

Correction des requêtes SQL

Requête exemple : Lister les contrats avec le prix de la cotisation et leur surface pour les appartements.

```
select contrat_id, prix_cotisation_mensuel, surface
from contrat
where type_local = 'Appartement'
```

	contrat ID	surface
1	103791	35
2	103792	99
3	103793	40
4	103794	20

Requête 1 : Lister les numéros de contrats (contrat_ID) avec leur surface pour la commune de Caen.

```
SELECT
    c.contrat_id,
    c.surface
FROM contrat AS c
JOIN Region AS r
    ON r.Code_dep_code_commune = c.code_dep_code_commune
WHERE r.com_nom_maj_court = 'Caen';
```



```
1 • SELECT
2     c.contrat_id,
3     c.surface
4 FROM contrat AS c
5 JOIN Region AS r
6     ON r.Code_dep_code_commune = c.code_dep_code_commune
7 WHERE r.com_nom_maj_court = 'Caen';
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

	contrat_id	surface
▶	103791	35
	103792	99
	103793	40
	103794	20

Requête 2 : Lister les numéros de contrats avec le type de contrat et leur formule pour les maisons du département 71.

```
SELECT
    c.contrat_id,
    c.Type_contrat
FROM contrat AS c
JOIN Region AS r
    ON r.Code_dep_code_commune = c.code_dep_code_commune
WHERE r.dep_code = 71;
```

The screenshot displays the MySQL Workbench interface. On the left, the 'SCHEMAS' pane shows the database structure for 'exo_sql', including tables 'contrat' and 'region'. The 'contrat' table has columns like 'Contrat_ID', 'No_voie', 'B_T_Q', 'Type_de_voie', 'Voie', 'Code_dep_code_commune', 'Code_postal', 'Commune', 'Surface', 'Type_local', 'Occupation', 'Type_contrat', 'Formule', 'Valeur_declaree_biens', and 'Prix_cotisation_mensuel'. The 'region' table has columns like 'Code_dep_code_commune', 'com_nom_maj_court', 'dep_code', 'dep_nom_num', 'reg_code', 'reg_nom', 'aca_nom', and 'dep_nom'. The 'region' table also has indexes, foreign keys, and triggers. The 'sakila', 'sys', and 'world' databases are also listed.

The central pane shows the SQL query being executed:

```
SELECT
    c.contrat_id,
    c.Type_contrat
FROM contrat AS c
JOIN Region AS r
    ON r.Code_dep_code_commune = c.code_dep_code_commune
WHERE r.dep_code = 71;
```

The bottom pane shows the 'Result Grid' with the following data:

contrat_id	Type_contrat
114803	Residence principale
114804	Residence secondaire
114805	Mise en location
114807	Residence principale
114810	Residence principale
114812	Residence principale
114776	Residence principale
114777	Residence principale
114780	Residence principale
114781	Residence secondaire
114783	Mise en location
114784	Residence principale
114785	Residence principale
114787	Residence secondaire
114789	Residence principale
114790	Residence principale
114791	Residence principale
114792	Mise en location
114793	Residence principale
114794	Residence secondaire
114795	Residence secondaire
114796	Residence principale
114797	Residence principale
114774	Residence principale
114806	Residence principale
114808	Residence principale
114809	Residence principale
114811	Residence principale

Requête 3: Lister le nom des régions de France.

```
SELECT
  DISTINCT reg_nom
FROM region
```

The screenshot shows the MySQL Workbench interface for a local instance of MySQL 8.0. The left sidebar displays the 'SCHEMAS' tree, with the 'region' table selected under the 'exo_sql' database. The main editor window shows the SQL query: `SELECT DISTINCT reg_nom FROM region`. The 'Result Grid' at the bottom right displays the results of the query, listing the names of the French regions.

reg_nom
Auvergne-Rhône-Alpes
Hauts-de-France
Provence-Alpes-Côte d'Azur
Grand Est
Occitanie
Normandie
Nouvelle-Aquitaine
Centre-Val de Loire
Bourgogne-Franche-Comté
Bretagne
Corse
Pays de la Loire
Ile-de-France
Guadeloupe
Martinique
Guyane
La Réunion
Collectivités d'outre-mer
Mayotte

Requête 4 : Quels sont les 5 contrats qui ont les surfaces les plus élevées ?

