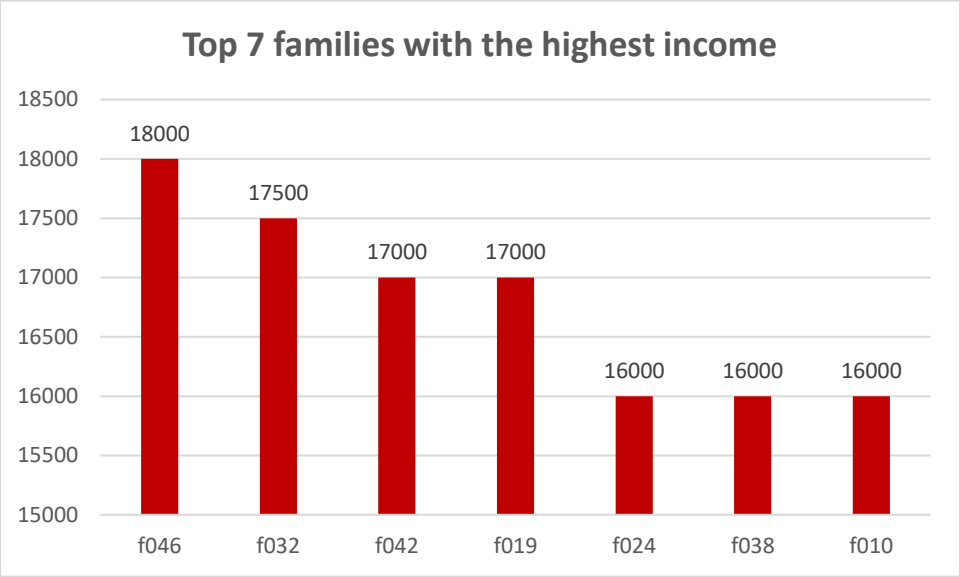
Village Demographic and Economic Analysis

```
mysql> SELECT * FROM village_population;
```

familyid	total_population	Male	Female	literate	illiterate	income_of_family
f001	8	4	4	6	2	10000
f002	6	3	3	4	2	12000
f003	5	2	3	3	2	11000
f004	7	4	3	5	2	15000
f005	4	2	2	3	1	8000
f006	6	3	3	4	2	13000
f007	7	4	3	5	2	14000
f008	5	2	3	3	2	9500
f009	4	1	3	2	2	9000
f010	8	5	3	6	2	16000
f011	6	3	3	4	2	12500
f012	7	4	3	5	2	13500
f013	5	2	3	3	2	10500
f014	6	3	3	4	2	14000
f015	4	2	2	2	2	7500
f016	7	4	3	5	2	15000
f017	5	2	3	3	2	10000
f018	6	3	3	4	2	12000
f019	8	5	3	6	2	17000
f020	7	4	3	5	2	14500
f021	6	3	3	4	2	12500
f022	5	2	3	3	2	9500
f023	4	2	2	2	2	8000
f024	8	4	4	6	2	16000
f025	7	4	3	5	2	15500
f026	6	3	3	4	2	13000
f027	5	2	3	3	2	10000

```
| f028     |               6 |    3 |      3 |        4 |          2 |            14000 |
| f029     |               7 |    4 |      3 |        5 |          2 |            15000 |
| f030     |               5 |    2 |      3 |        3 |          2 |            11000 |
| f031     |               6 |    3 |      3 |        4 |          2 |            13500 |
| f032     |               8 |    5 |      3 |        6 |          2 |            17500 |
| f033     |               7 |    4 |      3 |        5 |          2 |            14500 |
| f034     |               6 |    3 |      3 |        4 |          2 |            12000 |
| f035     |               5 |    2 |      3 |        3 |          2 |             9000 |
| f036     |               6 |    3 |      3 |        4 |          2 |            13000 |
| f037     |               7 |    4 |      3 |        5 |          2 |            14000 |
| f038     |               8 |    5 |      3 |        6 |          2 |            16000 |
| f039     |               5 |    2 |      3 |        3 |          2 |             9500 |
| f040     |               6 |    3 |      3 |        4 |          2 |            12500 |
| f041     |               7 |    4 |      3 |        5 |          2 |            15000 |
| f042     |               8 |    4 |      4 |        6 |          2 |            17000 |
