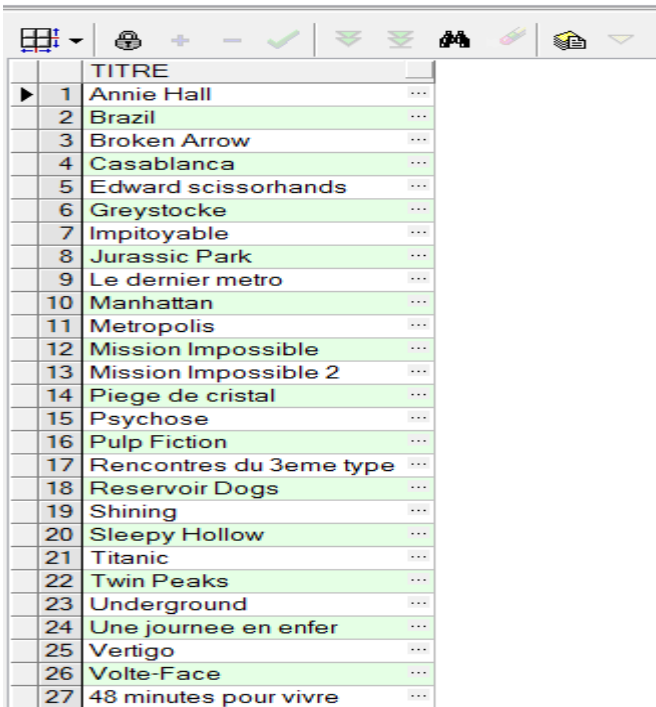


## TP de Base de données CINEMA

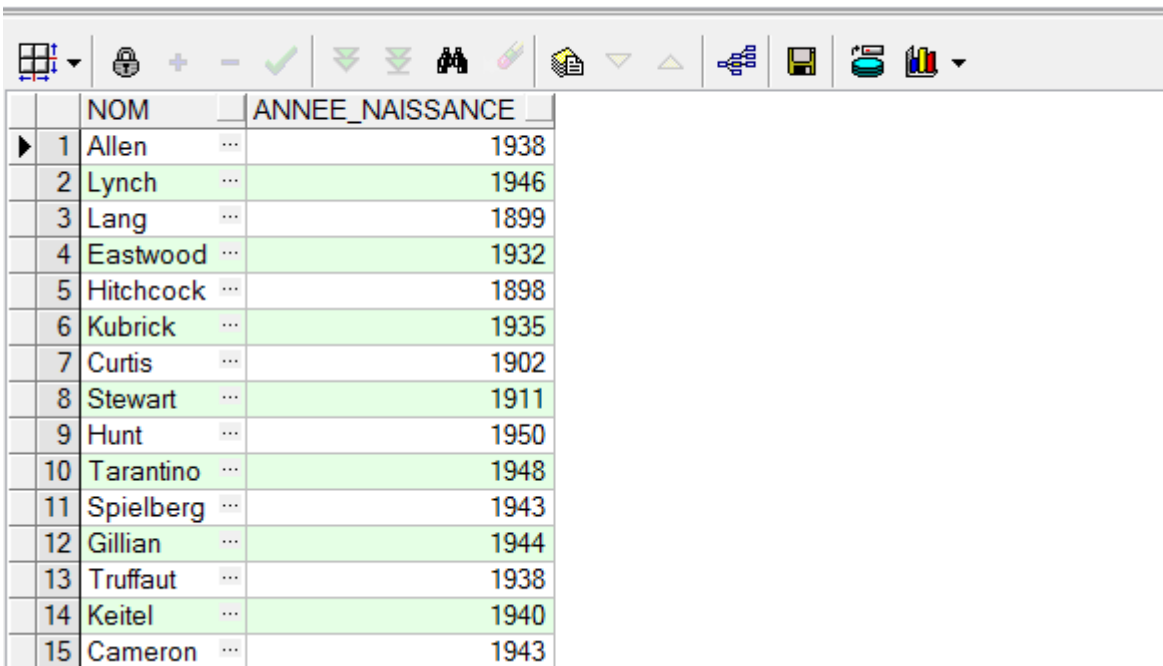
### Exercice 1: ✓ ✗

1. `select titre from film order by titre;`



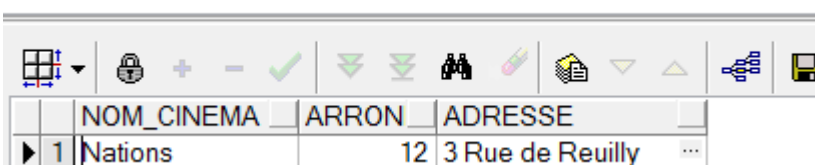
|     | TITRE                   |     |
|-----|-------------------------|-----|
| ▶ 1 | Annie Hall              | ... |
| 2   | Brazil                  | ... |
| 3   | Broken Arrow            | ... |
| 4   | Casablanca              | ... |
| 5   | Edward scissorhands     | ... |
| 6   | Greystocke              | ... |
| 7   | Impitoyable             | ... |
| 8   | Jurassic Park           | ... |
| 9   | Le dernier metro        | ... |
| 10  | Manhattan               | ... |
| 11  | Metropolis              | ... |
| 12  | Mission Impossible      | ... |
| 13  | Mission Impossible 2    | ... |
| 14  | Piege de cristal        | ... |
| 15  | Psychose                | ... |
| 16  | Pulp Fiction            | ... |
| 17  | Rencontres du 3eme type | ... |
| 18  | Reservoir Dogs          | ... |
| 19  | Shining                 | ... |
| 20  | Sleepy Hollow           | ... |
| 21  | Titanic                 | ... |
| 22  | Twin Peaks              | ... |
| 23  | Underground             | ... |
| 24  | Une journee en enfer    | ... |
| 25  | Vertigo                 | ... |
| 26  | Volte-Face              | ... |
| 27  | 48 minutes pour vivre   | ... |

2. `select nom, annee_naissance from artiste where annee_naissance <=1950;`



|     | NOM       | ANNEE_NAISSANCE |
|-----|-----------|-----------------|
| ▶ 1 | Allen     | 1938            |
| 2   | Lynch     | 1946            |
| 3   | Lang      | 1899            |
| 4   | Eastwood  | 1932            |
