by date\_

Gambling:

1610 GAMBLING BOOKMAKING/HORSES  
1611 GAMBLING BOOKMAKING/SPORTS  
1620 GAMBLING BOLITA OR BOLI PUL/OFFICE  
1621 GAMBLING BOLITA OR BOLI PUL/RUNNER  
1622 GAMBLING BOLITA OR BOLI PUL/WRITER  
1623 GAMBLING BOLITA OR BOLI PUL/STATION  
1624 GAMBLING LOTTERY/PARI-MUTUEL  
1625 GAMBLING NATIONAL LOTTERY  
1626 GAMBLING ILLEGAL ILL LOTTERY  
1627 GAMBLING LOTTERY/OTHER  
1630 GAMBLING WIREROOM/HORSES  
1631 GAMBLING WIREROOM/SPORTS  
1632 GAMBLING WIREROOM/NUMBERS  
1633 GAMBLING SPORTS TAMPERING  
1640 GAMBLING REGISTER FED GAMBLING STAMP  
1650 GAMBLING VIOL CHARITABLE GAME ACT  
1651 GAMBLING GAME/CARDS  
1661 GAMBLING GAME/DICE  
1670 GAMBLING GAME/AMUSEMENT DEVICE  
1680 GAMBLING OTHER  
1681 GAMBLING LOTTERY/PARLAY CARDS  
  
1690 GAMBLING POLICY/HOUSEBOOK  
1691 GAMBLING POLICY/STATION  
1692 GAMBLING POLICY/RUNNER  
1693 GAMBLING POLICY/TURN-IN  
1694 GAMBLING POLICY/OFFICE  
1695 GAMBLING POLICY/PRESS  
1696 GAMBLING POLICY/WHEEL  
1697 GAMBLING POLICY/OTHER

select DATE(date) as date\_, count(date) as gambling

from `data-analytics-346918.crime.2017\_2021`

where primary\_type = 'GAMBLING'

group by date\_

order by date\_

Kidnapping:

1792 KIDNAPPING CHILD ABDUCTION/STRANGER

1790 OFFENSE INVOLVING CHILDREN CHILD ABDUCTION

4210 KIDNAPPING KIDNAPPING  
4220 KIDNAPPING AGGRAVATED  
4230 KIDNAPPING UNLAWFUL RESTRAINT  
4240 KIDNAPPING FORCIBLE DETENTION  
4255 KIDNAPPING UNLAWFUL INTERFERE/VISITATION

select DATE(date) as date\_, count(date) as kidnap

from `data-analytics-346918.crime.2017\_2021`

where primary\_type = 'KIDNAPPING' or description = 'CHILD ABDUCTION'

group by date\_

order by date\_

Alcohol:

2210 LIQUOR LAW VIOLATION SELL/GIVE/DEL LIQUOR TO MINOR  
2220 LIQUOR LAW VIOLATION ILLEGAL POSSESSION BY MINOR  
2230 LIQUOR LAW VIOLATION ILLEGAL CONSUMPTION BY MINOR  
2240 LIQUOR LAW VIOLATION MINOR MISREPRESENT AGE  
2250 LIQUOR LAW VIOLATION LIQUOR LICENSE VIOLATION  
2251 LIQUOR LAW VIOLATION EMPLOY MINOR

select DATE(date) as date\_, count(date) as alcohol

from `data-analytics-346918.crime.2017\_2021`

where primary\_type = 'LIQUOR LAW VIOLATION'

group by date\_

order by date\_

Disorderly conduct:

0470 PUBLIC PEACE VIOLATION RECKLESS CONDUCT  
2840 PUBLIC PEACE VIOLATION FALSE FIRE ALARM  
2860 PUBLIC PEACE VIOLATION FALSE POLICE REPORT  
2870 PUBLIC PEACE VIOLATION PEEPING TOM  
3100 PUBLIC PEACE VIOLATION MOB ACTION  
3610 OTHER OFFENSE INTERFERE W/ HIGHER EDUCATION  
3710 INTERFERE WITH PUBLIC OFFICER RESIST/OBSTRUCT/DISARM OFFICER  
3720 INTERFERE WITH PUBLIC OFFICER REFUSING TO AID AN OFFICER  
3730 INTERFERE WITH PUBLIC OFFICER OBSTRUCTING JUSTICE  
3740 INTERFERE WITH PUBLIC OFFICER CONCEALING/AIDING A FUGITIVE  
3750 INTERFERE WITH PUBLIC OFFICER ESCAPE  
3751 INTERFERE WITH PUBLIC OFFICER AIDING ARRESTEE ESCAPE  
3760 INTERFERE WITH PUBLIC OFFICER OBSTRUCTING SERVICE

