/\*

Enter your query here and follow these instructions:

1. Please append a semicolon ";" at the end of the query and enter your query in a single line to avoid error.

2. The AS keyword causes errors, so follow this convention: "Select t.Field From table1 t" instead of "select t.Field From table1 AS t"

3. Type your code immediately after comment. Don't leave any blank line.

\*/

/\*SELECT DISTINCT(CITY) FROM STATION WHERE CITY LIKE ''\*/

/\*SELECT DISTINCT CITY FROM STATION WHERE LOWER(SUBSTR(city,1,1)) IN ('a','e','i','o','u');\*/

/\*SELECT DISTINCT CITY FROM STATION WHERE CITY LIKE '^[aeiouAEIOU]';\*/

/\*SELECT DISTINCT CITY FROM STATION WHERE CITY LIKE 'A%' OR CITY LIKE 'E%' OR CITY LIKE 'I%' OR CITY LIKE 'O%' OR CITY LIKE 'U%';\*/

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

**Input Format**

The **STATION** table is described as follows:

Table

Description automatically generated

where LAT\_N is the northern latitude and LONG\_W is the western longitude.

**SQL Interview — 1**

**HackerRank Questions**

**Problem 1 :**

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.

**Input Format**

The **STATION** table is described as follows:

Table

Description automatically generated

where LAT\_N is the northern latitude and LONG\_W is the western longitude.

**Sample Input**

Let’s say that CITY only has four entries: DEF, ABC, PQRS and WXY

**Sample Output**

ABC 3  
PQRS 4

**Explanation**

When ordered alphabetically, the CITY names are listed as ABC, DEF, PQRS, and WXY, with the respective lengths and . The longest-named city is obviously PQRS, but there are options for shortest-named city; we choose ABC, because it comes first alphabetically.

**Note**   
**You can write two separate queries to get the desired output. It need not be a single query.**

Declare @Small INT  
Declare @Large INT  
SELECT @Small = MIN(LEN(CITY)) FROM STATION  
SELECT @Large = MAX(LEN(CITY)) FROM STATION  
SELECT TOP 1 CITY AS SmallestCityName,LEN(CITY) AS Minimumlength FROM STATION WHERE LEN(CITY) = @Small ORDER BY CITY ASC  
SELECT TOP 1 CITY AS LargestCityName,LEN(CITY) AS MaximumLength FROM STATION WHERE LEN(CITY) = @Large ORDER BY CITY ASC

**Problem 2 :**

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 SUBSTRING(CITY,1,1) in('A','E','I','O','U');

**Problem 3 :**

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 SUBSTRING(REVERSE(CITY),1,1) in('A','E','I','O','U');

**Problem 4 :**

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 SUBSTRING(CITY,1,1) in('A','E','I','O','U') AND SUBSTRING(REVERSE(CITY),1,1) in('A','E','I','O','U');

**Problem 5 :**

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 SUBSTRING(CITY,1,1) NOT IN ('A','E','I','O','U')

**Problem 6 :**

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 SUBSTRING(CITY,1,1) NOT in('A','E','I','O','U') OR SUBSTRING(REVERSE(CITY),1,1) NOT in('A','E','I','O','U');

**Problem 7 :**

Let N be the number of CITY entries in **STATION**, and let N’ be the number of distinct CITY names in **STATION**; query the value of N-N’ from **STATION**. In other words, 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



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Feb 22, 2019

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3 min read

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# SQL Interview — 2

HackerRank Questions

## Problem 1:

Query the Name of any student in **STUDENTS** who scored higher than Marks. Order your output by the last three charactersof each name. If two or more students both have names ending in the same last three characters (i.e.: Bobby, Robby, etc.), secondary sort them by ascending ID.

**Input Format**

The **STUDENTS** table is described as follows:

Table

Description automatically generated

The Name column only contains uppercase (A-Z) and lowercase (a-z) letters.

**Sample Input**

Table

Description automatically generated

**Sample Output**

Ashley  
Julia  
Belvet

**Explanation**

Only Ashley, Julia, and Belvet have Marks > . If you look at the last three characters of each of their names, there are no duplicates and ‘ley’ < ‘lia’ < ‘vet’.

