

# COMP23111 - Lab Exercise 4

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## 1 Part 1 - RA Expressions

- I. A.  $\pi_{manager\_id,name}(Manager)$   
 B.  $\pi_{manager\_id,telephone}(ManPhone)$   
 C.  $\pi_{artistic\_name,genre,managed\_by}(Artist)$   
 D.  $\pi_{artistic\_name,date\_first\_performance,real\_name}(SoloArtist)$   
 E.  $\pi_{artistic\_name,date\_formed}(GroupArtist)$   
 F.  $\pi_{sound\_eng\_id,name}(SoundEngineer)$
- II. A.  $\sigma_{artistic\_name='Palmer\ John'}\pi_{manager\_id,name}(SoloArtist)$   
 B.  $\sigma_{artistic\_name='Goldfrat'}\pi_{artistic\_name,date\_formed}(GroupArtist)$   
 C.  $\sigma_{editedBy='MaxSpring'}\pi_{track\_id,working\_title,working\_length,recordedBy,editedBy}(MasterTrack)$   
 D.  $\sigma_{group\_artistic\_name='Goldfrat'}\pi_{solo\_artistic\_name,group\_artistic\_name,date\_joined}(MemberOf)$
- III.  $\sigma_{group\_artistic\_name='Flut'}\pi_{solo\_artistic\_name}(MemberOf)$
- IV. A.  $\tau_{(working\_title,A)}(\pi_{track\_id,working\_title,working\_length,recordedBy,editedBy}(MasterTrack))$   
 B.  $\tau_{(working\_title,D)}(\pi_{track\_id,working\_title,working\_length,recordedBy,editedBy}(MasterTrack))$
- V.  $\tau_{(working\_title,D)}(\sigma_{editedBy='MaxSpring'}\pi_{recordedBy}(MasterTrack))$

## 2 Part 2/3 - SQL queries

```
SQL>
SQL> --1
SQL> COLUMN recordedby FORMAT a15
SQL> COLUMN name FORMAT a13
SQL> COLUMN working_length FORMAT a14
SQL> COLUMN working_title FORMAT a19
SQL>
SQL> SELECT *
  2 FROM MasterTrack mt
  3 JOIN SoundEngineer se ON se.sound_eng_ID = mt.editedBy;
```

TRACK_ID	WORKING_TITLE	WORKING_LENGTH	RECORDEDBY	EDITEDBY	SOUND_ENG_ID	NAME
103	Hello	3 mins	Goldfrat	1	1	Max Spring
104	Me	3 mins 10 secs	Goldfrat	1	1	Max Spring
105	You	3 mins 40 secs	Goldfrat	1	1	Max Spring
106	Them	2 mins	Goldfrat	2	2	Jay Verbal
107	Us	50 secs	Goldfrat	1	1	Max Spring
108	How	7 mins	Goldfrat	4	4	Brix Musta
109	Be	8 mins	Goldfrat	1	1	Max Spring
110	Peace	4 mins	Goldfrat	1	1	Max Spring
111	Smile	2 mins	Goldfrat	1	1	Max Spring
203	Wow	3 mins	Flut	3	3	Carole Hart
204	Whizzy	3 mins 15 secs	Flut	3	3	Carole Hart
205	Who Are You?	3 mins 30 secs	Flut	3	3	Carole Hart
206	Place and Time	5 mins	Flut	4	4	Brix Musta
207	Milko	58 secs	Flut	1	1	Max Spring
208	Mad	1 min	Flut	2	2	Jay Verbal
209	Bling	59 secs	Flut	3	3	Carole Hart
210	J	2 mins 10 secs	Flut	1	1	Max Spring
211	Jan	100 secs	Flut	1	1	Max Spring
301	Power	2 mins	Jay Blancard	3	3	Carole Hart
302	What is your name?	4 mins 15 secs	Jay Blancard	3	3	Carole Hart
303	Mix	3 mins 12 secs	Jay Blancard	3	3	Carole Hart
304	Manic	2 mins	Jay Blancard	2	2	Jay Verbal
305	Streets	30 secs	Jay Blancard	2	2	Jay Verbal
306	Road	1 min 40 secs	Jay Blancard	5	5	Karen Croft
307	Forest	60 secs	Jay Blancard	5	5	Karen Croft
308	Deep	2 mins 40 secs	Jay Blancard	5	5	Karen Croft
309	Danger	110 secs	Jay Blancard	5	5	Karen Croft

27 rows selected.

```
SQL>
SQL> --2
SQL> COLUMN artistic_name FORMAT a16
SQL> COLUMN real_name FORMAT a19
SQL>
SQL> SELECT sa.*
  2 FROM SoloArtist sa
  3 JOIN MemberOf mo ON mo.solo_artistic_name = sa.artistic_name
  4 WHERE mo.group_artistic_name = 'Goldfrat';
```

ARTISTIC_NAME	DATE_FIRS	REAL_NAME
Simon Palm	09-JAN-04	Fred Maynard
John Cliff	12-DEC-05	John Cliff
Jay Blancard	09-JUN-03	Mervin James

