

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 as ID_Contrat,
    c.Surface
FROM
    contrats c,
    regions r
WHERE r.Com_nom_maj_court = 'CAEN'
AND r.Code_dep_code_commune = c.Code_dep_code_commune
; 
```

The screenshot shows a database query interface with a code editor and a results table.

Code Editor:

```
1 SELECT
2     c.Contrat_id as ID_Contrat,
3     c.Surface
4 FROM
5     contrats c,
6     regions r
7 WHERE r.Com_nom_maj_court = 'CAEN'
8 AND r.Code_dep_code_commune = c.Code_dep_code_commune
9 ;
10 |
```

Results Table:

	ID_Contrat	Surface
1	103791	35
2	103792	99
3	103793	40
4	103794	20

Nombre de lignes chargées : 4

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 as ID_Contrat,
    c.Type_contrat as Type_de_contrat,
    c.Formule
FROM
    contrats c,
    regions r
WHERE r.Dep_code = 71
    AND Type_local = 'Maison'
    AND r.Code_dep_code_commune = c.Code_dep_code_commune
;
```

```
1 SELECT
2     c.Contrat_id as ID_Contrat,
3     c.Type_contrat as Type_de_contrat,
4     c.Formule
5 FROM
6     contrats c,
7     regions r
8 WHERE r.Dep_code = 71
9     AND Type_local = 'Maison'
10    AND r.Code_dep_code_commune = c.Code_dep_code_commune
11 ;
12
```

Table Formulaire

Nombre de lignes chargées : 4

	ID_Contrat	Type_de_contrat	Formule
1	114768	Residence principale	Integral
2	114779	Residence principale	Classique
3	114782	Residence principale	Classique
4	114812	Residence principale	Integral

Requête 3 : Lister le nom des régions de France.

```
SELECT DISTINCT (Reg_nom) FROM regions;
```

The screenshot shows a database interface with a dark theme. At the top, there is a code editor window containing the SQL query:

```
1 SELECT DISTINCT (Reg_nom) FROM regions;
```

Below the code editor is a toolbar with various icons for database operations. To the right of the toolbar, the text "Nombre de lignes chargées : 18" is displayed. The main area shows a table with the following data:

	Reg_nom
1	Auvergne-Rhône-Alpes
2	Hauts-de-France
3	Provence-Alpes-Côte d'Azur
4	Grand Est
5	Occitanie
6	Normandie
7	Nouvelle-Aquitaine

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

```
SELECT
    c.Contrat_id as ID_Contrat,
    c.Surface
FROM
    contrats c
ORDER BY c.Surface DESC
LIMIT 5
;
```

