**SQL Assignment 3**

1. Create a function and then call another function from within it. What is this process called?
2. The Function which calls another Function is called Calling Function and function which is called by another Function is call Called Function.

Creating a function1:

*delimiter //*

*create function goals\_prod(ord1 int,n int) returns int deterministic*

*begin*

*return ord1\*n;*

*end //*

*delimiter ;*

*select \* from players;*

*select player\_name,goals,goals\_prod(goals,10) as goals\_new from players;*

*/\*FUNCTION WITHIN A FUNCTION\*/*

*delimiter //*

*create function goals\_perc(ord1 int,n int) returns float deterministic*

*begin*

*return (ord1/goals\_prod(ord1,n))\*100;*

*end //*

*delimiter ;*

*select player\_name,goals,goals\_prod(goals,10) as goals\_new,goals\_perc(goals,10) as goals\_new\_perc from players;*

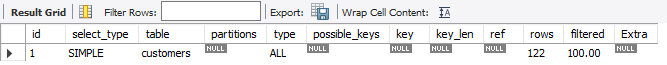
*/\*calling of function\*/*

*select ordernumber,orderdate,status,no\_of\_years(orderdate) as no\_of\_years from orders;*

1. How to inspect the query's execution plan?

A-

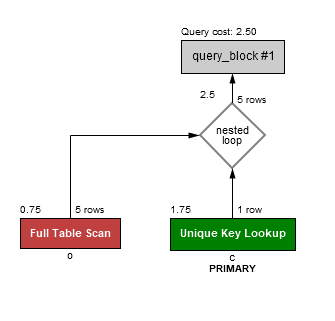
*explain SELECT \* FROM classicmodels.customers;*



Execution Plan:

*select c.CustomerID,c.CustomerName,c.Country,o.OrderID,o.OrderDate from Customers c inner join Orders o*

*on c.CustomerID=o.CustomerID;*



1. What is the purpose of the MAXDOP and recompiling keywords in SQL queries?

A-

* The maximum degree of parallelism (MAXDOP) is a server configuration option for running SQL Server on multiple CPUs. It controls the number of processors used to run a single statement in parallel plan execution. The default value is 0, which enables SQL Server to use all available processors.
* When a procedure is compiled for the first time or recompiled, the procedure's query plan is optimized for the current state of the database and its objects. If a database undergoes significant changes to its data or structure, recompiling a procedure updates and optimizes the procedure's query plan for those changes.

1. How to build DDL statements from an existing database table, write steps for it?

A-The DDL stands for Data Definition Language. To generate the table DDL via query, you can

use show create command.

The syntax is as follows:

show create table <database name>.<table name>;-this is for a single table dump;

mysqldump -d -u <username> -p<password> -h <hostname> <dbname>;-to dump multiple tables

1. How to update data in a table using an inner join, write an example?

A-The UPDATE JOIN is a MySQL statement used to perform cross-table updates, implying we can update one table using another table with the JOIN clause condition.

**UPDATE** Tab1, Tab2, [**INNER** JOIN] Tab1 **ON** Tab1.C1 = Tab2.C1

**SET** Tab1.C2 = Tab2.C2, Tab2.C3 = expression

**WHERE** Condition;

1. Differentiate between truncate, delete, and drop with a suitable example.

A-

* Truncate- It is a Data Definition Language Command (DDL). The TRUNCATE TABLE the command deletes the data inside a table, but not the table itself. TRUNCATE deletes all the rows of a table at once. It only logs once in the transaction log.

Truncate table empdata;

* Delete- It is a [Data Manipulation Language Command (DML)](https://www.geeksforgeeks.org/sql-ddl-dql-dml-dcl-tcl-commands/). It is used to delete one or more tuples of a table. With the help of the “DELETE” command, we can either delete all the rows in one go or can delete rows one by one.

delete from empdata where first\_name="Steve";

* Drop- It is a Data Definition Language Command (DDL). It is used to drop the whole table. With the help of the “DROP” command we can drop (delete) the whole structure in one go.

drop table empdata;

* DELETE operations can be rolled back (undone), while DROP and TRUNCATE operations cannot be rolled back.