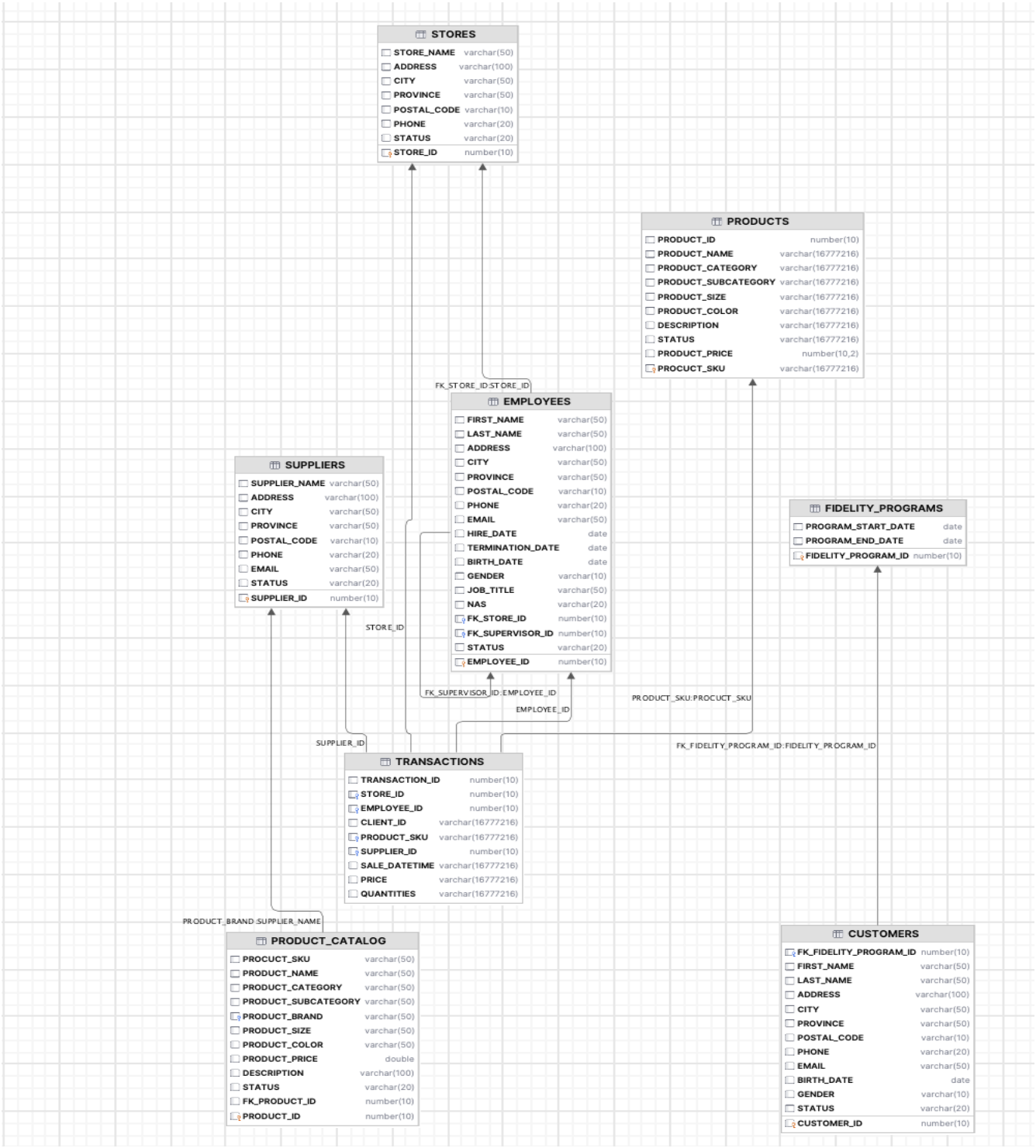
ANNEXE

Cartographie de la base de donnés ANIMALIA



ANIMALIA.INFORMATION_SCHEMA Settings Code Versions

```
select * from information_schema.schemata ;
```

Results Chart

RETENTION_TIME	DEFAULT_CHARACTER_SET_CATALOG	DEFAULT_CHARACTER_SET_SCHEMA	DEFAULT_CHARACTER_SET_NAME	SQL_PATH	CREATED	LAST_ALTERED
1	null	null	null	null	2024-10-07 20:29:49.475 -0700	2024-10-07 20:29:4
1	null	null	null	null	null	null

ANIMALIA.INFORMATION_SCHEMA Settings Code Versions

```
1  SELECT * FROM INFORMATION_SCHEMA.tables WHERE table_schema = 'DB';
```

Results Chart

	TABLE_CATALOG	TABLE_SCHEMA	TABLE_NAME	TABLE_OWNER	TABLE_TYPE	IS_TRANSIENT	CLUSTERING_KEY	ROW_COUNT	BYTES	RETENTION_TIME	SELF_REFERENCIN
1	ANIMALIA	DB	CUSTOMERS	SYSADMIN	BASE TABLE	NO	null	58998	2313216	1	null
2	ANIMALIA	DB	FIDELITY_PROGRAMS	SYSADMIN	BASE TABLE	NO	null	58997	314880	1	null
3	ANIMALIA	DB	PRODUCTS	SYSADMIN	BASE TABLE	NO	null	189	11776	1	null
4	ANIMALIA	DB	PRODUCT_CATALOG	SYSADMIN	BASE TABLE	NO	null	323	17408	1	null
5	ANIMALIA	DB	EMPLOYEES	SYSADMIN	BASE TABLE	NO	null	75	10240	1	null
6	ANIMALIA	DB	STORES	SYSADMIN	BASE TABLE	NO	null	5	3072	1	null
7	ANIMALIA	DB	TRANSACTIONS	SYSADMIN	BASE TABLE	NO	null	808594	9783296	1	null
8	ANIMALIA	DB	SUPPLIERS	SYSADMIN	BASE TABLE	NO	null	15	4608	1	null

ANIMALIA.INFORMATION_SCHEMA Settings Code Versions

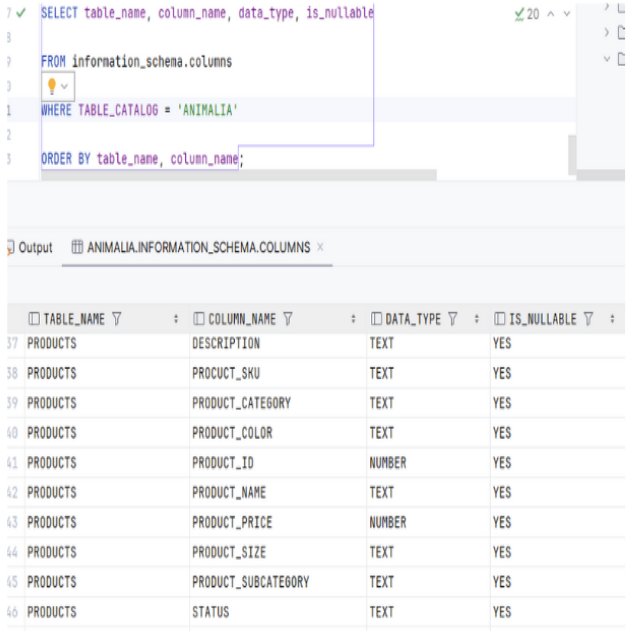
```
1  SELECT * FROM INFORMATION_SCHEMA.columns
2  WHERE table_schema = 'DB'
3  ORDER BY table_name ASC, ordinal_position ASC;
```

Results Chart

	TABLE_CATALOG	TABLE_SCHEMA	TABLE_NAME	COLUMN_NAME	ORDINAL_POSITION	COLUMN_DEFAULT	IS_NULLABLE	DATA_TYPE	CHARACTER_MAXIMUM_LENGTH	CHA
2	ANIMALIA	DB	CUSTOMERS	FK_FIDELITY_PROGRAM_ID	2	null	YES	NUMBER	null	
3	ANIMALIA	DB	CUSTOMERS	FIRST_NAME	3	null	YES	TEXT	50	
4	ANIMALIA	DB	CUSTOMERS	LAST_NAME	4	null	YES	TEXT	50	
5	ANIMALIA	DB	CUSTOMERS	ADDRESS	5	null	YES	TEXT	100	
6	ANIMALIA	DB	CUSTOMERS	CITY	6	null	YES	TEXT	50	
7	ANIMALIA	DB	CUSTOMERS	PROVINCE	7	null	YES	TEXT	50	
8	ANIMALIA	DB	CUSTOMERS	POSTAL_CODE	8	null	YES	TEXT	10	
9	ANIMALIA	DB	CUSTOMERS	PHONE	9	null	YES	TEXT	20	
10	ANIMALIA	DB	CUSTOMERS	EMAIL	10	null	YES	TEXT	50	
11	ANIMALIA	DB	CUSTOMERS	BIRTH_DATE	11	null	YES	DATE	null	
12	ANIMALIA	DB	CUSTOMERS	GENDER	12	null	YES	TEXT	10	
13	ANIMALIA	DB	CUSTOMERS	STATUS	13	null	YES	TEXT	20	
14	ANIMALIA	DB	EMPLOYEES	EMPLOYEE_ID	1	null	YES	NUMBER	null	
15	ANIMALIA	DB	EMPLOYEES	FIRST_NAME	2	null	YES	TEXT		
16	ANIMALIA	DB	EMPLOYEES	LAST_NAME	3	null	YES	TEXT		

Ask Copilot

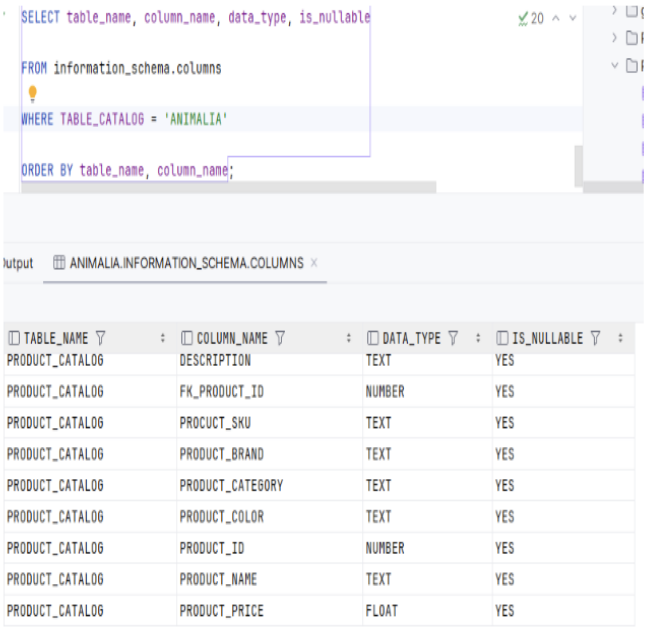
ANNEXE : STRUCTURE DE DONNÉES



```
SELECT table_name, column_name, data_type, is_nullable
FROM information_schema.columns
WHERE TABLE_CATALOG = 'ANIMALIA'
ORDER BY table_name, column_name;
```

Output — ANIMALIA.INFORMATION_SCHEMA.COLUMNS

	TABLE_NAME	COLUMN_NAME	DATA_TYPE	IS_NULLABLE
37	PRODUCTS	DESCRIPTION	TEXT	YES
38	PRODUCTS	PROCUCT_SKU	TEXT	YES
39	PRODUCTS	PRODUCT_CATEGORY	TEXT	YES
40	PRODUCTS	PRODUCT_COLOR	TEXT	YES
41	PRODUCTS	PRODUCT_ID	NUMBER	YES
42	PRODUCTS	PRODUCT_NAME	TEXT	YES
43	PRODUCTS	PRODUCT_PRICE	NUMBER	YES
44	PRODUCTS	PRODUCT_SIZE	TEXT	YES
45	PRODUCTS	PRODUCT_SUBCATEGORY	TEXT	YES
46	PRODUCTS	STATUS	TEXT	YES