2850 PUBLIC PEACE VIOLATION BOMB THREAT  
2851 PUBLIC PEACE VIOLATION ARSON THREAT  
2890 PUBLIC PEACE VIOLATION OTHER VIOLATION  
2895 PUBLIC PEACE VIOLATION INTERFERE W/ EMERGENCY EQUIP  
3000 PUBLIC PEACE VIOLATION SELL/ADVERTISE FIREWORKS  
3200 PUBLIC PEACE VIOLATION ARMED VIOLENCE  
3300 PUBLIC PEACE VIOLATION PUBLIC DEMONSTRATION  
3400 PUBLIC PEACE VIOLATION LOOTING#

3770 INTERFERE WITH PUBLIC OFFICER CONTRABAND IN PRISON  
3800 INTERFERE WITH PUBLIC OFFICER INTERFERENCE JUDICIAL PROCESS  
3910 INTERFERE WITH PUBLIC OFFICER BRIBERY  
3920 INTERFERE WITH PUBLIC OFFICER OFFICIAL MISCONDUCT

select DATE(date) as date\_, count(date) as disorderly\_conduct

from `data-analytics-346918.crime.2017\_2021`

where primary\_type = 'PUBLIC PEACE VIOLATION' or primary\_type = 'INTERFERE WITH PUBLIC OFFICER' or (primary\_type = 'OTHER OFFENSE' and description = 'INTERFERE W/HIGHER EDUCATION')

group by date\_

order by date\_

Okay!!! Now I need to make these views idk why I didn’t do that at the start and then join them all.

Views ✓

Now I need to combine these views into one big one with detailed crime data for every day

create view `data-analytics-346918.crime.crime\_table`

as select `data-analytics-346918.crime.total\_crimes`.date\_ as date, `data-analytics-346918.crime.total\_crimes`.total\_crimes,

`data-analytics-346918.crime.alcohol`.alcohol,

`data-analytics-346918.crime.arson`.arson,

`data-analytics-346918.crime.assault\_etc`.assault\_etc,

`data-analytics-346918.crime.disorderly\_conduct`.disorderly\_conduct,

`data-analytics-346918.crime.drugs`.drugs,

`data-analytics-346918.crime.fraud\_etc`.fraud\_etc,

`data-analytics-346918.crime.gambling`.gambling,

`data-analytics-346918.crime.kidnap`.kidnap,

`data-analytics-346918.crime.murders`.murders,

`data-analytics-346918.crime.negligent\_deaths`.negligent\_deaths,

`data-analytics-346918.crime.sex\_offenses`.sex\_offenses,

`data-analytics-346918.crime.theft\_etc`.theft\_etc,

`data-analytics-346918.crime.trespass`.trespass,

`data-analytics-346918.crime.vandalism`.vandalism,

`data-analytics-346918.crime.weapons`.weapons

from `data-analytics-346918.crime.total\_crimes`

full outer join `data-analytics-346918.crime.alcohol`

on `data-analytics-346918.crime.total\_crimes`.date\_ = `data-analytics-346918.crime.alcohol`.date\_

full outer join `data-analytics-346918.crime.arson`

on `data-analytics-346918.crime.total\_crimes`.date\_ = `data-analytics-346918.crime.arson`.date\_

full outer join `data-analytics-346918.crime.assault\_etc`

on `data-analytics-346918.crime.total\_crimes`.date\_ = `data-analytics-346918.crime.assault\_etc`.date\_

full outer join `data-analytics-346918.crime.disorderly\_conduct`

on `data-analytics-346918.crime.total\_crimes`.date\_ = `data-analytics-346918.crime.disorderly\_conduct`.date\_

full outer join `data-analytics-346918.crime.drugs`

on `data-analytics-346918.crime.total\_crimes`.date\_ = `data-analytics-346918.crime.drugs`.date\_

full outer join `data-analytics-346918.crime.fraud\_etc`

on `data-analytics-346918.crime.total\_crimes`.date\_ = `data-analytics-346918.crime.fraud\_etc`.date\_

full outer join `data-analytics-346918.crime.gambling`

on `data-analytics-346918.crime.total\_crimes`.date\_ = `data-analytics-346918.crime.gambling`.date\_

full outer join `data-analytics-346918.crime.kidnap`

on `data-analytics-346918.crime.total\_crimes`.date\_ = `data-analytics-346918.crime.kidnap`.date\_

full outer join `data-analytics-346918.crime.murders`

on `data-analytics-346918.crime.total\_crimes`.date\_ = `data-analytics-346918.crime.murders`.date\_

full outer join `data-analytics-346918.crime.negligent\_deaths`

on `data-analytics-346918.crime.total\_crimes`.date\_ = `data-analytics-346918.crime.negligent\_deaths`.date\_

full outer join `data-analytics-346918.crime.sex\_offenses`

on `data-analytics-346918.crime.total\_crimes`.date\_ = `data-analytics-346918.crime.sex\_offenses`.date\_

full outer join `data-analytics-346918.crime.theft\_etc`

on `data-analytics-346918.crime.total\_crimes`.date\_ = `data-analytics-346918.crime.theft\_etc`.date\_