```
SELECT
  contrat_id,
  surface
FROM contrat
ORDER BY surface DESC
limit 5;limit 5;
```

The screenshot displays the MySQL Workbench interface for a local instance of MySQL 8.0. The 'Navigator' pane on the left shows the database schema 'exo_sql', with the 'contrat' table selected. The 'Query' pane on the right shows the SQL query: `SELECT contrat_id, surface FROM contrat ORDER BY surface DESC limit 5;`. The 'Result Grid' pane at the bottom right shows the results of the query, displaying the top 5 contracts by surface area.

contrat_id	surface
104211	815
105463	742
130878	595
100822	570
109872	559

Requête 5: Quel est le prix moyen de la cotisation mensuelle ?

```
SELECT
  avg(Prix_cotisation_mensuel) AS prix_moyen
FROM contrat
```

The screenshot displays the MySQL Workbench interface for a 'Local instance MySQL80'. The left sidebar shows the 'SCHEMAS' tree with 'exo_sql' expanded, revealing the 'contrat' table and its columns, including 'Prix_cotisation_mensuel'. The central editor shows a query file named 'Query 3' containing the SQL statement to calculate the average monthly subscription price. The bottom right pane shows the 'Result Grid' with one row of data.

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

SQL File 9* x Query 3

Limit to 1000 rows

```
1 • SELECT
2   avg(Prix_cotisation_mensuel) AS prix_moyen
3 FROM contrat
```

Result Grid | Filter Rows: | Export: | Wrap

	prix_moyen
▶	19.3287

Administration Schemas Information

Requête 6 : Quel est le nombre de contrats pour chaque catégorie de prix de la valeur déclarée des biens ?

```
SELECT
    Valeur_declaree_biens,
    COUNT(*) AS nb_contrats_par_tranche
FROM contrat
Where Valeur_declaree_biens IS NOT NULL
Group by Valeur_declaree_biens
order by nb_contrats_par_tranche DESC
```

The screenshot shows the MySQL Workbench interface. On the left, the 'SCHEMAS' pane displays the database structure for 'exo_sql', including tables 'contrat' and 'region'. The 'contrat' table has columns like 'Contrat_ID', 'No_voie', 'B_T_Q', 'Type_de_voie', 'Voie', 'Code_dep_code_commune', 'Code_postal', 'Commune', 'Surface', 'Type_local', 'Occupation', 'Type_contrat', 'Formule', 'Valeur_declaree_biens', and 'Prix_cotisation_mensuel'. The 'region' table has columns like 'Code_dep_code_commune', 'com_nom_maj_court', 'dep_code', 'dep_nom_num', 'reg_code', 'reg_nom', 'aca_nom', and 'dep_nom'.

The central pane shows a SQL query in 'Query 3':

```
1 • SELECT
2     Valeur_declaree_biens,
3     COUNT(*) AS nb_contrats_par_tranche
4 FROM contrat
5 Where Valeur_declaree_biens IS NOT NULL
6 Group by Valeur_declaree_biens
7 order by nb_contrats_par_tranche DESC
```

The bottom pane shows the 'Result Grid' with the following data:

Valeur_declaree_biens	nb_contrats_par_tranche
0-25000	22720
25000-50000	6815
50000-100000	696
100000+	104

Requête 7 : Quel est le nombre de formules “integral” sur la région Pays de la Loire ?

