4. SQL: Traffic Audit Report 2

As part of a traffic audit report for one of the ISPs, you need to get a list of clients and their ratio classes, calculated based on hardware ratio of downstream rate to upstream rate.

The result should have the following columns: *ratio_class | ratio | clients*.

- *ratio_class* - text representation of *ratio*:
  - number translated into letter(s) based on the Latin alphabet in upper case:

```
1 translates to A
2 translates to B
..
26 translates to Z
27 translates to ZA

etc
```

- *ratio* - ratio of downstream rate to upstream rate, rounded up to the nearest integer (ceiling).
- *clients* - list of client records for a specific ratio class:
  - Record is a client MAC address

- *clients* - list of client records for a specific ratio class:
  - Record is a client MAC address
  - Records are separated by a comma
  - Records are sorted in ascending order

The result should be sorted in ascending order by *ratio_class*.

▼ Schema

clients		
name	**type**	**description**
mac	VARCHAR(64)	MAC address
upstream_rate	INT	Upstream rate
downstream_rate	INT	Downstream rate

▼ Sample Data Tables

clients		
mac	upstream_rate	downstream_rate
76-0B-63-42-71-10	77650	875
85-DF-FA-92-5A-87	59462	5612
F0-2C-F8-69-D3-2E	34320	8724
87-CD-A8-EC-7D-62	68101	20329
43-15-34-38-D2-11	59068	23421
2D-9D-F5-E4-37-AB	91403	46812
31-20-62-5C-8E-15	82027	47789
93-4F-2D-45-4B-6B	50909	32266
85-F9-B9-0D-1F-36	94480	60484
0B-2C-AA-51-D4-0B	44881	37397
1B-FF-1D-40-68-0C	65418	56896
8A-D3-B9-C0-F8-26	81842	85526

65-6B-B3-B2-68-93	31719	85736
AD-D3-E0-08-31-18	3300	84990
85-54-61-02-FF-7B	1200	31733
1E-22-68-67-9E-96	197	26354

▼ Expected Output

ratio_class	ratio	
A	1	0B-2C-AA-51-D4-0B,1B-FF-1D-40-68-0C,2D-9[
B	2	
C	3	
Z	26	
ZA	27	
ZZZZZD	134	