SQL>

```

SQL> --3
SQL> COLUMN telephone FORMAT a16
SQL> COLUMN name FORMAT a20
SQL>
SQL> SELECT mp.telephone, m.name
  2 FROM ManPhone mp
  3 LEFT OUTER JOIN Manager m ON m.manager_ID = mp.manager_ID;

TELEPHONE          NAME
-----
07865058978        Freddy Glitter
01612750987        Freddy Glitter
07789039894        Perry Soft
01615679876        Perry Soft
07837287492        Axel Management Inc
01623728473        Axel Management Inc
01789403940        New Talent Corp Inc
09495849869        Manchester Events
01616374847        Manchester Events
01563828248        Manchester Events

10 rows selected.

SQL>
SQL> --4
SQL> SELECT count(1) as Total_Tracks
  2 FROM MasterTrack;

TOTAL_TRACKS
-----
          27

SQL>
SQL> --5
SQL> SELECT a.*
  2 FROM Artist a
  3 JOIN MemberOf mo ON mo.solo_artistic_name = a.artistic_name
  4 WHERE mo.group_artistic_name IN ('Goldfrat','Scandal');

ARTISTIC_NAME      GENRE          MANAGEDBY
-----
JZ                  Techno          4
Jay Blancard        Soul            3
John Cliff          CW              3
Palmer John         Indie           4
Simon Palm          RB              1
Simon Palm          RB              1

6 rows selected.

SQL>
SQL> --6
SQL> SELECT a.artistic_name
  2 FROM Artist a
  3 JOIN MemberOf mo ON mo.solo_artistic_name = a.artistic_name
  4 WHERE mo.group_artistic_name = 'Scandal'
  5 INTERSECT
  6 SELECT a.artistic_name
  7 FROM Artist a
  8 JOIN MemberOf mo ON mo.solo_artistic_name = a.artistic_name
  9 WHERE mo.group_artistic_name = 'Goldfrat';

ARTISTIC_NAME
-----
Simon Palm

SQL>
SQL> --7
SQL> SELECT a.artistic_name
  2 FROM Artist a
  3 JOIN MemberOf mo ON mo.solo_artistic_name = a.artistic_name
  4 WHERE mo.group_artistic_name = 'Goldfrat'
  5 INTERSECT
  6 SELECT a.artistic_name
  7 FROM Artist a
  8 JOIN MemberOf mo ON mo.solo_artistic_name = a.artistic_name
  9 WHERE mo.group_artistic_name != 'Scandal';

ARTISTIC_NAME
-----
Jay Blancard
John Cliff
Simon Palm

SQL>
SQL> --8
SQL> CREATE OR REPLACE VIEW Scandal_Group AS
  2 SELECT a.artistic_name
  3 FROM Artist a
  4 JOIN MemberOf mo ON mo.solo_artistic_name = a.artistic_name
  5 WHERE mo.group_artistic_name = 'Scandal';

View created.

SQL>
SQL> --9
SQL> CREATE OR REPLACE VIEW Goldfrat_Group AS
  2 SELECT a.artistic_name
  3 FROM Artist a
  4 JOIN MemberOf mo ON mo.solo_artistic_name = a.artistic_name
  5 WHERE mo.group_artistic_name = 'Goldfrat';

View created.

SQL>
SQL> --10
SQL> SELECT artistic_name

```

```

2 FROM Goldfrat_Group
3 INTERSECT
4 SELECT artistic_name
5 FROM Scandal_Group;

ARTISTIC_NAME
-----
Simon Palm

SQL>
SQL> --11
SQL> SELECT price
2 FROM Catalogue
3 WHERE stock in (
4         SELECT max(stock) as max_stock
5         FROM Catalogue
6 );

PRICE
-----
10.99

SQL>
SQL> --12
SQL> SELECT buyer_id, name
2 FROM Buyer
3 WHERE buyer_id in (
4         SELECT buyer_id
5         FROM CatOrder
6 );

BUYER_ID NAME
-----
1 Simon Plant
3 Rina Blue

SQL>
SQL> --13
SQL> CREATE OR REPLACE VIEW Album_20_People_In_A_Field AS
2 SELECT ft.released_title,at.sequence
3 FROM AlbumTrack at
4 JOIN FinishedTrack ft on ft.originatesFrom = at.track_id AND ft.version = at.version
5 WHERE at.album_id = '1c'
6 ORDER BY at.sequence;

View created.

SQL>
SQL> --14
SQL> SELECT sequence, released_title
2 FROM Album_20_People_in_a_field;

SEQUENCE RELEASED_TITLE
-----
1 Hello
2 Extended Hello
3 Me
4 You
5 Them
6 Us
7 How
8 Be
9 Peace
10 Smile

10 rows selected.

SQL>
SQL> --Part3
SQL>
SQL> --1
SQL> SELECT ft.released_title,at.sequence
2 FROM AlbumTrack at
3 JOIN FinishedTrack ft on ft.originatesFrom = at.track_id AND ft.version = at.version
4 WHERE at.album_id = '2c'
5 ORDER BY at.sequence;

RELEASED_TITLE SEQUENCE
-----
Wow 1
Whizzy 2
Who Are You? 3
Place and Time 4
Milko 5
Mad 6
Bling 7

7 rows selected.

SQL>
SQL> --2
SQL> UPDATE Catalogue
2 SET stock = stock - 1
3 WHERE release_date = '20-JAN-10' AND album_id = '2v' AND stock>0;

0 rows updated.

SQL>
SQL> UPDATE Catalogue
2 SET stock = stock - 1
3 WHERE release_date = '24-DEC-10' AND album_id = '1t' AND stock>0;

1 row updated.

SQL>
SQL>
SQL> SPOOL OFF

```