**DATABASE ASSIGNMENT**

1. **Example for Foreign key?**

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)  
)

1. **Example for Group by?**

SELECT Shippers.ShipperName,COUNT(Orders.OrderID) AS NumberOfOrders FROM Orders

LEFT JOIN Shippers

ON Orders.ShipperID=Shippers.ShipperID

GROUP BY ShipperName;

1. **Example for Having?**

SELECT Employees.LastName, COUNT (Orders.OrderID) AS NumberOfOrders FROM (Orders

INNER JOIN Employees

ON Orders.EmployeeID=Employees.EmployeeID)

GROUP BY LastName

HAVING COUNT (Orders.OrderID) > 10;

1. **Example for Inner join?**

SELECT Customers.CustomerName, Orders.OrderID

FROM Customers

INNER JOIN Orders

ON Customers.CustomerID=Orders.CustomerID

ORDER BY Customers.CustomerName;

1. **Example for Left outer join?**

SELECT Customers.CustomerName, Orders.OrderID

FROM Customers

LEFT JOIN Orders

ON Customers.CustomerID=Orders.CustomerID

ORDER BY Customers.CustomerName;

1. **Example for Max, sum, Avg?**

Max: SELECT MAX(Price) AS HighestPrice FROM Products;

Sum: SELECT SUM(Quantity) AS TotalItemsOrdered FROM OrderDetails;

Avg: SELECT AVG(Price) AS PriceAverage FROM Products;

1. **Example for Primary key?**

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)  
)

8) **Example for Right outer join?**

SELECT Orders.OrderID, Employees.FirstName

FROM Orders

RIGHT JOIN Employees

ON Orders.EmployeeID=Employees.EmployeeID

ORDER BY Orders.OrderID;

9) **Example for Where condition?**

SELECT \* FROM Customers

WHERE Country='India';

10) **Finding second highest salary from row table?**

select \* from (

select e.\*, row\_number() over (order by sal desc) rn from emp e

)

where rn = 2;

11) **What is Column?**

In the context of a relational database, a column is a set of data values of a simple type, one for each row of the table. The columns provide the structure per which the rows are composed.

12) **What is Database?**

A database is a collection of [information](http://searchsqlserver.techtarget.com/definition/information) that is organized so that it can easily be accessed, managed, and updated. In one view, databases can be classified per types of content: bibliographic, full-text, numeric, and images.

13) **What is Row?**

A relational database system contains one or more objects called tables. The data or information for the database are stored in these tables. Tables are uniquely identified by their names and are comprised of columns and rows. Columns contain the column name, data type, and any other attributes for the column.

14) **What is Table?**

In relational databases and flat file databases, a table is a set of data elements (values) using a model of vertical columns (identifiable by name) and horizontal rows, the cell being the unit where a row and column intersect. A table has a specified number of columns, but can have any number of rows.