full outer join `data-analytics-346918.crime.trespass`

on `data-analytics-346918.crime.total\_crimes`.date\_ = `data-analytics-346918.crime.trespass`.date\_

full outer join `data-analytics-346918.crime.vandalism`

on `data-analytics-346918.crime.total\_crimes`.date\_ = `data-analytics-346918.crime.vandalism`.date\_

full outer join `data-analytics-346918.crime.weapons`

on `data-analytics-346918.crime.total\_crimes`.date\_ = `data-analytics-346918.crime.weapons`.date\_

order by date

and fingers crossed my final massive statement

create table `data-analytics-346918.combined.weather\_crime`

as select `data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.date,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.day,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.year,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.mo,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.da,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.temp,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.dewp,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.slp,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.stp,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.visib,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.wdsp,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.mxpsd,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.max,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.min,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.prcp,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.sndp,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.fog,

`data-analytics-346918.crime.crime\_table`.total\_crimes,

`data-analytics-346918.crime.crime\_table`.alcohol,

`data-analytics-346918.crime.crime\_table`.arson,

`data-analytics-346918.crime.crime\_table`.assault\_etc,

`data-analytics-346918.crime.crime\_table`.disorderly\_conduct,

`data-analytics-346918.crime.crime\_table`.drugs,

`data-analytics-346918.crime.crime\_table`.fraud\_etc,

`data-analytics-346918.crime.crime\_table`.gambling,

`data-analytics-346918.crime.crime\_table`.kidnap,

`data-analytics-346918.crime.crime\_table`.murders,

`data-analytics-346918.crime.crime\_table`.negligent\_deaths,

`data-analytics-346918.crime.crime\_table`.sex\_offenses,

`data-analytics-346918.crime.crime\_table`.theft\_etc,

`data-analytics-346918.crime.crime\_table`.trespass,

`data-analytics-346918.crime.crime\_table`.vandalism,

`data-analytics-346918.crime.crime\_table`.weapons

from`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`

join `data-analytics-346918.crime.crime\_table`

on `data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.date = `data-analytics-346918.crime.crime\_table`.date

order by date

need to try to replace nulls with 0 for the crime data

\*\*downloaded csv of combo first in case the update goes all wrong\*\*

cancel cancel not allowed dml in free bigquery so ill have to cut stuff out on the go in colab instead

# 6hrs of work up to this point

Big stupid idiot didn’t read properly and also FORGOT because I did think about it before I started and while I was getting types of crime that I need to look at types of location too. >:(

SELECT location\_description, count(location\_description) as num FROM `data-analytics-346918.crime.2017\_2021` group by location\_description order by num desc

I done this to see what were the most common places of crimes committed so I didn’t have such a big number of locations as there were 95 possibilities according to the website but then it returned 187 rows!!

Graphical user interface, text, application, email

Description automatically generated

Looking at the first few returned rows it seemed like there were quite a few locations that could be grouped together, just from the picture above I could group residence, apartment, residential yard (front/back) together into residence, and scrolling through the returned rows there was a lot more that I could put into this residence category.

STREET

RESIDENCE

APARTMENT

SIDEWALK

OTHER

SMALL RETAIL STORE

RESTAURANT

ALLEY

PARKING LOT/GARAGE(NON.RESID.)

VEHICLE NON-COMMERCIAL

DEPARTMENT STORE

GAS STATION

RESIDENTIAL YARD (FRONT/BACK)

GROCERY FOOD STORE

RESIDENCE PORCH/HALLWAY

RESIDENCE-GARAGE

PARKING LOT / GARAGE (NON RESIDENTIAL)

SCHOOL, PUBLIC, BUILDING

COMMERCIAL / BUSINESS OFFICE

CONVENIENCE STORE

CTA TRAIN

BAR OR TAVERN

OTHER (SPECIFY)

PARK PROPERTY

RESIDENCE - PORCH / HALLWAY

RESIDENCE - YARD (FRONT / BACK)

DRUG STORE

RESIDENCE - GARAGE

BANK

HOTEL/MOTEL

CTA BUS

CTA STATION

HOSPITAL BUILDING/GROUNDS

CTA PLATFORM

CHA APARTMENT

DRIVEWAY - RESIDENTIAL

SCHOOL, PUBLIC, GROUNDS

NURSING HOME/RETIREMENT HOME

POLICE FACILITY/VEH PARKING LOT

CTA BUS STOP

VACANT LOT/LAND

HOTEL / MOTEL

HOSPITAL BUILDING / GROUNDS

ATHLETIC CLUB

SCHOOL, PRIVATE, BUILDING

CHA PARKING LOT/GROUNDS

CHURCH/SYNAGOGUE/PLACE OF WORSHIP

GOVERNMENT BUILDING/PROPERTY

ATM (AUTOMATIC TELLER MACHINE)