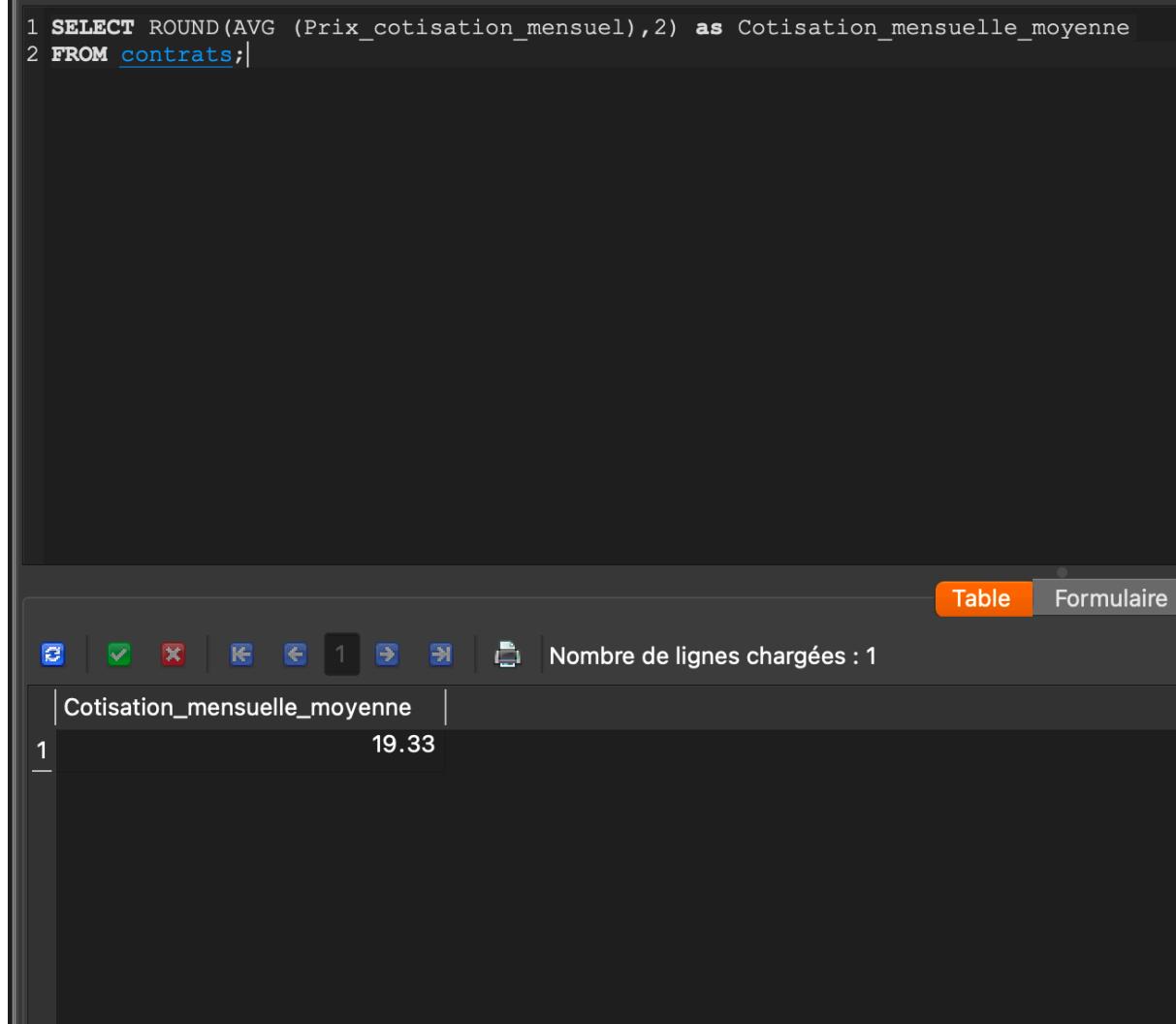
```
1 SELECT
2     c.Contrat_id as ID_Contrat,
3     c.Surface
4 FROM
5     contrats c
6 ORDER BY c.Surface DESC
7 LIMIT 5
8 ;
9
```

Nombre de lignes chargées : 5

	ID_Contrat	Surface
1	104211	815
2	105463	742
3	130878	595
4	100822	570
5	109872	559

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

```
SELECT ROUND(AVG (Prix_cotisation_mensuel),2) as  
Cotisation_mensuelle_moyenne  
FROM contrats;
```



The screenshot shows a MySQL query results window. At the top, there is a code editor containing the SQL query:

```
1 SELECT ROUND(AVG (Prix_cotisation_mensuel),2) as Cotisation_mensuelle_moyenne  
2 FROM contrats;
```

Below the code editor is a toolbar with various icons. To the right of the toolbar, the text "Nombre de lignes chargées : 1" is displayed. The main area shows a single row of data in a table format:

Cotisation_mensuelle_moyenne
19.33

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

```
SELECT
    COUNT (Contrat_id) as Nombre_contrat,
    Valeur_declaree_biens
FROM
    contrats
GROUP BY Valeur_declaree_biens
ORDER BY Nombre_contrat DESC
;
```

The screenshot shows a MySQL query editor interface. The query in the SQL tab is:

```
1 SELECT
2     COUNT (Contrat_id) as Nombre_contrat,
3     Valeur_declaree_biens
4 FROM
5     contrats
6 GROUP BY Valeur_declaree_biens
7 ORDER BY Nombre_contrat DESC
8 ;
9 |
```

The results are displayed in a table tab, showing the following data:

	Nombre_contrat	Valeur_declaree_biens
1	22720	0-25000
2	6815	25000-50000
3	696	50000-100000
4	104	100000+

Tableau des résultats :

