Requête 1

```
SELECT
        COUNT(DISTINCT id_bien) AS "nombre total d'appartement vendus"
FROM
        mutation m,
        mutation_bien mb,
        bien b
WHERE
        mb.fk_mutation = m.id_mutation
        AND mb.fk_bien = b.id_bien
        AND b.type_local = "Appartement"
        AND date_mutation BETWEEN '2020-01-01' AND '2020-06-30'
        AND m.nature_mutation = "Vente";
```

nombre total d'appartement vendus
▶ 31372

Requête 2

```
SELECT
        nombre_pieces,
        COUNT(*) AS nb_appart,
        CONCAT(ROUND((COUNT(*)/(SELECT COUNT(*) FROM mutation m, mutation_bien mb, bien
b
        WHERE mb.fk_mutation = m.id_mutation
        AND mb.fk_bien = b.id_bien
        AND b.type_local = "Appartement"
        AND m.nature_mutation = "Vente"))*100, 1), "%") AS Pourcentage
FROM
        mutation m,
        mutation_bien mb,
        bien b
WHERE
        mb.fk_mutation = m.id_mutation
        AND mb.fk_bien = b.id_bien
        AND b.type_local = "Appartement"
        AND m.nature_mutation = "Vente"

GROUP BY nombre_pieces
ORDER BY nombre_pieces;
```

nombre_pieces	nb_appart	Pourcentage
0	30	0.1%
1	6739	21.5%
2	9783	31.2%
3	8966	28.6%
4	4460	14.2%
5	1114	3.6%
6	204	0.7%
7	54	0.2%
8	17	0.1%
9	8	0.0%
10	2	0.0%
11	1	0.0%

Requête 3

```
SELECT
        SUBSTRING(code_postal, 1, 2) AS Departement,
        ROUND(AVG(valeur_fonciere / surface_carrez), 0) AS prix_m²
FROM
        mutation_bien mb,
        bien b,
        commune c
WHERE
        mb.fk_bien = b.id_bien
        AND b.fk_commune = c.id_commune

GROUP BY Departement
ORDER BY Prix_m² DESC
LIMIT 10;
```

Departement	prix_m²
75	12044
92	7217
94	5341
06	4697
74	4667
93	4337
78	4225
69	4059
20	4006
33	3762

Requête 4

```
SELECT
        CONCAT(ROUND(AVG(valeur_fonciere/surface_carrez), 0), "€") AS prix_m²_IDF
FROM
        mutation_bien mb,
        bien b,
```

```
        commune c

WHERE
        mb.fk_bien = b.id_bien
        AND b.fk_commune = c.id_commune
        AND SUBSTRING(code_postal, 1, 2) in ('75', '77', '78', '91', '92', '93', '94', '95')
        AND type_local = 'Maison';
```

	prix_m²_IDF
▶	3745€

Requête 5

```
SELECT
        id_bien,
        CONCAT(valeur_fonciere, "€") AS Prix,
        SUBSTRING(code_postal, 1, 2) AS Departement,
        surface_carrez AS surface_m²
FROM
        mutation_bien mb,
        bien b,
        commune c
WHERE
        mb.fk_bien = b.id_bien
        AND b.fk_commune = c.id_commune
        AND type_local = 'Appartement'

ORDER BY valeur_fonciere DESC
LIMIT 10;
```

	id_bien	Prix	Departement	surface_m²
▶	32267	9000000€	75	9.1
	21831	8600000€	91	64
	29793	8577713€	75	20.55
	32425	7620000€	75	42.77
	29844	7600000€	75	253.3
	29516	7535000€	75	139.9
	31965	7420000€	75	360.95
	32127	7200000€	75	595
	29347	7050000€	75	122.56
	29507	6600000€	75	79.38

Requête 6

nombre de ventes au premier trimestre

```
WITH cte_T1 AS (
        SELECT
                COUNT(*) AS Vente_T1
```

```
        FROM
                mutation m
        WHERE
                m.nature_mutation = "Vente"
                AND date_mutation BETWEEN '2020-01-01' AND '2020-03-31'),
```

#nombre de vente au deuxieme trimestre

```
        cte_T2 AS (
        SELECT
                COUNT(*) AS Vente_T2
        FROM
                mutation m
        WHERE
                m.nature_mutation = "Vente"
                AND date_mutation BETWEEN '2020-04-01' AND '2020-06-30')
```

#calcul du taux d_évolution

```
SELECT CONCAT(ROUND(((Vente_T2-Vente_T1)/Vente_T1)*100, 1), "%") AS "Taux d'évolution"
FROM cte_T1, cte_T2;
```