```
SELECT
    count(c.Formule)
FROM contrat AS c
JOIN Region AS r
    ON r.Code_dep_code_commune = c.code_dep_code_commune
WHERE r.reg_nom = 'Pays de la Loire' AND c.Formule = 'integral'
Group by c.formule;
```

The screenshot displays the MySQL Workbench interface for a local instance of MySQL 8.0. The left sidebar shows the 'SCHEMAS' tree with the 'exo_sql' database selected. The 'region' table is highlighted, showing its columns: Code_dep_code_commune, com_nom_maj_court, dep_code, dep_nom_num, reg_code, reg_nom, aca_nom, and dep_nom. The main editor window shows a SQL query (Query 3) that counts the number of 'integral' formulas in the 'contrat' table for the 'Pays de la Loire' region. The query is as follows:

```
1 • SELECT
2     count(c.Formule)
3 FROM contrat AS c
4 JOIN Region AS r
5     ON r.Code_dep_code_commune = c.code_dep_code_commune
6 WHERE r.reg_nom = 'Pays de la Loire' AND c.Formule = 'integral'
7 Group by c.formule;
```

The 'Result Grid' at the bottom shows the execution result:

count(c.Formule)
589

Requête 8 : Lister les numéros de contrats avec le type de contrat et leur formule pour les maisons du département 71.

```
SELECT
    c.Contrat_ID, c.Type_contrat, Formule
FROM contrat AS c
JOIN Region AS r
    ON r.Code_dep_code_commune = c.code_dep_code_commune
WHERE r.dep_code = '71' and c.Type_local = 'maison';
```

The screenshot shows the MySQL Workbench interface. On the left, the 'SCHEMAS' pane displays the database structure for 'exo_sql', including tables 'contrat' and 'region'. The 'contrat' table has columns like 'Contrat_ID', 'No_voie', 'B_T_Q', 'Type_de_voie', 'Voie', 'Code_dep_code_commune', 'Code_postal', 'Commune', 'Surface', 'Type_local', 'Occupation', 'Type_contrat', 'Formule', 'Valeur_declaree_biens', and 'Prix_cotisation_mensuel'. The 'region' table has columns like 'Code_dep_code_commune', 'com_nom_maj_court', 'dep_code', 'dep_nom_num', 'reg_code', 'reg_nom', 'aca_nom', and 'dep_nom'. The main editor shows the SQL query from the previous block. The 'Result Grid' at the bottom displays the query results.

Contrat_ID	Type_contrat	Formule
114768	Residence principale	Integral
114779	Residence principale	Classique
114782	Residence principale	Classique
114812	Residence principale	Integral

Requête 9 : Quelle est la surface moyenne des contrats à Paris ?

```
SELECT
avg(c.surface)
FROM contrat AS c
JOIN Region AS r
  ON r.Code_dep_code_commune = c.code_dep_code_commune
WHERE r.dep_code = '75'
```

The screenshot shows the MySQL Workbench interface for a local instance of MySQL 8.0. The left sidebar displays the 'SCHEMAS' tree, with the 'exo_sql' database selected. Under 'Tables', the 'contrat' table is expanded, showing its columns: Contrat_ID, No_voie, B_T_Q, Type_de_voie, Voie, Code_dep_code_commune, Code_postal, Commune, Surface, Type_local, Occupation, Type_contrat, Formule, Valeur_declaree_biens, and Prix_cotisation_mensuel. The 'region' table is also visible, with columns: Code_dep_code_commune, com_nom_maj_court, dep_code, dep_nom_num, reg_code, reg_nom, aca_nom, and dep_nom. The main editor window shows a SQL query (Query 3) that calculates the average surface area of contracts in Paris (dep_code = '75'). The query is as follows:

```
1 • SELECT
2   avg(c.surface)
3 FROM contrat AS c
4 JOIN Region AS r
5   ON r.Code_dep_code_commune = c.code_dep_code_commune
6 WHERE r.dep_code = '75'
```

The bottom right pane shows the 'Result Grid' with the following data:

avg(c.surface)
51.7695

Requête 10 : Classement des 10 départements où le prix moyen de la cotisation est le plus élevé.