| f043     |               5 |    2 |      3 |        3 |          2 |            10000 |
| f044     |               6 |    3 |      3 |        4 |          2 |            14000 |
| f045     |               7 |    4 |      3 |        5 |          2 |            15500 |
| f046     |               8 |    5 |      3 |        6 |          2 |            18000 |
| f047     |               6 |    3 |      3 |        4 |          2 |            12500 |
| f048     |               7 |    4 |      3 |        5 |          2 |            15000 |
| f049     |               5 |    2 |      3 |        3 |          2 |             9500 |
| f050     |               6 |    3 |      3 |        4 |          2 |            13000 |
+----------+-----------------+------+--------+----------+------------+------------------+
50 rows in set (0.00 sec)

mysql>
mysql> -- Step 3: Perform various analyses
mysql>
mysql> -- 1. Top 7 families with the highest income
mysql>
mysql> SELECT familyid, income_of_family
    -> FROM village_population
```

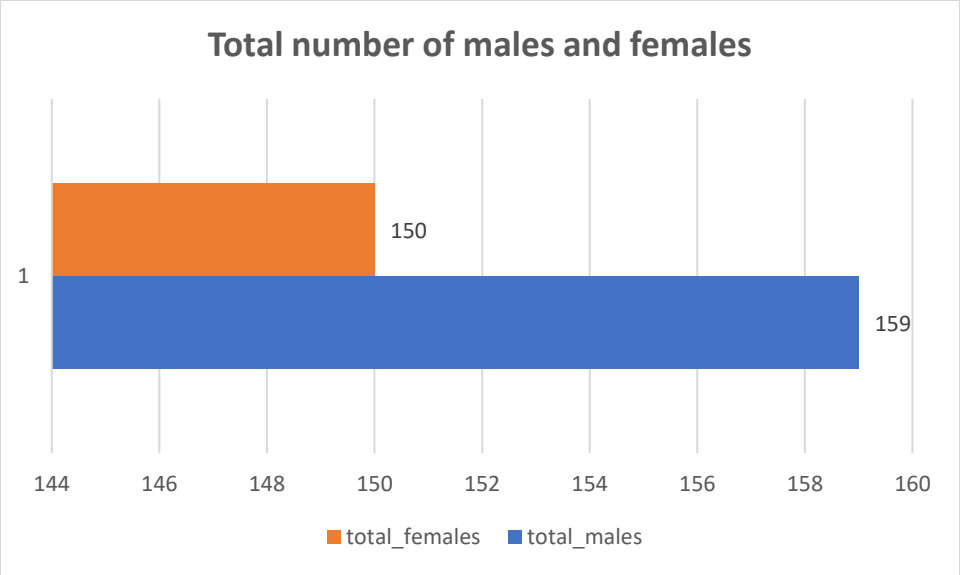
```
    -> ORDER BY income_of_family DESC
    -> LIMIT 7;
+----------+------------------+
| familyid | income_of_family |
+----------+------------------+
| f046     |            18000 |
| f032     |            17500 |
| f042     |            17000 |
| f019     |            17000 |
| f024     |            16000 |
| f038     |            16000 |
| f010     |            16000 |
+----------+------------------+
7 rows in set (0.00 sec)
```




```
mysql>
mysql> -- 2. Average income per family member
mysql> SELECT AVG(income_of_family / total_population) AS
avg_income_per_member
    -> FROM village_population;
```

```
+----------------------+
| avg_income_per_member |
+----------------------+
|         2068.53571429 |
+----------------------+
1 row in set (0.00 sec)

mysql>
mysql> -- 3. Total population
mysql> SELECT SUM(total_population) AS total_population
    -> FROM village_population;
+------------------+
| total_population |
+------------------+
|              309 |
+------------------+
1 row in set (0.00 sec)

mysql>
mysql> -- 4. Total literate persons
