

```
[1]+ Stopped gcloud sql connect sqldb411v1 --user=root --quiet
rithvik_kopparapu@cloudshell:~ (cs-411-charliebrown)$ gcloud sql connect sqldb411v1 --user=root --quiet
Allowlisting your IP for incoming connection for 5 minutes...done.
Connecting to database with SQL user [root].Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 44
Server version: 8.4.0-google (Google)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use scentastic;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> show tables;
+-----+
| Tables_in_scentastic |
+-----+
| Dupes                 |
| Perfumes              |
| Reviews              |
| Scent                 |
| User                  |
+-----+
5 rows in set (0.00 sec)

mysql> 
```

```
mysql> SELECT COUNT(*) FROM User;
+-----+
| COUNT(*) |
+-----+
|      1000 |
+-----+
1 row in set (0.00 sec)

mysql> 
```

```
mysql> SELECT COUNT(*) FROM Perfumes;
+-----+
| COUNT(*) |
+-----+
|      1002 |
+-----+
1 row in set (0.00 sec)

mysql> 
```

```
mysql> SELECT COUNT(*) FROM Scent;
+-----+
| COUNT(*) |
+-----+
|      1002 |
+-----+
1 row in set (0.00 sec)

mysql> 
```

```
mysql> SELECT COUNT(*) FROM Reviews;
+-----+
| COUNT(*) |
+-----+
|      1000 |
+-----+
1 row in set (0.00 sec)

mysql> 
```

```
mysql> SELECT COUNT(*) FROM Dupes;
+-----+
| COUNT(*) |
+-----+
|       996 |
+-----+
1 row in set (0.00 sec)
```

(some perfumes may not have dupes)

```
CREATE TABLE User (
  UserID VARCHAR(8) PRIMARY KEY,
  FirstName VARCHAR(255),
  LastName VARCHAR(255),
  Password VARCHAR(12),
  Notes VARCHAR(255),
  Feelings VARCHAR(255)
);
```

```
CREATE TABLE Perfumes (
  PerfumeID VARCHAR(8) PRIMARY KEY,
  Name VARCHAR(255),
  Price VARCHAR(255),
  Image VARCHAR(255),
  Brand VARCHAR(255)
);
```

```
CREATE TABLE Reviews (
  ReviewID VARCHAR(8) PRIMARY KEY,
  PerfumeID VARCHAR(8),
  ReviewerName VARCHAR(255),
  Notes VARCHAR(255),
  Feelings VARCHAR(255),
  FOREIGN KEY (PerfumeID) REFERENCES Perfumes(PerfumeID)
```

```
);
```

```
CREATE TABLE Scent (  
    ScentID VARCHAR(8) PRIMARY KEY,  
    PerfumeID VARCHAR(8),  
    Notes VARCHAR(255),  
    Feelings VARCHAR(255),  
    FOREIGN KEY (PerfumeID) REFERENCES Perfumes(PerfumeID)  
);
```

```
CREATE TABLE Dupes (  
    DupeID VARCHAR(8) PRIMARY KEY,  
    OriginalID VARCHAR(8),  
    ogBrand VARCHAR(255),  
    dBrand VARCHAR(255),  
    FOREIGN KEY (OriginalID) REFERENCES Perfumes(PerfumeID)  
);
```

Query to Get Perfumes with Similar “Feelings” or “Notes” Descriptions as Dupes (Using Join and Set Operators)

This query retrieves perfumes that have dupes with similar Feelings or Notes based on the Scent table. It uses a join and a UNION set operation.

```
SELECT s1.PerfumeID, s1.Notes, s1.Feelings  
FROM Scent s1  
JOIN Dupes d ON s1.PerfumeID = d.OriginalID  
WHERE EXISTS (  
    SELECT 1  
    FROM Scent s2  
    WHERE s2.PerfumeID = d.DupeID  
    AND (s2.Notes = s1.Notes OR s2.Feelings = s1.Feelings)  
)  
UNION  
SELECT s2.PerfumeID, s2.Notes, s2.Feelings  
FROM Scent s2  
JOIN Dupes d ON s2.PerfumeID = d.DupeID  
WHERE EXISTS (  
    SELECT 1  
    FROM Scent s1  
    WHERE s1.PerfumeID = d.OriginalID  
    AND (s1.Notes = s2.Notes OR s1.Feelings = s2.Feelings)  
);
```

Query to List Each Perfume and the Average Price of Its Dupes (Aggregation and Join with a Subquery)

This query retrieves each perfume along with the average price of all its dupes by joining Perfumes and Dupes tables and aggregating.

```
SELECT p.Name AS PerfumeName, p.Brand,  
       AVG(CAST(d_perf.Price AS DECIMAL(10, 2))) AS AvgDupePrice  
FROM Perfumes p  
JOIN Dupes d ON p.PerfumeID = d.OriginalID  
JOIN Perfumes d_perf ON d.DupeID = d_perf.PerfumeID  
GROUP BY p.PerfumeID, p.Name, p.Brand;
```

List Perfumes Reviewed Positively by Reviewers, Excluding Perfumes with Lower Ratings (Using Join and Set Operators)

