# **SQL**

**DATABASE:**

CREATE DATABASE **TRAINING**;

**STUDENT**

CREATE TABLE STUDENT(

Regid INTEGER NOT NULL PRIMARY KEY,

NAME VARCHAR(20),

DOB DATE,

Deptid INT NOT NULL,

Address VARCHAR(80),

FOREIGN KEY(Deptid) REFERENCES DEPARTMENT(Deptid)

);

**DEPARTMENT**

CREATE TABLE DEPARTMENT(

Deptid INTEGER NOT NULL PRIMARY KEY,

Dept\_Name VARCHAR(20)

);

**LECTURERS**

CREATE TABLE LECTURERS(

Lid INT NOT NULL PRIMARY KEY,

LName VARCHAR(20),

Deptid INT NOT NULL,

FOREIGN KEY(Deptid) REFERENCES DEPARTMENT(Deptid)

);

**FEE**

CREATE TABLE FEE(

Fid INTEGER NOT NULL PRIMARY KEY,

Regid INT NOT NULL,

FOREIGN KEY(Regid) REFERENCES STUDENT(Regid),

Fee INT

);

**SBJ**

CREATE TABLE SBJ(

Sid INTEGER NOT NULL PRIMARY KEY,

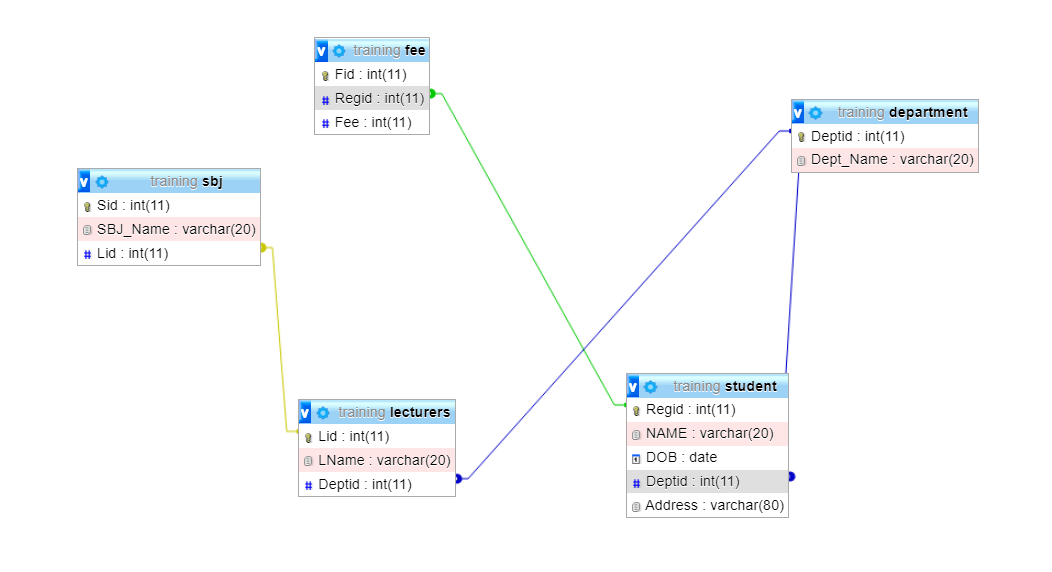
SBJ\_Name VARCHAR(20),

Lid INT NOT NULL,

FOREIGN KEY(Lid) REFERENCES LECTURERS(Lid)

);

**SCHEMA**

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**STUDENT**

INSERT INTO STUDENT values(20,"Alex",'1996-12-08',1,"Idukki");

INSERT INTO STUDENT values(21,"Bibin",'1998-03-14',1,"Ernakulam");

INSERT INTO STUDENT values(22,"Anet",'1998-05-29',2,"Kottayam");

INSERT INTO STUDENT values(23,"Ajay",'1997-9-21',3,"Ernakulam");

INSERT INTO STUDENT values(24,"Alan",'1997-5-21',1,"Idukki");

INSERT INTO STUDENT values(25,"Adorn",'15-6-1997',3,"Alappuza");

INSERT INTO STUDENT values(26,"Don",'8-8-1991',1,"Idukki");

INSERT INTO STUDENT values(27,"Abhijith",'29-02-1995',1,"Kannoor");

INSERT INTO STUDENT values(28,"Jomin",'13-3-1998',2,"Trivandrum");

INSERT INTO STUDENT values(29,"Debin",'1-04-1999',1,"Kottayam");

INSERT INTO STUDENT values(30,"Sachin",'18-7-1993',3,"Idukki");

**DEPARTMENT**

INSERT INTO DEPARTMENT values(1,"SCIENCE");

INSERT INTO DEPARTMENT values(2,"COMMERCE");

INSERT INTO DEPARTMENT values(3,"HUMANITIES");

**FEE**

INSERT INTO FEE values(112,9000,20);

