

Difference Between WHERE and WHERE EXISTS in SQL

1. WHERE Clause:

- Filters rows based on a condition.
- Evaluates each row individually.
- Used with direct comparisons or logical expressions.

Example:

```
SELECT * FROM employees  
WHERE department = 'Sales';
```

2. WHERE EXISTS Clause:

- Tests for the existence of rows in a subquery.
- Returns TRUE if the subquery returns any row.
- Often used for correlated subqueries.

Example:

```
SELECT * FROM employees e  
WHERE EXISTS (  
    SELECT 1 FROM departments d  
    WHERE d.manager_id = e.employee_id  
);
```

Key Differences:

- WHERE is used for direct row filtering using column values.
- WHERE EXISTS is used to check for the presence of related data in a subquery.
- WHERE EXISTS stops scanning once a match is found, making it efficient in some cases.