ASSIGNMENT - 2

1) What is Database ?

A)A prearranged collection of figures known as data is called database.

2) What is Table?

A) A database table is just that, a table with rows and columns. Different tables contain information about different types of things.

3) What is Column?

A) The columns in a table are the set of facts that we keep track of about that type of object. A column is also called an attribute.

4) What is Row?

A) Each row in a database table represents one instance of the type of object described in that table. A row is also called a record.

5) Example for Inner join

A) SYNTAX :

SELECT table1.column1, table2.column2...

FROM table1

INNER JOIN table2

ON table1.common\_field = table2.common\_field;

EXAMPLE :

SELECT OrderNumber, TotalAmount, FirstName, LastName, City, Country

FROM [Order]

INNER JOIN Customer

ON [Order].CustomerId = Customer.Id

6) Example for Left outer join

A) SYNTAX :

SELECT column\_name(s)

FROM table1

LEFT JOIN table2

ON table1.column\_name=table2.column\_name;

EXAMPLE :

SELECT Customers.CustomerName, Orders.OrderID

FROM Customers

LEFT JOIN Orders

ON Customers.CustomerID=Orders.CustomerID

ORDER BY Customers.CustomerName;

7) Example for Right outer join

A) SYNTAX :

SELECT column\_name(s)

FROM table1

RIGHT JOIN table2

ON table1.column\_name=table2.column\_name;

EXAMPLE :

SELECT Orders.OrderID, Employees.FirstName

FROM Orders

RIGHT JOIN Employees

ON Orders.EmployeeID=Employees.EmployeeID

ORDER BY Orders.OrderID;

8) Example for Max, sum, Avg

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

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

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

9) Example for Group by

A) SYNTAX :

SELECT column\_name, aggregate\_function(column\_name)

FROM table\_name

WHERE column\_name operator value

GROUP BY column\_name;

EXAMPLE :

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

A) SYNTAX :

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;

EXAMPLES :

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

A) SYNTAX :

SELECT column\_name,column\_name

FROM table\_name

WHERE column\_name operator value;

EXAMPLE :

SELECT \* FROM Customers

WHERE Country='Mexico';

12) Example for Primary key

A) SYNTAX :

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)

)

13) Example for Foreign key

A) SYNTAX :

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)

)

14) Finding second highest salary from row table

A) SELECT Salary FROM ( SELECT Salary FROM Employee ORDER BY salary DESC LIMIT 2) AS Ems ORDER BY SALARY LIMIT 1;