WHERE Clause, ORDER BY Clause, GROUP BY Clause, HAVING Clause

WHERE Clause

- **WHERE** clause is used to specify a condition while fetching the data from a single table or by joining with multiple tables.
- If the given condition is satisfied, then only it returns a specific value from the table.
- We use the WHERE clause to filter the records and fetching only the necessary records.
- The WHERE clause is not only used in the SELECT statement, but it is also used in the UPDATE, DELETE statement, etc.
- SELECT column1, column2, columnN

  FROM table_name

  WHERE [condition]

ORDER BY Clause

- **ORDER BY** clause is used to sort the data in ascending or descending order, based on one or more columns.
- Some databases sort the query results in an ascending order by default.
- SELECT column-list

  FROM table_name

  [WHERE condition]

  [ORDER BY column1, column2, .. columnN] [ASC | DESC];

GROUP BY Clause

- **GROUP BY** clause is used in collaboration with the SELECT statement to arrange identical data into groups.
- like "find the number of customers in each country".
- Often used with aggregate functions (COUNT(), MAX(), MIN(), SUM(), AVG()) to group the result-set by one or more columns.
- GROUP BY clause follows the WHERE clause in a SELECT statement and precedes the ORDER BY clause
- SELECT column1, column2

  FROM table_name

  WHERE [conditions]

  GROUP BY column1, column2

  ORDER BY column1, column2

HAVING Clause

- **HAVING Clause** enables you to specify conditions that filter which group results appear in the results.
- The WHERE clause places conditions on the selected columns.
- Whereas the HAVING clause places conditions on groups created by the GROUP BY clause.
- The HAVING clause must follow the GROUP BY clause in a query and must also precede the ORDER BY clause if used.
- SELECT column1, column2

  FROM table1, table2

  WHERE [conditions]

  GROUP BY column1, column2

  HAVING [conditions]

  ORDER BY column1, column2