**EXPERIMENT -3**

**AIM :**

To implement the concept of integrity constraints like Primary Key, Check, Foreign Key, Not NULL and Unique.

**THEORY :**

In this experiment we will see the different integrity constraints for a table. Constraints are the rules that we can apply on the type of data in a table. We can specify the limit on the type of data that can be stored in a particular column in a table using constraints.

The available constraints in SQL are:

* **NOT NULL**: tells that we cannot store a null value in a column. That is, if a column is specified as NOT NULL then we will not be able to store null in that particular column anymore.
* **UNIQUE:** tells that all the values in the column must be unique. That is, the values in any row of a column must not be repeated.
* **PRIMARY KEY**: can uniquely identify each row in a table. And this constraint is used to specify a field in a table as primary key.
* **FOREIGN KEY**: can uniquely identify each row in another table. And this constraint is used to specify a field as foreign key.
* **CHECK**: helps to validate the values of a column to meet a particular condition. That is, it helps to ensure that the value stored in a column meets a specific condition.

**Code:**

**Query :** Create table student with constraints : Not Null, Check and Primary Key

**Syntax :**

MariaDB [test]> CREATE TABLE STUDENT (Clg\_ID int NOT NULL, S\_Name varchar(50), ROLL\_No int(10) PRIMARY KEY, TotalMarks int(4) CHECK (TotalMarks <= 500) );

**Output :**

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**Query :** Create table college with constraints : Unique and Primary Key

**Syntax :**

MariaDB [test]> CREATE TABLE COLLEGE( Clg\_ID INT PRIMARY KEY, CollegeCode VARCHAR(10) UNIQUE, CollegeName VARCHAR(50));

**Output :**

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**Query :** Alter table to add foreign key constraint

**Syntax :**

MariaDB [test]> ALTER TABLE STUDENT ADD CONSTRAINT FOREIGN KEY (Clg\_ID) REFERENCES COLLEGE (Clg\_ID);

**Output :**

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