SQL Assignment

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1) *Spanish Studies*: studios located in Spain (the word 'Spain' appears in the address).

   Semantic assumption: not needed.

```
SELECT * FROM BDA10.STUDIOS
WHERE ADDRESS LIKE '%Spain%'
FETCH FIRST 15 ROWS ONLY;
```

```
SQL> SELECT * FROM BDA10.STUDIOS WHERE ADDRESS LIKE '%Spain%'
  2  FETCH FIRST 15 ROWS ONLY;

NAME                                               ADDRESS
-------------------------------------------------- ----------------------------------
Crowdy Studios                                     Slope Crowdy, N 51, ES-76270, Spain
```

2) *Fumble singing:* name of Spanish performers (nationality) who do not sing in Spanish (language).

   Semantic assumption: not needed.

```
SELECT NAME FROM BDA10.PERFORMERS
WHERE NATIONALITY = 'Spanish' AND LANGUAGE != 'Spanish'
FETCH FIRST 15 ROWS ONLY;
```

```
SQL> SELECT NAME FROM BDA10.PERFORMERS WHERE NATIONALITY = 'Spanish' AND LANGUAGE != 'Spanish'
  2  FETCH FIRST 15 ROWS ONLY;

NAME
--------------------------------------------------
SetUp Complete
Roger
Iza Due?as
Inaki "Mu?ante" Mu?ante
Gerardo Enrique Mayhua
Pilar Rodriguez
Mario Bezzubikoff
Julia Jimenez
Cruz
Gracia Vargas
Maria Inmaculada "Inmi" Ali

NAME
--------------------------------------------------
Apazi
Quijotes y Sanchos
The Wine Tasters
Elvika

15 filas seleccionadas.
```

3) *Edgar:* how many albums has produced the manager Edgar Poma? (name+f_name)

Semantic assumption: not needed.

```
SELECT COUNT(*) FROM
(SELECT a.TITLE, a.MANAGER, m.NAME, m.F_NAME
FROM  BDA10.ALBUMS  a
INNER JOIN BDA10.MANAGERS  m
ON a.MANAGER = m.MOBIL )
WHERE NAME = 'Edgar' AND F_NAME = 'Poma';
```

```
SQL> SELECT count(*) FROM
  2  (SELECT a.title, a.manager, m.name, m.f_name
  3  FROM  bda10.albums a
  4  INNER JOIN bda10.managers m
  5  ON a.manager = m.mobile)
  6  WHERE NAME = 'Edgar' AND F_NAME = 'Poma'
  7  FETCH FIRST 15 ROWS ONLY;

  COUNT(*)
----------
       229
```

4) *Zeichnung lovers:* e-mail from clients who have never attended a concert by the group "Zeichnung".

Semantic assumption: not needed.

```
SELECT DISTINCT CLIENT FROM BDA10.ATTENDANCES
WHERE CLIENT NOT IN
(SELECT DISTINCT CLIENT FROM BDA10.ATTENDANCES
WHERE PERFORMER = 'Zeichnung' )
FETCH FIRST 15 ROWS ONLY;
```

```
SQL> SELECT DISTINCT CLIENT FROM BDA10.ATTENDANCES
  2  WHERE CLIENT NOT IN
  3  (SELECT DISTINCT CLIENT FROM BDA10.ATTENDANCES
  4  WHERE PERFORMER = 'Zeichnung' )
  5  FETCH FIRST 15 ROWS ONLY;

CLIENT
--------------------------------------------------
ignaciamayo@clients.vinylinc.com
claudica@clients.vinylinc.com
felia@clients.vinylinc.com
eam@clients.vinylinc.com
echaizpedreros@clients.vinylinc.com
eduard@clients.vinylinc.com
palomacruz@clients.vinylinc.com
graffiti@clients.vinylinc.com
victor2@clients.vinylinc.com
castanon@clients.vinylinc.com
olea@clients.vinylinc.com

CLIENT
--------------------------------------------------
larri@clients.vinylinc.com
jacino@clients.vinylinc.com
bpo@clients.vinylinc.com
afti@clients.vinylinc.com

15 filas seleccionadas.
```

5) *Old time New-Age:* name of performers who have among their members someone who plays (role) the 'Percussion' and at least someone else who plays 'Woodwinds'.