SELECT NAME FROM STUDENTS WHERE MARKS > 75 ORDER BY RIGHT(NAME, 3), ID ASC;

## Problem 2 :

Given the **CITY** and **COUNTRY** tables, query the names of all the continents (COUNTRY.Continent) and their respective average city populations (CITY.Population) rounded down to the nearest integer.

**Note:** CITY.CountryCode and COUNTRY.Code are matching key columns.

**Input Format**

The **CITY** and **COUNTRY** tables are described as follows:

Table

Description automatically generated

Table

Description automatically generated

SELECT Country.Continent, FLOOR(AVG(City.Population))  
FROM Country, City   
WHERE Country.Code = City.CountryCode   
GROUP BY Country.Continent ;

## Problem 3 :

## [SQL Notes: Hackerrank The Report - Memogrocery](https://nifannn.github.io/2017/10/24/SQL-Notes-Hackerrank-The-Report/" \t "_blank)

### [Ketty gives Eve a task to generate a report containing three columns: Name, Grade and Mark. Ketty doesn't want the…](https://nifannn.github.io/2017/10/24/SQL-Notes-Hackerrank-The-Report/" \t "_blank)

[nifannn.github.io](https://nifannn.github.io/2017/10/24/SQL-Notes-Hackerrank-The-Report/" \t "_blank)

**Çözüm Yolu 1 :**

SELECT IIF(G.GRADE<8, NULL, S.NAME),G.GRADE, S.MARKS FROM STUDENTS AS S JOIN GRADES AS G ON S.MARKS BETWEEN G.MIN\_MARK AND G.MAX\_MARK ORDER BY G.GRADE DESC, S.NAME,S.MARKS

Not : IF değil IFF kullanımına dikkat!

**Çözüm Yolu 2:**

select (case when G.GRADE<8 then NULL else S.NAME end),G.GRADE, S.MARKS FROM STUDENTS AS S JOIN GRADES AS G ON S.MARKS BETWEEN G.MIN\_MARK AND G.MAX\_MARK ORDER BY G.GRADE DESC, S.NAME,S.MARKS

## Problem 4 :

## [Top Competitors | HackerRank](https://www.hackerrank.com/challenges/full-score/problem" \t "_blank)

### [Query a list of top-scoring hackers.](https://www.hackerrank.com/challenges/full-score/problem" \t "_blank)

[www.hackerrank.com](https://www.hackerrank.com/challenges/full-score/problem" \t "_blank)

select S.hacker\_id, H.name  
from Submissions S  
inner join Challenges C on C.challenge\_id=S.challenge\_id  
inner join Difficulty D on D.difficulty\_level = C.difficulty\_level and D.score = S.score  
inner join Hackers H on S.hacker\_id = H.hacker\_id   
group by S.hacker\_id, H.name  
having count(S.score) > 1  
order by count(S.score) desc, S.hacker\_id

<https://github.com/shivkrthakur/HackerRankSolutions/tree/master/Practice/AllDomains/SpecializedSkills/SQL/MSSQL> →

## [Weather Observation Station 6](https://www.hackerrank.com/challenges/weather-observation-station-6/problem)

### Problem

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

### Solution

SELECT DISTINCT CITY

FROM STATION

WHERE CITY REGEXP '^[AEIOU]'

SELECT DISTINCT CITY

FROM STATION

WHERE CITY RLIKE '^[AEIOU].\*'

## [Weather Observation Station 7](https://www.hackerrank.com/challenges/weather-observation-station-7/problem)

### Problem

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

### Solution

SELECT DISTINCT CITY

FROM STATION

WHERE CITY RLIKE '[aeiou]$'

SELECT DISTINCT CITY

FROM STATION

WHERE CITY REGEXP '.\*[aeiou]$'

## [Weather Observation Station 8](https://www.hackerrank.com/challenges/weather-observation-station-8/problem)

### Problem

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.