TAVERN/LIQUOR STORE

CURRENCY EXCHANGE

CONSTRUCTION SITE

POLICE FACILITY / VEHICLE PARKING LOT

SCHOOL - PUBLIC BUILDING

WAREHOUSE

NURSING / RETIREMENT HOME

TAXICAB

ABANDONED BUILDING

AIRPORT TERMINAL UPPER LEVEL - SECURE AREA

VACANT LOT / LAND

BARBERSHOP

LIBRARY

AUTO / BOAT / RV DEALERSHIP

SCHOOL - PUBLIC GROUNDS

MEDICAL/DENTAL OFFICE

CTA GARAGE / OTHER PROPERTY

CHA PARKING LOT / GROUNDS

DAY CARE CENTER

AIRPORT TERMINAL LOWER LEVEL - NON-SECURE AREA

SPORTS ARENA/STADIUM

TAVERN / LIQUOR STORE

VEHICLE-COMMERCIAL

CHURCH / SYNAGOGUE / PLACE OF WORSHIP

GOVERNMENT BUILDING / PROPERTY

CAR WASH

AIRPORT BUILDING NON-TERMINAL - NON-SECURE AREA

OTHER COMMERCIAL TRANSPORTATION

CHA HALLWAY/STAIRWELL/ELEVATOR

SCHOOL, PRIVATE, GROUNDS

OTHER RAILROAD PROP / TRAIN DEPOT

MEDICAL / DENTAL OFFICE

APPLIANCE STORE

VEHICLE - OTHER RIDE SHARE SERVICE (E.G., UBER, LYFT)

CLEANING STORE

COLLEGE/UNIVERSITY GROUNDS

AIRPORT TERMINAL UPPER LEVEL - NON-SECURE AREA

AIRPORT EXTERIOR - NON-SECURE AREA

MOVIE HOUSE/THEATER

AIRPORT PARKING LOT

FACTORY/MANUFACTURING BUILDING

AIRPORT BUILDING NON-TERMINAL - SECURE AREA

AUTO

SCHOOL - PRIVATE BUILDING

AIRPORT TERMINAL LOWER LEVEL - SECURE AREA

AIRCRAFT

VEHICLE - COMMERCIAL

CTA PARKING LOT / GARAGE / OTHER PROPERTY

JAIL / LOCK-UP FACILITY

CHA HALLWAY / STAIRWELL / ELEVATOR

AIRPORT VENDING ESTABLISHMENT

SCHOOL - PRIVATE GROUNDS

PAWN SHOP

FACTORY / MANUFACTURING BUILDING

FIRE STATION

LAKEFRONT/WATERFRONT/RIVERBANK

VEHICLE - OTHER RIDE SHARE SERVICE (LYFT, UBER, ETC.)

VEHICLE - DELIVERY TRUCK

AIRPORT/AIRCRAFT

OTHER RAILROAD PROPERTY / TRAIN DEPOT

FEDERAL BUILDING

POOL ROOM

ANIMAL HOSPITAL

AIRPORT EXTERIOR - SECURE AREA

HIGHWAY/EXPRESSWAY

SPORTS ARENA / STADIUM

VEHICLE - OTHER RIDE SERVICE

COIN OPERATED MACHINE

BOWLING ALLEY

CTA TRACKS - RIGHT OF WAY

HOUSE

LAKEFRONT / WATERFRONT / RIVERBANK

COLLEGE/UNIVERSITY RESIDENCE HALL

PORCH

HIGHWAY / EXPRESSWAY

COLLEGE / UNIVERSITY - GROUNDS

BRIDGE

YARD

BOAT/WATERCRAFT

CREDIT UNION

PARKING LOT

CEMETARY

MOVIE HOUSE / THEATER

FOREST PRESERVE

BOAT / WATERCRAFT

SAVINGS AND LOAN

COLLEGE / UNIVERSITY - RESIDENCE HALL

AIRPORT TRANSPORTATION SYSTEM (ATS)

AIRPORT TERMINAL MEZZANINE - NON-SECURE AREA

VACANT LOT

NEWSSTAND

RETAIL STORE

GAS STATION DRIVE/PROP.

CHA PARKING LOT

KENNEL

GARAGE

HALLWAY

BARBER SHOP/BEAUTY SALON

VEHICLE-COMMERCIAL - TROLLEY BUS

VEHICLE-COMMERCIAL - ENTERTAINMENT/PARTY BUS

VEHICLE - COMMERCIAL: ENTERTAINMENT / PARTY BUS

GANGWAY

VESTIBULE

HOTEL

FARM

HOSPITAL

STAIRWELL

CHA GROUNDS

DRIVEWAY

CTA "L" PLATFORM

CLUB

SCHOOL YARD

LIQUOR STORE

HORSE STABLE

VEHICLE - COMMERCIAL: TROLLEY BUS

CTA PROPERTY

CTA "L" TRAIN

WOODED AREA

RIVER BANK

NURSING HOME

GARAGE/AUTO REPAIR

CHA HALLWAY

TAVERN

CHURCH

MOTEL

OFFICE

BASEMENT

CHA PLAY LOT

CTA SUBWAY STATION

LAKE

YMCA

TRAILER

RAILROAD PROPERTY

GOVERNMENT BUILDING

ELEVATOR

ROOMING HOUSE

CHA ELEVATOR

I want to classify these into as few groups as possible as otherwise the level of detail might cloud the overall picture of the data and also I do not have time to make all of these headings like theres 187. So

