

1/ Nombre d'appartements et Maisons vendus en 2020

```
SELECT COUNT(*) FROM ventes  
INNER JOIN biens ON ventes.ventes_id = biens.id_bien WHERE ventes.nature_mutation =  
"Vente" and (biens.type_local="Appartement" or biens.type_local= "Maison");
```

1378948

2/ Nombre de biens vendus par trimestre

```
SELECT COUNT(*) FROM ventes WHERE nature_mutation = 'Vente' and  
(MONTH(date_mutation) BETWEEN 1 and 3);
```

995466

```
SELECT COUNT(*) FROM ventes WHERE nature_mutation = 'Vente' and  
(MONTH(date_mutation) BETWEEN 4 and 6);
```

1108840

```
SELECT COUNT(*) FROM ventes WHERE nature_mutation = 'Vente' and  
(MONTH(date_mutation) BETWEEN 7 and 9);
```

1096208

```
SELECT COUNT(*) FROM ventes WHERE nature_mutation = 'Vente' and  
(MONTH(date_mutation) BETWEEN 10 and 12);
```

1066708

3/ Proportion des ventes de biens par trimestre

```
SELECT COUNT(*)*100 / (SELECT COUNT(*)FROM ventes) FROM ventes WHERE  
MONTH(date_mutation) BETWEEN 1 AND 3 and(MONTH(date_mutation) BETWEEN 1 and 3);
```

```
SELECT COUNT(*)*100 / (SELECT COUNT(*)FROM ventes) FROM ventes WHERE  
MONTH(date_mutation) BETWEEN 4 AND 6 and(MONTH(date_mutation) BETWEEN 4 and 6);
```

```
SELECT COUNT(*)*100 / (SELECT COUNT(*)FROM ventes) FROM ventes WHERE  
MONTH(date_mutation) BETWEEN 7 AND 9 and(MONTH(date_mutation) BETWEEN 7 and 9);
```

```
SELECT COUNT(*)*100 / (SELECT COUNT(*)FROM ventes) FROM ventes WHERE  
MONTH(date_mutation) BETWEEN 10 AND 12 and(MONTH(date_mutation) BETWEEN 10 and  
12);
```

1er trimestre

23.1453%

2eme trimestre

25.8192%

3eme trimestre
25.3117%

4eme trimestre
25.7238%

4/ Proportion d'appartements vendus par nombre de pièces

```
SELECT nb_pieces_principales,(COUNT(ventes_id) * 100.0) / (SELECT COUNT(*) FROM biens  
WHERE type_local = "Appartement") AS pourcentage  
FROM ventes INNER JOIN biens ON ventes.ventes_id = biens.id_bien WHERE type_local =  
"Appartement" AND nb_pieces_principales IS NOT NULL GROUP BY nb_pieces_principales;
```

nb_pieces_principales	pourcentage
1	19.16247
3	29.93008
4	15.61313
2	30.13967
0	0.23056
5	3.89150
6	0.72831

5/ Les 10 départements où il y a eu le plus de ventes immobilières.

```
SELECT COUNT(*) AS total , code_departement FROM location INNER JOIN ventes ON  
location.id_bien = ventes.ventes_id  
GROUP BY code_departement ORDER BY total DESC LIMIT 10;
```

total	code_departement
122665	59
119757	33
108534	13
106606	83
106519	69
106001	6
100589	44
97971	75
97142	31
96656	34

6/ Les 10 départements où il y en a eu le moins.

```
SELECT COUNT(*) AS total , code_departement FROM location INNER JOIN ventes ON  
location.id_bien = ventes.ventes_id  
GROUP BY code_departement ORDER BY total LIMIT 10;
```

total	code_departement
5586	973
7977	971
8036	972
8590	90
9715	48
11001	2A
12421	2B
15619	15
16357	52
16715	4

7/ Prix moyen du mètre carré en IDF.