```
SELECT
avg(c.Prix_cotisation_mensuel) AS prix_moyen,
r.dep_nom
FROM contrat AS c
JOIN Region AS r
    ON r.Code_dep_code_commune = c.code_dep_code_commune
Group By r.dep_nom
Order by prix_moyen DESC
Limit 10;
```

The screenshot shows the MySQL 8.0 interface. On the left, the 'SCHEMAS' pane shows the 'exo_sql' database with tables 'contrat' and 'region'. The 'region' table is selected, showing columns like 'Code_dep_code_commune', 'com_nom_maj_court', 'dep_code', 'dep_nom_num', 'reg_code', 'reg_nom', 'aca_nom', and 'dep_nom'. The main window displays the SQL query from the previous block. Below the query, the 'Result Grid' shows the results of the query, which are the top 10 departments by average monthly subscription price.

prix_moyen	dep_nom
36.3991	Paris
26.2694	Hauts-de-Seine
19.8242	Val-de-Marne
18.8881	Yvelines
18.4855	Rhône
18.2389	Ain
18.1376	Alpes-Maritimes
17.3173	Charente-Maritime
17.1487	Haute-Savoie
17.0744	Corse-du-Sud

Requête 11: Liste des communes ayant eu au moins 150 contrats.

```
SELECT
r.com_nom_maj_court AS Commune,
count(c.Contrat_ID) AS contrats
FROM contrat AS c
JOIN Region AS r
    ON r.Code_dep_code_commune = c.code_dep_code_commune
GROUP BY r.com_nom_maj_court
HAVING contrats > '150'
ORDER by Commune;
```

The screenshot displays the MySQL Workbench interface. On the left, the 'SCHEMAS' pane shows the database structure, including the 'exo_sql' database with tables 'contrat' and 'region'. The 'contrat' table has columns like 'Contrat_ID', 'No_voie', 'B_T_Q', 'Type_de_voie', 'Voie', 'Code_dep_code_commune', 'Code_postal', 'Surface', 'Type_local', 'Occupation', 'Type_contrat', 'Formule', 'Valeur_declaree_biens', and 'Prix_cotisation_mensuel'. The 'region' table has columns like 'Code_dep_code_commune', 'com_nom_maj_court', 'dep_code', 'dep_nom_num', 'reg_code', 'reg_nom', 'aca_nom', and 'dep_nom'. The main editor shows the SQL query from the previous block. The 'Result Grid' at the bottom displays the query results, showing a list of communes and their corresponding number of contracts.

Commune	contrats
BORDEAUX	302
COURBEVOIE	163
GRENOBLE	220
LILLE	161
NANTES	291
NICE	387
PARIS 3	159
PARIS 9	204
PARIS 10	263
PARIS 11	381
PARIS 12	252
PARIS 14	222
PARIS 15	407
PARIS 16	394
PARIS 17	468
PARIS 18	515
PARIS 19	266
PARIS 20	302
TOULON	170
TOULOUSE	187

Requête 12: Quel est le nombre de contrats pour chaque région ?

```
SELECT
r.reg_nom AS Region,
count(c.Contrat_ID) AS contrats
FROM contrat AS c
JOIN Region AS r
  ON r.Code_dep_code_commune = c.code_dep_code_commune
GROUP BY r.reg_nom
ORDER by r.reg_nom;
```

The screenshot displays the MySQL Workbench interface. On the left, the 'SCHEMAS' pane shows the database structure, including the 'region' table with columns like 'reg_nom' and 'Code_dep_code_commune'. The main editor shows the SQL query from the previous block. Below the editor, the 'Result Grid' pane displays the query results as a table with two columns: 'Region' and 'contrats'.

Region	contrats
Auvergne-Rhône-Alpes	3042
Bourgogne-Franche-Comté	293
Bretagne	947
Centre-Val de Loire	598
Corse	247
Grand Est	769
Guyane	37
Hauts-de-France	1189
Ile-de-France	14177
La Réunion	17
Martinique	73
Normandie	824
Nouvelle-Aquitaine	2038
Occitanie	1609
Pays de la Loire	1196
Provence-Alpes-Côte d'Azur	3279