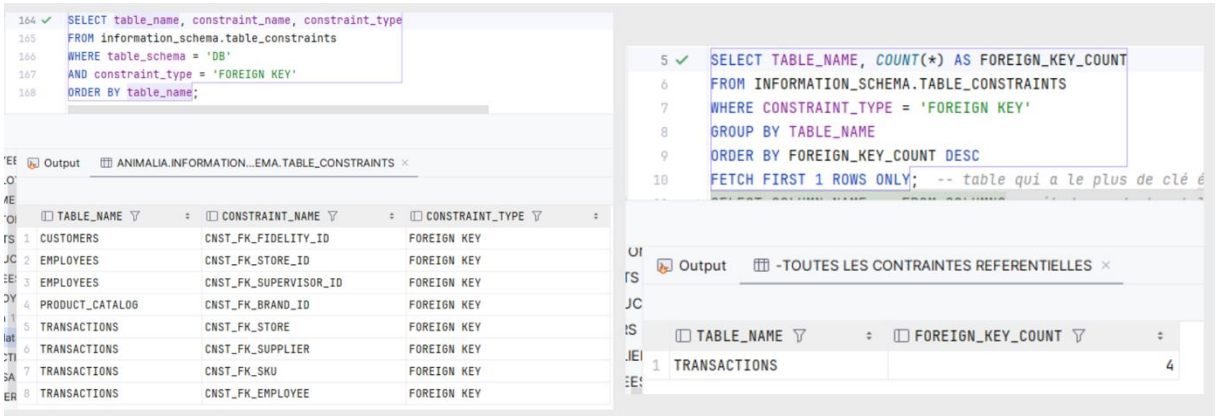


```
SELECT table_name, column_name, data_type, is_nullable
FROM information_schema.columns
WHERE TABLE_CATALOG = 'ANIMALIA'
ORDER BY table_name, column_name;
```

Output — ANIMALIA.INFORMATION_SCHEMA.COLUMNS

TABLE_NAME	COLUMN_NAME	DATA_TYPE	IS_NULLABLE
PRODUCT_CATALOG	DESCRIPTION	TEXT	YES
PRODUCT_CATALOG	FK_PRODUCT_ID	NUMBER	YES
PRODUCT_CATALOG	PROCUCT_SKU	TEXT	YES
PRODUCT_CATALOG	PRODUCT_BRAND	TEXT	YES
PRODUCT_CATALOG	PRODUCT_CATEGORY	TEXT	YES
PRODUCT_CATALOG	PRODUCT_COLOR	TEXT	YES
PRODUCT_CATALOG	PRODUCT_ID	NUMBER	YES
PRODUCT_CATALOG	PRODUCT_NAME	TEXT	YES
PRODUCT_CATALOG	PRODUCT_PRICE	FLOAT	YES

Annexe relations contraintes



```
SELECT table_name, constraint_name, constraint_type
FROM information_schema.table_constraints
WHERE table_schema = 'DB'
AND constraint_type = 'FOREIGN KEY'
ORDER BY table_name;
```

Output — ANIMALIA.INFORMATION...EMA.TABLE_CONSTRAINTS

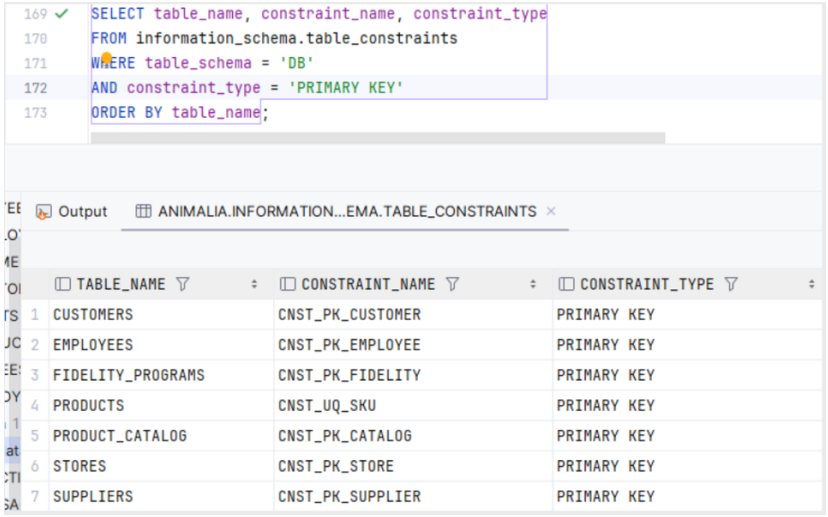
	TABLE_NAME	CONSTRAINT_NAME	CONSTRAINT_TYPE
1	CUSTOMERS	CNST_FK_FIDELITY_ID	FOREIGN KEY
2	EMPLOYEES	CNST_FK_STORE_ID	FOREIGN KEY
3	EMPLOYEES	CNST_FK_SUPERVISOR_ID	FOREIGN KEY
4	PRODUCT_CATALOG	CNST_FK_BRAND_ID	FOREIGN KEY
5	TRANSACTIONS	CNST_FK_STORE	FOREIGN KEY
6	TRANSACTIONS	CNST_FK_SUPPLIER	FOREIGN KEY
7	TRANSACTIONS	CNST_FK_SKU	FOREIGN KEY
8	TRANSACTIONS	CNST_FK_EMPLOYEE	FOREIGN KEY

```
SELECT TABLE_NAME, COUNT(*) AS FOREIGN_KEY_COUNT
FROM INFORMATION_SCHEMA.TABLE_CONSTRAINTS
WHERE CONSTRAINT_TYPE = 'FOREIGN KEY'
GROUP BY TABLE_NAME
ORDER BY FOREIGN_KEY_COUNT DESC
FETCH FIRST 1 ROWS ONLY;  -- table qui a le plus de clé é
```

Output — -TOUTES LES CONTRAINTES REFERENTIELLES

	TABLE_NAME	FOREIGN_KEY_COUNT
1	TRANSACTIONS	4

Annexe contraintes clés primaires

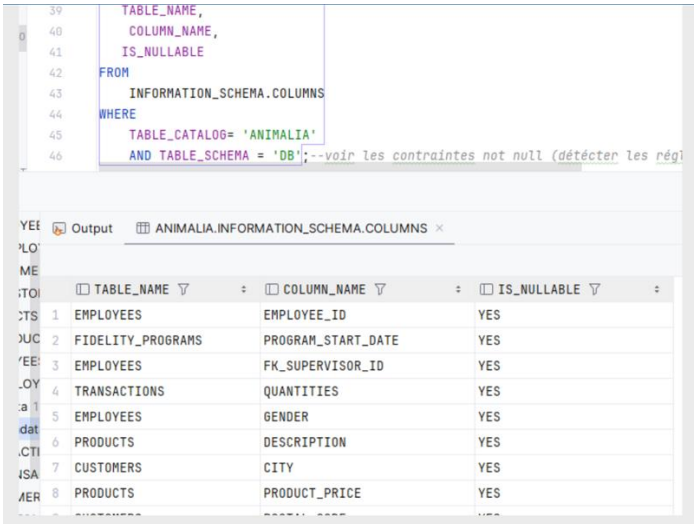


```
SELECT table_name, constraint_name, constraint_type
FROM information_schema.table_constraints
WHERE table_schema = 'DB'
AND constraint_type = 'PRIMARY KEY'
ORDER BY table_name;
```

Output — ANIMALIA.INFORMATION...EMA.TABLE_CONSTRAINTS

	TABLE_NAME	CONSTRAINT_NAME	CONSTRAINT_TYPE
1	CUSTOMERS	CNST_PK_CUSTOMER	PRIMARY KEY
2	EMPLOYEES	CNST_PK_EMPLOYEE	PRIMARY KEY
3	FIDELITY_PROGRAMS	CNST_PK_FIDELITY	PRIMARY KEY
4	PRODUCTS	CNST_UQ_SKU	PRIMARY KEY
5	PRODUCT_CATALOG	CNST_PK_CATALOG	PRIMARY KEY
6	STORES	CNST_PK_STORE	PRIMARY KEY
7	SUPPLIERS	CNST_PK_SUPPLIER	PRIMARY KEY

annexe contraintes NOT NULL)

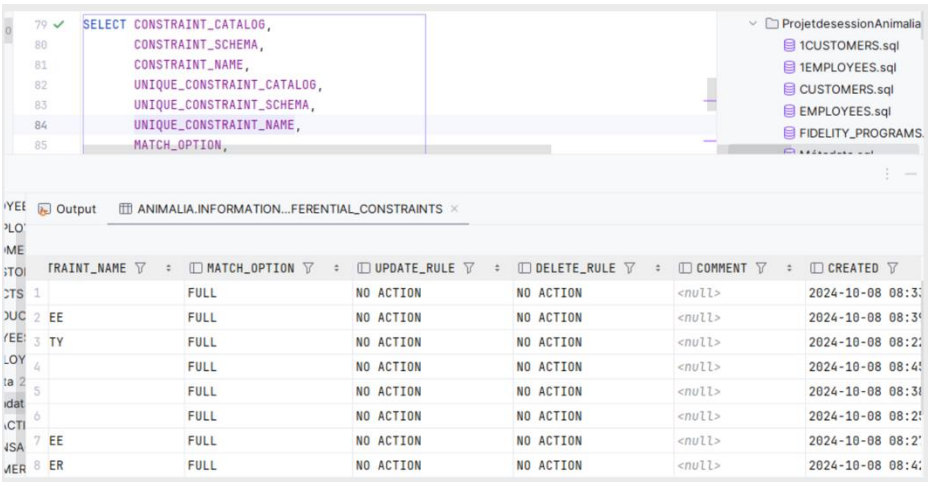


```
    TABLE_NAME,
    COLUMN_NAME,
    IS_NULLABLE
FROM
    INFORMATION_SCHEMA.COLUMNS
WHERE
    TABLE_CATALOG= 'ANIMALIA'
    AND TABLE_SCHEMA = 'DB';--voir les contraintes not null (détécter les régl
```

Output | ANIMALIA.INFORMATION_SCHEMA.COLUMNS

	TABLE_NAME	COLUMN_NAME	IS_NULLABLE
1	EMPLOYEES	EMPLOYEE_ID	YES
2	FIDELITY_PROGRAMS	PROGRAM_START_DATE	YES
3	EMPLOYEES	FK_SUPERVISOR_ID	YES
4	TRANSACTIONS	QUANTITIES	YES
5	EMPLOYEES	GENDER	YES
6	PRODUCTS	DESCRIPTION	YES
7	CUSTOMERS	CITY	YES
8	PRODUCTS	PRODUCT_PRICE	YES

annexe contraintes d'intégrité référentielle :



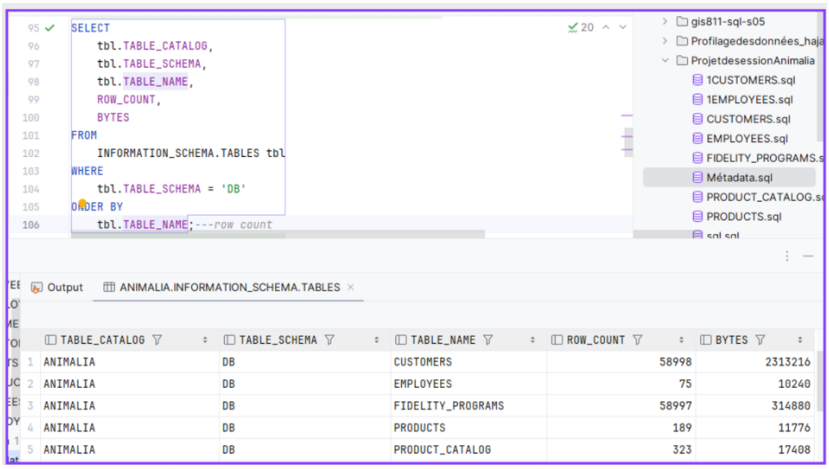
```
SELECT CONSTRAINT_CATALOG,
       CONSTRAINT_SCHEMA,
       CONSTRAINT_NAME,
       UNIQUE_CONSTRAINT_CATALOG,
       UNIQUE_CONSTRAINT_SCHEMA,
       UNIQUE_CONSTRAINT_NAME,
       MATCH_OPTION,
```

ProjetdesessionAnimalia
1CUSTOMERS.sql
1EMPLOYEES.sql
CUSTOMERS.sql
EMPLOYEES.sql
FIDELITY_PROGRAMS.

