1. Inner join

**Ans**. The INNER JOIN keyword selects all rows from both tables as long as there is a match between the columns in both tables.

**EXAMPLE:**

SELECT column\_name(s)  
FROM table1  
INNER JOIN table2  
ON table1.column\_name=table2.column\_name;

1. Left outer join

**Ans**. The LEFT JOIN keyword returns all rows from the left table (table1), with the matching rows in the right table (table2). The result is NULL in the right side when there is no match.

**EXAMPLE:**

SELECT column\_name(s)  
FROM table1  
LEFT JOIN table2  
ON table1.column\_name=table2.column\_name;

1. Right outer join

**Ans**: The RIGHT JOIN keyword returns all rows from the right table (table2), with the matching rows in the left table (table1). The result is NULL in the left side when there is no match.

**EXAMPLE:**

SELECT column\_name(s)  
FROM table1  
RIGHT JOIN table2  
ON table1.column\_name=table2.column\_name;

1. Group by

**Ans**: The GROUP BY statement is used in conjunction with the aggregate functions to group the result-set by one or more columns.

**EXAMPLE:**

SELECT column\_name, aggregate\_function(column\_name)  
FROM table\_name  
WHERE column\_name operator value  
GROUP BY column\_name;

1. Having

**Ans**. The HAVING clause was added to SQL because the WHERE keyword could not be used with aggregate functions

**EXAMPLE:**

SELECT column\_name, aggregate\_function(column\_name)  
FROM table\_name  
WHERE column\_name operator value  
GROUP BY column\_name  
HAVING aggregate\_function(column\_name) operator value;

1. Avg

**Ans.** The AVG() function returns the average value of a numeric column.

EXAMPLE: SELECT AVG(column\_name) FROM table\_name

1. Finding top rows

**Ans.** **Select top 100 \* from tablename**

It gives top 100 records in order

1. Primay key

**Ans.**

* The PRIMARY KEY constraint uniquely identifies each record in a database table.
* Primary keys must contain UNIQUE values.
* A primary key column cannot contain NULL values.
* Most tables should have a primary key, and each table can have only ONE primary key

**EXAMPLE:**

CREATE TABLE Persons  
(  
P\_Id int NOT NULL,  
LastName varchar(255) NOT NULL,  
FirstName varchar(255),  
Address varchar(255),  
City varchar(255),  
PRIMARY KEY (P\_Id)  
)

1. Forgein key

**Ans.** A FOREIGN KEY in one table points to a PRIMARY KEY in another table.

**EXAMPLE:**

CREATE TABLE Orders  
(  
O\_Id int NOT NULL,  
OrderNo int NOT NULL,  
P\_Id int,  
PRIMARY KEY (O\_Id),  
FOREIGN KEY (P\_Id) REFERENCES Persons(P\_Id)  
)

Use cases:

Tables for employee management system

Employee

EMS Admin

Tables for Library management system

Tables for Library management system