Semantic assumption: we are finding the name of performers (bands) who have among their members **at least** one that plays precision and **at least** another that plays woodwinds.

```
SELECT DISTINCT p.BAND FROM
(SELECT BAND FROM BDA10.INVOLVEMENT WHERE ROLE = 'Percussion')  p
INNER JOIN (SELECT BAND FROM BDA10.INVOLVEMENT WHERE ROLE = 'Woodwinds')  w
ON p.BAND = w.BAND
FETCH FIRST 15 ROWS ONLY;
```

```
SQL> SELECT DISTINCT p.BAND FROM
  2  (SELECT BAND FROM BDA10.INVOLVEMENT WHERE ROLE = 'Percussion')  p
  3  INNER JOIN (SELECT BAND FROM BDA10.INVOLVEMENT WHERE ROLE = 'Woodwinds')  w
  4  ON p.BAND = w.BAND
  5  FETCH FIRST 15 ROWS ONLY;

BAND
--------------------------------------------------
Caleidoscopia
Apartaments
Mowgli Went Wild
```

6) *RockStone:* top-5 longest-careers (longer time has passed between their first and last albums) of solo performers (with a 'solist' role member in their composition). Output: name of performer, name of soloist musician and period (in #years).

Semantic assumption: not needed.

```
SELECT BAND, (MAX(TO_DATE(REL_DATE, 'DD/MM/YY')) - MIN(TO_DATE(REL_DATE,
'DD/MM/YY'))) / 365 AS years_active
FROM
(SELECT i.BAND, a.REL_DATE FROM BDA10.INVOLVEMENT i
JOIN BDA10.ALBUMS a
ON i.BAND = a.PERFORMER
WHERE ROLE = 'SOLIST')
GROUP BY BAND
ORDER BY years_active DESC
FETCH FIRST 5 ROWS ONLY ;
```

```
SQL> SELECT BAND,
  2  (MAX(TO_DATE(REL_DATE, 'DD/MM/YY')) - MIN(TO_DATE(REL_DATE, 'DD/MM/YY'))) / 365 AS years_active
  3  FROM
  4  (SELECT i.BAND, a.REL_DATE FROM BDA10.INVOLVEMENT i
  5   JOIN BDA10.ALBUMS a
  6  ON i.BAND = a.PERFORMER
  7  WHERE ROLE = 'SOLIST')
  8  GROUP BY BAND
  9  ORDER BY years_active DESC
 10  FETCH FIRST 5 ROWS ONLY ;

BAND                                               YEARS_ACTIVE
-------------------------------------------------- ------------
Camita                                               99,9890411
Inaki "Mu?ante" Mu?ante                              99,9643836
Jorge Lezma                                          99,9561644
Barber                                               99,9123288
Carmela Sanchez                                      99,9068493
```

7) Old rockers never die: passport and name of both clients and musicians who are at least 70 years old.