Taux d'évolution
▶ 3.7%

Requête 7

nombre de vente pour chaque commune au premier trimestre

```
WITH cte_T1 AS (
        SELECT
                nom_commune,
                COUNT(*) AS Vente_T1
        FROM
                mutation m,
                mutation_bien mb,
                bien b,
                commune c
        WHERE
                mb.fk_mutation = m.id_mutation
                AND mb.fk_bien = b.id_bien
                AND b.fk_commune = c.id_commune
                AND m.nature_mutation = "Vente"
                AND date_mutation BETWEEN '2020-01-01' AND '2020-03-31'
        GROUP BY nom_commune),
```

nombre de vente pour chaque commune au deuxieme trimestre

```
        cte_T2 AS (
        SELECT
                nom_commune,
                COUNT(*) AS Vente_T2
        FROM
                mutation m,
                mutation_bien mb,
                bien b,
                commune c
        WHERE
                mb.fk_mutation = m.id_mutation
                AND mb.fk_bien = b.id_bien
                AND b.fk_commune = c.id_commune
                AND m.nature_mutation = "Vente"
                AND date_mutation BETWEEN '2020-04-01' AND '2020-06-30'
        GROUP BY nom_commune)
```

affichage des communes avec augmentation minimum de vingt pourcent des ventes

```
SELECT
        cte_T1.nom_commune,
        Vente_T1,
        Vente_T2,
        CONCAT(ROUND(((Vente_T2-Vente_T1)/Vente_T1)*100, 1),'%') AS Taux_evolution
FROM
        cte_T1,
        cte_T2
WHERE
        cte_T1.nom_commune = cte_T2.nom_commune
        AND ROUND(((Vente_T2-Vente_T1)/Vente_T1)*100, 1) > 20;
```

nom_commune	Vente_T1	Vente_T2	Taux_evolution
LAON	11	14	27.3%
VILLERS-COTTERETS	3	5	66.7%
CHATEAU-ARNOUX-SAINT-AUBAN	1	2	100.0%
BARCELONNETTE	2	5	150.0%
SAINT-MARTIN-DE-BROMES	1	2	100.0%
EMBRUN	1	2	100.0%
ORCIERES	1	5	400.0%
GAP	2	6	200.0%
LE DEVOLUY	1	11	1000.0%
LA SALLE	1	3	200.0%
RISOUL	1	2	100.0%

Requête 8

calcul prix moyen du m² pour un appartement de deux pieces

```
WITH cte_T1 AS (
        SELECT
                ROUND(AVG(valeur_fonciere/surface_carrez), 2) AS prix_m²_2p
        FROM
                mutation_bien mb,
                bien b
        WHERE
                mb.fk_bien = b.id_bien
                AND type_local = 'Appartement'
                AND nombre_pieces = 2),
```

calcul prix moyen du m² pour un appartement de trois pieces

```
        cte_T2 AS (
        SELECT
                ROUND(AVG(valeur_fonciere/surface_carrez), 2) AS prix_m²_3p
        FROM
                mutation_bien mb,
                bien b
        WHERE
                mb.fk_bien = b.id_bien
                AND type_local = 'Appartement'
                AND nombre_pieces = 3)
```

calcul de la différence en pourcentage entre prix_m²_2p et prix_m²_3p

```
SELECT
        prix_m²_2p, prix_m²_3p ,
        CONCAT(ROUND(((prix_m²_3p-prix_m²_2p)/prix_m²_2p)*100, 1), '%') AS Différence
FROM
        cte_T1,
        cte_T2;
```

prix_m²_2p	prix_m²_3p	Différence
4903.56	4299.9	-12.3%

Requête 9

```
WITH cte1 AS (
        SELECT
                DISTINCT(nom_commune),
                SUBSTRING(code_postal, 1, 2) AS Departement,
                ROUND(AVG(valeur_fonciere) OVER(PARTITION BY nom_commune), 0) AS
moy_valeur_fonciere
        FROM
                mutation_bien mb,
                bien b,
                commune c
```

```
WHERE
        mb.fk_bien = b.id_bien
        AND b.fk_commune = c.id_commune
        AND SUBSTRING(code_postal, 1, 2) in ('06', '13', '33', '59', '69')
ORDER BY SUBSTRING(code_postal, 1, 2), moy_valeur_fonciere DESC),

cte2 AS(
SELECT *, ROW_NUMBER() OVER(PARTITION BY Departement) AS RANG FROM cte1)

SELECT
        nom_commune,
        Departement,
        CONCAT(moy_valeur_fonciere, "€") AS moy_valeur_fonciere,
        RANG
FROM
        cte2
WHERE
        RANG < 4;
```

	nom_commune	Departement	moy_valeur_fonciere	RANG
▶	SAINT-JEAN-CAP-FERRAT	06	968750€	1
	EZE	06	655000€	2
	MOUANS-SARTOUX	06	476898€	3
	GIGNAC-LA-NERTHE	13	330000€	1
	SAINT SAVOURNIN	13	314425€	2
	CASSIS	13	313417€	3
	LEGE-CAP-FERRET	33	549501€	1
	VAYRES	33	335000€	2
	ARCACHON	33	307436€	3
	BERSEE	59	433202€	1
	CYSOING	59	408550€	2
	HALLUIN	59	322250€	3
	VILLE SUR JARNIOUX	69	485300€	1
	LYON 2EME	69	455217€	2
	LYON 6EME	69	426968€	3