Output | ANIMALIA.INFORMATION...FERENTIAL_CONSTRAINTS

	TRAINT_NAME	MATCH_OPTION	UPDATE_RULE	DELETE_RULE	COMMENT	CREATED
1		FULL	NO ACTION	NO ACTION	<null>	2024-10-08 08:3
2	EE	FULL	NO ACTION	NO ACTION	<null>	2024-10-08 08:3
3	TY	FULL	NO ACTION	NO ACTION	<null>	2024-10-08 08:2
4		FULL	NO ACTION	NO ACTION	<null>	2024-10-08 08:4
5		FULL	NO ACTION	NO ACTION	<null>	2024-10-08 08:3
6		FULL	NO ACTION	NO ACTION	<null>	2024-10-08 08:2
7	EE	FULL	NO ACTION	NO ACTION	<null>	2024-10-08 08:2
8	ER	FULL	NO ACTION	NO ACTION	<null>	2024-10-08 08:4

annexe volume et nombre d'enregistrements) :



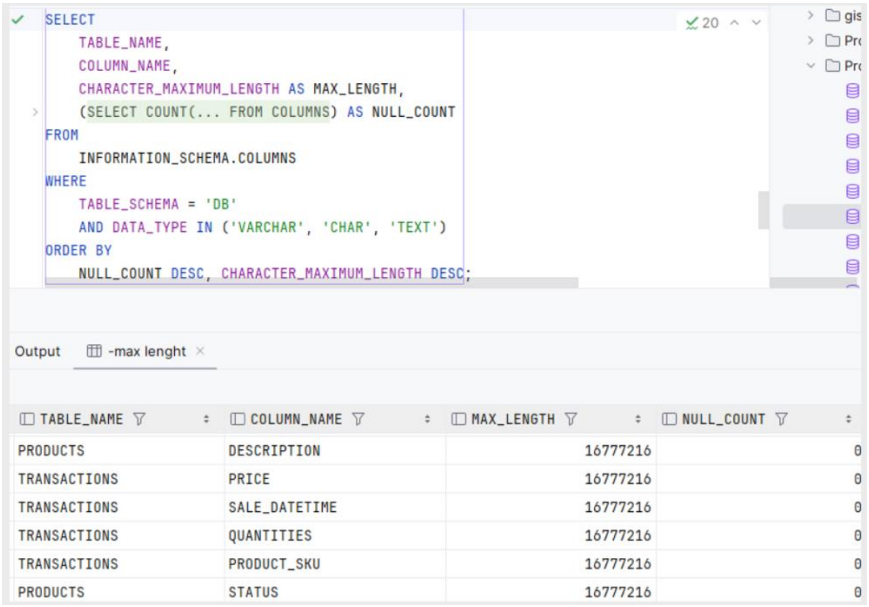
```
SELECT
    tbl.TABLE_CATALOG,
    tbl.TABLE_SCHEMA,
    tbl.TABLE_NAME,
    ROW_COUNT,
    BYTES
FROM
    INFORMATION_SCHEMA.TABLES tbl
WHERE
    tbl.TABLE_SCHEMA = 'DB'
ORDER BY
    tbl.TABLE_NAME;---row count
```

gis811-sql-s05
Profilagedesdonnées_haja
ProjetdesessionAnimalia
1CUSTOMERS.sql
1EMPLOYEES.sql
CUSTOMERS.sql
EMPLOYEES.sql
FIDELITY_PROGRAMS.s
Métadata.sql
PRODUCT_CATALOG.s
PRODUCTS.sql

Output | ANIMALIA.INFORMATION_SCHEMA.TABLES

	TABLE_CATALOG	TABLE_SCHEMA	TABLE_NAME	ROW_COUNT	BYTES
1	ANIMALIA	DB	CUSTOMERS	58998	2313216
2	ANIMALIA	DB	EMPLOYEES	75	10240
3	ANIMALIA	DB	FIDELITY_PROGRAMS	58997	314880
4	ANIMALIA	DB	PRODUCTS	189	11776
5	ANIMALIA	DB	PRODUCT_CATALOG	323	17408

annexe longeur chaine



```
SELECT
    TABLE_NAME,
    COLUMN_NAME,
    CHARACTER_MAXIMUM_LENGTH AS MAX_LENGTH,
    (SELECT COUNT(... FROM COLUMNS) AS NULL_COUNT
FROM
    INFORMATION_SCHEMA.COLUMNS
WHERE
    TABLE_SCHEMA = 'DB'
    AND DATA_TYPE IN ('VARCHAR', 'CHAR', 'TEXT')
ORDER BY
    NULL_COUNT DESC, CHARACTER_MAXIMUM_LENGTH DESC;
```

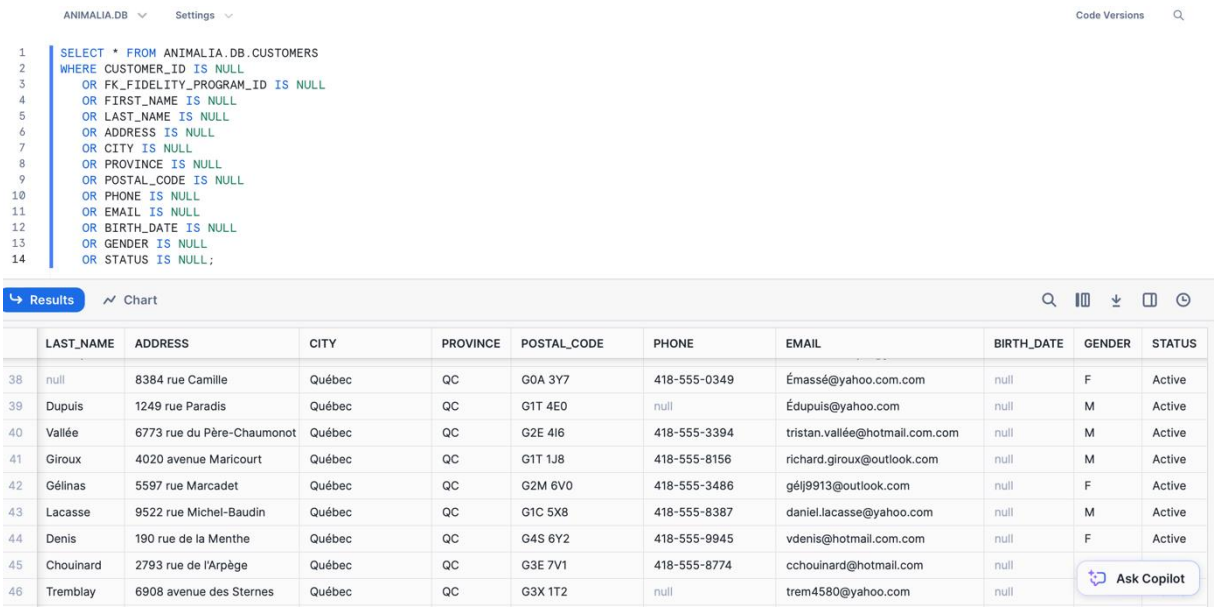
Output -max lenght

TABLE_NAME	COLUMN_NAME	MAX_LENGTH	NULL_COUNT
PRODUCTS	DESCRIPTION	16777216	0
TRANSACTIONS	PRICE	16777216	0
TRANSACTIONS	SALE_DATETIME	16777216	0
TRANSACTIONS	QUANTITIES	16777216	0
TRANSACTIONS	PRODUCT_SKU	16777216	0
PRODUCTS	STATUS	16777216	0

problèmes de la qualité de donnes

TABLE CUSTOMERS :

1.Présence de valeurs nulles :



```
SELECT * FROM ANIMALIA.DB.CUSTOMERS
WHERE CUSTOMER_ID IS NULL
   OR FK_FIDELITY_PROGRAM_ID IS NULL
   OR FIRST_NAME IS NULL
   OR LAST_NAME IS NULL
   OR ADDRESS IS NULL
   OR CITY IS NULL
   OR PROVINCE IS NULL
   OR POSTAL_CODE IS NULL
   OR PHONE IS NULL
   OR EMAIL IS NULL
   OR BIRTH_DATE IS NULL
   OR GENDER IS NULL
   OR STATUS IS NULL;
```

Results Chart

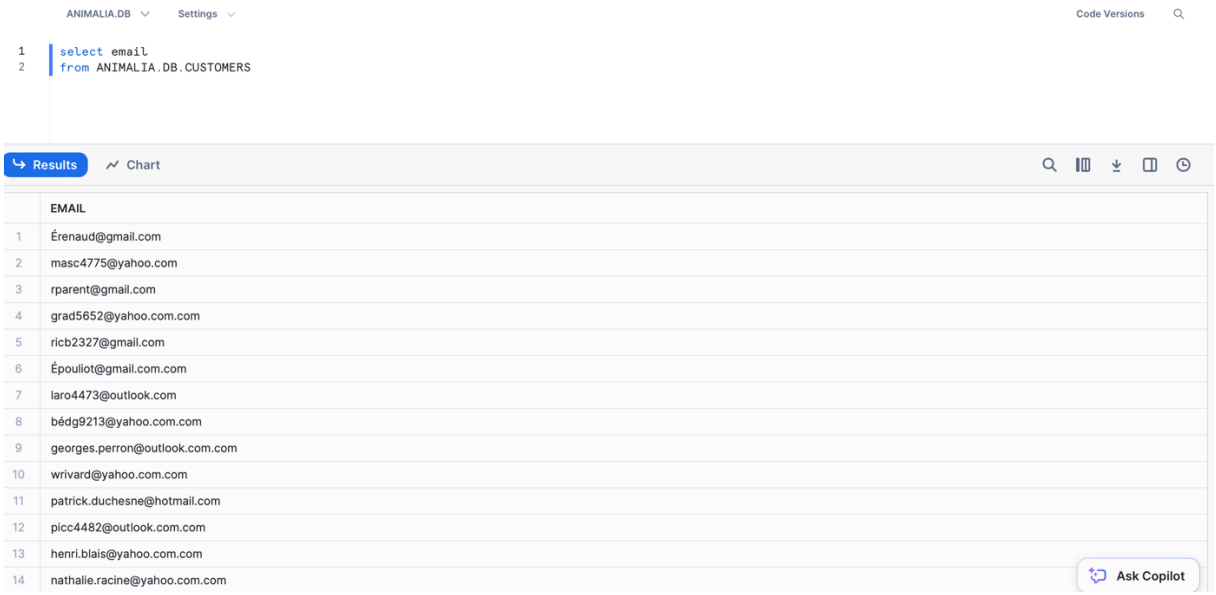
	LAST_NAME	ADDRESS	CITY	PROVINCE	POSTAL_CODE	PHONE	EMAIL	BIRTH_DATE	GENDER	STATUS
38	null	8384 rue Camille	Québec	QC	G0A 3Y7	418-555-0349	Émassé@yahoo.com.com	null	F	Active
39	Dupuis	1249 rue Paradis	Québec	QC	G1T 4E0	null	Édupuis@yahoo.com	null	M	Active
40	Vallée	6773 rue du Père-Chaumonot	Québec	QC	G2E 4I6	418-555-3394	tristan.vallée@hotmail.com.com	null	M	Active
41	Giroux	4020 avenue Maricourt	Québec	QC	G1T 1J8	418-555-8156	richard.giroux@outlook.com	null	M	Active
42	Gélinas	5597 rue Marcadet	Québec	QC	G2M 6V0	418-555-3486	gélj9913@outlook.com	null	F	Active
43	Lacasse	9522 rue Michel-Baudin	Québec	QC	G1C 5X8	418-555-8387	daniel.lacasse@yahoo.com	null	M	Active
44	Denis	190 rue de la Menthe	Québec	QC	G4S 6Y2	418-555-9945	vdenis@hotmail.com.com	null	F	Active
45	Chouinard	2793 rue de l'Arpège	Québec	QC	G3E 7V1	418-555-8774	cchouinard@hotmail.com	null		
46	Tremblay	6908 avenue des Sternes	Québec	QC	G3X 1T2	null	trem4580@yahoo.com	null		

Ask Copilot

Données Manquantes : problème de complétude .

