1) Write a query identifying the *type* of each record in the **TRIANGLES** table using its three side lengths. Output one of the following statements for each record in the table:

* **Equilateral**: It's a triangle with  sides of equal length.
* **Isosceles**: It's a triangle with  sides of equal length.
* **Scalene**: It's a triangle with  sides of differing lengths.
* **Not A Triangle**: The given values of *A*, *B*, and *C* don't form a triangle.

**Solution** - select case when A + B > C and B + C > A and A + C > B then

case when A = B AND B = C Then 'Equilateral'

when A = B OR B = C OR A = C THEN 'Isosceles'

else 'Scalene'

END

else 'Not A Triangle'

END

from TRIANGLES;

Graphical user interface, application

Description automatically generated

2) Write a query to print the pattern *P(20)*.

Solution-SELECT REPEAT('\* ', @i := @i - 1) FROM information\_schema.tables, (SELECT @i:=21) t LIMIT 20

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3) solution - SELECT REPEAT('\* ', @i := @i + 1) FROM information\_schema.tables, (SELECT @i:=0) t LIMIT 20Graphical user interface, text, application

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4) solution - select concat(name,concat('(', concat(substr(occupation,1,1),')'))) from occupations order by name;

select concat('There are a total of',concat(' ',concat(count(occupation),concat(' ',concat(lower(occupation),'s.'))))) as total from occupations

group by occupation order by total;

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5) [Pivot](https://en.wikipedia.org/wiki/Pivot_table) the Occupation column in **OCCUPATIONS** so that each Name is sorted alphabetically and displayed underneath its corresponding Occupation. The output column headers should be Doctor, Professor, Singer, and Actor, respectively.

Solution - SELECT

[Doctor], [Professor], [Singer], [Actor]

FROM

(

SELECT ROW\_NUMBER() OVER (PARTITION BY OCCUPATION ORDER BY NAME) [RowNumber], \* FROM OCCUPATIONS

) AS tempTable

PIVOT

(

MAX(NAME) FOR OCCUPATION IN ([Doctor], [Professor], [Singer], [Actor])

) AS pivotTableGraphical user interface, text, application

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