# SQL Queries

Operators, Functions ,Joins & subqueries

# Basic Statement

**SELECT** database.table.column

**FROM** table FROM table alias

**WHERE** [conditions]

**ORDER BY** [columns]

;

SELECT

**Database Columns (From Tables or Views)**

**Constant Text Values  Formulas Formulas**

**Pre-defined Functions defined Functions**

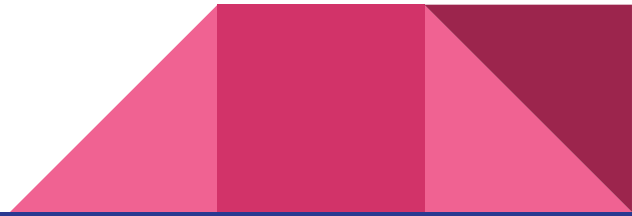
**Group Functions (COUNT, SUM, MAX, MIN, AVG) Group Functions (COUNT, SUM, MAX, MIN, AVG)**

FROM Tablename  Order by fieldname ;

# Point to note

**You must have a field name to be displayed.**

**You MUST Have a FROM statement**



# Optional clauses

- Defines what records are to be included in the query
- Uses Conditional Operators  =, >, >=, <, <=, != (<>) =, >, >=, <, <=, != (<>)
- BETWEEN x AND y
- IN (list)
- LIKE ‘%string ‘ (“ % ” is a wild is a wild-card)
- IS NULL, IS NOT NULL,  NOT {BETWEEN / IN / LIKE /}
- Multiple Conditions Linked with AND & OR Statements .
- Strings Contained Within SINGLE QUOTES!!

# AND & OR

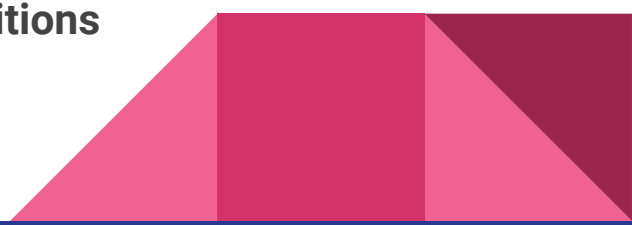
**Multiple WHERE conditions are Linked by AND / OR.**

**“AND” Means All Conditions are TRUE for the Means**

**“OR” Means at least 1 of the Conditions is TRUE**

**You May Group Statements with AND and OR**

**BE CAREFUL MIXING BE CAREFUL MIXING “AND” & “OR” Conditions**



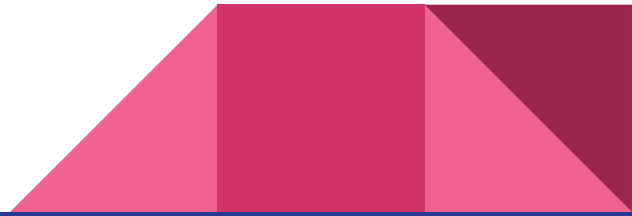
# Group Functions

- Performs Common Mathematical
- Operations on a Group of Records
- Must define what Constitutes a Group by
- Using the GROUP BY Clause

Commonly used functions are sum,count,avg , max,min

# Joins

Joins can be done with or without foreign key constraint



# Example of a simple join Explicit

```
Select

t1.name,t2.amount

From

T1

Join on t1.id=t2.id;
```

T1.id should be on table t1 and t2. id should be on table t2 and both shoud be of same data type

# Retrieving data from multiple tables using Implicit join

Select main.name, dsoi.date_of_txn  from main,dsoi where dsoi_no=dsoi_mem_no;