| 5   | Hitchcock | 1898            |
| 6   | Kubrick   | 1935            |
| 7   | Curtis    | 1902            |
| 8   | Stewart   | 1911            |
| 9   | Hunt      | 1950            |
| 10  | Tarantino | 1948            |
| 11  | Spielberg | 1943            |
| 12  | Gillian   | 1944            |
| 13  | Truffaut  | 1938            |
| 14  | Keitel    | 1940            |
| 15  | Cameron   | 1943            |

3. `select * from cinema where arrondissement = 12;`



|     | NOM_CINEMA | ARRON | ADRESSE              |
|-----|------------|-------|----------------------|
| ▶ 1 | Nations    | 12    | 3 Rue de Reuilly ... |

4. `select * from artiste where nom like 'H%';`

|     | NOM           | PRENOM | ANNEE_NAISSANCE |
|-----|---------------|--------|-----------------|
| ▶ 1 | Hitchcock ... | Alfred | 1898            |
| 2   | Hunt ...      | Greg   | 1950            |
| 3   | Hudson ...    | Hugh   |                 |

5. `select nom, prenom from artiste where annee_naissance is null;`

|     | NOM        | PRENOM |
|-----|------------|--------|
| ▶ 1 | Novak ...  | Kim    |
| 2   | Hudson ... | Hugh   |

6. `select count(*) from role where nom_acteur='Willis' and nom_role='McLane';`

|     | COUNT(*) |
|-----|----------|
| ▶ 1 | 3        |

## Exercice 2:

1. `select nom_acteur, prenom from role, artiste where nom_acteur = nom and nom_role = 'Tarzan';`

|     | NOM_ACTEUR | PRENOM     |
|-----|------------|------------|
| ▶ 1 | Lambert    | Christophe |

2. `select nom_acteur from film f, role r where r.id_film = f.id_film and f.titre= 'Vertigo';`

|     | NOM_ACTEUR  |
|-----|-------------|
| ▶ 1 | Novak ...   |
| 2   | Stewart ... |