Semantic assumption: the **'passport'** of the **clients** is the **DNI**.

```
SELECT NAME, DNI AS ID, BIRTHDATE, (MONTHS_BETWEEN(SYSDATE, BIRTHDATE) / 12) AS
AGE
FROM BDA10.CLIENTS
WHERE (MONTHS_BETWEEN(SYSDATE, BIRTHDATE) / 12) >= 70
UNION
SELECT NAME, PASSPORT AS ID, BIRTHDATE, (MONTHS_BETWEEN(SYSDATE, BIRTHDATE) / 12)
AS AGE
FROM BDA10.MUSICIANS
WHERE (MONTHS_BETWEEN(SYSDATE, BIRTHDATE) / 12) >= 70
FETCH FIRST 30 ROWS ONLY;
```

```
SQL> SELECT NAME, DNI AS ID, BIRTHDATE, (MONTHS_BETWEEN(SYSDATE, BIRTHDATE) / 12) AS AGE
  2  FROM BDA10.CLIENTS
  3  WHERE (MONTHS_BETWEEN(SYSDATE, BIRTHDATE) / 12) >= 70
  4  UNION
  5  SELECT NAME, PASSPORT AS ID, BIRTHDATE, (MONTHS_BETWEEN(SYSDATE, BIRTHDATE) / 12) AS AGE
  6  FROM BDA10.MUSICIANS
  7  WHERE (MONTHS_BETWEEN(SYSDATE, BIRTHDATE) / 12) >= 70
  8  FETCH FIRST 30 ROWS ONLY;

NAME                                                                             ID             BIRTHDAT        AGE
-------------------------------------------------------------------------------- -------------- -------- ----------
A.C.                                                                             US>>0678313836 21/04/33 90,4663991
A.E.M.                                                                           SE>>0852790381 16/01/35 88,7298399
A.E.R.B.                                                                         SE>>0551741155 08/09/40 83,0833333
A.G.M.                                                                           SE>>0499575116 28/03/34 89,5309152
A.J.J.                                                                           ES>>0357658543 04/03/39 84,5954313
A.L.                                                                             ES>>0112109928 23/02/41 82,6276894
A.L.E.                                                                           US>>0892277847 12/05/43 80,4072593
A.M.                                                                             SE>>0978597680 15/04/44 79,4825281
A.M.M.                                                                           FI>>0785236831 07/05/47 76,4207001
A.M.S.                                                                           GB>>0211618875 07/06/41 82,3373668
A.N.                                                                             SE>>0733026096 11/02/34 89,6599474

NAME                                                                             ID             BIRTHDAT        AGE
-------------------------------------------------------------------------------- -------------- -------- ----------
A.N.P.                                                                           DK>>0925608333 24/08/53 70,1250012
A.S.M.                                                                           SE>>0892885493 08/09/41 82,0833333
A.V.I.E.                                                                         IT>>0050001217 22/10/50 72,9637109
Aari                                                                             ES>>0936185088 20/10/49 73,9690872
Abdi                                                                             DE>>0445835565 30/03/42 81,5255388
Abel Loyola                                                                      SE>>0632057815 31/10/36 86,9395173
Abencia Rodriguez-Belleza                                                        IT>>0483502931 29/10/51 71,9448937
Abraham Lluque                                                                   SE>>0993875519 21/08/40 83,1330657
Abri                                                                             RU>>0227095054 18/01/37 86,7244636
Abril Flores                                                                     US>>0846637840 12/09/50 73,0739259
Abri?o                                                                           FR>>0735708504 24/10/32 90,9583345

NAME                                                                             ID             BIRTHDAT        AGE
-------------------------------------------------------------------------------- -------------- -------- ----------
Abundio Garcia                                                                   ES>>0070257440 03/07/51 72,2647862
Abundio Marreros                                                                 SE>>0028113106 22/08/32 91,1303776
Acardo                                                                           87670438       26/01/51 72,7029582
Acepsimas Chirre-Gomez                                                           ES>>0726564121 31/12/43 79,7728507
Acurcy                                                                           GB>>0964390146 13/12/45 77,8212378
Acursio Urbano                                                                   SE>>0893901194 13/02/33 90,6545711
Adalis                                                                           37656652       21/03/48 75,5497324
Adan                                                                             MX>>0597381755 13/05/51 72,4045711

30 filas seleccionadas.
```

8) *P-rock-lific:* top-5 musicians with the highest number of songs written. Output: id musician and number of songs.

Semantic assumption: not needed.

```
SELECT  WRITER AS ID,  COUNT(TITLE) AS NUM_SONGS
FROM BDA10.SONGS
GROUP BY WRITER
ORDER BY COUNT(TITLE) DESC
FETCH FIRST 5 ROWS ONLY ;
```

```
SQL> SELECT  WRITER AS ID,  COUNT(TITLE) AS NUM_SONGS
  2  FROM BDA10.SONGS
  3  GROUP BY WRITER
  4  ORDER BY COUNT(TITLE) DESC
  5  FETCH FIRST 5 ROWS ONLY ;

ID             NUM_SONGS
-------------- ----------
SE>>0581486851        230
SE>>0236891133        227
SE>>0104636962        227
SE>>0221141430        223
SE>>0685234149        220
```

9) Rock-e-faller: top-10 musicians with more royalties received (royalties are received every time their song is performed in any concert).

Semantic assumption: the number of royalties of a certain musician is the number of times that a song written by him/her is performed in any concert.