RESIDENTIAL

COMMERCIAL (NON-VEHICULAR)

COMMERCIAL (VEHICULAR)

CHA (Chicago Housing Authority)

CTA (Chicago Transport Authority)

GOVERNMENT/PUBLIC BUILDING

GOVERNMENT/PUBLIC OUTDOOR AREAS

Had to leave some out, some just said other, some just had like hallway which idk what kind of hallway that means. One said auto which also like what does that even mean. So now I just have to split these into the 7 headings. Great.

create view `data-analytics-346918.crime.loc\_residential`

as select DATE(date) as date\_, count(date) as residential

from `data-analytics-346918.crime.2017\_2021`

where location\_description = "RESIDENCE" OR location\_description = "APARTMENT" OR location\_description = "VEHICLE NON-COMMERCIAL"

OR location\_description = "RESIDENTIAL YARD (FRONT/BACK)" OR location\_description = "RESIDENCE PORCH/HALLWAY" OR location\_description = "RESIDENCE-GARAGE"

OR location\_description = "RESIDENCE - PORCH / HALLWAY" OR location\_description = "RESIDENCE YARD (FRONT / BACK)" OR location\_description = ""

OR location\_description = "RESIDENCE - GARAGE" OR location\_description = "DRIVEWAY - RESIDENTIAL" OR location\_description = "HOUSE"

OR location\_description = "PORCH" OR location\_description = "YARD" OR location\_description = "GARAGE" OR location\_description = "FARM"

OR location\_description = "DRIVEWAY" OR location\_description = "BASEMENT" OR location\_description = "TRAILER"

group by date\_

order by date\_

create view `data-analytics-346918.crime.loc\_commercial\_non\_vehicular`

as select DATE(date) as date\_, count(date) as commercial\_non\_vehicular

from `data-analytics-346918.crime.2017\_2021`

where location\_description = "SMALL RETAIL STORE" or location\_description = "RESTAURANT" or location\_description = "DEPARTMENT STORE"

or location\_description = "GAS STATION" or location\_description = "GROCERY FOOD STORE" or location\_description = "COMMERCIAL/BUSINESS OFFICE"

or location\_description = "CONVENIENCE STORE" or location\_description = "BAR OR TAVERN" or location\_description = "DRUG STORE"

or location\_description = "BANK" or location\_description = "HOTEL/MOTEL" or location\_description = "ATHLETIC CLUB"

or location\_description = "ATM (AUTOMATIC TELLER MACHINE)" or location\_description = "TAVERN/LIQUOR STORE" or location\_description = "CURRENCY EXCHANGE"

or location\_description = "CONSTRUCTION SITE" or location\_description = "WAREHOUSE"

or location\_description LIKE "%AIRPORT%" or location\_description = "BARBERSHOP" or location\_description = "AUTO / BOAT / RV DEALERSHIP"

or location\_description = "MEDICAL/DENTAL OFFICE" or location\_description = "DAY CARE CENTER" or location\_description = "SPORTS ARENA/STADIUM"

or location\_description = "TAVERN / LIQUOR STORE" or location\_description = "CAR WASH" or location\_description = "OTHER RAILROAD PROP / TRAIN DEPOT"

or location\_description = "MEDICAL / DENTAL OFFICE" or location\_description = "APPLIANCE STORE" or location\_description = "CLEANING STORE"

or location\_description = "MOVIE HOUSE/THEATER" or location\_description = "FACTORY/MANUFACTURING BUILDING" or location\_description = "AIRCRAFT"

or location\_description = "PAWN SHOP" or location\_description = "FACTORY / MANUFACTURING BUILDING" or location\_description = "OTHER RAILROAD PROPERTY / TRAIN DEPOT"

or location\_description = "POOL ROOM" or location\_description = "ANIMAL HOSPITAL" or location\_description = "SPORTS ARENA / STADIUM"

or location\_description = "COIN OPERATED MACHINE" or location\_description = "BOWLING ALLEY" or location\_description = "BOAT/WATERCRAFT"

or location\_description = "CREDIT UNION" or location\_description = "MOVIE HOUSE / THEATER" or location\_description = "BOAT / WATERCRAFT"

or location\_description = "SAVINGS AND LOAN" or location\_description = "NEWSSTAND" or location\_description = "RETAIL STORE"

or location\_description = "GAS STATION DRIVE/PROP." or location\_description = "KENNEL" or location\_description = "BARBER SHOP/BEAUTY SALON"

or location\_description = "HOTEL" or location\_description = "CLUB" or location\_description = "LIQUOR STORE"