3. `select titre,Heure_debut from film f,seance s where f.id_film = s.id_film and nom_cinema = 'Rex';`

|     | TITRE                    | HEURE_DEBUT |
|-----|--------------------------|-------------|
| ▶ 1 | Metropolis ...           | 9.00        |
| 2   | Metropolis ...           | 9.00        |
| 3   | Metropolis ...           | 9.00        |
| 4   | Vertigo ...              | 9.00        |
| 5   | Shining ...              | 9.00        |
| 6   | Psychose ...             | 9.00        |
| 7   | Reservoir Dogs ...       | 9.00        |
| 8   | Jurassic Park ...        | 9.00        |
| 9   | Jurassic Park ...        | 9.00        |
| 10  | Jurassic Park ...        | 9.00        |
| 11  | Une journee en enfer ... | 9.00        |
| 12  | Une journee en enfer ... | 9.00        |

```
4. select titre, nom_role from film f,role r
   where f.id_film=r.id_film and nom_acteur='Allen';
```

|     | TITRE      | NOM_ROLE |
|-----|------------|----------|
| ▶ 1 | Manhattan  | Davis    |
| 2   | Annie Hall | Jonas    |

```
5. select nom_acteur,nom_role, titre from film f, role r
   where f.id_film=r.id_film and nom_realisateur = nom_acteur;
```

|     | NOM_ACTEUR | NOM_ROLE | TITRE          |
|-----|------------|----------|----------------|
| 4   | Allen      | Davis    | Manhattan      |
| ▶ 1 | Allen      | Jonas    | Annie Hall     |
| 2   | Eastwood   | Munny    | Impitoyable    |
| 3   | Tarantino  | Mr Brown | Reservoir Dogs |

```
6. select distinct nom_acteur,nom_role, f2.titre from film f1, film f2, role r
   where f1.nom_realisateur = r.nom_acteur and f2.id_film = r.id_film;
```

|     | NOM_ACTEUR | NOM_ROLE | TITRE                   |
|-----|------------|----------|-------------------------|
| ▶ 1 | Truffaut   | Bernard  | Rencontres du 3eme type |
| 2   | Allen      | Davis    | Manhattan               |
| 3   | Tarantino  | Mr Brown | Reservoir Dogs          |
| 4   | Allen      | Jonas    | Annie Hall              |
| 5   | Eastwood   | Munny    | Impitoyable             |

```
7. select c.nom_cinema,adresse, heure_debut, heure_fin from film f, seance s, cinema c
   where f.titre = 'Shining' and s.id_film = f.id_film and s.nom_cinema = c.nom_cinema;
```

|     | NOM_CINEMA | ADRESSE           | HEURE_DEBUT | HEURE_FIN |
|-----|------------|-------------------|-------------|-----------|
| ▶ 1 | Rex        | 22 Bd Poissoniere | 9,00        | 9,00      |
| 2   | Kino       | 3 Bd Raspail      | 9,00        | 9,00      |
| 3   | Nations    | 3 Rue de Reuilly  | 9,00        | 9,00      |
| 4   | Nations    | 3 Rue de Reuilly  | 9,00        | 9,00      |
| 5   | Nations    | 3 Rue de Reuilly  | 9,00        | 9,00      |

```
8. select titre, a1.nom as "Metteur en scene", a2.nom as "Interprete"
   from film f, role r, artiste a1, artiste a2
   where f.id_film = r.id_film
   and f.nom_realisateur = a1.nom
   and r.nom_acteur = a2.nom
   and a1.nom <> a2.nom
   and a1.prenom = a2.prenom;
```

|     | TITRE        | Metteur en scene | Interprete |
|-----|--------------|------------------|------------|
| ▶ 1 | Broken Arrow | Woo              | Travolta   |
| 2   | Volte-Face   | Woo              | Travolta   |

```

9. select titre, c.nom_cinema, heure_debut, heure_fin
   from film f, seance s, cinema c, role r
   where r.nom_acteur = 'Eastwood'
   and s.id_film = f.id_film
   and s.nom_cinema = c.nom_cinema
   and s.id_film = r.id_film;