// avec surface_reelle_bati

```
SELECT code_departement, AVG(valeur_fonciere / surface_reelle_bati) AS
moyenne_valeur_fonciere
FROM ventes
INNER JOIN biens ON ventes.ventes_id = biens.id_bien
INNER JOIN location ON ventes.ventes_id = location.id_bien
WHERE code_departement IN (75, 77, 78, 91, 92, 93, 94, 95) AND (valeur_fonciere AND
surface_reelle_bati) IS NOT NULL AND valeur_fonciere < 1000000
GROUP BY code_departement;
```

code_departement	moyenne_valeur_fonciere
77	19980.743113906035
78	5518.813224386279
91	4199.308444365986
92	4333.450335709135
93	10547.031044165495
94	7900.400917934037
95	771.333503869858
75	9008.872899382803

// avec lot_1_surface

```
SELECT code_departement, AVG(valeur_fonciere / lot_1_surface) AS moyenne_valeur_fonciere
FROM ventes
INNER JOIN lots ON ventes.ventes_id = lots.id_bien
INNER JOIN location ON ventes.ventes_id = location.id_bien
WHERE code_departement IN (75, 77, 78, 91, 92, 93, 94, 95) AND (valeur_fonciere AND
lot_1_surface) IS NOT NULL AND valeur_fonciere < 1000000
GROUP BY code_departement;
```

	code_departement	moyenne_valeur_fonciere
77		14225.28665757324
78		24868.082896223696
91		7653.312780258084
92		42145.44816133964
93		7144.001828290343
94		61435.69963976614
95		31558.589525553816
75		29814.448893979636

8/ Liste des 10 appartements les plus chers avec le département et le nombre de mètres carrés.

```
SELECT lots.id_bien, code_departement, valeur_fonciere, lot_1_surface FROM ventes
INNER JOIN lots ON ventes.ventes_id = lots.id_bien
INNER JOIN location ON ventes.ventes_id = location.id_bien
WHERE lot_1_surface IS NOT NULL
ORDER BY valeur_fonciere DESC LIMIT 10;
```

9/ Taux d'évolution du nombre de ventes entre le premier et le second trimestre de 2020.

```
SELECT ((ventes_deuxieme_trimestre - ventes_premier_trimestre) / ventes_premier_trimestre) *
100 AS taux_evolution
FROM (
    SELECT
        (SELECT COUNT(*) FROM ventes WHERE MONTH(date_mutation) BETWEEN 1 AND 3)
        AS ventes_premier_trimestre,
        (SELECT COUNT(*) FROM ventes WHERE MONTH(date_mutation) BETWEEN 4 AND 6)
        AS ventes_deuxieme_trimestre
    ) AS ventes_trimestres;
```

11.55%

10/ Liste des communes où le nombre de ventes a augmenté d'au moins 20% entre le premier et le second trimestre de 2022

```
WITH trimestre_1 AS (SELECT COUNT(*) AS vente_t1, commune FROM location
INNER JOIN ventes ON ventes.ventes_id = location.id_bien WHERE
MONTH(date_mutation) BETWEEN 1 AND 3 GROUP BY commune),
trimestre_2 AS (SELECT COUNT(*) AS vente_t2, commune FROM location
INNER JOIN ventes ON ventes.ventes_id = location.id_bien WHERE
MONTH(date_mutation) BETWEEN 4 AND 6 GROUP BY commune)
SELECT trimestre_1.commune, ((vente_t1- vente_t2)/vente_t2)*100 AS pourcentage
FROM trimestre_1, trimestre_2
HAVING pourcentage >=20 LIMIT 20;
```

	commune	pourcentage
►	PARIS 11	141.9441
	PARIS 12	60.1864
	PARIS 13	32.4900
	PARIS 15	229.1611
	PARIS 16	192.5433
	PARIS 14	67.3768
	PARIS 19	51.6644
	PARIS 17	138.0826
	PARIS 20	82.8229
	PARIS 18	163.3822
	PARIS 10	37.2836