**SQL TUTORIAL**

**WEEK 4**

**⌨️ (3:01:36)Joins**

A JOIN clause is used to combine rows from two or more tables, based on a related column between them.

**⌨️ (3:11:49) Nested Queries**

In nested queries, a query is written inside a query. The result of inner query is used in execution of outer query.There are mainly two types of nested queries: Independent Nested Queries: In independent nested queries, query execution starts from innermost query to outermost queries. The execution of inner query is independent of outer query, but the result of inner query is used in execution of outer query. Various operators like IN, NOT IN, ANY, ALL etc are used in writing independent nested queries.Co-related Nested Queries: In co-related nested queries, the output of inner query depends on the row which is being currently executed in outer query.

**⌨️ (3:21:52) On Delete**

Use the ON DELETE CASCADE option to specify whether you want rows deleted in a child table when corresponding rows are deleted in the parent table. If you do not specify cascading deletes, the default behavior of the database server prevents you from deleting data in a table if other tables reference it

**⌨️ (3:30:05) Triggers**

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.

Syntax:

create trigger [trigger\_name]

[before | after]

{insert | update | delete}

on [table\_name]

[for each row]

[trigger\_body]

Explanation of syntax:

create trigger [trigger\_name]: Creates or replaces an existing trigger with the trigger\_name.

[before | after]: This specifies when the trigger will be executed.

{insert | update | delete}: This specifies the DML operation.

on [table\_name]: This specifies the name of the table associated with the trigger.

[for each row]: This specifies a row-level trigger, i.e., the trigger will be executed for each row being affected.

[trigger\_body]: This provides the operation to be performed as trigger is fired

BEFORE and AFTER of Trigger:

BEFORE triggers run the trigger action before the triggering statement is run. AFTER triggers run the trigger action after the triggering statement is run.

**⌨️ (3:42:12) ER Diagrams Intro**

ER Model is used to model the logical view of the system from a data perspective .

**⌨️ (4:08:34) Converting ER Diagrams to Schemas**

ER diagrams can be mapped to relational schema, that is, it is possible to create relational schema using ER diagram

**Mapping process**

-Create table for weak entity set.

-Add all its attributes to table as field.

-Add the primary key of identifying entity set.

-Declare all foreign key constraints