```

|     | TITRE           | NOM_CINEMA | HEURE_DEBUT | HEURE_FIN |
|-----|-----------------|------------|-------------|-----------|
| ▶ 1 | Impitoyable ... | Halles     | 9,00        | 9,00      |

```

10. select f.titre, c.nom_cinema, s.no_salle, heure_debut, heure_fin
   from film f, seance s, cinema c, salle t
   where t.climatise = 'O'
   and s.id_film = f.id_film
   and s.nom_cinema = c.nom_cinema
   and t.nom_cinema = c.nom_cinema
   and s.no_salle = t.no_salle
   and c.arrondissement = 12;

```

|     | TITRE       | NOM_CINEMA | NO_SALLE | HEURE_DEBUT | HEURE_FIN |
|-----|-------------|------------|----------|-------------|-----------|
| 1   | Vertigo ... | Nations    | 1        | 9,00        | 9,00      |
| 2   | Vertigo ... | Nations    | 1        | 9,00        | 9,00      |
| ▶ 3 | Vertigo ... | Nations    | 1        | 9,00        | 9,00      |

```

SELECT DISTINCT cinema.Nom_cinema,
                 seance.heure_debut,
                 seance.heure_fin,
                 salle.no_salle,
                 film.titre
FROM cinema, seance, salle, film
WHERE cinema.nom_cinema = salle.nom_cinema
   and cinema.arrondissement = '12'
   and salle.nom_cinema = seance.nom_cinema
   and climatise = 'O'
   and seance.id_film = film.id_film;

```

|     | NOM_CINEMA | HEURE_DEBUT | HEURE_FIN | NO_SALLE | TITRE         |
|-----|------------|-------------|-----------|----------|---------------|
| ▶ 1 | Nations    | 9,00        | 9,00      | 1        | Vertigo ...   |
| 2   | Nations    | 9,00        | 9,00      | 1        | Shining ...   |
| 3   | Nations    | 9,00        | 9,00      | 1        | Manhattan ... |

```

11. select distinct c.nom_cinema, adresse, arrondissement, capacite
from seance s, cinema c, salle t, role r
where r.nom_acteur = 'Willis'
and s.id_film = r.id_film
and s.nom_cinema = c.nom_cinema
and t.nom_cinema = c.nom_cinema
and t.capacite > 150
and t.no_salle = s.no_salle;

```

|     | NOM_CINEMA | ADRESSE      | ARRONDISSEMENT | CAPACITE |
|-----|------------|--------------|----------------|----------|
| ▶ 1 | Kino       | 3 Bd Raspail | ...            | 15       |
|     |            |              |                | 280      |

```

12. select c.nom_cinema, c.adresse from cinema c
where 100 < ALL(select capacite from salle s
where s.nom_cinema = c.nom_cinema);

```

|     | NOM_CINEMA | ADRESSE      |
|-----|------------|--------------|
| ▶ 1 | Kino       | 3 Bd Raspail |

```

FROM Cinema c, Salle sa
WHERE c.Nom_cinema = sa.Nom_cinema
GROUP BY c.Nom_cinema,c.Adresse
HAVING COUNT(*) = (SELECT COUNT(*)
FROM Cinema c1, Salle sa
WHERE c.Nom_cinema = sa.Nom_cinema
AND c1.Nom_cinema = c.Nom_cinema
AND sa.Capacite >100);

```

|     | NOM_CINEMA | ADRESSE      |
|-----|------------|--------------|
| ▶ 1 | Kino       | 3 Bd Raspail |

### Exercice 3

```

1. select nom from artiste
MINUS
select nom_realisateur from film;

```

|     | NOM      |
|-----|----------|
| 1   | Cage     |
| 2   | Cruise   |
| 3   | Depp     |
| 4   | DiCaprio |
| ▶ 5 | Keitel   |
| 6   | Lambert  |
| 7   | Novak    |
| 8   | Ricci    |
| 9   | Stewart  |
| 10  | Travolta |
| 11  | Willis   |

```
1. select nom from artiste
   where nom not in (select nom_realisateur from film);
```

|     | NOM      |
|-----|----------|
| 7   | Cage     |
| 4   | Cruise   |
| 3   | Depp     |
| 6   | DiCaprio |
| 10  | Keitel   |
| 11  | Lambert  |
| 8   | Novak    |
| 9   | Ricci    |
| ▶ 1 | Stewart  |
| 5   | Travolta |
| 2   | Willis   |

```
2. select c.nom_cinema, c.adresse
   from cinema c where NOT EXISTS
   (select * from seance s, film f where Nom_realisateur = 'Tarantino'
    and f.id_film = s.id_film and s.Nom_cinema = c.Nom_cinema);
```

