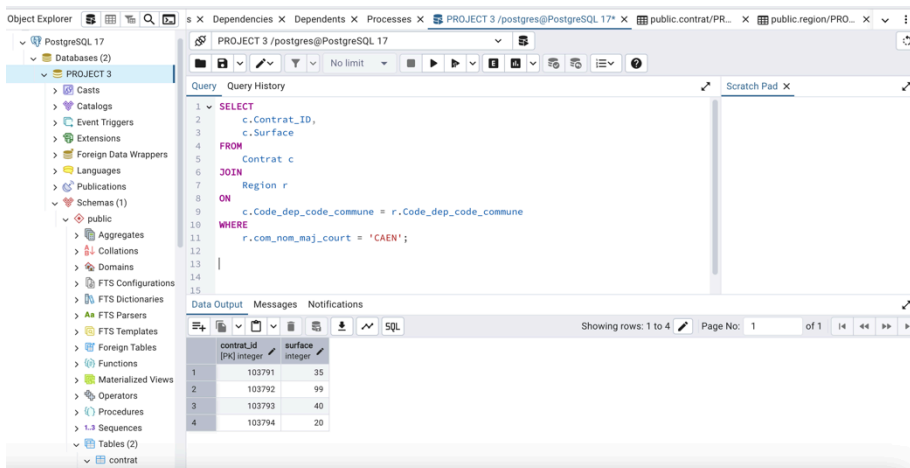


Présentation des requêtes SQL

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 c
JOIN
    region r
ON
    c.code_dep_code_commune = r.code_dep_code_commune
WHERE
    r.com_nom_maj_court = 'CAEN';
```



The screenshot shows a PostgreSQL IDE interface. The left pane displays the 'Object Explorer' with a tree view of the database structure, including 'Databases (2)', 'PROJECT 3', and 'public'. The main pane shows a SQL query editor with the following query:

```
SELECT
  c.contrat_id,
  c.surface
FROM
  Contrat c
JOIN
  Region r
ON
  c.Code_dep_code_commune = r.Code_dep_code_commune
WHERE
  r.com_nom_maj_court = 'CAEN';
```

Below the query editor, the 'Data Output' pane displays the results of the query in a table format:

	contrat_id [PK] integer	surface integer
1	103791	35
2	103792	99
3	103793	40
4	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,
    c.formule
FROM
    contrat c
JOIN
    region r
```

ON

c.code_dep_code_commune = r.code_dep_code_commune

WHERE

c.type_local = 'Maison'

AND

r.dep_code = '71'

The screenshot shows the pgAdmin 4 interface. On the left, the Object Explorer displays the database structure for 'PROJECT 3'. The main pane shows a SQL query in the 'Query' tab:

```
1 SELECT
2   c.Contract_ID,
3   c.Type_contrat,
4   c.Formule
5 FROM
6   Contrat c
7 JOIN
8   Region r
9 ON
10  c.Code_dep_code_commune = r.Code_dep_code_commune
11 WHERE
12  c.Type_local = 'Maison'
13 AND r.dep_code = '71';
14
15
```

Below the query, the 'Data Output' tab shows the results of the query:

contrat_id	type_contrat	formule
114768	Residence principale	Integral
114779	Residence principale	Classique
114782	Residence principale	Classique
114812	Residence principale	Integral

Requête 3: Lister le nom des régions de France.

SELECT DISTINCT

r.reg_nom

FROM

region r

ORDER BY

r.reg_nom ASC;

The screenshot shows the pgAdmin 4 interface. On the left, the Object Explorer displays the database structure for 'PROJECT 3'. The main pane shows a SQL query in the 'Query' tab:

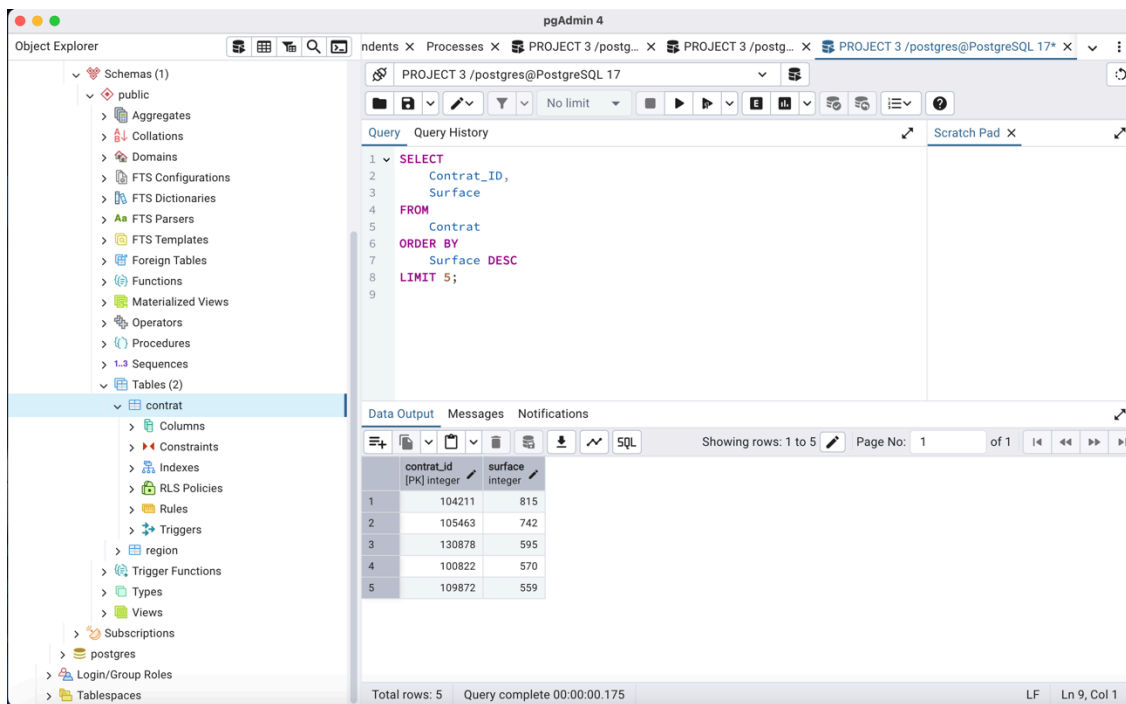
```
1 SELECT DISTINCT
2   r.reg_nom
3 FROM
4   Region r
5 ORDER BY
6   r.reg_nom ASC;
7
8
9
10
```

Below the query, the 'Data Output' tab shows the results of the query:

reg_nom
Ile-de-France
La Réunion
Martinique
Mayotte
Normandie
Nouvelle-Aquitaine
Occitanie
Pays de la Loire
Provence-Alpes-Côte d'Azur

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;
```



The screenshot shows the pgAdmin 4 interface. On the left, the 'Object Explorer' shows the 'public' schema with a table named 'contrat'. The 'Query' tab is active, displaying the following SQL query:

```
1 SELECT
2     Contrat_ID,
3     Surface
4 FROM
5     Contrat
6 ORDER BY
7     Surface DESC
8 LIMIT 5;
```

The 'Data Output' tab shows the results of the query in a table with 5 rows and 2 columns: 'contrat_id [PK] integer' and 'surface integer'.

	contrat_id [PK] integer	surface integer
1	104211	815
2	105463	742
3	130878	595
4	100822	570
5	109872	559

The status bar at the bottom indicates 'Total rows: 5' and 'Query complete 00:00:00.175'.

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

```
SELECT
    AVG(Prix_cotisation_mensuel) AS Prix_moyen_cotisation
FROM
    Contrat;
```

pgAdmin 4

Object Explorer

- Schemas (1)
 - public
 - Aggregates
 - Collations
 - Domains
 - FTS Configurations
 - FTS Dictionaries
 - FTS Parsers
 - FTS Templates
 - Foreign Tables
 - Functions
 - Materialized Views
 - Operators
 - Procedures
 - Sequences
 - Tables (2)
 - contrat
 - Columns
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
 - region
 - Trigger Functions
 - Types
 - Views
- postgres
- Login/Group Roles
- Tablespaces

Query

