ST.XAVIER’S COLLEGE

(Affiliated to Tribhuvan University)

Maitighar, Kathmandu



**DBMS LAB ASSIGNMENT #1**

**SUBMITTED BY:**

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017BSCIT029

4th Sem, 2nd Year

**SUBMITTED TO:**

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**Objective**

**To familiarize with Structured Query Language DDL statements and Data Types.**

**Theory**

**DDL(Data Definition Language)**

**DDL(Data Definition Language) :**DDL or Data Definition Language actually consists of the SQL commands that can be used to define the database schema. It simply deals with descriptions of the database schema and is used to create and modify the structure of database objects in database.

**DDL commands**

* **CREATE**– is used to create the database or its objects (like table, index, function, views, store procedure and triggers).
* **DROP** – is used to delete objects from the database.
* **ALTER**-is used to alter the structure of the database.

SQL Constraints are rules used to limit the type of data that can go into a table, to maintain the accuracy and integrity of the data inside table.Constraints are used to make sure that the integrity of data is maintained in the database. Following are the most used constraints that can be applied to a table.

* **NOT NULL**
* **UNIQUE**
* **PRIMARY KEY**
* **FOREIGN KEY**
* **CHECK**
* **DEFAULT**

Data type in a database defines the field within database. Data type is a data storage format that can contain specific type or range of values.

**Tasks**

* 1. Create a table “Employee” in database “SXC” with following attributes:

EID INT

FirstName VARCHAR(15)

LastName VARCHAR(15)

DeptId SMALLINT

DOB DATE

* 1. Add attributes “ContactNo” BIGINT , “Email” VARCHAR(30), “Salary” DECIMAL(10,2) in a table Employee.
  2. Drop an attribute “DOB” from Employee table.
  3. Create a table “Department” in database “SXC” with following attributes with not null constraint for all attributes and primary key constraint on ‘DID’:

DID SMALLINT

DName VARCHAR(20)

Email VARCHAR(20)

* 1. Add Primary Key constraint to Employee table EID, foreign key constraint on attribute DeptId that references table Department for attribute “DID”.
  2. Create tables “Customer” and “Orders” with respective attributes with at least primary key constraints on both of tables. Referential key constraint should be defined such that given customer can have multiple orders but given order can only belong to one customer.

**Source Code**

-- create a database

create database if not exists SXC;

-- use databasee sxc

use SXC;

-- create table employee

create table employee(

EID int,

FirstName varchar(15),

LastName varchar(15),

DeptId smallint,

DOB date

);

-- add contact no, salary in table

alter table employee

add column (ContactNo bigint, Salary decimal(10,2));

-- delete DOB column in the table

alter table employee

drop column DOB;

-- creating datbase department

create table Department(

DID smallint,

DName varchar(20),

Email varchar(20)

);

-- adding foreign key

alter table employee

add foreign key(EID) references Department(DID);

show tables;

desc employee;

-- Q no 6 creating table with foreign key ONo

create table customers(

CID smallint primary key,

CName varchar(25),

Caddress varchar(25),

CphoneNo bigint,

ONo smallint,

foreign key(ONo) references Orders(ONo)

);

-- orders table

create table Orders(

ONo smallint primary key,

NoOfPiece int,

DeliveryTime datetime

);

drop table Orders;

desc Orders;

show tables;