	Nombre_contrat	Valeur_declaree_biens
1	22720	0-25000
2	6815	25000-50000
3	696	50000-100000
4	104	100000+

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

```
SELECT
    COUNT (c.Formule) as Nombre_formule_Integral,
    r.Reg_nom
FROM
    contrats c,
    regions r
WHERE c.Formule = 'Integral'
    AND r.Reg_nom = 'Pays de la Loire'
    AND r.Code_dep_code_commune = c.Code_dep_code_commune
GROUP BY r.Reg_nom
;
```

```
1 SELECT
2     COUNT (c.Formule) as Nombre_formule_Integral,
3     r.Reg_nom
4 FROM
5     contrats c,
6     regions r
7 WHERE c.Formule = 'Integral'
8     AND r.Reg_nom = 'Pays de la Loire'
9     AND r.Code_dep_code_commune = c.Code_dep_code_commune
10 GROUP BY r.Reg_nom
11 ;
```

Table Formulaire

Nombre de lignes chargées : 1

	Nombre_formule_Integral	Reg_nom
1	589	Pays de la Loire

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 as ID_Contrat_maison,
    c.Type_contrat as Type_de_ccontrat,
    c.Formule
FROM
    contrats c,
    regions r
WHERE Dep_code = 71
    AND Type_Local = 'Maison'
    AND r.Code_dep_code_commune = c.Code_dep_code_commune
;
```

```
1 SELECT
2     c.Contrat_id as ID_Contrat_maison,
3     c.Type_contrat as Type_de_ccontrat,
4     c.Formule
5 FROM
6     contrats c,
7     regions r
8 WHERE Dep_code = 71
9     AND Type_Local = 'Maison'
10    AND r.Code_dep_code_commune = c.Code_dep_code_commune
11 ;
12 |
```

The screenshot shows a database interface with a query editor at the top and a results table below. The results table has 4 rows, each containing the ID of a contract, its type, and its formula.

	ID_Contrat_maison	Type_de_ccontrat	Formule
1	114768	Residence principale	Integral
2	114779	Residence principale	Classique
3	114782	Residence principale	Classique
4	114812	Residence principale	Integral

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

```
SELECT
    ROUND(AVG (c.Surface),2) as Surface_moyenne_Paris
FROM
    contrats c,
    regions r
WHERE r.Dep_code IN (75, 94)
    AND r.Code_dep_code_commune = c.Code_dep_code_commune
;
```

```
1 SELECT
2     ROUND(AVG (c.Surface),2) as Surface_moyenne_Paris
3 FROM
4     contrats c,
5     regions r
6 WHERE r.Dep_code IN (75, 94)
7     AND r.Code_dep_code_commune = c.Code_dep_code_commune
8 ;
9
```

The screenshot shows a database interface with a dark theme. At the top, there are two tabs: "Table" (which is selected) and "Formulaire". Below the tabs, there is a toolbar with various icons. The main area displays a single row of data in a table format. The table has one column labeled "Surface_moyenne_Paris" with the value "53.08". Above the table, a message says "Nombre de lignes chargées : 1".

Surface_moyenne_Paris
53.08

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

```
SELECT
    ROUND(AVG (c.Prix_cotisation_mensuel),2) as Prix_moyen_mensuel,
    r.Dep_nom as Departement
FROM
    contrats c,
    regions r
WHERE c.Code_dep_code_commune = r.Code_dep_code_commune
GROUP BY Departement
ORDER BY Prix_moyen_mensuel DESC
LIMIT 10
;
```

```
1 SELECT
2     ROUND(AVG (c.Prix_cotisation_mensuel),2) as Prix_moyen_mensuel,
3     r.Dep_nom as Departement
4 FROM
5     contrats c,
6     regions r
7 WHERE c.Code_dep_code_commune = r.Code_dep_code_commune
8 GROUP BY Departement
9 ORDER BY Prix_moyen_mensuel DESC
10 LIMIT 10
11 ;
12 |
```

Table Formulaire

Nombre de lignes chargées : 10

	Prix_moyen_mensuel	Departement
1	36.4	Paris
2	26.27	Hauts-de-Seine
3	19.82	Val-de-Marne
4	18.89	Yvelines
5	18.49	Rhône
6	18.24	Ain
7	18.14	Alpes-Maritimes
8	17.32	Charente-Maritime
9	17.15	Haute-Savoie
	16.74	Saint-Priest

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