mysql> SELECT SUM(literate) AS total_literate
    -> FROM village_population;
+----------------+
| total_literate |
+----------------+
|            210 |
+----------------+
1 row in set (0.00 sec)

mysql>
```

```
mysql> -- 5. Total illiterate persons
mysql> SELECT  SUM(literate) AS total_literate
    -> FROM village_population;
+----------------+
| total_literate |
+----------------+
|            210 |
+----------------+
1 row in set (0.00 sec)

mysql>
mysql> -- 6. Total number of males and females
mysql> SELECT
    ->     SUM(Male) AS total_males,
    ->     SUM(Female) AS total_females
    -> FROM village_population;
+-------------+---------------+
| total_males | total_females |
+-------------+---------------+
|         159 |           150 |
+-------------+---------------+
1 row in set (0.00 sec)
```

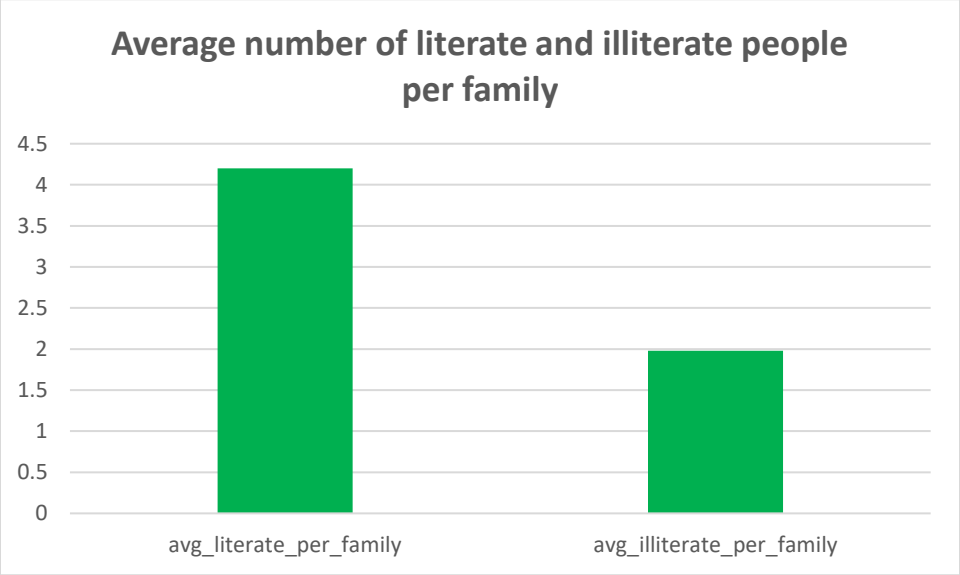



```
mysql>
mysql> -- 7. Percentage of males relative to total population
mysql> SELECT
    ->     (SUM(Male) / SUM(total_population)) * 100 AS percentage_male
    -> FROM village_population;
+-----------------+
| percentage_male |
+-----------------+
|         51.4563 |
+-----------------+
1 row in set (0.00 sec)


mysql>
mysql> -- 8. Percentage of females relative to total population
mysql> SELECT
    ->     (SUM(Female) / SUM(total_population)) * 100 AS
percentage_female
    -> FROM village_population;
+-------------------+
```

```
| percentage_female |
+-------------------+
|           48.5437 |
+-------------------+
1 row in set (0.00 sec)


mysql>
mysql> -- 9. Percentage of literate persons relative to total population
mysql> SELECT
    ->     (SUM(literate) / SUM(total_population)) * 100 AS
percentage_literate
    -> FROM village_population;
+---------------------+
| percentage_literate |
+---------------------+
|             67.9612 |
+---------------------+
1 row in set (0.00 sec)


mysql>
mysql> -- 10. Percentage of illiterate persons relative to total
population
mysql> SELECT
    ->     (SUM(illiterate) / SUM(total_population)) * 100 AS
percentage_illiterate
    -> FROM village_population;
+----------------------+
| percentage_illiterate |