Nom de famille : De nombreuses valeurs sont manquantes, avec seulement 15 010 valeurs renseignées sur 44 355 enregistrements (environ 66 % sont manquantes).
Numéro de téléphone : Seulement 14 817 numéros de téléphone sont renseignés, ce qui signifie que plus de 66 % des enregistrements n'ont pas de numéro de téléphone.
Programme de fidélité : La colonne du programme de fidélité a une grande quantité de valeurs nulles, avec seulement 22 296 valeurs remplies.
Date de naissance : Cette colonne présente également des données manquantes importantes, avec seulement 7 245 dates renseignées sur 44 355.

Format de l'email : Détecter les adresses email anormale



```
SELECT *
FROM CUSTOMERS
WHERE EMAIL LIKE '%.com.com';
```

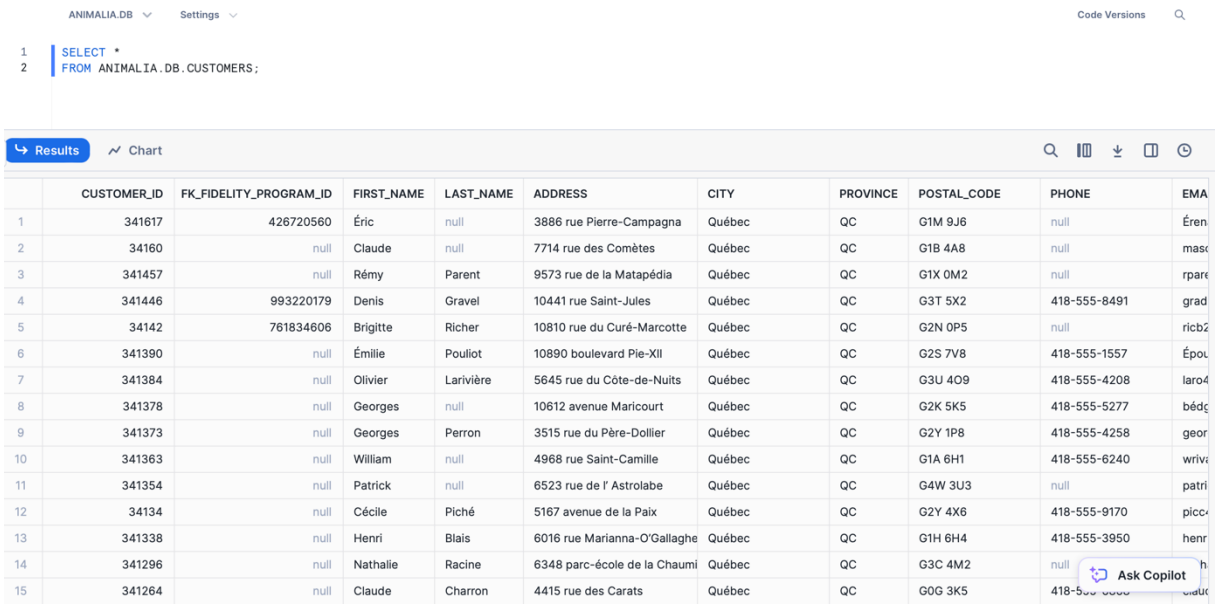
esults | Chart

ST_NAME	ADDRESS	CITY	PROVINCE	POSTAL_CODE	PHONE	EMAIL	BIRTH_DATE	GENDER	STATUS
vel	10441 rue Saint-Jules	Québec	QC	G3T 5X2	418-555-8491	grad5652@yahoo.com.com	null	M	Active
iliot	10890 boulevard Pie-XII	Québec	QC	G2S 7V8	418-555-1557	Épouliot@gmail.com.com	1985-08-26	F	Active
	10612 avenue Maricourt	Québec	QC	G2K 5K5	418-555-5277	bédg9213@yahoo.com.com	null	M	Active
ron	3515 rue du Père-Dollier	Québec	QC	G2Y 1P8	418-555-4258	georges.perron@outlook.com.com	null	M	Active
	4968 rue Saint-Camille	Québec	QC	G1A 6H1	418-555-6240	wrivard@yahoo.com.com	null	M	Active
né	5167 avenue de la Paix	Québec	QC	G2Y 4X6	418-555-9170	picc4482@outlook.com.com	null	F	Active
s	6016 rue Marianna-O'Gallagher	Québec	QC	G1H 6H4	418-555-3950	henri.blais@yahoo.com.com	1974-11-29	M	Active
ine	6348 parc-école de la Chaumière	Québec	QC	G3C 4M2	null	nathalie.racine@yahoo.com.com	null	F	Active
isle	7722 parc du Centaure	Québec	QC	G3S 7P4	418-555-2254	dela7098@outlook.com.com	null	M	Active
hire	5011 rue des Chanterelles	Québec	QC	G2E 1Z0	null	alemire@outlook.com.com	null	M	Active
gné	1076 rue Frédéric-Moisan	Québec	QC	G2J 3R9	null	laurent.gagné@yahoo.com.com	null	M	Active
	3991 rue du Finistère	Québec	QC	G0M 6D5	null	jcaron@outlook.com.com	null	M	Active
amme	6549 parc Lockwell	Québec	QC	G1F 8E0	null	zlaflamme@gmail.com.com	null	F	Active
lerc	10229 parc de Fenouillet	Québec	QC	G2C 5U4	418-555-4328	lecv3455@outlook.com.com	2010-03-24		
	1014 rue Lebouthillier	Québec	QC	G2L 7J3	418-555-3180	josette.labonté@outlook.com.com	null		

Ask Copilot

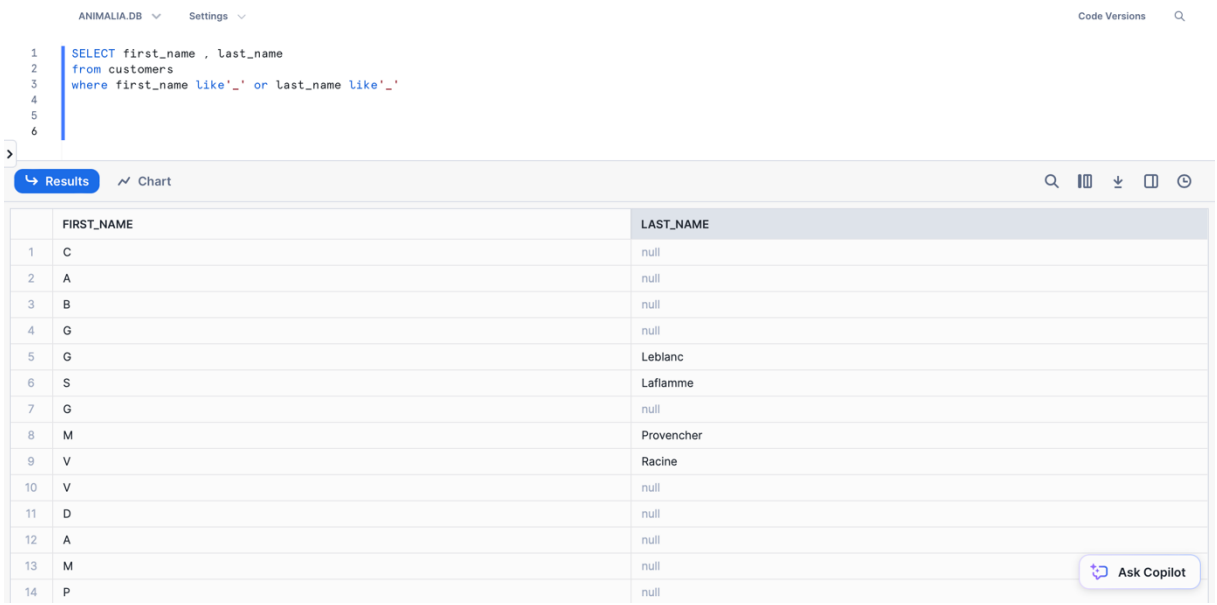
On remarque que y'a des adresse emails contenant des email avec deux «.com », ce qui pourrait indiquer des fautes de frappe ou des erreurs de saisie ainsi ceci pose un probléme de validité de données .

Visualisation de la table CUSTOMERS



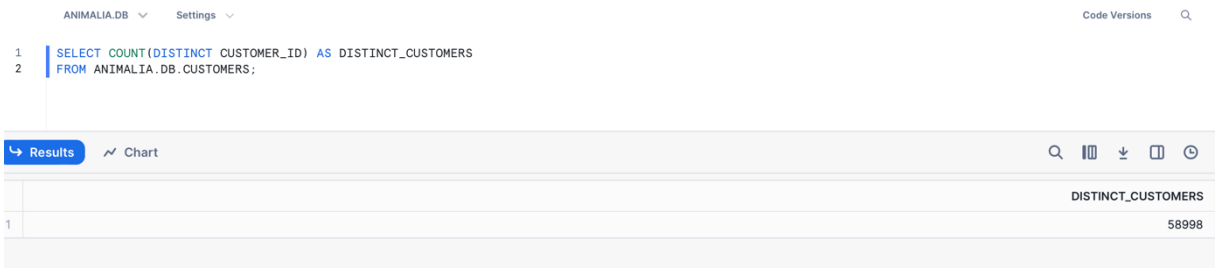
	CUSTOMER_ID	FK_FIDELITY_PROGRAM_ID	FIRST_NAME	LAST_NAME	ADDRESS	CITY	PROVINCE	POSTAL_CODE	PHONE	EMA
1	341617	426720560	Éric	null	3886 rue Pierre-Campagna	Québec	QC	G1M 9J6	null	Éren
2	34160	null	Claude	null	7714 rue des Comètes	Québec	QC	G1B 4A8	null	masc
3	341457	null	Rémy	Parent	9573 rue de la Matapédia	Québec	QC	G1X 0M2	null	rpare
4	341446	993220179	Denis	Gravel	10441 rue Saint-Jules	Québec	QC	G3T 5X2	418-555-8491	grad
5	34142	761834606	Brigitte	Richer	10810 rue du Curé-Marcotte	Québec	QC	G2N 0P5	null	ricb2
6	341390	null	Émilie	Pouliot	10890 boulevard Pie-XII	Québec	QC	G2S 7V8	418-555-1557	Épou
7	341384	null	Olivier	Larivière	5645 rue du Côte-de-Nuits	Québec	QC	G3U 4O9	418-555-4208	laro4
8	341378	null	Georges	null	10612 avenue Maricourt	Québec	QC	G2K 5K5	418-555-5277	bédg
9	341373	null	Georges	Perron	3515 rue du Père-Dollier	Québec	QC	G2Y 1P8	418-555-4258	geor
10	341363	null	William	null	4968 rue Saint-Camille	Québec	QC	G1A 6H1	418-555-6240	wriva
11	341354	null	Patrick	null	6523 rue de l' Astrolabe	Québec	QC	G4W 3U3	null	patri
12	34134	null	Cécile	Piché	5167 avenue de la Paix	Québec	QC	G2Y 4X6	418-555-9170	picc
13	341338	null	Henri	Blais	6016 rue Marianna-O'Gallaghe	Québec	QC	G1H 6H4	418-555-3950	henr
14	341296	null	Nathalie	Racine	6348 parc-école de la Chaumi	Québec	QC	G3C 4M2	null	h
15	341264	null	Claude	Charron	4415 rue des Carats	Québec	QC	G0G 3K5	418-5	claud

