```
**************************************************************************
                SUM, COUNT, AVG, MAX, MIN, GROUP BY etc…
**************************************************************************
```

1. What is the population of the world? Give a title to the column.

```
Population of the world
-----------------------
6080153149

(1 row(s) affected)
```

2. Which country has the largest population in the whole world? Display its population and its percentage in relation to total population of all countries in the world. Do not display the country's name

```
Largest population    percentage
-------------------- -----------
1261832482            20.75%

(1 row(s) affected)
```

3. Which smallest population of any country in the world? The population must be greater than 50. Display the smallest population and its percentage in compared to the total population of the world. Do not indicate the country name.

```
Smallest population   percentage
-------------------- -----------
54                        0.00%

(1 row(s) affected)
```

4. Display the name of every region.

```
Region
----------------------------------------------
Africa
Antarctic Region
Arctic Region
Asia
Bosnia and Herzegovina, Europe
Central America and the Caribbean
Commonwealth of Independent States
Europe
Middle East
North America
Oceania
South America
South America, Central America and the Caribbean
Southeast Asia
World
(15 row(s) affected)
```

5. What is the average population of all European counties? Give a title to the returned column.

```
Average population
-----------------------
 13.50 Millions
```

(1 row(s) affected)

6. Display the name of each region, and the amount of countries in each region.

```
Region                                             Number of Countries
-------------------------------------------------- --------------
Africa                                             59
Antarctic Region                                   5
Arctic Region                                      4
Asia                                               14
Bosnia and Herzegovina, Europe                     1
Central America and the Caribbean                  31
Commonwealth of Independent States                 11
Europe                                             43
Middle East                                        17
North America                                      5
Oceania                                            34
South America                                      12
South America, Central America and the Caribbean  2
Southeast Asia                                     18
World                                              5

(15 row(s) affected)
```

7. Display the name of each region with countries whose population is greater than 500,000,000 people, and the number of countries who pass this condition for each region respectively.

```
Region          Number of countries
--------------- -------------------
Asia            6
Europe          5
Africa          4
Southeast Asia  4
North America   2
South America   1
Middle East     1

(7 row(s) affected)
```

8. Display the name of each region and its respective population in millions with two significant digits of precision.

```
Region                                                   Population
-------------------------------------------------------- ----------
Asia                                                     2963.03
Africa                                                    793.38
Europe                                                    580.59
Southeast Asia                                            561.43
North America                                             407.26
South America                                             283.28
Middle East                                               180.28
Commonwealth of Independent States                        137.20
Central America and the Caribbean                          73.19
South America, Central America and the Caribbean           63.23
Oceania                                                    30.80
Bosnia and Herzegovina, Europe                              3.84
World                                                       2.30
Arctic Region                                               0.34
Antarctic Region                                            0.00

(15 row(s) affected)
```

9. **Display in the millions the total population and the total GDP of Europe. Give a title to each of the columns.**

```
Population Total  Total GDP
----------------- -----------
580.59 M          9510150 M

(1 row(s) affected)
```

10. **Display in the millions the total population, the total GDP, and the name of each region. Give a title to each column, and sort the result by decreasing GDP.**

```
Region                                           Total Population  Total GDP
------------------------------------------------ ----------------- -----------
Asia                                                      2963.03  11400240.00
North America                                              407.26  10844874.00
Europe                                                     580.59   9510150.00
Southeast Asia                                             561.43   2353950.00
South America                                              283.28   1929040.00
Africa                                                     793.38   1428507.90
Middle East                                                180.28    974879.00
Oceania                                                     30.80    509785.50
South America, Central America and the Caribbean           63.23    427900.00
Commonwealth of Independent States                         137.20    348000.00
Central America and the Caribbean                           73.19    293211.00
World                                                        2.30     16318.00
Arctic Region                                                0.34      7365.00
Bosnia and Herzegovina, Europe                               3.84      6200.00
Antarctic Region                                             0.00         0.00

(15 row(s) affected)
```

11. **Display the total number of regions in the world. Give the column a name.**

```
Number of regions
-----------------
15
```

12. **Display the name, total population, total area, and GDP of each region. Give names to the columns.**

```
Region                                           population    total area   GDP
------------------------------------------------ ------------  ------------ ---------------
Asia                                             2963031109.0  33975255.00  11400240000000
Africa                                           793382933.00  30186470.00   1428507900000
Europe                                           580590831.00   5677526.00   9510150000005
Southeast Asia                                   561430334.00   4532755.00   2353950000000
North America                                    407263424.00  21578082.00  10844874000000
South America                                    283278882.00  15762328.00   1929040000000
Middle East                                      180281538.00   5383484.00    974879000000
Commonwealth of Independent States               137195413.00   5025643.00    348000000000
Central America and the Caribbean                 73193129.00    758673.00    293211000000
South America, Central America and the Carib      63228304.00   2050960.00    427900000000
Oceania                                           30804740.00   8510910.00    509785500000
Bosnia and Herzegovina, Europe                     3835777.00     51129.00      6200000000
World                                              2301645.00      8472.00     16318000000
Arctic Region                                       335090.00   2341022.00      7365000000
Antarctic Region                                         0.00  14012318.00               0

(15 row(s) affected)
```

