

# Day 2 – SQL SELECT, WHERE & DISTINCT (Interview-Ready Notes)

## 1. SELECT Statement

Definition: The SELECT statement is used to retrieve data from one or more tables in a relational database.

Syntax:

```
SELECT column1, column2 FROM table_name;
```

Example:

```
SELECT name, salary FROM employees;
```

## 2. WHERE Clause

Definition: The WHERE clause filters rows based on conditions.

Example:

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

## 3. DISTINCT Keyword

Definition: DISTINCT removes duplicate values from the result set.

Rule: DISTINCT must be written immediately after SELECT.

Example:

```
SELECT DISTINCT city FROM employees;
```

## 4. Even / Odd Logic

Concept: Modulus operator (%) is used.

Even:  $\text{column} \% 2 = 0$

Odd:  $\text{column} \% 2 = 1$

Example:

```
SELECT * FROM station WHERE id \% 2 = 0;
```

## 5. INSERT INTO

Definition: Used to insert records into a table.

Example:

```
INSERT INTO employees VALUES (1, 'Amit', 'IT', 60000);
```

## 6. DESCRIBE Table

Purpose: Displays table structure including columns and data types.

Example:

```
DESCRIBE employees;
```

## Day 2 Summary

You practiced SELECT queries, filtering data using WHERE, removing duplicates using DISTINCT, basic SQL logic for even/odd conditions, inserting records, and understanding table structure.