+----------------------+
|               32.0388 |
+----------------------+
```

```
1 row in set (0.00 sec)

mysql>
mysql>
mysql>
mysql> -- 11. Family with the maximum number of members
mysql> SELECT familyid, total_population
    -> FROM village_population
    -> ORDER BY total_population DESC
    -> LIMIT 1;
+----------+------------------+
| familyid | total_population |
+----------+------------------+
| f001     |                8 |
+----------+------------------+
1 row in set (0.00 sec)

mysql>
mysql> -- 12. Family with the minimum number of members
mysql> SELECT familyid, total_population
    -> FROM village_population
    -> ORDER BY total_population ASC
    -> LIMIT 1;
+----------+------------------+
| familyid | total_population |
+----------+------------------+
| f005     |                4 |
+----------+------------------+
1 row in set (0.00 sec)
```

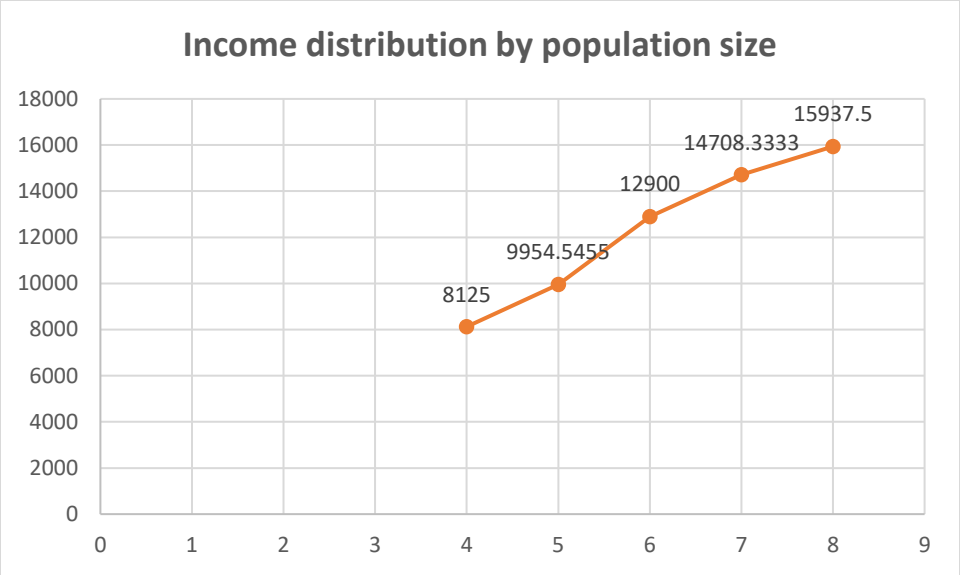
```
mysql>
mysql> -- 13. Average number of literate and illiterate people per
family
mysql> SELECT
    ->     AVG(literate) AS avg_literate_per_family,
    ->     AVG(illiterate) AS avg_illiterate_per_family
    -> FROM village_population;
+-------------------------+---------------------------+
| avg_literate_per_family | avg_illiterate_per_family |
+-------------------------+---------------------------+
|                  4.2000 |                    1.9800 |
+-------------------------+---------------------------+
1 row in set (0.00 sec)
```



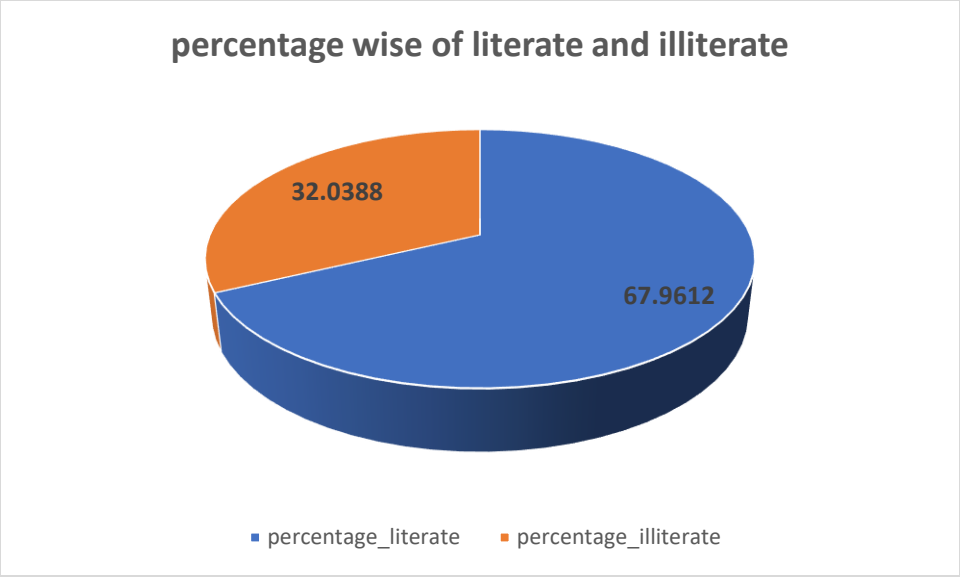

```
mysql>
mysql> -- 14. Families with income above average
mysql> SELECT familyid, income_of_family
    -> FROM village_population
    -> WHERE income_of_family > (SELECT AVG(income_of_family) FROM
village_population);
```

familyid	income_of_family
f004	15000
f006	13000
f007	14000
f010	16000
f012	13500
f014	14000
f016	15000
f019	17000
f020	14500
f024	16000
f025	15500
f026	13000
f028	14000
f029	15000
f031	13500
f032	17500
f033	14500
f036	13000
f037	14000
f038	16000
f041	15000
f042	17000
f044	14000
f045	15500
f046	18000
f048	15000
f050	13000

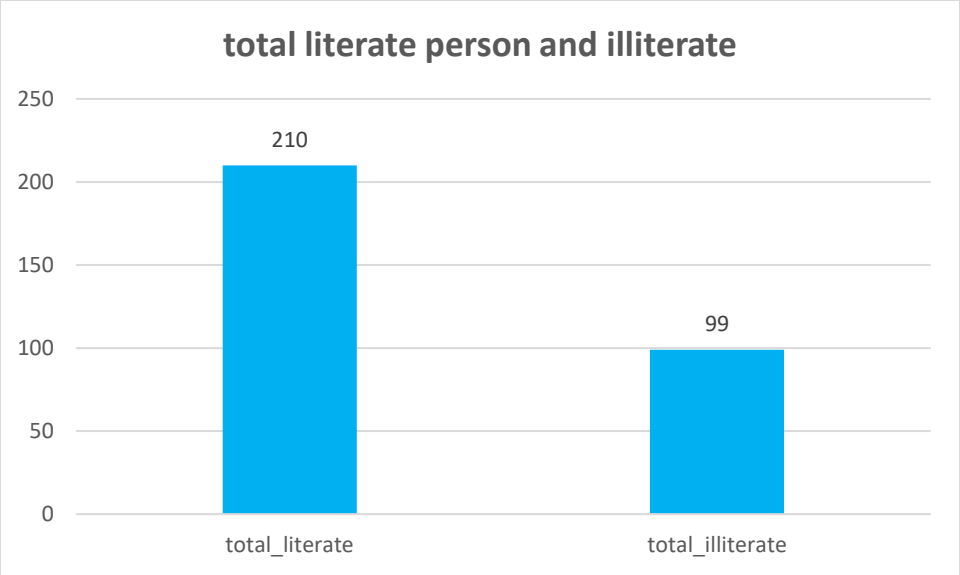
```
+----------+------------------+