|     | NOM_CINEMA | ADRESSE          |
|-----|------------|------------------|
| ▶ 1 | Nations    | 3 Rue de Reuilly |
| 2   | Halles     | Forum des Halles |

```
2. SELECT DISTINCT c.Nom_cinema, c.Adresse
   FROM Cinema c,seance s
   WHERE c.Nom_cinema = s.Nom_cinema
   AND c.nom_cinema NOT IN
   (SELECT nom_cinema FROM Film f, seance sa
    WHERE Nom_realisateur = 'Tarantino' and sa.id_film=f.id_film )
```

|     | NOM_CINEMA | ADRESSE          |
|-----|------------|------------------|
| 1   | Nations    | 3 Rue de Reuilly |
| ▶ 2 | Halles     | Forum des Halles |

## Exercice 4

```
1. select sum(capacite) from salle
   where nom_cinema = 'Rex';
```

|     | SUM(CAPACITE) |
|-----|---------------|
| ▶ 1 | 410           |

```
2. select min(annee), max(annee) from film;
```

|     | MIN(ANNEE) | MAX(ANNEE) |
|-----|------------|------------|
| ▶ 1 | 1926       | 2000       |

```
3. select nom_cinema, sum(capacite)
   from salle group by nom_cinema;
```

|     | NOM_CINEMA | SUM(CAPACITE) |
|-----|------------|---------------|
| ▶ 1 | Rex        | 410           |
| 2   | Halles     | 195           |
| 3   | Nations    | 280           |
| 4   | Kino       | 530           |

```
4. select nom, prenom, count(titre)
   from artiste a, film f
   where f.nom_realisateur = a.nom
   group by nom, prenom;
```

|     | NOM       | PRENOM   | COUNT(TITRE) |
|-----|-----------|----------|--------------|
| 5   | Allen     | Woody    | 2            |
| 3   | Burton    | Tim      | 2            |
| 12  | Cameron   | James    | 1            |
| 8   | Curtis    | Michael  | 1            |
| 10  | De Palma  | Brian    | 1            |
| 13  | Eastwood  | Clint    | 1            |
| 18  | Gillian   | Terry    | 1            |
| 4   | Hitchcock | Alfred   | 2            |
| 14  | Hudson    | Hugh     | 1            |
| 9   | Hunt      | Greg     | 3            |
| 16  | Kubrick   | Stanley  | 1            |
| 6   | Kusturica | Emir     | 1            |
| 7   | Lang      | Fritz    | 1            |
| ▶ 1 | Lynch     | David    | 1            |
| 17  | Spielberg | Steven   | 2            |
| 11  | Tarantino | Quentin  | 2            |
| 15  | Truffaut  | Francois | 1            |
| 2   | Woo       | John     | 3            |

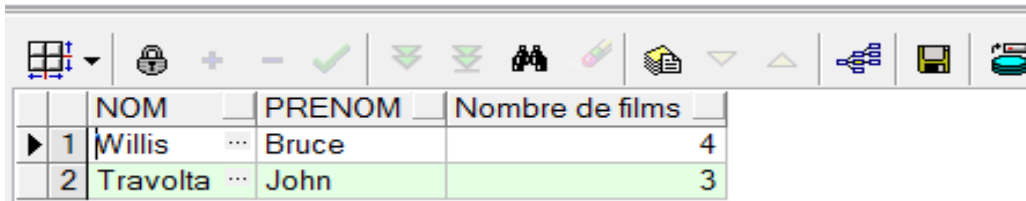
```
5. select nom_cinema, count(*)
   from salle where climatise = 'O'
   group by nom_cinema
   having count(*)>1;
```

|     | NOM_CINEMA | COUNT(*) |
|-----|------------|----------|
| ▶ 1 | Rex        | 2        |
| 2   | Kino       | 2        |

```

6. select nom, Prenom , count(*) as "Nombre de films"
   from artiste a, role r, film f
   where a.nom = r.Nom_acteur
   and EXISTS (select * from seance s , film f, role r1
               where s.id_film = f.id_film
                  and r1.id_film = f.id_film
                  and r1.nom_acteur = a.Nom)
   and r.id_film = f.id_film
   and f.annee > 1985
   group by nom, prenom
   having count(*) >= 3;

