1. 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 into types of content: bibliographic, full-text, numeric, and images.

2.What is table? A [table](https://en.wikipedia.org/wiki/Table_(information)) is a collection of related data held in a structured format within a [database](https://en.wikipedia.org/wiki/Database). It consists of [columns](https://en.wikipedia.org/wiki/Column_(database)), and [rows](https://en.wikipedia.org/wiki/Row_(database)).

3.What is column? In the context of a [relational database](https://en.wikipedia.org/wiki/Relational_database), a **column** is a set of [data](https://en.wikipedia.org/wiki/Data) values of a particular simple [type](https://en.wikipedia.org/wiki/Datatype), one for each [row](https://en.wikipedia.org/wiki/Row_(database)) of the table.The columns provide the structure according to which the rows are composed.

4.What is row? In the context of a relational database, a row also called a record or tuple represents a single, implicitly structured data item in a table. In simple terms, a database table can be thought of as consisting of rows and columns or fields.

5.What is Inner Join? The basic syntax for inner join select table.column1, table2.column2… From table1 INNER JOIN tale2 ON table1.common\_field=table2.common\_field;

6.Example for left outer join select column\_name(s) From table1 LEFT OUTER JOIN table2 ON table1.column\_name=table2.column\_name;

7. Example for Right outer join? select column\_name(s) From table1 RIGHT OUTER JOIN table2 ON table1.column\_name=table2.column\_name;

8. Example for Max,sum,Avg?

Max() : SELECT MAX(column\_name) FROM table\_name;

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

Avg() : SELECT ProductName, Price FROM Products  
 WHERE Price>(SELECT AVG(Price) FROM Products);

9. Example for group SELECT Shippers.ShipperName,COUNT(Orders.OrderID) AS NumberOfOrders FROM Orders  
LEFT JOIN Shippers  
ON Orders.ShipperID=Shippers.ShipperID  
GROUP BY ShipperName;

10. 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;

11.Example for Where condition?

SELECT \* FROM Customers  
WHERE CustomerID=1;

12.Example for primary key?

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

13.Example for Foreign key. CREATE TABLE Orders  
(  
O\_Id int NOT NULL PRIMARY KEY,  
OrderNo int NOT NULL,  
P\_Id int FOREIGN KEY REFERENCES Persons(P\_Id)  
)

12.Finding second highest salary from row table.

SELECT salary from(SELECT Salary From Employee ORDER BY salary DESC LIMIT 2) AS Ems ORDER BY SALARYLIMIT 1;

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