```
1 SELECT
2     AVG(Prix_cotisation_mensuel) AS Prix_moyen_cotisation
3 FROM
4     Contrat;
```

Query History

Scratch Pad

Data Output

Showing rows: 1 to 1 Page No: 1 of 1

	prix_moyen_cotisation
1	19.3300468245070237

Total rows: 1 Query complete 00:00:00.127 LF Ln 5, Col 1

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 Nombre_de_contrats
FROM
    Contrat
GROUP BY
    Valeur_declaree_biens
ORDER BY
    Nombre_de_contrats DESC;
```

The screenshot shows the pgAdmin 4 interface. On the left, the 'Schemas' tree is expanded to 'public', and the 'Tables' section is further expanded to show the 'contrat' table. The main pane displays a SQL query in the 'Query Editor' tab. The query is as follows:

```
SELECT
    Valeur_declaree_biens,
    COUNT(*) AS Nombre_de_contrats
FROM
    Contrat
GROUP BY
    Valeur_declaree_biens
ORDER BY
    Nombre_de_contrats DESC;
```

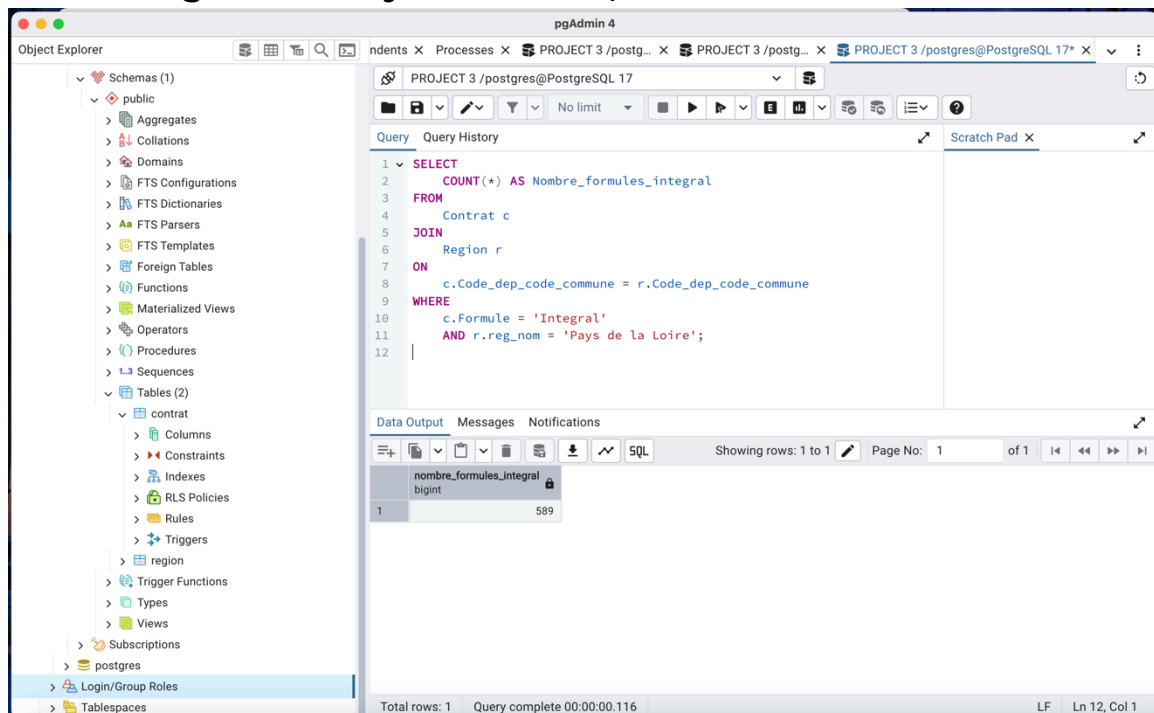
Below the query editor, the 'Data Output' tab shows the results of the query. The results are displayed in a table with two columns: 'valeur_declaree_biens' (character varying (12)) and 'nombre_de_contrats' (bigint). The table contains four rows of data.

valeur_declaree_biens	nombre_de_contrats
0-25000	22712
25000-50000	6814
50000-100000	696
100000+	104

The status bar at the bottom indicates 'Total rows: 4' and 'Query complete 00:00:00.143'.