```
SELECT
    r.Com_nom_maj_court as Commune,
    COUNT(c.Contrat_id) as Nombre_contrat
FROM
    contrats c,
    regions r
WHERE c.Code_dep_code_commune = r.Code_dep_code_commune
GROUP BY Commune
HAVING Nombre_contrat >= 150
ORDER BY Nombre_contrat DESC
;
```

```
1 SELECT
2     r.Com_nom_maj_court as Commune,
3     COUNT(c.Contrat_id) as Nombre_contrat
4 FROM
5     contrats c,
6     regions r
7 WHERE c.Code_dep_code_commune = r.Code_dep_code_commune
8 GROUP BY Commune
9 HAVING Nombre_contrat >= 150
10 ORDER BY Nombre_contrat DESC
11 ;
12
13
```

Table Formulaire

Nombre de lignes chargées : 20

	Commune	Nombre_contrat
10	PARIS 10	200
11	PARIS 10	263
12	PARIS 12	252
13	PARIS 14	222
14	GRENOBLE	220
15	PARIS 9	204
16	TOULOUSE	187
17	TOULON	170
18	COURBEVOIE	163
19	LILLE	161

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

```
SELECT
    COUNT(Contrat_id) AS Nombre_contrats,
    r.Reg_nom AS Region
FROM
    contrats c,
    regions r
WHERE r.Code_dep_code_commune = c.Code_dep_code_commune
GROUP BY Region
ORDER BY Nombre_contrats DESC
;
```

```
1 SELECT
2     COUNT(Contrat_id) AS Nombre_contrats,
3     r.Reg_nom AS Region
4 FROM
5     contrats c,
6     regions r
7 WHERE r.Code_dep_code_commune = c.Code_dep_code_commune
8 GROUP BY Region
9 ORDER BY Nombre_contrats DESC
10
11
12 ;|
```

Table Formulaire

Nombre de lignes chargées : 16

	Nombre_contrats	Region
1	14177	Ile-de-France
2	3279	Provence-Alpes-Côte d'Azur
3	3042	Auvergne-Rhône-Alpes
4	2038	Nouvelle-Aquitaine
5	1609	Occitanie
6	1196	Pays de la Loire
7	1189	Hauts-de-France
8	947	Bretagne
9	824	Normandie
10	769	Grand Est
11	598	Centre-Val de Loire

Avec une jointure

```
SELECT *
FROM contrats
LEFT Join regions
ON contrats.Code_dep_code_commune =
regions.Code_dep_code_commune
;
```

The screenshot shows a database management system interface. At the top, there is a code editor window containing the SQL query:

```
1 SELECT *
2 FROM contrats
3 LEFT Join regions
4 ON contrats.Code_dep_code_commune = regions.Code_dep_code_commune
5 ;
6
7
```

Below the code editor is a table view. The table has the following columns: Contrat_, No_voie, B_T_Q, Type_de, Voie, Code_dep, Code_pc, and Surf. The table contains 30335 rows. The first few rows of data are:

	Contrat_	No_voie	B_T_Q	Type_de	Voie	Code_dep	Code_pc	Surf
1	100601	190	A	RUE	CENTRALE	1350	1370	
2	100602	347		RUE	DU CHATEAU	1103	1170	
3	100603	58		AV	DU MONT BLANC	1143	1220	
4	100604	140		RUE	DE L'ABBE JOLIVET	1288	1630	
5	100605	39		RUE	BUFFON	1033	1200	
6	100606	8		RUE	DE GENEVE	1354	1630	
7	100607	2		RUE	DU RECULET	1354	1630	
8	100608	1403		RUE	JEAN DE GINGINS	1143	1220	
9	100609	226		ALL	DES CAPUCINES	1354	1630	

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

```
SELECT
    Contrat_id,
    Com_nom_maj_court AS Commune
FROM
    contrats
LEFT JOIN regions
    ON regions.Code_dep_code_commune =
contrats.Code_dep_code_commune
WHERE Com_nom_maj_court LIKE 'CAEN'
;
```

The screenshot shows a database query interface with the following details:

- SQL Query (Text Area):**

