

Lecture Notes – Membership Operators

Section 1: Lecture Summary

Membership operators **IN** and **NOT IN** are used in the **WHERE** clause for filtering records by checking if a column value matches any value in a provided set. **IN** returns true if the column value matches any listed value, while **NOT IN** returns true if it matches none. These operators simplify queries compared to multiple **OR** conditions, especially with longer lists.

Section 2: Key Concepts and Explanations

The **WHERE** clause filters records using conditional operators, including membership operators. For **column IN (value1, value2, ...)**, the condition is true if the column matches any value in the set. For **column NOT IN (value1, value2, ...)**, the condition is true if the column matches none of the values. Membership operators are efficient for checking against multiple values without chaining **OR** statements like **column = value1 OR column = value2**.

Section 3: Example Code and Use Cases

Retrieve employees from departments 2 and 3 to examine staffing distribution:

```
SELECT EmpID, FirstName, DeptID
FROM Employees
WHERE DeptID IN (2, 3);
```

This returns rows where **DeptID** is 2 or 3 (11 rows shown).

Identify employee IDs assigned to projects 203, 205, or 207 for workforce deployment analysis:

```
SELECT EmpID, ProjectID
FROM EmployeeProjects
WHERE ProjectID IN (203, 205, 207);
```

This lists matching **EmpID** and **ProjectID** values.

List customers excluding those from Delhi and Mumbai:

```
SELECT FirstName, LastName, City
FROM Customers
WHERE City NOT IN ('Delhi', 'Mumbai');
```

This shows customers from other cities like Chennai or Bangalore.

Section 4: Key Takeaways

Membership operators ****IN**** and ****NOT IN**** streamline filtering against multiple values in the ****WHERE**** clause. Use them for cleaner queries than repeated ****OR**** conditions. Practice writing and saving these queries for reference.