Option 1: without showing the musicians names.

```
SELECT m.PASSPORT, COUNT(p.WHEN) AS NUM_ROYALTIES
FROM BDA10.MUSICIANS m
INNER JOIN BDA10.PERFORMANCES P ON m.PASSPORT = p.SONGWRITER
GROUP BY m.PASSPORT
ORDER BY NUM_ROYALTIES DESC
FETCH FIRST 10 ROWS ONLY;
```

```
SQL> SELECT m.PASSPORT, COUNT(p.WHEN) AS NUM_ROYALTIES
  2  FROM BDA10.MUSICIANS m
  3  INNER JOIN BDA10.PERFORMANCES P ON m.PASSPORT = p.SONGWRITER
  4  GROUP BY m.PASSPORT, m.NAME
  5  ORDER BY NUM_ROYALTIES DESC
  6  FETCH FIRST 10 ROWS ONLY ;

PASSPORT       NUM_ROYALTIES
-------------- -------------
SE>>0117558466          1862
SE>>0673368532          1815
SE>>0253607125          1786
SE>>0845718860          1774
SE>>0027334567          1757
SE>>0221141430          1750
SE>>0347080456          1743
SE>>0685234149          1736
SE>>0128644251          1729
SE>>0774525715          1721

10 filas seleccionadas.
```

Option 2: showing the musicians names as well.

```
SELECT m1.PASSPORT,  m2.NAME,  m1.NUM_ROYALTIES
FROM
(SELECT m.PASSPORT, COUNT(p.WHEN) AS NUM_ROYALTIES
FROM BDA10.MUSICIANS m
INNER JOIN BDA10.PERFORMANCES P ON m.PASSPORT = p.SONGWRITER
GROUP BY m.PASSPORT
ORDER BY NUM_ROYALTIES DESC
FETCH FIRST 10 ROWS ONLY) m1
INNER JOIN BDA10.MUSICIANS m2
ON m1.PASSPORT = m2.PASSPORT ;
```

```
SQL> SELECT m1.PASSPORT, m2.NAME, m1.NUM_ROYALTIES
  2  FROM
  3  (SELECT m.PASSPORT, COUNT(p.WHEN) AS NUM_ROYALTIES
  4  FROM BDA10.MUSICIANS m
  5  INNER JOIN BDA10.PERFORMANCES P ON m.PASSPORT = p.SONGWRITER
  6  GROUP BY m.PASSPORT
  7  ORDER BY NUM_ROYALTIES DESC
  8  FETCH FIRST 10 ROWS ONLY) m1
  9  INNER JOIN BDA10.MUSICIANS m2
 10  ON m1.PASSPORT = m2.PASSPORT ;

PASSPORT       NAME                                               NUM_ROYALTIES
-------------- -------------------------------------------------- -------------
SE>>0117558466 Agustin Gabriel Cossio                                      1862
SE>>0673368532 Chiri                                                       1815
SE>>0253607125 Gerardo Aguirre                                             1786
SE>>0845718860 Esci                                                        1774
SE>>0027334567 Alberto Escalante                                           1757
SE>>0221141430 Juci                                                        1750
SE>>0347080456 Susi                                                        1743
SE>>0685234149 Damian Olea                                                 1736
SE>>0128644251 Horti                                                       1729
SE>>0774525715 Oscar Queiroz                                               1721

10 filas seleccionadas.
```

10) Eternal classics: top-3 songs that have had the longest time elapsed between the first time and the last time they were performed in a concert.

Semantic assumption: top-3 songs that have had the longest time elapsed between the first time and the last time they were performed in a concert, **independently of the musician that played the song**.

```
SELECT SONGTITLE, (MAX(TO_DATE(WHEN, 'DD/MM/YY')) - MIN(TO_DATE(WHEN, 'DD/MM/YY')))/365 AS NUM_YEARS_FIRST_LAST_CONCERT
FROM BDA10.PERFORMANCES
GROUP BY SONGTITLE
ORDER BY NUM_YEARS_FIRST_LAST_CONCERT DESC
FETCH FIRST 3 ROWS ONLY ;
```

```
SQL> SELECT SONGTITLE, (MAX(TO_DATE(WHEN, 'DD/MM/YY')) - MIN(TO_DATE(WHEN, 'DD/MM/YY')))/365 AS NUM_YEARS_FIRST_LAST_CONCERT
  2  FROM BDA10.PERFORMANCES
  3  GROUP BY SONGTITLE
  4  ORDER BY NUM_YEARS_FIRST_LAST_CONCERT DESC
  5  FETCH FIRST 3 ROWS ONLY ;

SONGTITLE                                                                                          NUM_YEARS_FIRST_LAST_CONCERT
-------------------------------------------------------------------------------------------------- ----------------------------
Glad                                                                                                                99,5561644
Version                                                                                             99,5561644
Walk                                                                                                99,5561644
```