```
1 SELECT
2     Contrat_id as ID_Contrat,
3     Surface
4 FROM contrats
5 LEFT Join regions
6 ON contrats.Code_dep_code_commune = regions.Code_dep_code_commune
7 WHERE Com_nom_maj_court = 'CAEN'
8 ;
9
10 |
```
- Result Table (Table View):**

	ID_Contrat	Surface
1	103791	35
2	103792	99
3	103793	40
4	103794	20
- Buttons and Labels:** The interface includes standard database navigation buttons (refresh, save, cancel, etc.) and a status message "Nombre de lignes chargées : 4".
- Toolbar:** A toolbar at the top right contains "Table" and "Formulaire" buttons, with "Table" being the active tab.

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

```
SELECT
    Contrat_id,
    Type_contrat,
    Formule
FROM
    contrats
LEFT JOIN regions
    ON regions.Code_dep_code_commune =
contrats.Code_dep_code_commune
WHERE Type_local LIKE 'Maison'
    AND Dep_code = 71
; 
```

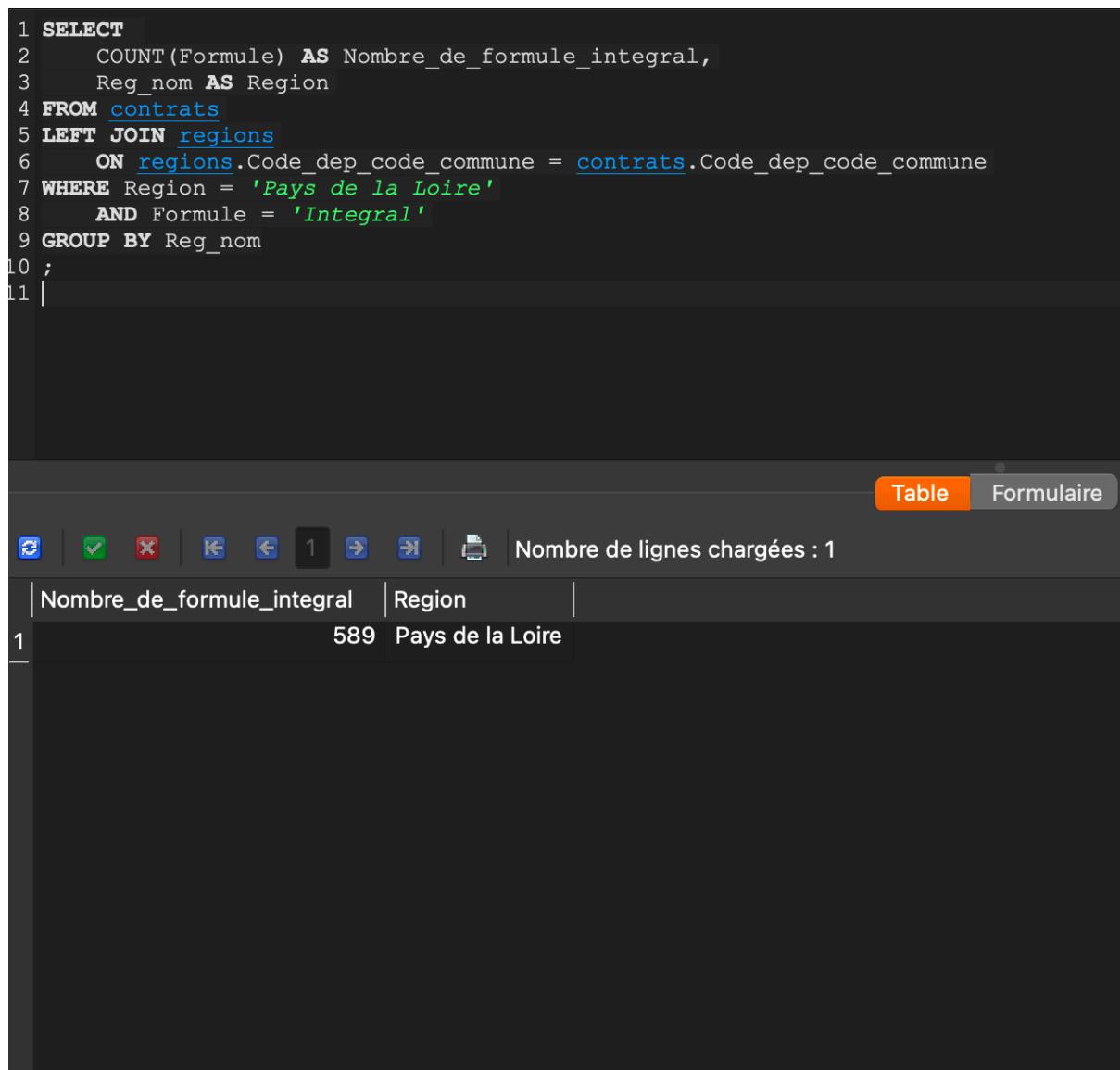
```
1 SELECT
2     Contrat_id as ID_Contrat_maison_71,
3     Type_contrat,
4     Formule
5 FROM contrats
6 LEFT Join regions
7 ON contrats.Code_dep_code_commune = regions.Code_dep_code_commune
8 WHERE
9     Type_local = 'Maison'
10    AND Dep_code = 71
11 ;
12
13 |
```

The screenshot shows a database interface with a query editor at the top and a results table below. The results table has three columns: 'ID_Contrat_maison_71', 'Type_contrat', and 'Formule'. The data is as follows:

	ID_Contrat_maison_71	Type_contrat	Formule
1	114768	Residence principale	Integral
2	114779	Residence principale	Classique
3	114782	Residence principale	Classique
4	114812	Residence principale	Integral

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

