Aggregate Function(avg, max,min,sum,count,)

comparison fun(coalesce,isnull,greatest,if)

GROUP BY clause with HAVING

Sure, let's dive into each of these concepts with examples:

### Aggregate Functions (AVG, MAX, MIN, SUM, COUNT)

Aggregate functions perform calculations on a set of values and return a single value as the result.

```sql

SELECT

AVG(column\_name) AS average\_value,

MAX(column\_name) AS maximum\_value,

MIN(column\_name) AS minimum\_value,

SUM(column\_name) AS sum\_of\_values,

COUNT(column\_name) AS count\_of\_values

FROM table\_name;

```

### Comparison Functions (COALESCE, ISNULL, GREATEST, IF)

Comparison functions handle comparisons or manage NULL values in expressions.

```sql

SELECT

COALESCE(column1, column2) AS preferred\_column,

ISNULL(column\_name, default\_value) AS is\_null\_column,

GREATEST(column1, column2, column3) AS greatest\_value,

IF(condition, value\_if\_true, value\_if\_false) AS conditional\_result

FROM table\_name;

```

### GROUP BY Clause with HAVING

The `GROUP BY` clause is used to group rows that have the same values into summary rows. The `HAVING` clause filters groups based on specified conditions.

```sql

SELECT

column1,

COUNT(\*) AS count\_per\_group

FROM table\_name

GROUP BY column1

HAVING COUNT(\*) > 1; -- Example condition for HAVING clause

```

This query counts the occurrences of each value in `column1`, groups the rows by `column1`, and then filters out groups with a count greater than 1 using the `HAVING` clause.

These are fundamental SQL concepts that you can combine to perform various data manipulations and analysis tasks. Adjust the column names and table name according to your database schema. If you need further explanation or have specific questions, feel free to ask!