or location\_description = "HORSE STABLE" or location\_description = "GARAGE/AUTO REPAIR" or location\_description = "TAVERN"

or location\_description = "MOTEL" or location\_description = "OFFICE"

group by date\_

order by date\_

create view `data-analytics-346918.crime.loc\_commercial\_vehicular`

as select DATE(date) as date\_, count(date) as commercial\_vehicular

from `data-analytics-346918.crime.2017\_2021`

where location\_description = "VEHICLE-COMMERCIAL" or location\_description = "OTHER COMMERCIAL TRANSPORTATION" or location\_description = "VEHICLE - OTHER RIDE SHARE SERVICE (E.G., UBER, LYFT)"

or location\_description = "VEHICLE - COMMERCIAL" or location\_description = "VEHICLE - OTHER RIDE SHARE SERVICE (LYFT, UBER, ETC.)" or location\_description = "VEHICLE - DELIVERY TRUCK"

or location\_description = "VEHICLE - OTHER RIDE SERVICE" or location\_description = "VEHICLE-COMMERCIAL - TROLLEY BUS" or location\_description = "VEHICLE-COMMERCIAL - ENTERTAINMENT/PARTY BUS"

or location\_description = " VEHICLE - COMMERCIAL: ENTERTAINMENT / PARTY BUS" or location\_description = "VEHICLE - COMMERCIAL: TROLLEY BUS"

or location\_description = "TAXICAB"

group by date\_

order by date\_

create view `data-analytics-346918.crime.loc\_cha`

as select DATE(date) as date\_, count(date) as cha

from `data-analytics-346918.crime.2017\_2021`

where location\_description like "%CHA%" and location\_description != "CURRENCY EXCHANGE"

group by date\_

order by date\_

create view `data-analytics-346918.crime.loc\_cta`

as select DATE(date) as date\_, count(date) as cta

from `data-analytics-346918.crime.2017\_2021`

where location\_description like "%CTA%"

group by date\_

order by date\_

create view `data-analytics-346918.crime.loc\_gov\_public\_building`

as select DATE(date) as date\_, count(date) as gov\_public\_building

from `data-analytics-346918.crime.2017\_2021`

where location\_description = "SCHOOL, PUBLIC, BUILDING" or location\_description = "HOSPITAL BUILDING/GROUNDS" or location\_description = "SCHOOL, PUBLIC, GROUNDS"

or location\_description = "NURSING HOME/RETIREMENT HOME" or location\_description = "POLICE FACILITY/VEH PARKING LOT" or location\_description = "HOSPITAL BUILDING / GROUNDS"

or location\_description = "SCHOOL, PRIVATE, BUILDING" or location\_description = "CHURCH/SYNAGOGUE/PLACE OF WORSHIP" or location\_description = "GOVERNMENT BUILDING/PROPERTY"

or location\_description = "POLICE FACILITY / VEHICLE PARKING LOT" or location\_description = "SCHOOL - PUBLIC BUILDING" or location\_description = "NURSING / RETIREMENT HOME"

or location\_description = "LIBRARY" or location\_description = "SCHOOL - PUBLIC GROUNDS" or location\_description = "CHURCH / SYNAGOGUE / PLACE OF WORSHIP"

or location\_description = "GOVERNMENT BUILDING / PROPERTY" or location\_description = "SCHOOL, PRIVATE, GROUNDS" or location\_description = "COLLEGE/UNIVERSITY GROUNDS"

or location\_description = "SCHOOL - PRIVATE BUILDING" or location\_description = "JAIL / LOCK-UP FACILITY" or location\_description = "SCHOOL - PRIVATE GROUNDS"

or location\_description = "FIRE STATION" or location\_description = "FEDERAL BUILDING" or location\_description = "COLLEGE/UNIVERSITY RESIDENCE HALL"

or location\_description = "COLLEGE / UNIVERSITY - GROUNDS" or location\_description = "COLLEGE / UNIVERSITY - RESIDENCE HALL" or location\_description = "HOSPITAL"

or location\_description = "SCHOOL YARD" or location\_description = "NURSING HOME" or location\_description = "CHURCH"

or location\_description = "GOVERNMENT BUILDING"

group by date\_

order by date\_

create view `data-analytics-346918.crime.loc\_gov\_public\_outdoor`

as select DATE(date) as date\_, count(date) as gov\_public\_outdoor

from `data-analytics-346918.crime.2017\_2021`

where location\_description = "STREET" or location\_description = "SIDEWALK" or location\_description = "ALLEY"

or location\_description = "PARKING LOT/GARAGE(NON.RESID.)" or location\_description = "PARKING LOT / GARAGE (NON RESIDENTIAL)" or location\_description = "PARK PROPERTY"

or location\_description = "VACANT LOT/LAND" or location\_description = "ABANDONED BUILDING" or location\_description = "VACANT LOT / LAND"

or location\_description = "LAKEFRONT/WATERFRONT/RIVERBANK" or location\_description = "HIGHWAY/EXPRESSWAY" or location\_description = "LAKEFRONT / WATERFRONT / RIVERBANK"

or location\_description = "HIGHWAY / EXPRESSWAY" or location\_description = "BRIDGE" or location\_description = "PARKING LOT"

or location\_description = "CEMETARY" or location\_description = "FOREST PRESERVE" or location\_description = "VACANT LOT"

or location\_description = "WOODED AREA" or location\_description = "RIVER BANK" or location\_description = "LAKE"

group by date\_

order by date\_

ok got the individual tables now I need to put them all together

create view `data-analytics-346918.crime.location\_table`

as select `data-analytics-346918.crime.loc\_cha`.date\_ as date, `data-analytics-346918.crime.loc\_cha`.cha,