On constate plusieurs valeurs nulles et après observation j'ai remarquer que y'avait des firstname avec une seul lettre , voici requête utiliser :

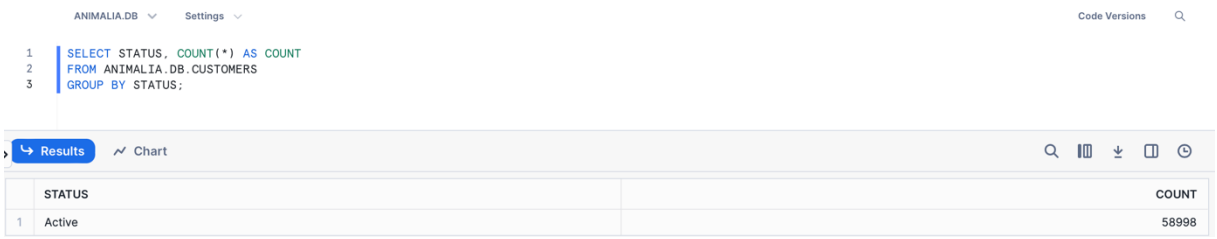


	FIRST_NAME	LAST_NAME
1	C	null
2	A	null
3	B	null
4	G	null
5	G	Leblanc
6	S	Laflamme
7	G	null
8	M	Provencher
9	V	Racine
10	V	null
11	D	null
12	A	null
13	M	null
14	P	null

Nombre de Clients Distincts

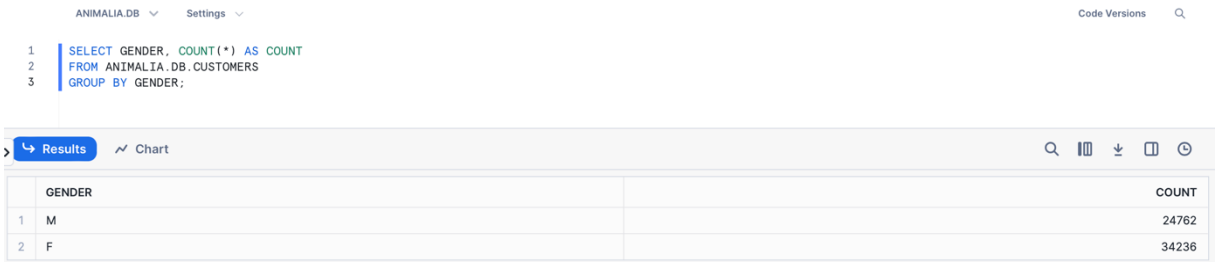


Clients par Statut



Donc tous les clients ont un statuts ‘Active’

Nombre de Clients par Genre



Les clients de sexe féminin sont plus élevés ce qui représente 58% de l’ensemble des clients .

Quantité de Clients par Programme de Fidélité

ANIMALIA.DB Settings Code Versions

```
SELECT FK_FIDELITY_PROGRAM_ID, COUNT(*) AS COUNT
FROM ANIMALIA.DB.CUSTOMERS
GROUP BY FK_FIDELITY_PROGRAM_ID;
```

Results Chart

	FK_FIDELITY_PROGRAM_ID	COUNT
1	426720560	1
2	null	29304
3	993220179	1
4	761834606	1
5	180487501	1
6	168915343	1
7	391472102	1
8	204135720	1
9	148991462	1
10	372590515	1
11	176435206	1
12	506402508	1
13	293934655	1
14	341430169	
15	979512065	

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Analyse des Adresses

ANIMALIA.DB Settings Code Versions

```
SELECT CITY, COUNT(*) AS COUNT
FROM ANIMALIA.DB.CUSTOMERS
GROUP BY CITY
ORDER BY COUNT DESC;
```

Results Chart

	CITY	COUNT
1	Québec	58998

Clients avec des Adresses Duplicates

ANIMALIA.DB Settings Code Versions

```sql
SELECT ADDRESS, COUNT(*) AS COUNT
FROM ANIMALIA.DB.CUSTOMERS
GROUP BY ADDRESS
HAVING COUNT(*) > 1;
```

Results Chart

	ADDRESS	COUNT
1	9250 rue Arthur-Gagné	2
2	10504 rue Albert-Émile-Côté	2
3	2313 rue Corbier	2
4	1323 rue Valjean	2
5	5613 rue des Achigans	2
6	10461 rue de la Hève	2
7	5014 parc de Cassiopée	2
8	269 rue La Fontaine	2
9	6643 rue du Marouchin	2
10	7895 rue Adélard-Godbout	2
11	4936 rue du Calme	2

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160 adresse qui est dupliquer

Nombre de Valeurs Nulles dans les Colonnes Clés

ANIMALIA.DB Settings Code Versions

```sql
SELECT SUM(CASE WHEN FK_FIDELITY_PROGRAM_ID IS NULL THEN 1 ELSE 0 END) AS NULL_FK_FIDELITY_PROGRAM_ID,
       SUM(CASE WHEN FIRST_NAME IS NULL THEN 1 ELSE 0 END) AS NULL_FIRST_NAME,
       SUM(CASE WHEN LAST_NAME IS NULL THEN 1 ELSE 0 END) AS NULL_LAST_NAME,
       SUM(CASE WHEN ADDRESS IS NULL THEN 1 ELSE 0 END) AS NULL_ADDRESS,
       SUM(CASE WHEN CITY IS NULL THEN 1 ELSE 0 END) AS NULL_CITY,
       SUM(CASE WHEN PROVINCE IS NULL THEN 1 ELSE 0 END) AS NULL_PROVINCE,
       SUM(CASE WHEN POSTAL_CODE IS NULL THEN 1 ELSE 0 END) AS NULL_POSTAL_CODE,
       SUM(CASE WHEN PHONE IS NULL THEN 1 ELSE 0 END) AS NULL_PHONE,
       SUM(CASE WHEN EMAIL IS NULL THEN 1 ELSE 0 END) AS NULL_EMAIL,
       SUM(CASE WHEN BIRTH_DATE IS NULL THEN 1 ELSE 0 END) AS NULL_BIRTH_DATE,
       SUM(CASE WHEN GENDER IS NULL THEN 1 ELSE 0 END) AS NULL_GENDER,
       SUM(CASE WHEN STATUS IS NULL THEN 1 ELSE 0 END) AS NULL_STATUS
FROM ANIMALIA.DB.CUSTOMERS;
```

Results Chart

	NULL_FK_FIDELITY_PROGRAM_ID	NULL_FIRST_NAME	NULL_LAST_NAME	NULL_ADDRESS	NULL_CITY	NULL_PROVINCE	NULL_POSTAL_CODE	NULL_PHONE	NULL_EMAIL	NULL_BIRTH_D
1	29304	0	29345	0	0	0	0	29538	0	49

Table EMPLOYEES

Selection de tous les champs pour avoir une idée génerale :

ANIMALIA.DB Settings Code Versions

```
1  select *
2  from employees
```

Results Chart

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	ADDRESS	CITY	PROVINCE	POSTAL_CODE	PHONE	EMAIL	HIRE_DATE	TERMINATION_DATE
1	1679	Jean	Tremblay	5035 rue Montfort	Québec	QC	G1R 1A1	418-555-0001	jean.tremblay@example.com	2015-11-10	null
2	1642	Chantal	Dion	2221 rue Viel	Québec	QC	G1R 1I5	418-555-0074	chantal.dion@example.com	2015-01-07	null
3	1494	François	Lapointe	9561 rue de Vendôme	Québec	QC	G1R 1I4	418-555-0073	francois.lapointe@example.com	2016-01-17	null
4	1376	Caroline	Girard	3342 rue Adine-Fafard	Québec	QC	G1R 1I3	418-555-0072	caroline.girard@example.com	2016-12-13	null
5	2597	Éric	Lavoie	10398 rue d'Alésia	Québec	QC	G1R 1I2	418-555-0071	eric.lavoie@example.com	2015-03-13	null
6	2333	Nathalie	Côté	6534 rue Sociale	Québec	QC	G1R 1I1	418-555-0070	nathalie.cote@example.com	2015-07-18	null
7	1307	Alain	Morin	8543 rue des Aïeux	Québec	QC	G1R 1H9	418-555-0069	alain.morin@example.com	2017-01-11	null
8	2069	Isabelle	Fortin	2946 rue d' Ars	Québec	QC	G1R 1H8	418-555-0068	isabelle.fortin@example.com	2015-12-31	null
9	1334	Marc	Simard	7428 rue du Signal	Québec	QC	G1R 1H7	418-555-0067	marc.simard@example.com	2016-03-01	null
10	1924	Julie	Bouchard	7102 rue Arsenault	Québec	QC	G1R 1H6	418-555-0066	julie.bouchard@example.com	2016-11-16	null
11	2405	Pierre	Roy	9778 rue Antonio-Patry	Québec	QC	G1R 1H5	418-555-0065	pierre.roy@example.com	2016-06-17	null
12	1509	Sophie	Lefebvre	10268 rue des Achigans	Québec	QC	G1R 1H4	418-555-0064	sophie.lefebvre@example.com	2016-05-22	null
13	1261	Luc	Gagné	2490 avenue des Ancêtr	Québec	QC	G1R 1H3	418-555-0063	luc.gagne@example.com	2017-01-25	null
14	2308	Marie	Dumont	462 rue Viel	Québec	QC	G1R 1H2	418-555-0062	marie.dumont@example.com	2016-01-14	null
15	2065	Jean	Bergeron	2004 rue Armand-Viau	Québec	QC	G1R 1H1	418-555-0061	jean.bergeron@example.com	2016-05-03	null

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Vérifier les valeurs nulles :

ANIMALIA.DB Settings Code Versions

```
1  SELECT *
2  FROM EMPLOYEES
3  WHERE FIRST_NAME IS NULL
4     OR LAST_NAME IS NULL
5     OR EMPLOYEE_ID IS NULL
6     OR FK_STORE_ID IS NULL;
```

Results Chart

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	ADDRESS	CITY	PROVINCE	POSTAL_CODE	PHONE	EMAIL	HIRE_DATE	TERMINATION_DATE	BIR

Query produced no results

```
48  SELECT NAS, COUNT(*)
49  FROM EMPLOYEES
50  WHERE NAS IS NOT NULL
51  GROUP BY NAS
52  HAVING COUNT(*) > 1;--*Nas dupliqueé
53  SELECT PHONE, ... FROM EMPLOYEES;
```

