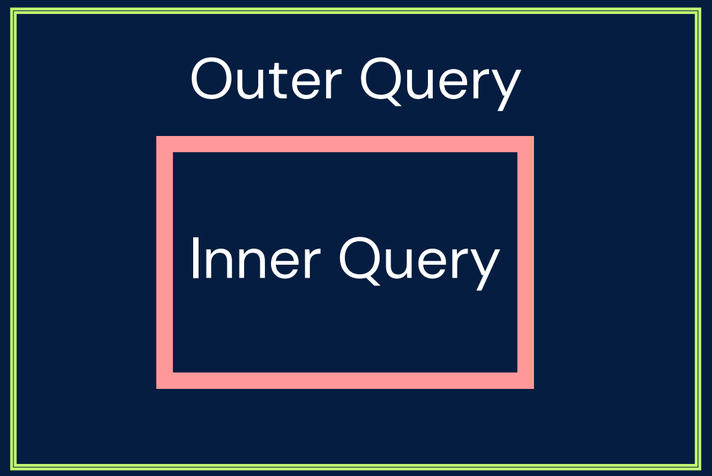
LET'S START WITH SQL :)

SQL Subqueries/Nested queries

Subqueries/Inner Queries/Nested Queries: SQL subquery is a query nested within another SQL statement. Whenever we want to retrieve data based on the result of another query we use nested queries.



LET'S START WITH SQL :)

SQL Subqueries/Nested queries

How can we use Subqueries?

Subqueries can be used in multiple ways :

- Subqueries can be used with clauses such as **SELECT**, **INSERT**, **UPDATE**, or **DELETE** to perform complex data retrieval.

QUERY:

```
SELECT columns, (subquery)
FROM tableName;
```

LET'S START WITH SQL :)

SQL Subqueries/Nested queries

How can we use Subqueries?

Subqueries can be used in multiple ways :

- Subqueries can be used with **WHERE** clause to filter data based on conditions.

  QUERY:

```
SELECT *
FROM tableName
WHERE column name operator (subquery);
```

LET'S START WITH SQL :)

SQL Subqueries/Nested queries

How can we use Subqueries?

Subqueries can be used in multiple ways :

- Subqueries can also be used in the **FROM** clause.

  QUERY:

```
SELECT *
FROM subquery AS altName ;
```

LET'S START WITH SQL :)

SQL Subqueries/Nested queries

Let's understand from example of using subqueries in WHERE:

1. Find all the employees who have salary greater than the min salary

- Find the min salary
- Find employee having salary greater than min salary

id	name	age	departmen	city	salary
1	Rahul	25	'IT'	'Mumbai'	1500
2	Afsara	26	'HR'	'Pune'	2000
3	Abhimanyu	27	'IT'	'Mumbai'	2500
4	Aditya	25	'Marketing'	'Surat'	2400
5	Raj	24	'Finance'	'Indore'	1500

LET'S START WITH SQL :)

SQL Subqueries/Nested queries

Let's understand from example of using subqueries in WHERE:

- To find the min salary

QUERY:

```
SELECT AVG(salary) FROM employee
```

- To find all the employees having salary greater than min salary

QUERY:

```
SELECT name, salary
FROM employee
WHERE salary > (subquery)
```

LET'S START WITH SQL :)

SQL Subqueries/Nested queries

Let's understand from example of using subqueries in WHERE:

2. Find the employees with the minimum age

- Find the min age
- Find employee having the min age

id	name	age	departmen	city	salary
1	Rahul	25	'IT'	'Mumbai'	1500
2	Afsara	26	'HR'	'Pune'	2000
3	Abhimanyu	27	'IT'	'Mumbai'	2500
4	Aditya	25	'Marketing'	'Surat'	2400
5	Raj	24	'Finance'	'Indore'	1500

LET'S START WITH SQL :)

SQL Subqueries/Nested queries

Let's understand from example of using subqueries in WHERE:

- To find the min age

QUERY:

```
SELECT MIN(age) FROM employee
```

- To find all the employees having min age

QUERY:

```
SELECT name, age
FROM employee
WHERE age =(subquery);
```

LET'S START WITH SQL :)

SQL Subqueries/Nested queries

Let's understand from example of using subqueries in FROM:

1. Find the employees who is having age greater than min_age

- Find the min age
- Find employee having age> min age

id	name	age	departmen	city	salary
1	Rahul	25	'IT'	'Mumbai'	1500
2	Afsara	26	'HR'	'Pune'	2000
3	Abhimanyu	27	'IT'	'Mumbai'	2500
4	Aditya	25	'Marketing'	'Surat'	2400
5	Raj	24	'Finance'	'Indore'	1500

LET'S START WITH SQL :)

SQL Subqueries/Nested queries

Let's understand from example of using subqueries in WHERE:

- To Find the min age

QUERY:

```
SELECT min(age) AS min_age FROM employee;
```

- Find employee having age> min age

QUERY:

```
SELECT emp.name
FROM employee emp, (subquery) AS subquery
WHERE emp.age > subquery.min_age;
```

LET'S START WITH SQL :)

SQL Subqueries/Nested queries

Let's understand from example of using subqueries in SELECT:

1. Print the employees with the average age and age of employees

- Find the avg age
- Print the employee age and avg_age

id	name	age	departmen	city	salary
1	Rahul	25	'IT'	'Mumbai'	1500
2	Afsara	26	'HR'	'Pune'	2000
3	Abhimanyu	27	'IT'	'Mumbai'	2500
4	Aditya	25	'Marketing'	'Surat'	2400
5	Raj	24	'Finance'	'Indore'	1500

LET'S START WITH SQL :)

SQL Subqueries/Nested queries

Let's understand from example of using subqueries in SELECT:

- Find the avg age

QUERY:

```
SELECT AVG(age) FROM employee
```

- Print the employee age and avg_age

QUERY:

```
SELECT (subquery)AS avg_age , age
FROM employee;
```