27 rows in set (0.00 sec)



mysql>
mysql> -- 15. Income distribution by population size
mysql> SELECT total_population,
    ->        AVG(income_of_family) AS avg_income
    -> FROM village_population
    -> GROUP BY total_population
    -> ORDER BY total_population;
+------------------+------------+
| total_population | avg_income |
+------------------+------------+
|                4 |  8125.0000 |
|                5 |  9954.5455 |
|                6 | 12900.0000 |
|                7 | 14708.3333 |
|                8 | 15937.5000 |
+------------------+------------+
5 rows in set (0.00 sec)
```



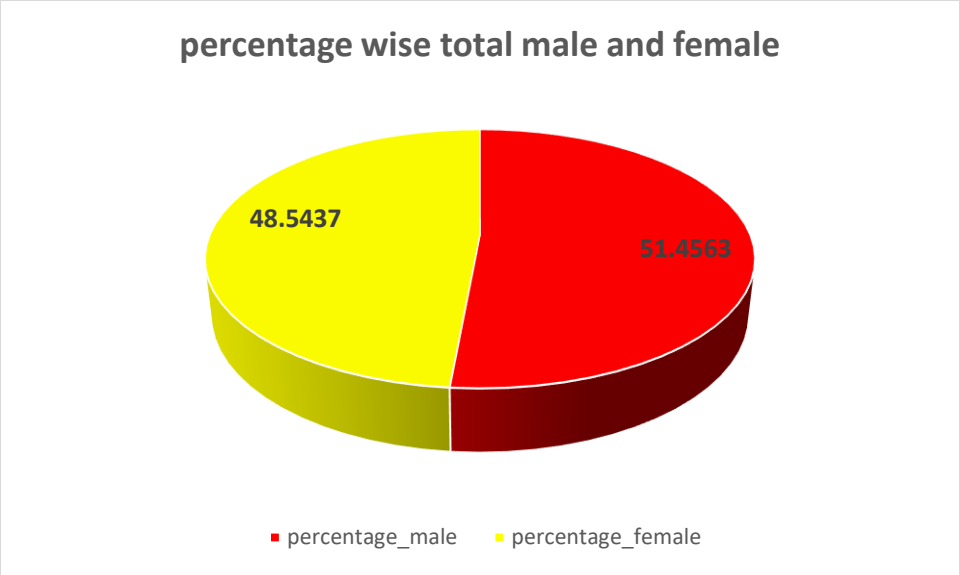

```
mysql>

mysql> -- 16. percentage wise of literate and illiterate

mysql> SELECT

    ->     (SUM(literate) / SUM(total_population)) * 100 AS
percentage_literate, (SUM(illiterate) / SUM(total_population)) * 100 AS
percentage_illiterate

    -> FROM village_population;

+--------------------+----------------------+

| percentage_literate | percentage_illiterate |

+--------------------+----------------------+

|             67.9612 |               32.0388 |

+--------------------+----------------------+

1 row in set (0.00 sec)
```




```
mysql>

mysql> -- 17. total literate person and illiterate

mysql> SELECT  SUM(literate) AS total_literate, SUM(illiterate) AS
total_illiterate

    -> FROM village_population;

+---------------+-----------------+

| total_literate | total_illiterate |

+---------------+-----------------+

|            210 |               99 |

+---------------+-----------------+

1 row in set (0.00 sec)
```




```
mysql>
mysql> -- 18.percentage wise total male and female
mysql> SELECT
    ->     (SUM(Male) / SUM(total_population)) * 100 AS percentage_male,
(SUM(Female) / SUM(total_population)) * 100 AS percentage_female
    -> FROM village_population;
+-----------------+-------------------+
| percentage_male | percentage_female |
+-----------------+-------------------+
|         51.4563 |           48.5437 |
+-----------------+-------------------+
1 row in set (0.00 sec)
```




```
mysql>
mysql>  -- 19.per person income of village
