1. Show the schools full name which exist in “Bronzeville” Geographic

Area?

SELECT full\_name

From schools

WHERE cps\_unit in (SELECT cps\_unit

FROM address JOIN geographic\_area USING(geographic\_area\_number)

WHERE geographic\_area\_name = "Bronzeville");

\_or\_

select schools.full\_name

from schools inner join address on

schools.cps\_unit = address.cps\_unit inner join geographic\_area on address.geographic\_area\_number = geographic\_area.geographic\_area\_number

where geographic\_area.geographic\_area\_name ="Bronzeville";

1. Show the ES schools in “Logan square” community area?

SELECT full\_name

FROM schools JOIN school\_category

WHERE schools.school\_category\_id = school\_category.id

AND school\_category.name = "ES" AND cps\_unit IN (SELECT cps\_unit

FROM address JOIN community USING(community\_area\_number)

WHERE community\_area\_name = "Logan square");

\_or\_

select schools.full\_name

from schools inner join address on

schools.cps\_unit = address.cps\_unit inner join community on address.community\_area\_number = community.community\_area\_number

where community\_area\_name ="Logan square" and school\_category\_id in (

select id

from school\_category

where school\_category.name="ES");

1. Show the HS schools which has a contract type?

SELECT full\_name

FROM schools JOIN school\_category

JOIN school\_type

WHERE schools.school\_category\_id = school\_category.id

AND schools.school\_type\_id = school\_type.id

AND school\_category.name = "HS"

AND school\_type\_name = "contract";

\_or\_

select full\_name

from school\_category inner join schools on school\_category.id = schools.school\_category\_id inner join school\_type on schools.school\_type\_id = school\_type.id

where school\_type\_name = "contract" and school\_category.name="HS";

1. Show the schools which have PK-8th attending grades and Early\_Childhood\_Program in 2th US Congressional District?

SELECT full\_name

FROM schools JOIN grades USING(cps\_unit)

WHERE grades.from = "PK"

AND grades.upto = "8th"

AND cps\_unit IN (SELECT cps\_unit

FROM school\_program\_type JOIN schools USING(cps\_unit)

JOIN program\_types

WHERE school\_program\_type.program\_types\_id = program\_types.id

AND program\_types.name = "Early\_Childhood\_Program"

AND cps\_unit IN (SELECT cps\_unit

FROM schools JOIN address USING(cps\_unit)

WHERE us\_congressional\_district = 2));

\_or\_

select full\_name

from schools

inner join grades on schools.cps\_unit = grades.cps\_unit

inner join school\_program\_type on schools.cps\_unit = school\_program\_type.cps\_unit

inner join program\_types on school\_program\_type.program\_types\_id = program\_types.id

inner join address on schools.cps\_unit = address.cps\_unit

where grades.from ="PK" and grades.upto ="8th"

and program\_types.name ="Early\_Childhood\_Program"

and us\_congressional\_district=2;

1. Show the community area that has the most schools in it?

SELECT community\_area\_name, COUNT(\*) AS count

FROM address JOIN community USING(community\_area\_number)

GROUP BY community\_area\_name

ORDER BY count DESC

LIMIT 1;

\_or\_

select community.community\_area\_name,count(schools.full\_name)

from schools inner join address on schools.cps\_unit = address.cps\_unit

inner join community on address.community\_area\_number = community.community\_area\_number

group by address.community\_area\_number

order by count(schools.full\_name) desc

limit 1;

1. Show the community area that has the least schools in it?

SELECT community\_area\_name, COUNT(\*) AS count

FROM address JOIN community USING(community\_area\_number)

GROUP BY community\_area\_name

ORDER BY count

LIMIT 3;

\_or\_

select community.community\_area\_name,count(schools.full\_name) as count\_of\_schools

from schools inner join address on schools.cps\_unit = address.cps\_unit

inner join community on address.community\_area\_number = community.community\_area\_number

group by address.community\_area\_number

order by count\_of\_schools asc

limit 3;

1. Show the average number of schools according to geographic area?

SELECT ROUND(AVG(counts)) AS average

FROM (

SELECT COUNT(\*) AS counts

FROM address JOIN geographic\_area USING(geographic\_area\_number)

GROUP BY geographic\_area\_name) AS counts;

1. Show all the ES schools, community area west town and located in ward 1?

SELECT full\_name

FROM schools JOIN school\_category

ON schools.school\_category\_id = school\_category.id

WHERE school\_category.name = "ES"

AND cps\_unit IN (SELECT cps\_unit

FROM address JOIN schools USING(cps\_unit)

JOIN community USING(community\_area\_number)

WHERE community\_area\_name = "west town"

AND ward = 1);

1. Which school has the most programs?

SELECT full\_name

FROM schools JOIN

(

SELECT cps\_unit, count(cps\_unit) counts

FROM schools JOIN school\_program\_type USING(cps\_unit)

ORDER BY counts DESC

LIMIT 1) AS NEWTABLE USING(cps\_unit);

1. What is the popular program in schools?

SELECT \*

FROM program\_types JOIN

(SELECT program\_types\_id AS id, count(program\_types\_id) counts

FROM school\_program\_type JOIN schools USING(cps\_unit)

GROUP BY program\_types\_id) AS program\_type\_count USING(id)

ORDER BY counts DESC;

**VIEW:**

CREATE VIEW schools\_per\_geogrphic\_area AS

SELECT geographic\_area\_name, COUNT(\*) AS counts

FROM address JOIN geographic\_area USING(geographic\_area\_number)

GROUP BY geographic\_area\_name

ORDER BY counts DESC;

**STORED PROCEDURES:**

CREATE DEFINER=`root`@`localhost` PROCEDURE `SchoolsForGivenCategory`(IN category CHAR(2))

BEGIN

SELECT full\_name

FROM schools JOIN school\_category ON school\_category\_id = id

WHERE name = category

ORDER BY full\_name;

END

CALL SchoolsForGivenCategory('MS');

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CREATE DEFINER=`root`@`localhost` PROCEDURE `GovernanceForGivenCPSunit `(IN cps SMALLINT, OUT governance\_type VARCHAR(15))

BEGIN

SELECT name INTO governance\_type

FROM schools JOIN governance ON governance\_id = id

WHERE cps\_unit=cps;

END

CALL GovernanceForGivenCPSunit(1105, @governanceType);

SELECT @governanceType;

CREATE DEFINER=`root`@`localhost` PROCEDURE ` school\_with\_most\_programs`(OUT schoolName VARCHAR(100))

BEGIN

SELECT full\_name INTO schoolName

FROM schools JOIN

(

SELECT cps\_unit, count(cps\_unit) counts

FROM schools JOIN school\_program\_type USING(cps\_unit)

ORDER BY counts DESC

LIMIT 1) AS NEWTABLE USING(cps\_unit);

END

CALL school\_with\_most\_programs(@schoolName);

SELECT @schoolName;