Output Result 10

	NAS	"COUNT(*)"
1	987654321	2
2	543543543	2
3	987987987	2

```
SELECT count(*)
FROM Employees e
LEFT JOIN Employees s ON e.fk_supervisor_id = s.employee_id
WHERE e.fk_supervisor_id IS NOT NULL
  AND s.employee_id IS NULL;
```

Output ventes par employées

COUNT(*)
70

Table FIDELITY_PROGRAMS :

Vérifier les dates de validité : pour s'assurer que PROGRAM_START_DATE est antérieur à PROGRAM_END_DATE.

```
SELECT *
FROM FIDELITY_PROGRAMS
WHERE PROGRAM_START_DATE > PROGRAM_END_DATE;
```

Results | Chart

	FIDELITY_PROGRAM_ID	PROGRAM_START_DATE	PROGRAM_END_DATE
1	100024231	2023-09-17	2017-06-21
2	129606357	2023-02-11	2017-06-21
3	129599237	2019-04-26	2017-06-21
4	129552737	2019-08-15	2017-06-21
5	129532073	2024-05-13	2017-06-21
6	129490157	2024-07-30	2017-06-21
7	129488528	2024-09-20	2017-06-21
8	129486903	2024-02-24	2017-06-21
9	129446682	2018-10-18	2017-06-21
10	129438086	2022-10-27	2017-06-21
11	129414385	2021-11-22	2017-06-21
12	129385830	2018-12-01	2017-06-21
13	129367162	2021-07-08	2017-06-21
14	129332836	2021-04-11	2017-06-21

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ANIMALIA.DB | Settings

```
SELECT COUNT(*) AS nbdatesincoerentes
FROM FIDELITY_PROGRAMS
WHERE PROGRAM_END_DATE < PROGRAM_START_DATE;
```

Results | Chart

	NBDATESINCOERENTES
1	29621

Récupération de tous les programmes de fidélité :

ANIMALIA.DB Settings Code Versions

```
SELECT * FROM ANIMALIA.DB.FIDELITY_PROGRAMS;
```

Results Chart

	FIDELITY_PROGRAM_ID	PROGRAM_START_DATE	PROGRAM_END_DATE
1	129616101	2023-01-02	null
2	129604349	2021-06-02	null
3	129573660	2018-09-18	null
4	129570753	2022-07-12	null
5	129544497	2022-10-06	null
6	129413420	2020-08-29	null
7	129395570	2018-09-15	null
8	129369635	2022-07-18	null
9	129312221	2021-09-20	null
10	129290903	2022-10-21	null
11	129276858	2023-05-09	null
12	129254537	2019-04-24	null
13	129217478	2022-10-27	null
14	129185932	2018-02-14	null
15	129142270	2021-08-27	null

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Date de fin de programme non préciser :

ANIMALIA.DB Settings Code Versions

```
SELECT *
FROM FIDELITY_PROGRAMS
where FIDELITY_PROGRAM_ID IS NULL
or program_start_date is null
or program_end_date is null ;
```

Results Chart

	FIDELITY_PROGRAM_ID	PROGRAM_START_DATE	PROGRAM_END_DATE
1	129616101	2023-01-02	null
2	129604349	2021-06-02	null
3	129573660	2018-09-18	null
4	129570753	2022-07-12	null
5	129544497	2022-10-06	null
6	129413420	2020-08-29	null
7	129395570	2018-09-15	null
8	129369635	2022-07-18	null
9	129312221	2021-09-20	null
10	129290903	2022-10-21	null

Ask Copilot

Nombre de programmes de fidélité distincts :

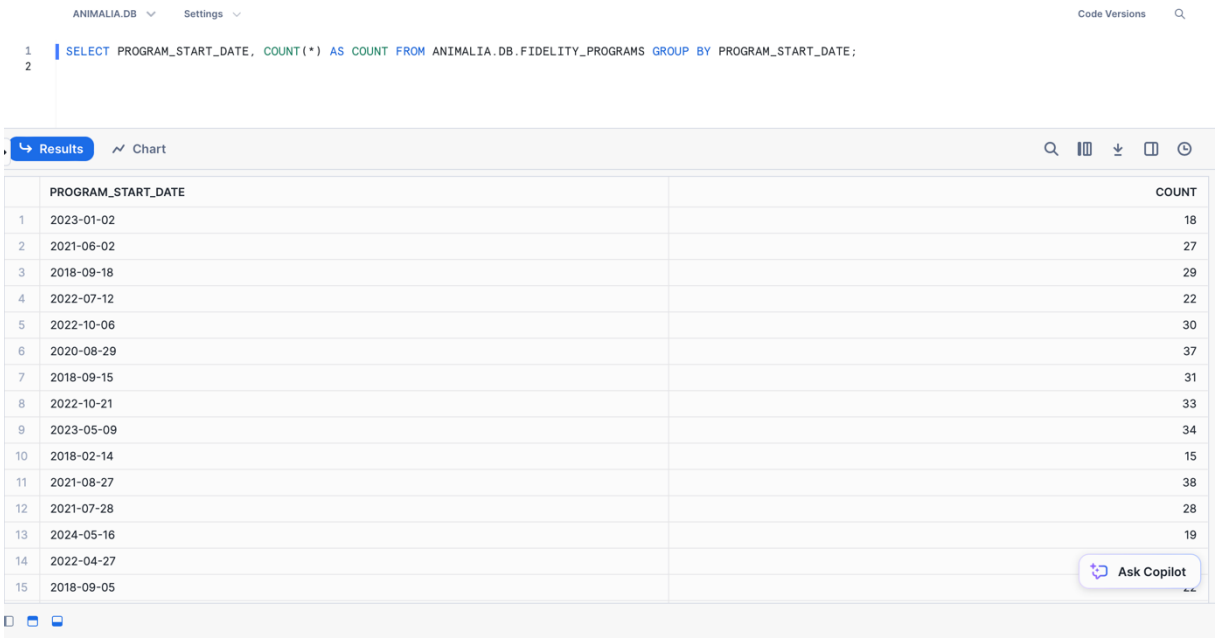
ANIMALIA.DB Settings Code Versions

```
SELECT COUNT(DISTINCT FIDELITY_PROGRAM_ID) AS DISTINCT_FIDELITY_PROGRAMS FROM ANIMALIA.DB.FIDELITY_PROGRAMS;
```

Results Chart

	DISTINCT_FIDELITY_PROGRAMS
1	58997

Compte des programmes de fidélité par date de début :



```
SELECT PROGRAM_START_DATE, COUNT(*) AS COUNT FROM ANIMALIA.DB.FIDELITY_PROGRAMS GROUP BY PROGRAM_START_DATE;
```

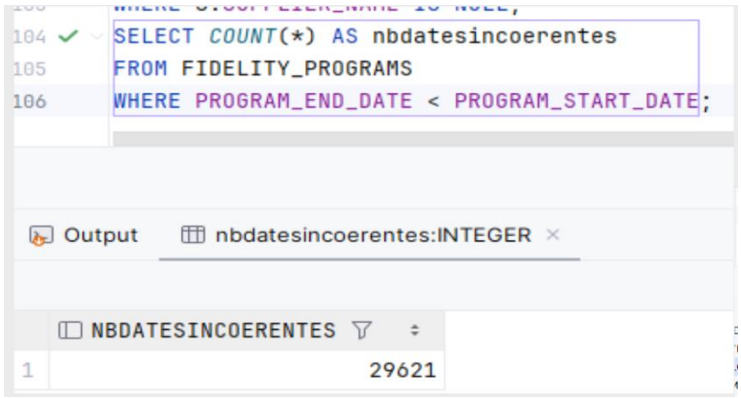
	PROGRAM_START_DATE	COUNT
1	2023-01-02	18
2	2021-06-02	27
3	2018-09-18	29
4	2022-07-12	22
5	2022-10-06	30
6	2020-08-29	37
7	2018-09-15	31
8	2022-10-21	33
9	2023-05-09	34
10	2018-02-14	15
11	2021-08-27	38
12	2021-07-28	28
13	2024-05-16	19
14	2022-04-27	
15	2018-09-05	

Compte des programmes de fidélité par date de fin :

```
SELECT PROGRAM_END_DATE, COUNT(*) AS COUNT FROM ANIMALIA.DB.FIDELITY_PROGRAMS GROUP BY PROGRAM_END_DATE;
```

	PROGRAM_END_DATE	COUNT
1	null	29376
2	2017-06-21	29621

Ca vient confirmer le problème de **complétude** des données en montrent que 29376 des 58997 dates de fin ne sont pas saisie .



```
SELECT COUNT(*) AS nbdatesincoerentes
FROM FIDELITY_PROGRAMS
WHERE PROGRAM_END_DATE < PROGRAM_START_DATE;
```

Output — nbdatesincoerentes:INTEGER

	NBDATESINCOERENTES
1	29621

```sql
SELECT C.CUSTOMER_ID, C.FIRST_NAME, C.LAST_NAME, C.FK_FIDELITY_PROGRAM_ID
FROM CUSTOMERS C
LEFT JOIN FIDELITY_PROGRAMS FP 1..n<->0..1: ON C.FK_FIDELITY_PROGRAM_ID = FP.FIDELITY_PRO
WHERE FP.FIDELITY_PROGRAM_ID IS NULL;
```

1EMPLOYEES.sql
CUSTOMERS.sql
EMPLOYEES.sql
FIDELITY_PROGRAM

Output | ANIMALIA.DB.CUSTOMERS

	CUSTOMER_ID	FIRST_NAME	LAST_NAME	FK_FIDELITY_PROGRAM_ID
1	34160	Claude	<null>	<null>
2	341457	Rémy	Parent	<null>
3	341390	Émilie	Pouliot	<null>
4	341384	Olivier	Larivière	<null>
5	341378	Georges	<null>	<null>
6	341373	Georges	Perron	<null>
7	341363	William	<null>	<null>
8	341354	Patrick	<null>	<null>
9	34134	Cécile	Piché	<null>

Table product catalog

ANIMALIA.DB | Settings | Code Versions

```sql
SELECT PROCUCT_SKU, COUNT(*) AS OCCURRENCES
FROM PRODUCT_CATALOG
GROUP BY PROCUCT_SKU
HAVING COUNT(*) > 1;
```

Results | Chart

	PROCUCT_SKU	OCCURRENCES
1	SKU001	2
2	SKU122	2
3	SKU115	2
4	SKU112	2
5	SKU109	2
6	SKU054	2
7	SKU127	2
8	SKU125	2
9	SKU103	2
10	SKU102	2
11	SKU098	2
12	SKU078	2
13	SKU058	2
14	SKU100	2
15	SKU065	2

Query Details
Query duration 43ms
Rows 118
Query ID 01b822e6-0004-1e15-0...
Show more
PROCUCT_SKU A
100% filled
OCCURRENCES
2 3
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ANIMALIA.DB | Settings

```sql
SELECT COUNT(*) AS MISSING_SUPPLIERS_COUNT
FROM PRODUCT_CATALOG P
LEFT JOIN SUPPLIERS S ON P.PRODUCT_BRAND = S.SUPPLIER_NAME
WHERE S.SUPPLIER_NAME IS NULL;
```

Results | Chart

	MISSING_SUPPLIERS_COUNT
1	79

ANIMALIA.DB Settings

```
1  SELECT P.PROCUCT_SKU, P.PRODUCT_NAME
2  FROM PRODUCT_CATALOG P
3  LEFT JOIN SUPPLIERS S ON P.PRODUCT_BRAND = S.SUPPLIER_NAME
4  WHERE S.SUPPLIER_NAME IS NULL;
5
```

