**SQL Assignment 5**

1. Explain how SQL Query keyword statements are executed in order.

Ans. a. From

b. Where

c. Group By

d. Having

e. Select

f. Order By

g. Limit

1. Explain the advantages of stored procedures and their syntax in relation to recompiling stored procedures.

Ans. By grouping SQL statements, a stored procedure allows them to be executed with a single call. This minimizes the use of slow networks, reduces network traffic, and improves round-trip response time. OLTP applications, in particular, benefit because result set processing eliminates network bottlenecks.

Syntax

CREATE OR ALTER PROCEDURE GetProductionList

@ProductIdNumber AS INT

AS

SELECT

p.[ProductID]

,p.[Name]

,pm.[Name] AS [ProductModel]

,pmx.[CultureID]

,pd.[Description]

FROM [Production].[Product] p

INNER JOIN [Production].[ProductModel] pm

ON p.[ProductModelID] = pm.[ProductModelID]

INNER JOIN [Production].[ProductModelProductDescriptionCulture] pmx

ON pm.[ProductModelID] = pmx.[ProductModelID]

INNER JOIN [Production].[ProductDescription] pd

ON pmx.[ProductDescriptionID] = pd.[ProductDescriptionID]

WHERE p.ProductID =@ProductIdNumber

1. Give an example of the derived table.

Ans. A derived table is an expression that generates a table within the scope of a query FROM clause. For example, a subquery in a SELECT statement FROM clause is a derived table:

SELECT ... FROM (subquery) [AS] tbl\_name ...

The JSON\_TABLE() function generates a table and provides another way to create a derived table:

SELECT \* FROM JSON\_TABLE(arg\_list) [AS] tbl\_name ...

1. What is the database's trigger? Explain the different forms of triggers that can be found in the database.

Ans. Trigger: A trigger is a stored procedure in database which automatically invokes whenever a special event in the database occurs. For example, a trigger can be invoked when a row is inserted into a specified table or when certain table columns are being updated.

DML (data manipulation language) triggers – We’ve already mentioned them, and they react to DML commands. These are – INSERT, UPDATE, and DELETE

DDL (data definition language) triggers – As expected, triggers of this type shall react to DDL commands like – CREATE, ALTER, and DROP

Logon triggers – The name says it all. This type reacts to LOGON events

1. What are the benefits and drawbacks of triggers?

Ans. Benefits

* Easy to code
* Allow you to create basic auditing.
* You can use external code as a trigger by using CLR triggers
* You can use triggers to implement referential integrity across databases

Drawbacks

* Triggers add overhead to DML statements
* Recursive triggers are even harder to debug than nested triggers.
* Triggers are difficult to locate unless you have proper documentation because they are invisible to the client.

1. Create a stored procedure to call other stored procedures.

Ans.

Syntax

create procedure Sp\_insert

(

@ID int,

@TempName varchar(max)

)

as

begin

Declare @SampleTable Table(id int, Name varchar(max))

Insert into @SampleTable(id,Name)values(@ID,@TempName)

select\*from @SampleTable

end