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

```
SELECT
    COUNT(*) AS Nombre_formules_integral
FROM
    Contrat c
JOIN
    Region r
ON
    c.Code_dep_code_commune = r.Code_dep_code_commune
WHERE
    c.Formule = 'Integral'
    AND r.reg_nom = 'Pays de la Loire';
```



The screenshot shows the pgAdmin 4 interface. On the left, the Object Explorer displays the database structure, including schemas (public), tables (contrat, region), and views. The main query editor shows the following SQL query:

```
1 SELECT
2     COUNT(*) AS Nombre_formules_integral
3 FROM
4     Contrat c
5 JOIN
6     Region r
7 ON
8     c.Code_dep_code_commune = r.Code_dep_code_commune
9 WHERE
10    c.Formule = 'Integral'
11    AND r.reg_nom = 'Pays de la Loire';
12
```

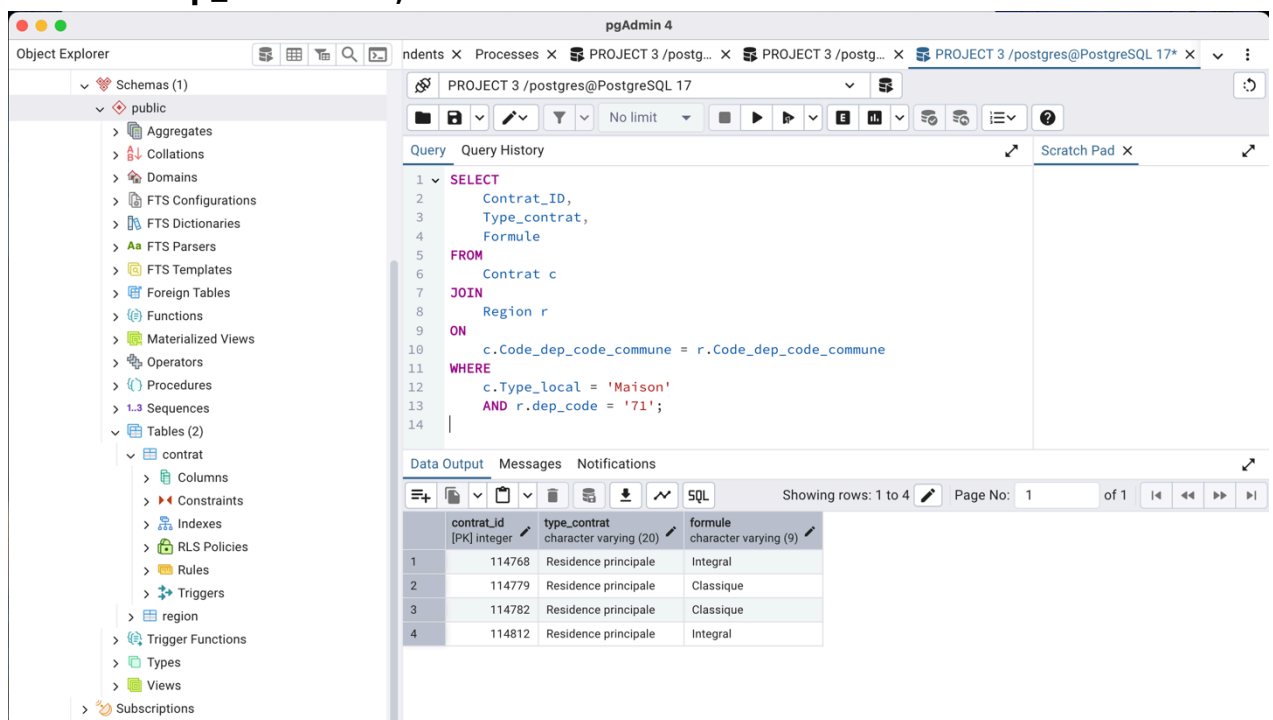
The Data Output pane at the bottom shows the results of the query:

nombre_formules_integral
589

The status bar at the bottom indicates "Total rows: 1" and "Query complete 00:00:00.116".

Requête 8 : 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
    Contrat c
JOIN
    Region r
ON
    c.Code_dep_code_commune = r.Code_dep_code_commune
WHERE
    c.Type_local = 'Maison'
    AND r.dep_code = '71';
```



The screenshot shows the pgAdmin 4 interface. On the left, the Object Explorer displays the database schema, including tables 'contrat' and 'region'. The main pane shows a SQL query that has been executed. Below the query, the 'Data Output' tab displays the results of the query in a table format.

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) AS Surface_moyenne
FROM
    Contrat c
JOIN
    Region r
ON
    c.Code_dep_code_commune = r.Code_dep_code_commune
WHERE
    r.aca_nom ILIKE '%Paris%';
```

The screenshot shows the pgAdmin 4 interface. On the left is the Object Explorer with a tree view of the database schema. The main pane displays a SQL query in the Query editor. Below the query editor is the Data Output pane, which shows the result of the query as a table with one row and one column.

Query:

```
1 SELECT
2     AVG(c.Surface) AS Surface_moyenne
3 FROM
4     Contrat c
5 JOIN
6     Region r
7 ON
8     c.Code_dep_code_commune = r.Code_dep_code_commune
9 WHERE
10    r.aca_nom ILIKE '%Paris%';
```

Data Output:

surface_moyenne
51.7695498859157851

Showing rows: 1 to 1 | Page No: 1 of 1

Total rows: 1 | Query complete 00:00:00.123 | LF | Ln 11, Col 1

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

```
SELECT
    r.dep_nom,
    AVG(c.Prix_cotisation_mensuel) AS Prix_moyen_cotisation
FROM
    Contrat c
JOIN
    Region r
ON
    c.Code_dep_code_commune = r.Code_dep_code_commune
GROUP BY
    r.dep_nom
ORDER BY
    Prix_moyen_cotisation DESC
LIMIT 10;
```

The screenshot shows the pgAdmin 4 interface. On the left is the Object Explorer with the 'public' schema selected. The main pane displays a SQL query in the 'Query' tab. Below the query editor is the 'Data Output' tab, which shows the results of the query in a table format. The table has two columns: 'dep_nom' (character varying (43)) and 'prix_moyen_cotisation' (numeric). The results are sorted in descending order of the average monthly subscription price, showing the top 10 departments.

dep_nom	prix_moyen_cotisation
Paris	36.3990873262808546
Hauts-de-Seine	26.2693584070796460
Val-de-Marne	19.8241639697950378
Yvelines	18.8880697050938338
Rhône	18.4855182926829268
Ain	18.2388888888888889
Alpes-Maritimes	18.1376228775692583
Charente-Maritime	17.3173076923076923
Haute-Savoie	17.1487341772151899

Total rows: 10 Query complete 00:00:00.119 LF Ln 15, Col 1

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

SELECT

r.com_nom_maj_court AS Commune,
COUNT(*) AS Nombre_de_contrats

FROM

Contrat c

JOIN

Region r

ON

c.Code_dep_code_commune = r.Code_dep_code_commune

GROUP BY

r.com_nom_maj_court

HAVING

COUNT(*) >= 150

ORDER BY

Nombre_de_contrats DESC;