Results Chart

	PROCUCT_SKU	PRODUCT_NAME
1	SKU325	Rongeur - Chinchilla
2	SKU324	Rongeur - Gerbille
3	SKU322	Rongeur - Rat
4	SKU305	Chat - Ragdoll
5	SKU304	Chat - Sphynx
6	SKU302	Chat - Maine Coon
7	SKU285	Chien - Shih Tzu
8	SKU284	Chien - Dalmatien
9	SKU282	Chien - Chow Chow
10	SKU259	Chien - Boxer
11	SKU258	Chien - Caniche
12	SKU256	Chien - Bulldog
13	SKU130	Tapis pour Chien en Tissu
14	SKU128	Tapis pour Chien en Peluche
15	SKU126	Tapis pour Chien en Coton

TABLE STORES :

les colonnes sont correcte sauf pour les codes postales après vérification il y’a un code postale avec espace de plus que les autres :

ANIMALIA.DB Settings Code Versions

```
SELECT *
FROM STORES
WHERE POSTAL_CODE not like '___ ___'
```

esults Chart

STORE_ID	STORE_NAME	ADDRESS	CITY	PROVINCE	POSTAL_CODE	PHONE	STATUS
5916	Animalia Neufchatel	2061 Boulevard Bastien	Québec	Québec	H2B 1B8	418-555-8901	Open

Récupération de tous les magasins :

ANIMALIA.DB Settings Code Versions

```
SELECT * FROM ANIMALIA.DB.STORES;
```

Results Chart

	STORE_ID	STORE_NAME	ADDRESS	CITY	PROVINCE	POSTAL_CODE	PHONE	STATUS
1	1932	Animalia QG	388 rue Armand-Paris	Québec	Québec	G1C 7T2	418-555-4567	Open
2	4795	Animalia Vanier	450 rue Soumande	Québec	Québec	G1M 2X6	418-555-7890	Open
3	3574	Animalia Limoilou	581 3e Avenue	Québec	Québec	G1L 2W4	418-555-6789	Open
4	2753	Animalia Ste-Foy	7007 boulevard Wilfrid-Hamel	Québec	Québec	G2G 0J5	418-555-5678	Open
5	5916	Animalia Neufchatel	2061 Boulevard Bastien	Québec	Québec	H2B 1B8	418-555-8901	Open

Nombre de magasins distincts :

ANIMALIA.DB Settings Code Versions

```
SELECT COUNT(DISTINCT STORE_ID) AS DISTINCT_STORES FROM ANIMALIA.DB.STORES;
```

Results Chart

	DISTINCT_STORES
1	5

Compte des magasins par statut :

ANIMALIA.DB Settings Code Versions

```
SELECT STATUS, COUNT(*) AS COUNT FROM ANIMALIA.DB.STORES GROUP BY STATUS;
```

Results Chart

	STATUS	COUNT
1	Open	5

Compte des magasins par ville :

ANIMALIA.DB Settings Code Versions

```
SELECT CITY, COUNT(*) AS COUNT FROM ANIMALIA.DB.STORES GROUP BY CITY;
```

Results Chart

	CITY	COUNT
1	Québec	5

TABLE SUPPLIERS :

ANIMALIA.DB Settings

```
1  SELECT SUPPLIER_ID, SUPPLIER_NAME, CITY, PROVINCE
2  FROM SUPPLIERS
3  WHERE CITY IN ('Québec', 'Québec City', 'Quebec City');
```

Results Chart

	SUPPLIER_ID	SUPPLIER_NAME	CITY	PROVINCE
1	694	Nourriture Animale	Québec City	QC
2	175	Utopia Select Inc.	Québec	QC

ANIMALIA.DB Settings

```
1  SELECT T.TRANSACTION_ID, T.SUPPLIER_ID, COUNT(*) AS OCCURRENCES
2  FROM TRANSACTIONS T
3  GROUP BY T.TRANSACTION_ID, T.SUPPLIER_ID
4  HAVING COUNT(*) > 1;
5
```

Results Chart

	TRANSACTION_ID	SUPPLIER_ID	OCCURRENCES
1	20293	707	2
2	20252	282	2
3	20250	250	2
4	20232	681	2
5	20058	707	2
6	20173	282	2
7	20079	150	2
8	20039	150	2
9	19556	248	2
10	21046	150	2
11	20140	282	2
12	20029	707	2
13	20150	707	3
14	19575	248	2
15	19480	681	2

TABLE TRANSACTIONS :

Quantités de Transaction Incohérentes

ANIMALIA.DB Settings Code Versions

```
1
2  SELECT TRANSACTION_ID, PRODUCT_SKU, QUANTITIES
3  FROM TRANSACTIONS
4  WHERE QUANTITIES <= 0;
```

Results Chart

	TRANSACTION_ID	PRODUCT_SKU	QUANTITIES
1	237705	SKU038	0
2	237683	SKU108	0
3	237624	SKU005	0
4	237617	SKU071	0
5	237447	SKU045	0
6	237416	SKU051	0
7	237415	SKU073	0
8	237407	SKU273	0
9	237395	SKU030	0
10	237392	SKU004	0
11	237269	SKU261	0
12	237252	SKU275	0
13	237157	SKU110	0
14	237132	SKU063	0

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ANIMALIA.DB Settings

```
1
2  SELECT *
3  FROM TRANSACTIONS
4  WHERE NOT REGEXP_LIKE(PRICE, '^\d+(\.\d{1,2})?$') OR NOT REGEXP_LIKE(QUANTITIES, '^\d+$');
```

Results Chart

	TRANSACTION_ID	STORE_ID	EMPLOYEE_ID	CLIENT_ID	PRODUCT_SKU	SUPPLIER_ID	SALE_DATETIME	PRICE	QUANTITIES
1	128603	2753	2466	110553	SKU053	150	2021-10-28 20:38:04	55.01	1
2	128604	2753	2328	110554	SKU042	150	2021-10-30 10:42:02	12.49	2
3	129581	2753	2582	111531	SKU007	681	2021-11-27 12:08:17	3.33	2
4	129581	2753	2582	111531	SKU081	150	2021-11-27 12:08:17	4.85	2
5	129581	2753	2582	111531	SKU035	282	2021-11-27 12:08:17	15.4	2
6	129580	2753	2685	111530	SKU025	282	2021-11-06 13:45:14	8.28	1
7	129579	2753	1879	111529	SKU022	250	2021-11-19 12:51:34	5.59	2
8	129578	2753	2118	111528	SKU061	282	2021-11-13 10:11:56	10.41	3
9	129577	2753	1423	111527	SKU042	150	2021-11-05 18:37:32	12.49	1
10	129576	2753	2645	111526	SKU043	282	2021-11-17 09:24:47	18.9	1
11	129576	2753	2645	111526	SKU068	707	2021-11-17 09:24:47	6.97	1
12	129576	2753	2645	111526	SKU319	248	2021-11-17 09:24:47	30.87	3
13	129576	2753	2645	111526	SKU329	248	2021-11-17 09:24:47	20.54	1
14	129575	2753	1165	111525	SKU263	248	2021-11-06 13:51:47	10.11	2
15	129575	2753	1165	111525	SKU075	681	2021-11-06 13:51:47	23.43	1

ANIMALIA.DB Settings

```
2  FROM TRANSACTIONS T
3  WHERE NOT EXISTS (
4  SELECT 1
5  FROM PRODUCTS P
6  WHERE T.PRODUCT_SKU = P.PROCUCT_SKU);
```

Results Chart

	TRANSACTION_ID	STORE_ID	EMPLOYEE_ID	CLIENT_ID	PRODUCT_SKU	SUPPLIER_ID	SALE_DATETIME	PRICE	QUANTITI
1	401123	5916	2333	383073	SKU287	248	2023-05-11 12:09:03	17.71	1
2	402068	5916	2405	384018	SKU131	150	2023-06-28 10:20:30	16.06	0
3	402055	5916	1376	384005	SKU284	568	2023-06-05 10:21:27	24.71	3
4	402051	5916	1509	384001	SKU284	568	2023-06-29 12:12:06	24.71	2
5	402034	5916	1307	383984	SKU291	248	2023-06-09 10:46:30	24.99	1
6	402027	5916	1307	383977	SKU293	248	2023-06-03 10:24:37	24.99	3
7	402005	5916	1137	383955	SKU291	248	2023-06-30 11:57:05	24.99	0
8	401985	5916	1334	383935	SKU073	150	2023-06-28 10:37:57	15.35	1
9	401967	5916	1334	383917	SKU291	248	2023-06-21 16:11:02	24.99	1
10	401910	5916	2308	383860	SKU286	430	2023-06-15 17:49:13	24.89	1
11	401907	5916	2405	383857	SKU293	248	2023-06-06 13:38:45	24.99	1
12	401892	5916	2333	383842	SKU286	430	2023-06-16 12:25:44	24.89	1
13	401882	5916	2405	383832	SKU073	150	2023-06-08 11:41:12	15.35	1
14	401880	5916	2333	383830	SKU285	138	2023-06-15 18:23:59	23.9	1
15	401870	5916	2065	383820	SKU290	248	2023-06-06 12:59:02	28.55	1

ANIMALIA.DB Settings

```sql

SELECT TRANSACTION_ID, COUNT(*) AS COUNT_TRANSACTIONS
FROM TRANSACTIONS
GROUP BY TRANSACTION_ID
HAVING COUNT_TRANSACTIONS > 1;--Problémes d'unicité des ID
```

Results Chart

	TRANSACTION_ID	COUNT_TRANSACTIONS
1	129561	3
2	129537	3
3	129541	2
4	129505	2
5	129482	3
6	129467	2
7	129466	4
8	129460	3
9	129459	3
10	129440	4
11	129436	6
12	129402	3
13	129231	4
14	129330	6
15	129190	2

ANIMALIA.DB Settings

```sql
SELECT SUPPLIER_ID, PRODUCT_SKU, COUNT(*) AS COUNT_REFERENCES
FROM TRANSACTIONS
GROUP BY SUPPLIER_ID, PRODUCT_SKU
HAVING COUNT_REFERENCES > 1;
```

Results Chart

	SUPPLIER_ID	PRODUCT_SKU	COUNT_REFERENCES
1	707	SKU028	2796
2	248	SKU278	3331
3	681	SKU107	1689
4	681	SKU126	3345
5	707	SKU089	2280
6	150	SKU027	3707
7	681	SKU024	2796
8	707	SKU079	2989
9	250	SKU021	2376
10	295	SKU015	2804
11	707	SKU117	1523
12	681	SKU046	2612
13	248	SKU318	2164
14	707	SKU111	3527
15	138	SKU305	3463