```



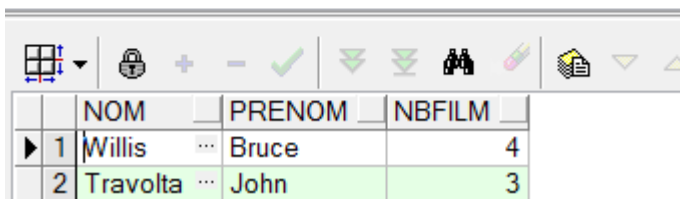
|     | NOM      | PRENOM | Nombre de films |
|-----|----------|--------|-----------------|
| ▶ 1 | Willis   | Bruce  | 4               |
| 2   | Travolta | John   | 3               |

Deuxième solution :

```

SELECT a.Nom,a.Prenom, COUNT(*) AS NBFILM
FROM Artiste a,Film f, Role r
WHERE a.Nom = r.Nom_acteur
AND f.ID_Film = r.ID_Film
AND f.annee > 1984
GROUP BY a.Nom,a.Prenom
HAVING COUNT(*) >= 3;

```



|     | NOM      | PRENOM | NBFILM |
|-----|----------|--------|--------|
| ▶ 1 | Willis   | Bruce  | 4      |
| 2   | Travolta | John   | 3      |

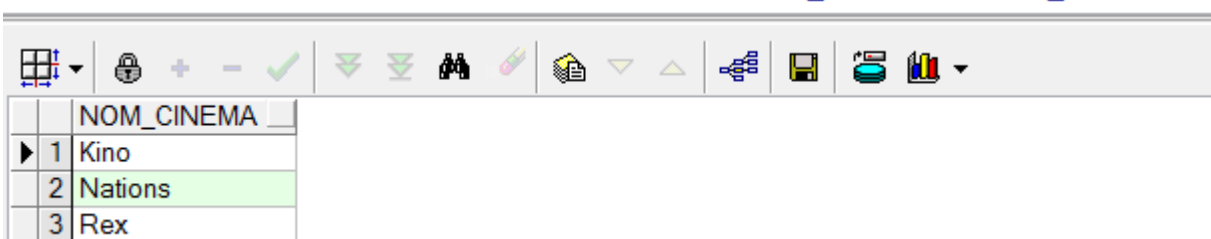
## Exercice 5

### Première solution:

```

1. SELECT c.nom_cinema FROM cinema c
   WHERE NOT EXISTS
   (SELECT * FROM film f WHERE nom_realisateur = 'Kubrick'
    AND NOT EXISTS (SELECT * FROM seance s
                   WHERE f.id_film = s.id_film
                   AND s.nom_cinema = c.nom_cinema));

```



|     | NOM_CINEMA |
|-----|------------|
| ▶ 1 | Kino       |
| 2   | Nations    |
| 3   | Rex        |

### Deuxième solution:



```

1. SELECT s.nom_cinema FROM seance s , film f
   WHERE s.id_film = f.id_film AND f.nom_realisateur = 'Kubrick'
   GROUP BY s.nom_cinema HAVING COUNT(DISTINCT s.nom_cinema) =
   (SELECT COUNT(*) FROM film f WHERE f.nom_realisateur = 'Kubrick');

```




|     | NOM_CINEMA |
|-----|------------|
| ▶ 1 | Rex        |
| 2   | Nations    |
| 3   | Kino       |

```

SELECT c.Nom_Cinema
FROM Cinema c, Film f, seance s
WHERE s.ID_Film = f.ID_Film
AND c.Nom_cinema = s.Nom_cinema
AND f.Nom_realisateur = 'Kubrick'
GROUP BY c.Nom_Cinema
HAVING COUNT(DISTINCT f.ID_Film) = ( SELECT COUNT(*)
                                     FROM Film f
                                     WHERE Nom_realisateur = 'Kubrick');

```



|     | NOM_CINEMA |
|-----|------------|
| ▶ 1 | Rex        |
| 2   | Nations    |
| 3   | Kino       |