**Chicago dataset problems & query**

Problem 1: Find the total number of crimes recorded in the CRIME table.

select count(\*) from ChicagoCrimeData

Problem 2: List community areas with per capita income less than 11000.

select COMMUNITY\_AREA\_NAME, PER\_CAPITA\_INCOME from ChicagoCensusData where PER\_CAPITA\_INCOME<11000

Problem 3: List all case numbers for crimes involving minors?

SELECT DISTINCT CASE\_NUMBER FROM ChicagoCrimeData WHERE DESCRIPTION LIKE '%MINOR%'

Problem 4: List all kidnapping crimes involving a child?(children are not considered minors for the purposes of crime analysis)

select DISTINCT CASE\_NUMBER, PRIMARY\_TYPE,DESCRIPTION from ChicagoCrimeData where PRIMARY\_TYPE='KIDNAPPING' and DESCRIPTION like '%CHILD%'

Problem 5: What kind of crimes were recorded at schools?

select PRIMARY\_TYPE, LOCATION\_DESCRIPTION from ChicagoCrimeData where LOCATION\_DESCRIPTION like '%SCHOOL%'

Problem 6: List the average safety score for all types of schools.

select ElementaryMiddleorHighSchool, avg(SAFETY\_SCORE) from ChicagoPublicSchools group by ElementaryMiddleorHighSchool

Problem 7: List 5 community areas with highest % of households below poverty line.

select COMMUNITY\_AREA\_NAME, PERCENT\_HOUSEHOLDS\_BELOW\_POVERTY from ChicagoCensusData order by PERCENT\_HOUSEHOLDS\_BELOW\_POVERTY desc limit 5;

Problem 8: Which community area(number) is most crime prone?

SELECT COMMUNITY\_AREA\_NUMBER ,COUNT(COMMUNITY\_AREA\_NUMBER) AS FREQUENCY

FROM ChicagoCrimeData

GROUP BY COMMUNITY\_AREA\_NUMBER

ORDER BY COUNT(COMMUNITY\_AREA\_NUMBER) DESC

LIMIT 1;

Problem 9: Use a sub-query to find the name of the community area with highest hardship index.

select COMMUNITY\_AREA\_NAME, HARDSHIP\_INDEX from ChicagoCensusData where HARDSHIP\_INDEX in (select max(HARDSHIP\_INDEX) from ChicagoCensusData);

Problem 10: Use a sub-query to determine the Community Area Name with most number of crimes?

SELECT COMMUNITY\_AREA\_NAME FROM ChicagoCensusData

WHERE COMMUNITY\_AREA\_NUMBER = (SELECT COMMUNITY\_AREA\_NUMBER FROM ChicagoCrimeData

GROUP BY COMMUNITY\_AREA\_NUMBER

ORDER BY COUNT(COMMUNITY\_AREA\_NUMBER) DESC

LIMIT 1)

LIMIT 1;

Problem 11: How many Elementary Schools are in the dataset?

select count(ElementaryMiddleorHighSchool) from ChicagoPublicSchools where ElementaryMiddleorHighSchool='ES'

Problem 12:Display total number of elementary, middle and high school ( each category) from Chicago\_public\_Schools

select ElementaryMiddleorHighSchool,count(ElementaryMiddleorHighSchool) from ChicagoPublicSchools GROUP by ElementaryMiddleorHighSchool

Problem 13: What is the highest Safety Score?

SELECT max(SAFETY\_SCORE) from ChicagoPublicSchools;

Problem 14: Which schools have the highest Safety Score?

select School\_ID, NAME\_OF\_SCHOOL, SAFETY\_SCORE from ChicagoPublicSchools where SAFETY\_SCORE=(select max(SAFETY\_SCORE) from ChicagoPublicSchools);

Problem 15:Remove the '%' sign for Average Student Attendance column.

select replace(AVERAGE\_STUDENT\_ATTENDANCE,"%", '') from ChicagoPublicSchools

Problem 16: Which Schools have Average Student Attendance lower than 70%?

select NAME\_OF\_SCHOOL, AVERAGE\_STUDENT\_ATTENDANCE from ChicagoPublicSchools where cast(AVERAGE\_STUDENT\_ATTENDANCE as INT)<70;

Problem 17: Get the total College Enrollment for each Community Area.

SELECT COMMUNITY\_AREA\_NUMBER, sum(COLLEGE\_ENROLLMENT) from ChicagoPublicSchools GROUP by COMMUNITY\_AREA\_NUMBER

Problem 18: Get the 5 Community Areas with the least College Enrollment sorted in ascending order.

SELECT COMMUNITY\_AREA\_NUMBER, sum(COLLEGE\_ENROLLMENT) from ChicagoPublicSchools GROUP by COMMUNITY\_AREA\_NUMBER ORDER by sum(COLLEGE\_ENROLLMENT) ASC limit 5;

Problem 19: Display ZIPCodes from Chicago\_Schools which are having more than 5 schools.

select ZIP\_Code, count(School\_ID) FROM ChicagoPublicSchools GROUP by ZIP\_Code HAVING count(School\_ID)>5;

Problem 20: Get the hardship index for the community area which has the school with the highest enrollment

select cp.COMMUNITY\_AREA\_NAME,cc.HARDSHIP\_INDEX, cp.COLLEGE\_ENROLLMENT from ChicagoPublicSchools cp INNER join ChicagoCensusData cc on cp.COMMUNITY\_AREA\_NUMBER=cc.COMMUNITY\_AREA\_NUMBER

where COLLEGE\_ENROLLMENT IN(select max(COLLEGE\_ENROLLMENT) from ChicagoPublicSchools);

Problem 21: Display the type of crimes with less than 10 reported crimes for each category

select PRIMARY\_TYPE, count(ID) from ChicagoCrimeData GROUP by PRIMARY\_TYPE having count(ID)<10;

Problem 22 : Display the top 20 least reported types of crime

select PRIMARY\_TYPE from ChicagoCrimeData GROUP by PRIMARY\_TYPE ORDER by ID ASC LIMIT 20

Problem 23: How many schools are there in each community, and could you list the names of community areas and total per capita income where the number of schools exceeds 20?

Select cp.COMMUNITY\_AREA\_NAME, sum(PER\_CAPITA\_INCOME), count(School\_ID)

from ChicagoPublicSchools cp

INNER JOIN

ChicagoCensusData cd

on cp.COMMUNITY\_AREA\_NUMBER=cd.COMMUNITY\_AREA\_NUMBER

group by cp.COMMUNITY\_AREA\_NAME

having count(School\_ID)>20