mysql>  SELECT
    ->  (SUM(income_of_family) / SUM(total_population)) AS
Per_person_income ,
    ->  SUM(income_of_family) AS total_income ,SUM(total_population) AS
total_Population
    ->  FROM village_population;
+------------------+--------------+------------------+
| Per_person_income | total_income | total_Population |
+------------------+--------------+------------------+
|         2069.5793 |       639500 |              309 |
+------------------+--------------+------------------+
1 row in set (0.00 sec)
```


```
mysql>
mysql>  -- Query to count the number of families in each income class
mysql> SELECT
    ->     CASE
    ->         WHEN income_of_family < 9000 THEN 'Poverty Class'
    ->         WHEN income_of_family BETWEEN 9000 AND 11000 THEN 'Lower
Middle Class'
    ->         WHEN income_of_family BETWEEN 12000 AND 14000 THEN
'Middle Class'
    ->         WHEN income_of_family BETWEEN 15000 AND 16500 THEN 'Upper
Middle Class'
    ->         WHEN income_of_family BETWEEN 16501 AND 19000 THEN 'Rich
Class'
    ->         ELSE 'Unclassified'
    ->     END AS income_class,
    ->     COUNT(familyid) AS number_of_families
    -> FROM village_population
    -> GROUP BY
    ->     CASE
    ->          WHEN income_of_family < 9000 THEN 'Poverty Class'
```

```
    ->         WHEN income_of_family BETWEEN 9000 AND 11000 THEN 'Lower
Middle Class'
    ->         WHEN income_of_family BETWEEN 12000 AND 14000 THEN
'Middle Class'
    ->         WHEN income_of_family BETWEEN 15000 AND 16500 THEN 'Upper
Middle Class'
    ->         WHEN income_of_family BETWEEN 16501 AND 19000 THEN 'Rich
Class'
    ->         ELSE 'Unclassified'
    ->     END;
+--------------------+--------------------+
| income_class       | number_of_families |
+--------------------+--------------------+
| Lower Middle Class |                 13 |
| Middle Class       |                 18 |
| Upper Middle Class |                 10 |
| Poverty Class      |                  3 |
| Rich Class         |                  4 |
| Unclassified       |                  2 |
+--------------------+--------------------+
6 rows in set (0.00 sec)
```