`data-analytics-346918.crime.loc\_commercial\_non\_vehicular`.commercial\_non\_vehicular,

`data-analytics-346918.crime.loc\_commercial\_vehicular`.commercial\_vehicular,

`data-analytics-346918.crime.loc\_cta`.cta,

`data-analytics-346918.crime.loc\_gov\_public\_building`.gov\_public\_building,

`data-analytics-346918.crime.loc\_gov\_public\_outdoor`.gov\_public\_outdoor,

`data-analytics-346918.crime.loc\_residential`.residential

from `data-analytics-346918.crime.loc\_cha`

full outer join `data-analytics-346918.crime.loc\_commercial\_non\_vehicular`

on `data-analytics-346918.crime.loc\_cha`.date\_ = `data-analytics-346918.crime.loc\_commercial\_non\_vehicular`.date\_

full outer join `data-analytics-346918.crime.loc\_commercial\_vehicular`

on `data-analytics-346918.crime.loc\_cha`.date\_ = `data-analytics-346918.crime.loc\_commercial\_vehicular`.date\_

full outer join `data-analytics-346918.crime.loc\_cta`

on `data-analytics-346918.crime.loc\_cha`.date\_ = `data-analytics-346918.crime.loc\_cta`.date\_

full outer join `data-analytics-346918.crime.loc\_gov\_public\_building`

on `data-analytics-346918.crime.loc\_cha`.date\_ = `data-analytics-346918.crime.loc\_gov\_public\_building`.date\_

full outer join `data-analytics-346918.crime.loc\_gov\_public\_outdoor`

on `data-analytics-346918.crime.loc\_cha`.date\_ = `data-analytics-346918.crime.loc\_gov\_public\_outdoor`.date\_

full outer join `data-analytics-346918.crime.loc\_residential`

on `data-analytics-346918.crime.loc\_cha`.date\_ = `data-analytics-346918.crime.loc\_residential`.date\_

hopefully this has 1826 rows. O no it has too many rows, 2072 :/ there are rows with null dates like a bunch of them idk how we got null dates. Well the full outer join done it but why. Theres 298 rows but if I just take them away it leaves too few.

Cha – 1774

Comm non veh – 1826

Comm veh – 1524

Cta – 1826

Govpub building – 1826

Govpub outdoor – 1826

Res – 1826

Dum dum should have started the full outer on a location that had the full set of dates. Try again

create view `data-analytics-346918.crime.location\_table`

as select `data-analytics-346918.crime.loc\_residential`.date\_ as date, `data-analytics-346918.crime.loc\_cha`.cha,

`data-analytics-346918.crime.loc\_commercial\_non\_vehicular`.commercial\_non\_vehicular,

`data-analytics-346918.crime.loc\_commercial\_vehicular`.commercial\_vehicular,

`data-analytics-346918.crime.loc\_cta`.cta,

`data-analytics-346918.crime.loc\_gov\_public\_building`.gov\_public\_building,

`data-analytics-346918.crime.loc\_gov\_public\_outdoor`.gov\_public\_outdoor,

`data-analytics-346918.crime.loc\_residential`.residential

from `data-analytics-346918.crime.loc\_residential`

full outer join `data-analytics-346918.crime.loc\_commercial\_non\_vehicular`

on `data-analytics-346918.crime.loc\_residential`.date\_ = `data-analytics-346918.crime.loc\_commercial\_non\_vehicular`.date\_

full outer join `data-analytics-346918.crime.loc\_commercial\_vehicular`

on `data-analytics-346918.crime.loc\_residential`.date\_ = `data-analytics-346918.crime.loc\_commercial\_vehicular`.date\_

full outer join `data-analytics-346918.crime.loc\_cta`

on `data-analytics-346918.crime.loc\_residential`.date\_ = `data-analytics-346918.crime.loc\_cta`.date\_

full outer join `data-analytics-346918.crime.loc\_gov\_public\_building`

on `data-analytics-346918.crime.loc\_residential`.date\_ = `data-analytics-346918.crime.loc\_gov\_public\_building`.date\_

full outer join `data-analytics-346918.crime.loc\_gov\_public\_outdoor`

on `data-analytics-346918.crime.loc\_residential`.date\_ = `data-analytics-346918.crime.loc\_gov\_public\_outdoor`.date\_

full outer join `data-analytics-346918.crime.loc\_cha`

on `data-analytics-346918.crime.loc\_residential`.date\_ = `data-analytics-346918.crime.loc\_cha`.date\_

