Sql > Language that us used to work with RDBMS

Sql Server, MySql, Oracle

Features of Sql

1. It’s a language that is used to work with RDBMS
2. Its case insensitive
3. Its easy to use because it contains English like words
4. Statements in Sql are divided into some categories
   1. DDL (Data Definition Language) : create, alter, drop , truncate table
   2. DML(Data Manipultaion Language) :insert , delete, update
   3. DQL(Data Query Language) : select
   4. TCL(Transaction Control Language) : commit , rollback
   5. DCL (Data Control Language) : grant , revoke

Integrity Rules : Tells us that we need to follow certain rules so that integrity of table is maintained

1. Entity Integrity Rule > We should maintain integrity of every Entity

Achieved by using Primary Key

1. Not Null
2. No Duplicacy

b.Referential Entegrity : We use it to link two tables

Achieved by using Foreign Key

FK > It’s a key whose value is dependent on value of PK of some other table

1. Domain Integrity : It tells us that a column can have certain values or a pool of values

RollNo can have values only from 1 to 50

Dept could be only HR Accounts

Achieved by using check clause

Constraints : Restrictions that we put on columns in a table

Database : Collection of Objects , where objects could be **tables**, views, procedures, constraints, index, function, triggers, etc…

System Databases : Inbuilt

Master is very imp.

create database Pract

use Pract

create table Employee(

id int, name varchar(20),

address varchar(40),

salary int,

department varchar(20))

insert into Employee values

(1,null, 'Delhi',0,'HR'),

(1,'999', '12121',-90,'1111')

select \* from Employee

-- Constraints

-- PK

-- Check

-- default

-- not null

-- unique

-- FK

-- We can add contsiants to a table after table is created

alter table Employee add constraint PK primary key(id)

-- By def all the columns are nullable, they allows null

alter table Employee alter column id int not null

select \* from EMployee

update EMployee set id=2 where name is not null

drop table Employee

create table Employee(

id int primary key,

name varchar(20) not null,

address varchar(40) unique,

salary int not null check(salary between 12000 AND 30000),

department varchar(20) default 'HR' not null

check (department IN ('HR','Sales','Accts')))

insert into Employee(id, name, address, salary,department)

values

(1,'Ajay','Delhi',12800,'Accts')

insert into Employee(id, name, address, salary)

values

(2,'Deepak','ODelhi',15000)

-- Add Constraint to a table which is already created

-- alter table <table name> add constraint CN Actual Constraint(column name)

-- Remove constraint from a table

-- alter table <table name> drop constraint CN

-- Modify constraint from a table

-- alter table <table name> enbale constraint CN

-- alter table <table name> disable constraint CN

-- How do you make primary key in already created table

-- We have to follow 2 commands

-- Make that column not nullable

--alter table <tablename> alter column <columnname> type not null

-- alter table <table name> add constraint CN Primary key(column name)

-- Insert Record

-- insert into tablename(coulmn names) values ()

-- Delete Record from table

-- Delete from tablename where condition

-- Update Records

-- udate table set columnname = value where condition

-- Remove table

-- drop table <tablename>

-- Add column to a table

-- alter table <tablename> add <columnanme> <type>

-- Remove a column from a table

-- alter table <tablename> drop column <columnanme>

-- -Modify a column

-- alter table <tablename> alter column

-- Rename a column

-- sp\_rename 'tablename.columnname' ,'newname', 'column'

sp\_rename 'Employee.id', 'EmpId', 'COLUMN'

-- Rename a table

sp\_rename 'Employee' ,'Empl'