This query finds perfumes that received only positive reviews, based on keywords in the Feelings column. It uses a join and set operation to exclude perfumes that also have negative reviews.

```
SELECT p.Name, p.Brand  
  
FROM Perfumes p  
  
JOIN Reviews r ON p.PerfumeID = r.PerfumeID  
  
WHERE r Feelings LIKE '%happy%' OR r Feelings LIKE '%love%'  
  
OR p.PerfumeID NOT IN (  
  
    SELECT PerfumeID  
  
    FROM Reviews  
  
    WHERE Feelings LIKE '%dislike%' OR Feelings LIKE '%sad%'  
  
)  
  
LIMIT 15;
```

```
mysql> SELECT p.Name, p.Brand
-> FROM Perfumes p
-> JOIN Reviews r ON p.PerfumeID = r.PerfumeID
-> WHERE r Feelings LIKE '%happy%' OR r Feelings LIKE '%love%'
-> OR p.PerfumeID NOT IN (
->     SELECT PerfumeID
->     FROM Reviews
->     WHERE Feelings LIKE '%dislike%' OR Feelings LIKE '%sad%'
-> )
-> LIMIT 15;
```

Name	Brand
PRADA Paradoxe by Prada EDP 3.0oz/90ml Spray Perfume for Women New In Box	PRADA
Lattafa YARA by Lattafa 3.4 Oz (100 ml) EDP Eau De Parfum Spray for Women.	Carolina Herrera
Shiyaaka for Men EDP Spray 100ML (3.4 FL.OZ) By Khadlaj (Woody, Aromatic, Earth)	Khadlaj
Amazing Grace by Philosophy, 4 oz EDP Intense Spray for Women	Carolina Herrera
Burberry Touch by Burberry 3.3 / 3.4 oz EDP Spray For Women Brand New Sealed	Burberry
AMOR AMOR by Cacharel Perfume for women 3.3 oz / 3.4 oz edt New	Cacharel
Yves Saint Laurent Black Opium 3oz Eau de Parfum Women's New Sealed	Carolina Herrera
FLOWERBOMB BY VIKTOR & ROLF 3.4 OZ SPRAY EAU DE PARFUM SPRAY NEW & SEALED	Viktor & Rolf
Prada Les infusions De Milano Iris Cedre for Women 3.4oz/100ml EDP Spray In Box	PRADA
Versace Dylan Turquoise by Gianni Versace for women EDT 3.3 / 3.4 oz New Tester	Versace
Estee Lauder Cinnabar Eau De Parfum Spray, 1.7 oz / 50 ml Perfume, NWOB	Estée Lauder
GAP DREAM BODY MIST 8FL OZ/236 mL FREE SHIPPING NEW	Gap
Gucci Flora Gorgeous Gardenia 3.3oz Women's Eau de Toilette Spray New Sealed Box	Gucci
Coach Wild Rose 3.0 oz EDP eau de parfum spray womens perfume 90 ml Tester	Coach
Parfums de Marly Delina La Rosee Eau de Parfum 2.5 Fl Oz/75ml Spray for Women	As Shown

```
15 rows in set (0.00 sec)

mysql>
```

Query to Find the Top 15 Most Reviewed Perfumes with Aggregation and Join

This query finds the top 15 perfumes with the highest number of reviews, joining the Perfumes and Reviews tables and aggregating with GROUP BY.

```
SELECT p.Name AS PerfumeName, p.Brand, COUNT(r.ReviewID) AS NumberOfReviews
```

```
FROM Perfumes p
```

```
JOIN Reviews r ON p.PerfumeID = r.PerfumeID
```

```
GROUP BY p.PerfumeID, p.Name, p.Brand
```

```
ORDER BY NumberOfReviews DESC
```

```
LIMIT 15;
```

```
mysql> SELECT p.Name AS PerfumeName, p.Brand, COUNT(r.ReviewID) AS NumberOfReviews
-> FROM Perfumes p
-> JOIN Reviews r ON p.PerfumeID = r.PerfumeID
-> GROUP BY p.PerfumeID, p.Name, p.Brand
-> ORDER BY NumberOfReviews DESC
-> LIMIT 15;
```

PerfumeName	Brand	NumberOfReviews
Versace Dylan Turquoise by Gianni Versace for women EDT 3.3 / 3.4 oz New Tester	Versace	18
Elizabeth Arden White Tea Fragrance Collection Set for Women - 3Pc Mini Gift Set	Elizabeth Arden	16
Valentine Milano For Women Perfume 3.4 fl.oz from Fragrance Couture.	Valentino	15
Women Perfume 3.4 oz / 100 ml Eau De Toilette Spray	AS SHOWN	15
Marc Jacobs Daisy Women's Eau De Toilette Spray For Women EDT 3.4Oz 100ml New	Marc Jacobs	15
Oxytocin-N 15iu Per Spray 1oz (30ml)	Carolina Herrera	15
Not a Perfume by Juliette Has A Gun, 3.3 oz EDP Spray for Women Eau De Parfum	Juliette has a gun	14
Mon Paris 3 oz Perfume by Yves Saint Laurent 90 ml Womens Spray EDP New & Sealed	Yves Saint Laurent	14
Urban Outfitters Le Monde Gourmand Eau De Parfum Fraise Fouettee 070 1oz.	Urban Outfitters	14
Thierry Mugler Angel 1.7oz EDP Women's Perfume Spray New Sealed	Thierry Mugler	14
Love by Kilian Don't Be Shy Eau de Parfum 7.5 ml/0.25 fl. oz. Free Shipping ...	Kilian	14
Carolina Herrera Good Girl 2.7 oz Eau De Parfum Spray Women's New & Sealed	Carolina Herrera	13
My Way by Giorgio Armani 3 oz EDP Perfume for Women New In Box	Giorgio* Armani	13
FLOWERBOMB BY VIKTOR & ROLF 3.4 OZ SPRAY EAU DE PARFUM SPRAY NEW & SEALED	Viktor & Rolf	13
Burberry Touch by Burberry 3.3 / 3.4 oz EDP Spray For Women Brand New Sealed	Burberry	13

15 rows in set (0.01 sec)

```
mysql> █
```