Revising the Select Query I

Query all columns for all American cities in **CITY** with populations larger than `100000`. The *CountryCode* for America is `USA`.

Input Format

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

CITY

Field	Type
ID	NUMBER
NAME	VARCHAR2(17)
COUNTRYCODE	VARCHAR2(3)
DISTRICT	VARCHAR2(20)
POPULATION	NUMBER

Revising the Select Query II

Query the names of all American cities in **CITY** with populations larger than `120000`. The *CountryCode* for America is `USA`.

Input Format

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

CITY

Field	Type
ID	NUMBER
NAME	VARCHAR2(17)
COUNTRYCODE	VARCHAR2(3)
DISTRICT	VARCHAR2(20)
POPULATION	NUMBER

Select All

Query all columns (attributes) for every row in the **CITY** table.

Input Format

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

CITY

Field	Type
ID	NUMBER
NAME	VARCHAR2(17)
COUNTRYCODE	VARCHAR2(3)
DISTRICT	VARCHAR2(20)
POPULATION	NUMBER

Select By ID

Query all columns for a city in **CITY** with the *ID* `1661`.

Input Format

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

CITY

Field	Type
ID	NUMBER
NAME	VARCHAR2(17)
COUNTRYCODE	VARCHAR2(3)
DISTRICT	VARCHAR2(20)
POPULATION	NUMBER

Japanese Cities' Attributes

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

Input Format

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

CITY

Field	Type
ID	NUMBER
NAME	VARCHAR2(17)
COUNTRYCODE	VARCHAR2(3)
DISTRICT	VARCHAR2(20)
POPULATION	NUMBER

Japanese Cities' Names

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

Input Format

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

CITY

Field	Type
ID	NUMBER
NAME	VARCHAR2(17)
COUNTRYCODE	VARCHAR2(3)
DISTRICT	VARCHAR2(20)
POPULATION	NUMBER

Higher Than 75 Marks

Query the *Name* of any student in **STUDENTS** who scored higher than 75 *Marks*. Order your output by the *last three characters* of 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:

Column	Type
ID	Integer
Name	String
Marks	Integer

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

Sample Input

ID	Name	Marks
1	Ashley	81
2	Samantha	75
4	Julia	76
3	Belvet	84

Sample Output

```
Ashley
Julia
Belvet
```

Explanation

Only Ashley, Julia, and Belvet have *Marks* > 75. If you look at the last three characters of each of their names, there are no duplicates and 'ley' < 'lia' < 'vet'.

Employee Names

Write a query that prints a list of employee names (i.e.: the *name* attribute) from the **Employee** table in alphabetical order.

Input Format

The **Employee** table containing employee data for a company is described as follows:

Column	Type
employee_id	Integer
name	String
months	Integer
salary	Integer

where *employee_id* is an employee's ID number, *name* is their name, *months* is the total number of months they've been working for the company, and *salary* is their monthly salary.

Sample Input

employee_id	name	months	salary
12228	Rose	15	1968
33645	Angela	1	3443
45692	Frank	17	1608
56118	Patrick	7	1345
59725	Lisa	11	2330
74197	Kimberly	16	4372
78454	Bonnie	8	1771
83565	Michael	6	2017
98607	Todd	5	3396
99989	Joe	9	3573

Sample Output

```
Angela
Bonnie
Frank
Joe
Kimberly
Lisa
Michael
Patrick
Rose
Todd
```

Employee Salaries

Write a query that prints a list of employee names (i.e.: the *name* attribute) for employees in **Employee** having a salary greater than $2000 per month who have been employees for less than 10 months. Sort your result by ascending *employee_id*.

Input Format

The **Employee** table containing employee data for a company is described as follows:

Column	Type
employee_id	Integer
name	String
months	Integer
salary	Integer

where *employee_id* is an employee's ID number, *name* is their name, *months* is the total number of months they've been working for the company, and *salary* is the their monthly salary.

