1) Query all columns for all American cities in the CITY table with populations larger than 100000. The CountryCode for America is USA.

   select * from city

   where population > 100000 and Countrycode= 'USA';

2) Query the NAME field for all American cities in the CITY table with populations larger than 120000. The CountryCode for America is USA.

   SELECT NAME FROM CITY

   WHERE population > 120000 AND CountryCode = 'USA';

3) Query all attributes of every Japanese city in the CITY table. The COUNTRYCODE for Japan is JPN.

   SELECT * FROM CITY

   WHERE COUNTRYCODE= 'JPN';

4) Query the names of all the Japanese cities in the CITY table. The COUNTRYCODE for Japan is JPN.

   SELECT NAME FROM CITY

   WHERE COUNTRYCODE ='JPN';

5) Query a list of CITY and STATE from the STATION table.

   SELECT CITY, STATE FROM Station;

6) Query a list of CITY names from STATION for cities that have an even ID number. Print the results in any order, but exclude duplicates from the answer.

   SELECT DISTINCT CITY FROM STATION

   WHERE ID %2= 0;

7) Find the difference between the total number of CITY entries in the table and the number of distinct CITY entries in the table.

   SELECT COUNT(CITY)- COUNT (DISTINCT CITY) FROM STATION;

8) Query the two cities in STATION with the shortest and longest CITY names, as well as their respective lengths (i.e.: number of characters in the name). If there is more than one smallest or largest city, choose the one that comes first when ordered alphabetically.

Select city, Length(city) AS Name_length

from Station

order by Name_length, city Limit 1;

Select city, Length(city) AS Name_length

from Station

order by Name_length DESC, city Limit 1;

9) Query the list of CITY names starting with vowels (i.e., a, e, i, o, or u) from STATION. Your result cannot contain duplicates.

Select Distinct city from Station

where city REGEXP '^[aeiouAEIOU]';

10) Query the list of CITY names ending with vowels (a, e, i, o, u) from STATION. Your result cannot contain duplicates.

Select Distinct CITY FROM Station

where Right (city,1) IN ('a','e','i','o','u');

11) Query the list of CITY names from STATION which have vowels (i.e., a, e, i, o, and u) as both their first and last characters. Your result cannot contain duplicates.

select distinct city from station

where Right(city,1) IN ('a','e','i','o','u') AND

Left(city,1) IN ('a','e','i','o','u');

12) Query the list of CITY names from STATION that do not start with vowels. Your result cannot contain duplicates.

SELECT DISTINCT CITY

FROM STATION

WHERE LOWER (SUBSTRING (CITY, 1, 1)) NOT IN ('a', 'e', 'i', 'o', 'u');

Or

SELECT DISTINCT(CITY)

FROM STATION

WHERE CITY NOT LIKE '%A' AND CITY NOT LIKE 'E%' AND CITY NOT LIKE 'I%' AND CITY NOT LIKE 'O%' AND CITY NOT LIKE 'U%'

13) Query the list of CITY names from STATION that do not end with vowels. Your result cannot contain duplicates.

SELECT DISTINCT(CITY)

FROM STATION

WHERE CITY NOT LIKE '%A' AND CITY NOT LIKE '%E' AND CITY NOT LIKE '%I'

AND CITY NOT LIKE '%O' AND CITY NOT LIKE '%U'

OR

SELECT DISTINCT CITY

FROM STATION

WHERE LOWER (SUBSTRING (CITY, -1, 1)) NOT IN ('a', 'e', 'i', 'o', 'u');

14) Query the list of CITY names from STATION that either do not start with vowels or do not end with vowels. Your result cannot contain duplicates.

SELECT DISTINCT CITY

FROM STATION

WHERE LOWER(SUBSTRING(CITY, 1, 1)) NOT IN ('a', 'e', 'i', 'o', 'u')

OR LOWER(SUBSTRING(CITY, -1, 1)) NOT IN ('a', 'e', 'i', 'o', 'u');

SELECT DISTINCT(CITY)

FROM STATION

WHERE (CITY NOT LIKE 'A%' AND CITY NOT LIKE 'E%' AND CITY NOT LIKE 'I%' AND CITY NOT LIKE 'O%' AND CITY NOT LIKE 'U%')

OR (CITY NOT LIKE '%A' AND CITY NOT LIKE '%E' AND CITY NOT LIKE '%I' AND CITY NOT LIKE '%O' AND CITY NOT LIKE '%U')