

Miller Task (2.2) :- DDL & DML Commands with constraints

Aim:- To Perform DDL and DML Commands with Constraints in SQL.

CONSTRAINTS:

- NOT NULL
- UNIQUE
- PRIMARY KEY
- FOREIGN KEY
- CHECK.
- DEFAULT.

NOT NULL

It ensures a column cannot store Null values.

SYNTAX

CREATE TABLE TABLE-Name)

COLUMNNAME DATATYPE NOTNULL);

UNIQUE

It ensures all values in a column are unique.

SYNTAX

CREATE TABLE table name.

Column Name(data type unique);

PRIMARY KEY

It is the combination of NOT NULL & UNIQUE.

FOREIGN KEY

It ensures values in one table match values in another table.

Syntax

FOREIGN KEY (column name) REFERENCES another table's name (column name),

DEFAULTS

It provides a default value for a column when no value is specified.

Example:-

CREATE TABLE DEPARTMENT.

DEPT-ID INT PRIMARY KEY,

DEPT-NAME VARCHAR(20) UNIQUE NOTNULL

CREATE TABLE STUDENT

STU-ID INT PRIMARY KEY,

STU-NAME VARCHAR(30) NOTNULL,

STU-GENDER VARCHAR(6)

CHECK(STU-GENDER IN ('MALE', 'FEMALE'))

STU-PH-NO BIGINT UNIQUE,

RELATION KEY (STU-DEPARTMENT) REFERENCES
DEPARTMENT (DEPT-ID)

INSERT INTO DEPARTMENT VALUES

(101, 'CSE');

(102, 'ECE');

(103, 'IT');

INSERT INTO STUDENT VALUES

(1, 'RAVI', 102, 'MALE', 987654321),

(2, 'ANITA', 'FEMALE', 9876501234)

SELECT* from STUDENT - Before Performing ALTER Command.

S.NO	STU-ID	STU-NAME	DEPART-MENT	STU-GENO	STU-PHNO	STU-EMAIL
1	1	RAVI	10L	MALE	9876543210	9876543210
2	2	ANITA	101	FEMALE	9876501234	9876501234

SELECT* from DEPARTMENT - Before Performing ALTER Command.

S.NO	STU-ID	DEPART-MENT
1	101	CSE
2	102	ECE
3	103	IT

SELECT* from STUDENT - after update command.

S.NO	STU-ID	STU-NAME	DEPART-MENT	STU-GENO	STU-PHNO	STU-EMAIL
1	1	RAVI	10C	MALE	9876543210	NULL
2	2	ANITA	103	FEMALE	9876501234	NULL

SELECT* from STUDENT - after performing delete command.

S.NO	STU-ID	STU-NAME	DEPART-MENT	STU-GENO	STU-PHNO	STU-EMAIL
1	1	RAVI	10C	MALE	9876543210	NULL

SELECT * FROM DEPARTMENT;

SELECT * FROM STUDENT;

ALTER TABLE STUDENT

ADD 'STU-EMAIL' VARCHAR(50) DEFAULT;

'vulteach@gmail.com',

SNO	STU-ID	STU-NAMe	STU- DEPARTMENT	STU- GENDE	STU-PHNO	STU- EMAIL
1.	1	RAVI	102	MALE	9476543210	NULL
2.	2	ANITA	101	FEMALE	9876543210	NULL

UPDATE STUDENT.

SET STU-DEPARTMENT=103

WHERE STU-NAMe='ANITA'

DELETE FROM DEPARTMENT

WHERE DEPT-ID=103,

INSERT INTO STUDENT VALUES

(2, 'ANITA', 'FEMALE', 9123456789),

(2, 'Shreeshtha', 'FEMALE', 9876543210);

DROP TABLE DEPARTMENT;

----- Error -----

Could not drop object 'DEPARTMENT' because it is referenced
By foreign key constraint

To solve this first we have to drop student table after
we have to drop department table.

SELECT * FROM STUDENT -- AFTER inserting values.

SNO	STU-NAME	STU-DEPARTMENT	STU-ENROLLMENT	STU-PHONO	STU-EMAIL
1	RAVI	102	MALE	9876543210	NULL
2	ANITA	101	FEMALE	9876501234	veltech@gmail.com
3	Shrekshta	101	MALE	9876501230	veltech@gmail.com

SELECT * FROM DEPARTMENT -- After inserting values.

SNO	DEPTID	DEPT-NAME
1	101	CSE
2	102	ECE
3	103	IT