```
SELECT
    COUNT(Formule) AS Nombre_de_formule_integral,
    Reg_nom AS Region
FROM contrats
LEFT JOIN regions
    ON regions.Code_dep_code_commune =
contrats.Code_dep_code_commune
WHERE Region = 'Pays de la Loire'
    AND Formule = 'Integral'
GROUP BY Reg_nom
;
```



The screenshot shows the MySQL Workbench interface with the following details:

- Query Editor:** Displays the SQL query from above.
- Results Tab:** Shows the output of the query. The title bar says "Nombre de lignes chargées : 1".
- Table:** The result is presented in a table with two columns: "Nombre_de_formule_integral" and "Region".
- Data:** One row is shown: "589" in the first column and "Pays de la Loire" in the second column.

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

```
SELECT
    Contrat_id as ID_contrat_maison_71,
    Type_contrat,
    Formule
FROM contrats
LEFT JOIN regions
    ON regions.Code_dep_code_commune =
contrats.Code_dep_code_commune
WHERE Type_Local = 'Maison'
    AND Dep_code = 71
;
```

```
1 SELECT
2     Contrat_id as ID_contrat_maison_71,
3     Type_contrat,
4     Formule
5 FROM contrats
6 LEFT JOIN regions
7 ON contrats.Code_dep_code_commune = regions.Code_dep_code_commune
8 WHERE
9     Type_local = 'Maison'
10    AND Dep_code = 71
11 ;
12
13 |
```

Nombre de lignes chargées : 4

	ID_contrat_maison_71	Type_contrat	Formule
1	114768	Residence principale	Integral
2	114779	Residence principale	Classique
3	114782	Residence principale	Classique
4	114812	Residence principale	Integral

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