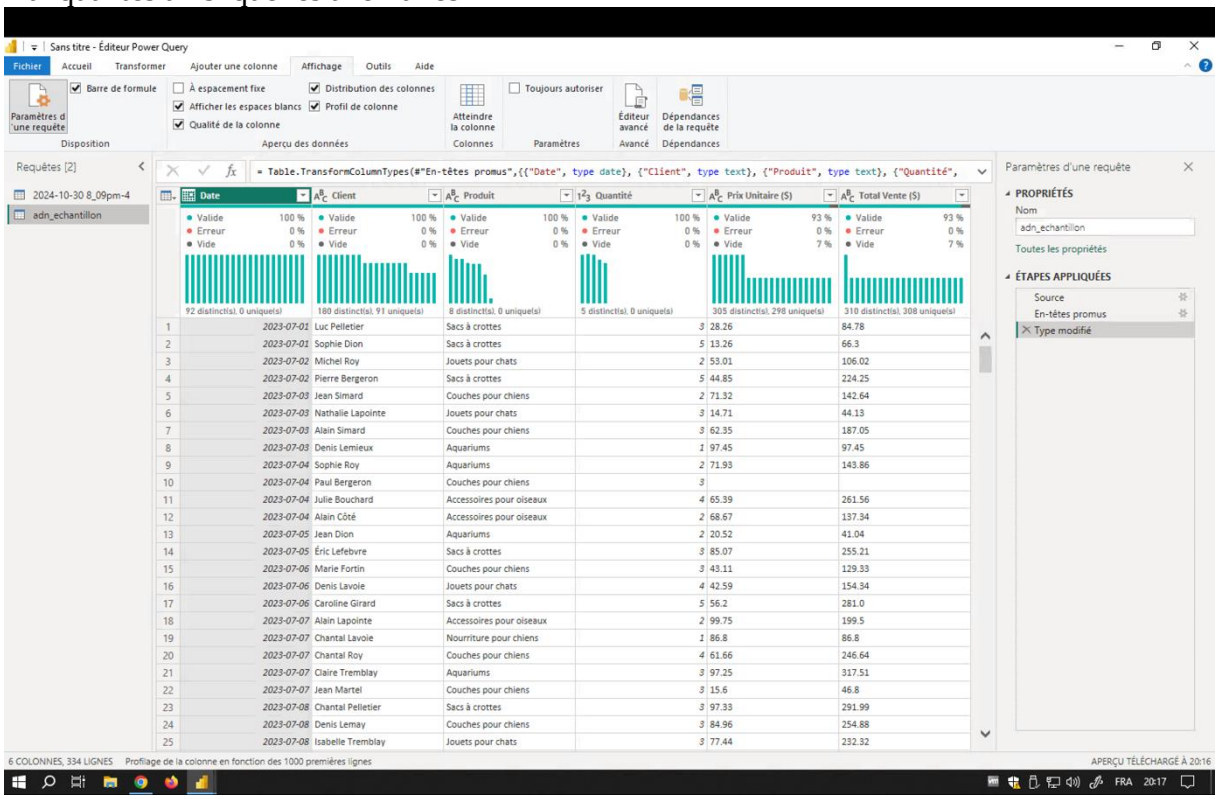
```
121  SELECT COLUMN_NAME... FROM COLUMNS;
124  SELECT COUNT (*)
125  FROM TRANSACTIONS
126  WHERE NOT REGEXP_LIKE(PRICE, '^\d+(\.\d{1,2})?$') OR NOT REGEXP_LIKE(QUANTITIES, '^\d
127
```

Output | COUNT (*):INTEGER

	"COUNT (*)"
1	808594

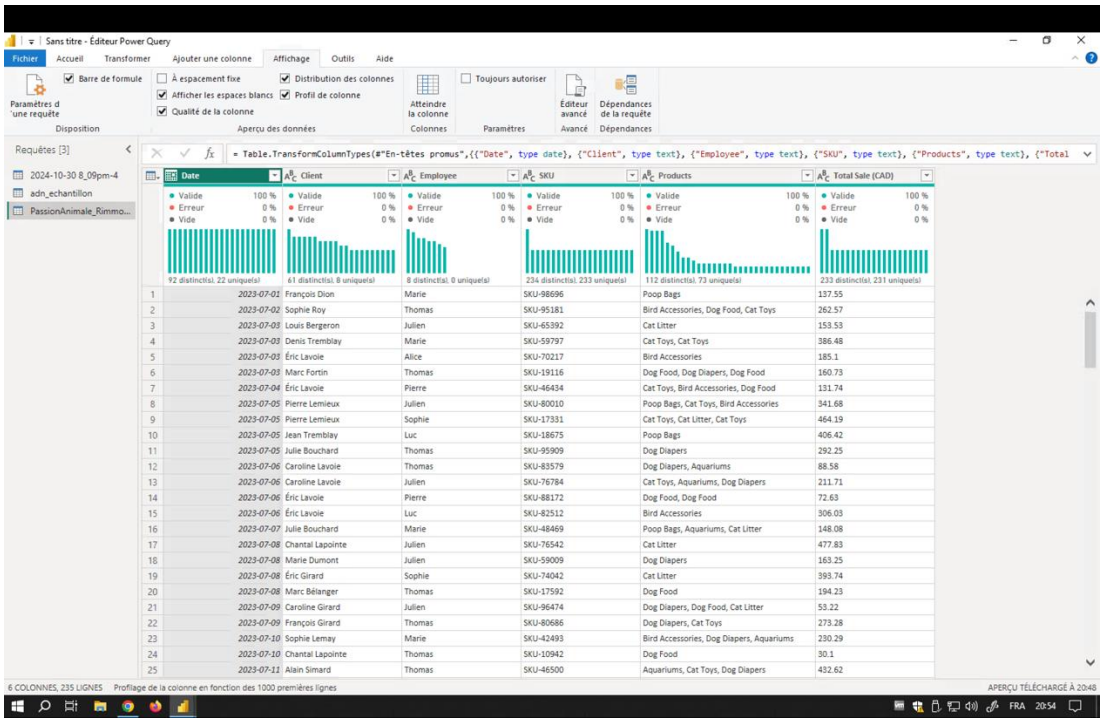
Les autres 4 magasins : problemes de qualite

Animaux du nord : j'ai mis le fichier csv dans power bi pour me donner les valeurs manquantes ainsi que les anomalies



	Date	Client	Produit	Quantité	Prix Unitaire ($)	Total Vente ($)
1	2023-07-01	Luc Pelletier	Sacs à crottes	3	28.26	84.78
2	2023-07-01	Sophie Dion	Sacs à crottes	5	13.26	66.3
3	2023-07-02	Michel Roy	Jouets pour chats	2	53.01	106.02
4	2023-07-02	Pierre Bergeron	Sacs à crottes	5	44.85	224.25
5	2023-07-03	Jean Simard	Couches pour chiens	2	71.32	142.64
6	2023-07-03	Nathalie Lapointe	Jouets pour chats	3	14.71	44.13
7	2023-07-03	Alain Simard	Couches pour chiens	3	62.35	187.05
8	2023-07-03	Denis Lemieux	Aquariums	1	97.45	97.45
9	2023-07-04	Sophie Roy	Aquariums	2	71.93	143.86
10	2023-07-04	Paul Bergeron	Couches pour chiens	3		
11	2023-07-04	Julie Bouchard	Accessoires pour oiseaux	4	65.39	261.56
12	2023-07-04	Alain Côté	Accessoires pour oiseaux	2	68.67	137.34
13	2023-07-05	Jean Dion	Aquariums	2	20.52	41.04
14	2023-07-05	Éric Lefebvre	Sacs à crottes	3	85.07	255.21
15	2023-07-06	Marie Fortin	Couches pour chiens	3	43.11	129.33
16	2023-07-06	Denis Lavoie	Jouets pour chats	4	42.59	154.34
17	2023-07-06	Caroline Girard	Sacs à crottes	5	56.2	281.0
18	2023-07-07	Alain Lapointe	Accessoires pour oiseaux	2	99.75	199.5
19	2023-07-07	Chantal Lavoie	Nourriture pour chiens	1	86.8	86.8
20	2023-07-07	Chantal Roy	Couches pour chiens	4	61.66	246.64
21	2023-07-07	Claire Tremblay	Aquariums	3	97.25	317.51
22	2023-07-07	Jean Martel	Couches pour chiens	3	15.6	46.8
23	2023-07-08	Chantal Pelletier	Sacs à crottes	3	97.33	291.99
24	2023-07-08	Denis Lemay	Couches pour chiens	3	84.96	254.88
25	2023-07-08	Isabelle Tremblay	Jouets pour chats	3	77.44	232.32

Passion animale :


Sans titre - Éditeur Power Query
Fichier
Accueil
Transformer
Ajouter une colonne
Affichage
Outils
Aide
Barre de formule
À espacement fixe
Distribution des colonnes
Afficher les espaces blancs
Profil de colonne
Qualité de la colonne
Paramètres d'une requête
Disposition
Aperçu des données
Atteindre la colonne
Colonnes
Toujours autoriser
Paramètres
Éditeur avancé
Avancé
Dépendances de la requête
Dépendances
Requêtes [3]
2024-10-30 8_09pm-4
adn_echantillon
PassionAnimale_Rimmo...
= Table.TransformColumnTypes(#"En-têtes promus",{{"Date", type date}, {"Client", type text}, {"Employee", type text}, {"SKU", type text}, {"Products", type text}, {"Total
Date
Client
Employee
SKU
Products
Total Sale (CAD)
Valide 100 %
Erreur 0 %
Vide 0 %
92 distinct(s), 22 unique(s)
61 distinct(s), 8 unique(s)
8 distinct(s), 0 unique(s)
234 distinct(s), 233 unique(s)
112 distinct(s), 73 unique(s)
233 distinct(s), 231 unique(s)
1 2023-07-01 François Dion Marie SKU-98696 Poop Bags 137.55
2 2023-07-02 Sophie Roy Thomas SKU-95181 Bird Accessories, Dog Food, Cat Toys 262.57
3 2023-07-03 Louis Bergeron Julien SKU-65392 Cat Litter 153.53
4 2023-07-03 Denis Tremblay Marie SKU-59797 Cat Toys, Cat Toys 386.48
5 2023-07-03 Éric Lavoie Alice SKU-70217 Bird Accessories 185.1
6 2023-07-03 Marc Fortin Thomas SKU-19116 Dog Food, Dog Diapers, Dog Food 160.73
7 2023-07-04 Éric Lavoie Pierre SKU-46434 Cat Toys, Bird Accessories, Dog Food 131.74
8 2023-07-05 Pierre Lemieux Julien SKU-80010 Poop Bags, Cat Toys, Bird Accessories 341.68
9 2023-07-05 Pierre Lemieux Sophie SKU-17331 Cat Toys, Cat Litter, Cat Toys 464.19
10 2023-07-05 Jean Tremblay Luc SKU-18675 Poop Bags 406.42
11 2023-07-05 Julie Bouchard Thomas SKU-95909 Dog Diapers 292.25
12 2023-07-06 Caroline Lavoie Thomas SKU-83579 Dog Diapers, Aquariums 88.58
13 2023-07-06 Caroline Lavoie Julien SKU-76784 Cat Toys, Aquariums, Dog Diapers 211.71
14 2023-07-06 Éric Lavoie Pierre SKU-88172 Dog Food, Dog Food 72.63
15 2023-07-06 Éric Lavoie Luc SKU-82512 Bird Accessories 306.03
16 2023-07-07 Julie Bouchard Marie SKU-48469 Poop Bags, Aquariums, Cat Litter 148.08
17 2023-07-08 Chantal Lapointe Julien SKU-76542 Cat Litter 477.83
18 2023-07-08 Marie Dumont Julien SKU-59009 Dog Diapers 163.25
19 2023-07-08 Éric Girard Sophie SKU-74042 Cat Litter 393.74
20 2023-07-08 Marc Bélanger Thomas SKU-17592 Dog Food 194.23
21 2023-07-09 Caroline Girard Julien SKU-96474 Dog Diapers, Dog Food, Cat Litter 53.22
22 2023-07-09 François Girard Thomas SKU-80686 Dog Diapers, Cat Toys 273.28
23 2023-07-10 Sophie Lemay Marie SKU-42493 Bird Accessories, Dog Diapers, Aquariums 230.29
24 2023-07-10 Chantal Lapointe Thomas SKU-10942 Dog Food 30.1
25 2023-07-11 Alain Simard Thomas SKU-46500 Aquariums, Cat Toys, Dog Diapers 432.62
6 COLONNES, 235 LIGNES
Profilage de la colonne en fonction des 1000 premières lignes
APERÇU TÉLÉCHARGÉ À 20:48
FRA
20:54