Lab 05: Constraints

Objective:

Constraints are the rules enforced on data columns on table. These are used to limit the type of data that can go into a table. This ensures the accuracy and reliability of the data in the database. Constraints could be column level or table level. Column level constraints are applied only to one column, whereas table level constraints are applied to the whole table. The constraints can be added when we create table. You can also add or change constraint after table has been created.

Topics to be discussed:

- Constraints
- Commonly used constraints available in SQL
- Constraint specification at the time of table creation
- Constraint specification after table creation
- Delete a constraint
- Disable a constraint
- Enable a constraint
- Viewing columns associated with constraints

Exercise:

1. Create following **department** table according to given data type and constraints:

Column name	Data type	Constraint
Deptid	number(3)	primary key
dept_name	varchar(6)	only CSE, EEE, BBA, Eng, Ach allowed
Budget	number(6)	default value 0

2. Create following **course** table according to givent data type and constraint:

Column name	Data type	Constraint
crs_id	number(4)	primary key
crs_name	varchar2(20)	not null
dept_id	number(3)	foreign key from department table

3. Create the **student** table below according to given data types

Column Name	Data Type
s_id	Number
s_name	Varchar2(20)
Phone	Number
Address	Varchar2(50)
Email	Varchar2(30)
credit_completed	Number(3)
course_completed	Number(2)
Cgpa	Number
Deptno	number(5)
Gender	Varchar2(6)

4. Set **s_id** as primary key of the table.
5. Set constraint not null on the column **s_name.**
6. Make **email** unique.
7. Make **deptno** as foreign key taking reference from **department** table which you have made in previous lab.
8. Add a constraint to **gender** so that it only allows the value **'M'** and **'F'**.
9. Disable the constraint of **s_id**.
10. Drop the constraint from **gender**.
11. View the columns associated with constraints.
12. Enable the constraint of **s**