### Solution

SELECT DISTINCT CITY

FROM STATION

WHERE CITY REGEXP '^[AEIOU]' AND CITY RLIKE '[AEIOU]$'

SELECT DISTINCT CITY

FROM STATION

WHERE CITY REGEXP '^[AEIOU].\*[aeiou]$'

## [Weather Observation Station 9](https://www.hackerrank.com/challenges/weather-observation-station-9/problem)

### Problem

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

### Solution

SELECT DISTINCT CITY

FROM STATION

WHERE NOT CITY REGEXP '^[AEIOU]'

SELECT DISTINCT CITY

FROM STATION

WHERE CITY NOT REGEXP '^[AEIOU].\*'

## [Weather Observation Station 10](https://www.hackerrank.com/challenges/weather-observation-station-10/problem)

### Problem

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

### Solution

SELECT DISTINCT CITY

FROM STATION

WHERE CITY NOT REGEXP '[aeiou]$'

## [Weather Observation Station 11](https://www.hackerrank.com/challenges/weather-observation-station-11/problem)

### Problem

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.

### Solution

SELECT DISTINCT CITY

FROM STATION

WHERE CITY NOT RLIKE '^[aeiou]'

OR CITY NOT REGEXP '[aeiou]$'

## [Weather Observation Station 12](https://www.hackerrank.com/challenges/weather-observation-station-12/problem)

### Problem

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

### Solution

SELECT DISTINCT CITY

FROM STATION

WHERE CITY NOT REGEXP '^[aeiou]'

AND CITY NOT REGEXP '[aeiou]$'

**SQL Query to Check If a Name Begins and Ends With a Vowel**

In this article, we will see an SQL query to check if a name begins and ends with a vowel and we will implement it with the help of an example for better understanding, first of all, we will create a database Name of the Database will GeeksforGeeks. and inside the database, we will create a table name As “Student”.

Here we use two different methods for this.

**Syntax:**

FOR LEFT():

LEFT ( expression, no\_of\_chars needed to the left)

FOR RIGHT():

RIGHT ( expression, no\_of\_chars needed to the right)

# 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 city REGEXP '[aeiou]$';

SELECT distinct CITY from STATION WHERE lower(substr(city,length(city),length(city))) in('a','e','i','o','u')

select distinct(CITY) from STATION where CITY like '%[aeiou]' ;

SELECT CITY FROM STATION WHERE RIGHT(CITY,1) IN ('a', 'e', 'i', 'o', 'u') Example : If you want to 3. character ; SELECT CITY FROM STATION WHERE RIGHT(LEFT(CITY,3),1) IN ('a', 'e', 'i', 'o', 'u') you can get what you want by changing this script :)

SELECT DISTINCT city FROM station WHERE city LIKE '%A' or city LIKE '%E' or city LIKE '%I' or city LIKE '%O' or city LIKE '%U';

select distinct CITY from STATION where CITY not REGEXP'[aeiouAEIOU]$';

For MySQL as well as Oracle: If we want to print the city name which starts with vowels(a,e,i,o,u) then we can use the query which is given below...... SQL>select city from STATION where city LIKE 'a/A %' OR city LIKE 'e/E %' OR city LIKE 'i/I %' OR city LIKE 'o/O %' OR city LIKE 'u/U %'; Here we can write either lowercase or uppercase letter and we can get our desired output. And If we want to print the city name which ends with vowels(a,e,i,o,u) then we can use the query which is given below...... SQL>select distinct city from STATION where city LIKE '% a/A' OR city LIKE '% e/E' OR city LIKE '% i/I' OR city LIKE '% o/O' OR city LIKE '% u/U';

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select distinct city from station where city RLIKE "[aeiou]$";

try with MySQL solution : select distinct CITY from STATION where substr(CITY, -1, 1) in ('a','e','i','o','u'); Here "distinct" will solve the problem of duplicate value and "substring" function extract substring from string . Substring also contain start & length .

select distinct city from station where city regexp '[aeiouAEIOU]$';

SELECT DISTINCT CITY FROM STATION WHERE CITY REGEXP '[AEIOU]$';

select distinct city from station where city like '%a' or city like '%e' or city like '%i' or city like '%o' or city like '%u'; 1)In my Sql we use '\_%' wild card operator to get output ending with the character you want.