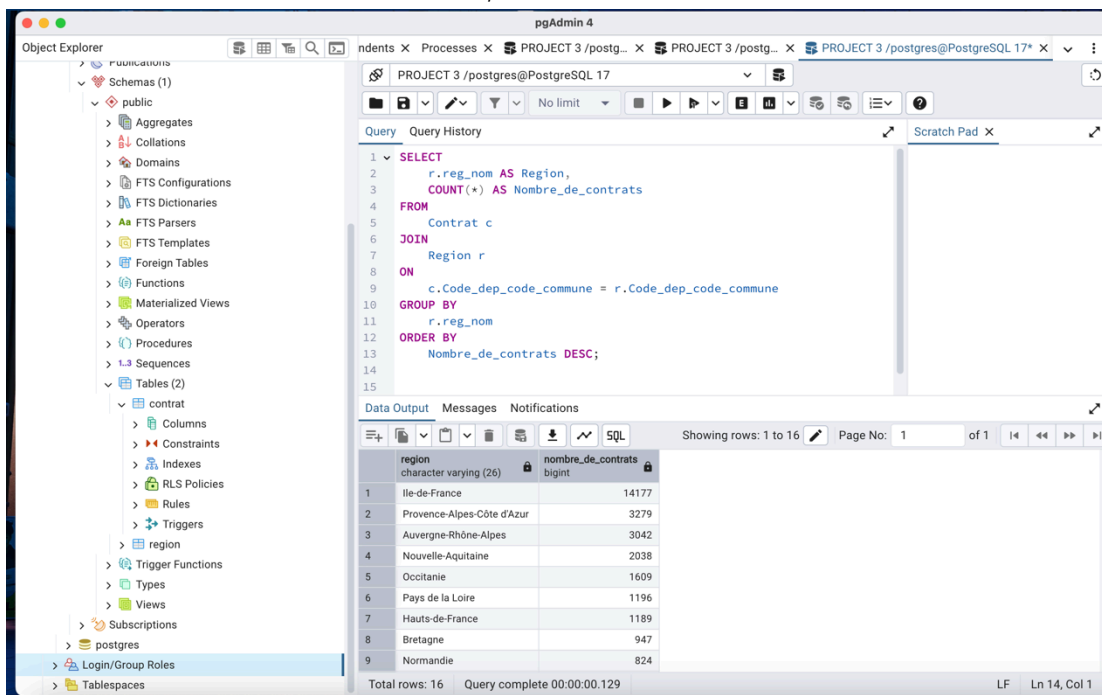
The screenshot shows the pgAdmin 4 interface. On the left is the Object Explorer with a tree view of the database schema. The main pane displays a SQL query in the Query Editor. Below the query editor is the Data Output pane, which shows the results of the query in a table format. The table has two columns: 'commune' (character varying (32)) and 'nombre_de_contrats' (bigint). The results are sorted in descending order by the number of contracts.

	commune character varying (32)	nombre_de_contrats bigint
1	PARIS 18	515
2	PARIS 17	468
3	PARIS 15	407
4	PARIS 16	394
5	NICE	387
6	PARIS 11	381
7	BORDEAUX	302
8	PARIS 20	302
9	NANTES	291

Total rows: 20 Query complete 00:00:00.138 LF Ln 1, Col 1

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

```
SELECT
    r.reg_nom AS Region,
    COUNT(*) AS Nombre_de_contrats
FROM
    Contrat c
JOIN
    Region r
ON
    c.Code_dep_code_commune = r.Code_dep_code_commune
GROUP BY
    r.reg_nom
ORDER BY
    Nombre_de_contrats DESC;
```



The screenshot shows the pgAdmin 4 interface. The left pane displays the 'Object Explorer' with the 'public' schema selected. The main pane shows a SQL query in the 'Query' tab. The query is the same as the one in the previous block. The 'Data Output' pane at the bottom shows the results of the query, which are 16 rows of data. The results are displayed in a table with two columns: 'region' and 'nombre_de_contrats'.

	region character varying (26)	nombre_de_contrats bigint
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

Total rows: 16 Query complete 00:00:00.129 LF Ln 14, Col 1