

## DML SQL aggregate functions and subqueries (Chapter 6 DS textbook and Chapter 11 from the Oracle 12c SQL book) SQL exercise Cats/Owners

### Cats

<u>Cat Id</u>	CName	OwnerID	Color	Age
C1	Sunny	Ow1	red	3
C2	Nice	Ow2	black	1
C3	Mycat	Ow2	black	10
C4	Great	Ow3	white	3
C5	Computer	Ow2	red	5
C6	SQL	Ow3	red	10

### Owners

<u>OwnerId</u>	OName	DOB
Ow1	Mila	1999-09-09
Ow2	Kevin	1980-08-09
Ow3	Haytham	1990-07-25

1. What is the AGE of the oldest cat?
2. What is the NAME of the oldest cat?
3. What is the **name of the owner** of the oldest cat?
4. List the Owner ids and the number of cats they own (COUNT).
5. Each owner has at least 1 cat. What is the min, max, and average age of the cats of each owner? List the Owner id and min, max, average (AVG) of cats' ages.
6. List the names of the owners who have more than 1 cat.
7. What is the number of different cat COLORS currently in the database?
8. Find (list the name and age) of the youngest owner.

Oracle 12c Notes:

Group (aggregate functions) in Oracle 12c: **SUM, AVG, COUNT, MAX, MIN**, also **STDDEV, VARIANCE, MEDIAN** (additional statistical see – : this list is beyond our course, but it is good to know about their implementation in Oracle

<https://docs.oracle.com/database/121/SQLRF/functions003.htm#SQLRF20035>

- Syntax: COUNT (\* | [DISTINCT | **ALL**] col)
- Aggregate functions (also called multiple-row and group functions) **Return one result per group of rows processed**
- All group functions ignore NULL values **except COUNT(\*)**
- Use DISTINCT to suppress duplicate values
- The SUM and AVG functions can only be used on values with numeric datatypes
- The COUNT, MIN, and MAX functions can be used on values with numeric, character, and date datatypes