```
SELECT
    ROUND(AVG(Surface),2) AS Surface_moyenne,
    Dep_nom
FROM contrats
LEFT JOIN regions
    ON regions.Code_dep_code_commune =
contrats.Code_dep_code_commune
WHERE Dep_nom = 'Paris'
GROUP BY Dep_nom
;
```

The screenshot shows a database query interface with the following details:

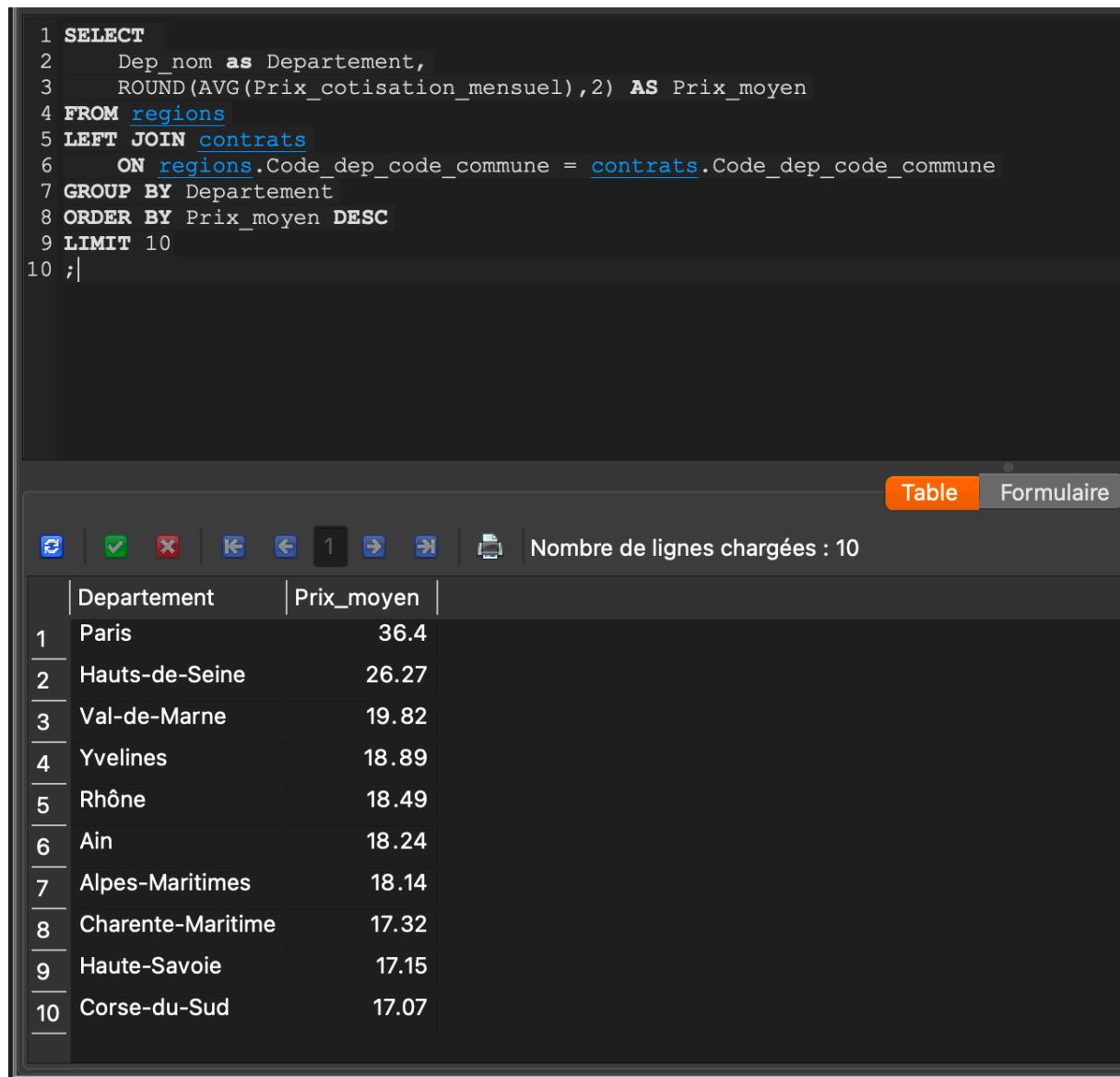
- SQL Query (Code Block):**

```
1 SELECT
2     ROUND(AVG(Surface),2) AS Surface_moyenne,
3     Dep_nom
4 FROM contrats
5 LEFT JOIN regions
6     ON regions.Code_dep_code_commune = contrats.Code_dep_code_commune
7 WHERE Dep_nom = 'Paris'
8 GROUP BY Dep_nom
9 ;
10
11 |
```
- Result Table:**

	Surface_moyenne	Dep_nom
1	51.77	Paris
- Table View Options:** Includes icons for refresh, save, delete, and search, followed by the page number "1".
- Information Bar:** Shows "Nombre de lignes chargées : 1" and buttons for "Table" and "Formulaire".

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