1826 😊 😊 😊

create view `data-analytics-346918.crime.crime\_num\_loc\_table`

as select `data-analytics-346918.crime.crime\_table`.date,

`data-analytics-346918.crime.crime\_table`.total\_crimes,

`data-analytics-346918.crime.crime\_table`.alcohol,

`data-analytics-346918.crime.crime\_table`.arson,

`data-analytics-346918.crime.crime\_table`.assault\_etc,

`data-analytics-346918.crime.crime\_table`.disorderly\_conduct,

`data-analytics-346918.crime.crime\_table`.drugs,

`data-analytics-346918.crime.crime\_table`.fraud\_etc,

`data-analytics-346918.crime.crime\_table`.gambling,

`data-analytics-346918.crime.crime\_table`.kidnap,

`data-analytics-346918.crime.crime\_table`.murders,

`data-analytics-346918.crime.crime\_table`.negligent\_deaths,

`data-analytics-346918.crime.crime\_table`.sex\_offenses,

`data-analytics-346918.crime.crime\_table`.theft\_etc,

`data-analytics-346918.crime.crime\_table`.trespass,

`data-analytics-346918.crime.crime\_table`.vandalism,

`data-analytics-346918.crime.crime\_table`.weapons,

`data-analytics-346918.crime.location\_table`.cha,

`data-analytics-346918.crime.location\_table`.commercial\_non\_vehicular,

`data-analytics-346918.crime.location\_table`.commercial\_vehicular,

`data-analytics-346918.crime.location\_table`.cta,

`data-analytics-346918.crime.location\_table`.gov\_public\_building,

`data-analytics-346918.crime.location\_table`.gov\_public\_outdoor,

`data-analytics-346918.crime.location\_table`.residential

from `data-analytics-346918.crime.crime\_table`

full outer join `data-analytics-346918.crime.location\_table`

on `data-analytics-346918.crime.crime\_table`.date = `data-analytics-346918.crime.location\_table`.date

ok it worked. Now I need to combine this with the weather data and maybe I can finally move onto analysing the stupid data.

Using the query from the first time I combined weather and crime just need to change the name of the crime table references and add in the new location rows.

create table `data-analytics-346918.combined.weather\_crime\_final`

as select `data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.date,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.day,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.year,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.mo,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.da,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.temp,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.dewp,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.slp,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.stp,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.visib,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.wdsp,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.mxpsd,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.max,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.min,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.prcp,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.sndp,

`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.fog,

`data-analytics-346918.crime.crime\_num\_loc\_table`.total\_crimes,

`data-analytics-346918.crime.crime\_num\_loc\_table`.alcohol,

`data-analytics-346918.crime.crime\_num\_loc\_table`.arson,

`data-analytics-346918.crime.crime\_num\_loc\_table`.assault\_etc,

`data-analytics-346918.crime.crime\_num\_loc\_table`.disorderly\_conduct,

`data-analytics-346918.crime.crime\_num\_loc\_table`.drugs,

`data-analytics-346918.crime.crime\_num\_loc\_table`.fraud\_etc,

`data-analytics-346918.crime.crime\_num\_loc\_table`.gambling,

`data-analytics-346918.crime.crime\_num\_loc\_table`.kidnap,

`data-analytics-346918.crime.crime\_num\_loc\_table`.murders,

`data-analytics-346918.crime.crime\_num\_loc\_table`.negligent\_deaths,

`data-analytics-346918.crime.crime\_num\_loc\_table`.sex\_offenses,

`data-analytics-346918.crime.crime\_num\_loc\_table`.theft\_etc,

`data-analytics-346918.crime.crime\_num\_loc\_table`.trespass,

`data-analytics-346918.crime.crime\_num\_loc\_table`.vandalism,

`data-analytics-346918.crime.crime\_num\_loc\_table`.weapons,

`data-analytics-346918.crime.crime\_num\_loc\_table`.cha,

`data-analytics-346918.crime.crime\_num\_loc\_table`.commercial\_non\_vehicular,

`data-analytics-346918.crime.crime\_num\_loc\_table`.commercial\_vehicular,

`data-analytics-346918.crime.crime\_num\_loc\_table`.cta,

`data-analytics-346918.crime.crime\_num\_loc\_table`.gov\_public\_building,

`data-analytics-346918.crime.crime\_num\_loc\_table`.gov\_public\_outdoor,

`data-analytics-346918.crime.crime\_num\_loc\_table`.residential

from`data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`

join `data-analytics-346918.crime.crime\_num\_loc\_table`

on `data-analytics-346918.chicago\_midway\_intl\_arpt.aggregate\_table`.date = `data-analytics-346918.crime.crime\_num\_loc\_table`.date

order by date