13.   Display the name and population of each region which exceeds 400,000,000 people. They should be sorted by descending population.

```
Region                   Population
------------------------ ------------
Asia                       2963.03 M
Africa                      793.38 M
Europe                      580.59 M
Southeast Asia              561.43 M
North America               407.26 M

(5 row(s) affected)
```

14.   Display the region name and average population of each region with countries whose total population is greater than 800,000,000 people. Exclude China from the average. Results should be sorted by descending population.

```
Region          Average Population
-------------- ------------------
Asia            130.86
North America   81.45

(2 row(s) affected)
```

15.   Display the the name of each region and average population of countries that make up those regions (in millions). Sort by population in descending order.

```
Region                                                       population
------------------------------------------------------------ ----------
Asia                                                         211.65
North America                                                 81.45
South America, Central America and the Caribbean             31.61
Southeast Asia                                               31.19
South America                                                23.61
Europe                                                       13.50
Africa                                                       13.45
Commonwealth of Independent States                           12.47
Middle East                                                  10.60
Bosnia and Herzegovina, Europe                                3.84
Central America and the Caribbean                             2.36
Oceania                                                       0.91
World                                                         0.46
Arctic Region                                                 0.08
Antarctic Region                                              0.00

                                                             Max
                                                             ======
                                                             211.65


(16 row(s) affected)
```

16.   Display the name, population, area of each country as well
as the total population, the global area and the average
population, all countries combined.

```
name                                               population    area
-------------------------------------------------- ------------- ------------
Afghanistan                                        25838797      652000
Albania                                            3490435       28748
Algeria                                            31193917      2381740
----                                               ----          ----
Zambia                                             9582418       752614
Zimbabwe                                           11342521      390580

                                                   sum
                                                   ========================
                                                     6080153149

                                                                 sum
                                                                 ==================
                                                                 149855027

                                                   avg
                                                   ====================
                                                   23295605.934865
(264 row(s) affected)
```

17.   Display the name, population, area of each country and
total population, total area and average population by region.

```
Region                         pays                           population    area
------------------------------ ------------------------------ ------------- ------------
Africa                         Algeria                        31193917      2381740
Africa                         Zimbabwe                       11342521      390580
...
                                                              Sum
                                                              ======
                                                              793382933
                                                                            Sum
                                                                            =======
                                                                            30186470
                                                              avg
                                                              =====
                                                              13447168.355932
...

Region                         pays                           population    area
------------------------------ ------------------------------ ------------- ------------
World                          British Indian Ocean Territory 0             60
World                          Cape Verde                     401343        4033
World                          Clipperton Island              0             7
World                          Mauritius                      1179368       1860
World                          Reunion                        720934        2512
...
                                                              Sum
                                                              =========
                                                              2301645
                                                                            Sum
                                                                            ======
                                                                            8472
                                                              avg
                                                              ======
                                                              460329.000000


(306 row(s) affected)
```

18.   From the titles table, display the average price per book
   type. With the COMPUTE clause, then display the largest among
   them.

```
type         average type
------------ --------------------
business     13.7300
mod_cook     11.4900
popular_comp 21.4750
psychology   13.5040
trad_cook    15.9633
UNDECIDED    NULL

             max
             ====================
             21.4750


(7 row(s) affected)
Warning: Null value is eliminated by an aggregate or other SET operation.
```

19.   Your client wants a list showing all books in the titles
   table. The records must be sorted alphabetically according to the
   title_id column with the advance payments made for each and the
   price of each book. He also wants to know the average price of a
   book and the total amount of advance payments made for each book.

```
title_id price                advance
-------- -------------------- --------------------
BU1032   19.9900              5000.0000
BU1111   11.9500              5000.0000
BU2075   2.9900               10125.0000
BU7832   19.9900              5000.0000
MC2222   19.9900              .0000
MC3021   2.9900               15000.0000
MC3026   NULL                 NULL
PC1035   22.9500              7000.0000
PC8888   20.0000              8000.0000
PC9999   NULL                 NULL
PS1372   21.5900              7000.0000
PS2091   10.9500              2275.0000
PS2106   7.0000               6000.0000
PS3333   19.9900              2000.0000
PS7777   7.9900               4000.0000
TC3218   20.9500              7000.0000
TC4203   11.9500              4000.0000
TC7777   14.9900              8000.0000

         avg
         ====================
         14.766250
                              sum
                              ====================
                              95400.0000
(19 row(s) affected)
```

19.   Using the sales table, list each sold title with the total
   units sold. Call the total column "Books sold"

Now sort the result by the number of books sold. The best seller in on top.

Now apply a HAVING clause to limit the list to sales over 30 units.

Find and display the grand total of books sold. Use the COMPUTE clause.

```
title_id Book sold
-------- -------------
PS2091   108
PC8888   50
TC3218   40
MC3021   40
BU2075   35

         sum
         ===========
         273
```

(6 row(s) affected)

20.   In the titles table, display only publishers with an identification number greater than 0800 who have been paid more than $ 15,000 in advance payments and whose average book price is less than $ 20 .

```
pub_id Sum of Advances       Average Price
------ -------------------- --------------------
1389   30000.0000            18.9760
0877   41000.0000            15.4100
```