INSERT INTO FEE values(113,9000,21);

INSERT INTO FEE values(114,6500,22);

INSERT INTO FEE values(115,5000,23);

INSERT INTO FEE values(116,9500,24);

INSERT INTO FEE values(117,9000,25);

INSERT INTO FEE values(118,8000,26);

INSERT INTO FEE values(119,6500,27);

INSERT INTO FEE values(120,7000,28);

INSERT INTO FEE values(121,7500,29);

INSERT INTO FEE values(122,6000,30);

**LECTURERS**

INSERT INTO LECTURERS values(561,"Rajesh",1);

INSERT INTO LECTURERS values(562,"akhil",2);

INSERT INTO LECTURERS values(563,"Amal",3);

INSERT INTO LECTURERS values(564,"Bibin",1);

INSERT INTO LECTURERS values(565,"Alex",2);

INSERT INTO LECTURERS values(566,"Sumith",1);

**SBJ**

INSERT INTO SBJ values(144,"Maths",562);

INSERT INTO SBJ values(147,"Biology",561);

INSERT INTO SBJ values(148,"Accountancy",563);

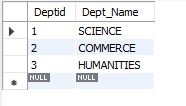
INSERT INTO SBJ values(149,"Econmics",564);

INSERT INTO SBJ values(150,"History",565);

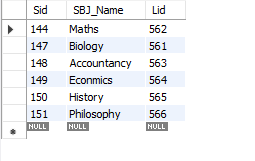
INSERT INTO SBJ values(151,"Philosophy",566);

**Output**

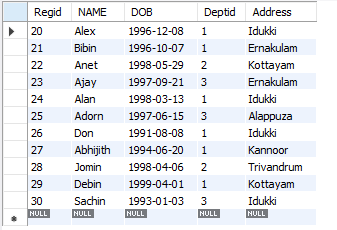
**DEPARTMENT**



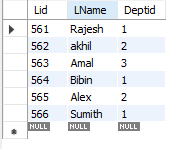
**SBJ**



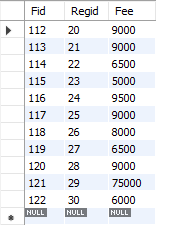
**STUDENT**



**LECTURERES**



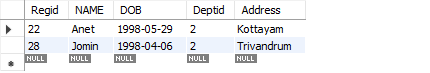
**FEE**



**WHERE**

**SELECT \* FROM student WHERE Deptid=2;**

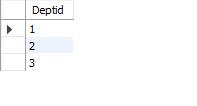
**Output**



**DISTINCT**

**SELECT DISTINCT Deptid FROM student;**

**Output**



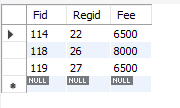
**ALTER**

**ALTER TABLE STUDENT CHANGE NAME NAME VARCHAR(45);**

**BETWEEN**

**SELECT \* FROM fee WHERE Fee BETWEEN 6500 AND 8000**

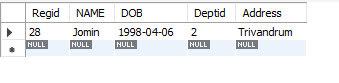
**Output**



**LIKE**

**SELECT \* FROM student WHERE NAME LIKE 'J%';**

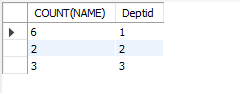
**Output**



**GROUP BY**

**SELECT COUNT(NAME), Deptid FROM student group by Deptid;**

**Output**



**HAVING**

**SELECT COUNT(NAME),Deptid FROM student group by Deptid having Deptid =3;**

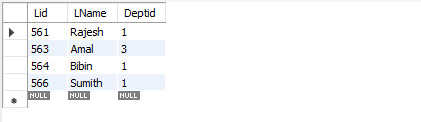
**Output**



**IN**

**SELECT \* FROM lecturers WHERE Deptid IN (1,3,5);**

**Output**



**TRUNCATE**

**TRUNCATE TABLE FEE;**

**Output**



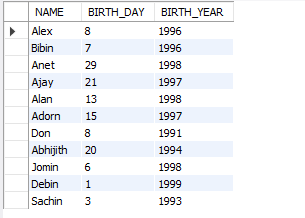
**DIFFERENCE BETWEEN UNIQUE AND DISTINCT**

The UNIQUE keyword in SQL plays the role of a database constraint; it ensures there are no duplicate values stored in a particular column or a set of columns. On the other hand, the DISTINCT keyword is used in the SELECT statement to fetch distinct rows from a table.

**DATE**

**SELECT NAME,extract(DAY from DOB)as BIRTH\_DAY,extract(YEAR from DOB)as BIRTH\_YEAR FROM student;**

**Output**



**JOINS**

**LEFT JOIN**

**SELECT student.name,Department.Dept\_Name FROM student left join Department on Department.Deptid=student**

**RIGHT JOIN**

**SELECT student.name,Department.Dept\_Name FROM student right join Department on Department.Deptid=student**