Sample Input

employee_id	name	months	salary
12228	Rose	15	1968
33645	Angela	1	3443
45692	Frank	17	1608
56118	Patrick	7	1345
59725	Lisa	11	2330
74197	Kimberly	16	4372
78454	Bonnie	8	1771
83565	Michael	6	2017
98607	Todd	5	3396
99989	Joe	9	3573

Sample Output

```
Angela
Michael
Todd
Joe
```

Explanation

Angela has been an employee for 1 month and earns $3443 per month.

Michael has been an employee for 6 months and earns $2017 per month.

Todd has been an employee for 5 months and earns $3396 per month.

Joe has been an employee for 9 months and earns $\$3573$ per month.

We order our output by ascending *employee_id*.

Weather Observation Station 1

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

Input Format

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

STATION

Field	Type
ID	NUMBER
CITY	VARCHAR2(21)
STATE	VARCHAR2(2)
LAT_N	NUMBER
LONG_W	NUMBER

where *LAT_N* is the northern latitude and *LONG_W* is the western longitude.

Weather Observation Station 3

Query a list of *CITY* names from **STATION** with even *ID* numbers only. You may print the results in any order, but must exclude duplicates from your answer.

Input Format

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

STATION

Field	Type
ID	NUMBER
CITY	VARCHAR2(21)
STATE	VARCHAR2(2)
LAT_N	NUMBER
LONG_W	NUMBER

where *LAT_N* is the northern latitude and *LONG_W* is the western longitude.

Weather Observation Station 4

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.

Input Format

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

STATION

Field	Type
ID	NUMBER
CITY	VARCHAR2(21)
STATE	VARCHAR2(2)
LAT_N	NUMBER
LONG_W	NUMBER

where *LAT_N* is the northern latitude and *LONG_W* is the western longitude.

Weather Observation Station 5

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:

STATION

Field	Type
ID	NUMBER
CITY	VARCHAR2(21)
STATE	VARCHAR2(2)
LAT_N	NUMBER
LONG_W	NUMBER

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 $3, 3, 4,$ and 3. The longest-named city is obviously *PQRS*, but there are 3 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.

Weather Observation Station 6

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:

STATION

Field	Type
ID	NUMBER
CITY	VARCHAR2(21)
STATE	VARCHAR2(2)
LAT_N	NUMBER
LONG_W	NUMBER

where *LAT_N* is the northern latitude and *LONG_W* is the western longitude.

Weather Observation Station 7

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

Input Format

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

STATION

Field	Type
ID	NUMBER
CITY	VARCHAR2(21)
STATE	VARCHAR2(2)
LAT_N	NUMBER
LONG_W	NUMBER

where *LAT_N* is the northern latitude and *LONG_W* is the western longitude.

Weather Observation Station 8

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.

Input Format

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

STATION

Field	Type
ID	NUMBER
CITY	VARCHAR2(21)
STATE	VARCHAR2(2)
LAT_N	NUMBER
LONG_W	NUMBER

where *LAT_N* is the northern latitude and *LONG_W* is the western longitude.

Weather Observation Station 9

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

Input Format

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

STATION

Field	Type
ID	NUMBER
CITY	VARCHAR2(21)
STATE	VARCHAR2(2)
LAT_N	NUMBER
LONG_W	NUMBER

where *LAT_N* is the northern latitude and *LONG_W* is the western longitude.

Weather Observation Station 10

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

Input Format

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

STATION

Field	Type
ID	NUMBER
CITY	VARCHAR2(21)
STATE	VARCHAR2(2)
LAT_N	NUMBER
LONG_W	NUMBER

where *LAT_N* is the northern latitude and *LONG_W* is the western longitude.

Weather Observation Station 11

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.

Input Format

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

STATION

Field	Type
ID	NUMBER
CITY	VARCHAR2(21)
STATE	VARCHAR2(2)
LAT_N	NUMBER
LONG_W	NUMBER

where *LAT_N* is the northern latitude and *LONG_W* is the western longitude.

Weather Observation Station 12

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.

Input Format

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

STATION

Field	Type
ID	NUMBER
CITY	VARCHAR2(21)
STATE	VARCHAR2(2)
LAT_N	NUMBER
LONG_W	NUMBER

where *LAT_N* is the northern latitude and *LONG_W* is the western longitude.