```
SELECT
    Dep_nom as Departement,
    ROUND(AVG(Prix_cotisation_mensuel),2) AS Prix_moyen
FROM regions
LEFT JOIN contrats
    ON regions.Code_dep_code_commune =
contrats.Code_dep_code_commune
GROUP BY Departement
ORDER BY Prix_moyen DESC
LIMIT 10
;
```



The screenshot shows the MySQL Workbench interface with the following details:

- Query Editor:** Displays the SQL query for selecting the top 10 departments by average monthly contribution price.
- Results:** A table titled "Nombre de lignes chargées : 10" showing the results. The table has two columns: "Departement" and "Prix_moyen". The data is as follows:

	Departement	Prix_moyen
1	Paris	36.4
2	Hauts-de-Seine	26.27
3	Val-de-Marne	19.82
4	Yvelines	18.89
5	Rhône	18.49
6	Ain	18.24
7	Alpes-Maritimes	18.14
8	Charente-Maritime	17.32
9	Haute-Savoie	17.15
10	Corse-du-Sud	17.07

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

```
SELECT
    Com_Nom_maj_court as Commune,
    COUNT(Contrat_id) as Nombre_contrat
FROM regions
LEFT JOIN contrats
ON regions.Code_dep_code_commune =
contrats.Code_dep_code_commune
GROUP BY Commune
HAVING Nombre_contrat >= 150
ORDER BY Nombre_contrat DESC
;
```

```
1 SELECT
2     Com_nom_maj_court as Commune,
3     COUNT(Contrat_id) AS Nombre_contrat
4 FROM regions
5 LEFT JOIN contrats
6     ON regions.Code_dep_code_commune = contrats.Code_dep_code_commune
7 GROUP BY Commune
8 HAVING Nombre_contrat >= 150
9 ORDER BY Nombre_contrat DESC
10 ;
```

The screenshot shows a database query interface with the following details:

- Query Editor:** The SQL query is displayed in a code editor-like area.
- Execution Results:** The results are presented in a table format. The table has two columns: "Commune" and "Nombre_contrat".
- Table Headers:** The columns are labeled "Commune" and "Nombre_contrat".
- Data Rows:** There are 11 rows of data, indexed from 1 to 11. The data is as follows:

	Commune	Nombre_contrat
1	PARIS 18	515
2	PARIS 17	468
3	PARIS 15	407
4	PARIS 16	394
5	NICE	387
6	PARIS 11	381
7	PARIS 20	302
8	BORDEAUX	302
9	NANTES	291
10	PARIS 19	266
11	PARIS 10	263
- Toolbar:** A toolbar at the top of the results area includes icons for refresh, save, and other database operations.
- Status Bar:** The status bar at the bottom right indicates "Nombre de lignes chargées : 20".

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

```
SELECT
    Reg_nom as Region,
    COUNT(Contrat_id) AS Nombre_contrat
FROM regions
LEFT JOIN contrats
    ON regions.Code_dep_code_commune =
contrats.Code_dep_code_commune
GROUP BY Region
ORDER BY Nombre_contrat DESC
;
```

The screenshot shows a database query interface with the following details:

- SQL Query:**

```
1 SELECT
2     Reg_nom as Region,
3     COUNT(Contrat_id) AS Nombre_contrat
4 FROM regions
5 LEFT JOIN contrats
6     ON regions.Code_dep_code_commune = contrats.Code_dep_code_commune
7 GROUP BY Region
8 ORDER BY Nombre_contrat DESC
9 ;|
```
- Results:** A table titled "Nombre de lignes chargées : 19" showing the number of contracts per region. The table has two columns: "Region" and "Nombre_contrat". The data is as follows:

	Region	Nombre_contrat
1	Ile-de-France	14177
2	Provence-Alpes-Côte d'Azur	3279
3	Auvergne-Rhône-Alpes	3042
4	Nouvelle-Aquitaine	2038
5	Occitanie	1609
6	Pays de la Loire	1196
7	Hauts-de-France	1189
8	Bretagne	947
9	Normandie	824
10	Grand Est	769
11	Centre-Val de Loire	598