Ex.No.1 08.01.2025	DATA DEFINITION LANGUAGE, COMMANDS AND INTEGRITY CONSTRAINTS

AIM

To execute Data Definition Language commands and Integrity Constraints.

CREATING TABLE

SQL> create table stdetails (id number(5), name varchar(15), department varchar(15));

Table created.

SQL> desc stdetails;

```
 Name                                   Null?        Type

 ---------------------------------------  --------  ---------------------------

 ID                                              NUMBER(5)

 NAME                                            VARCHAR2(15)

 DEPARTMENT                                      VARCHAR2(15)
```

INSERTING VALUES

SQL> insert into stdetails (id, name, department)

    2   values (75,'kabesh','IT');

1 row created.

SQL> insert into stdetails (id, name, department)

    2   values (76,'kamalesh','IT');

1 row created.

SQL> insert into stdetails (id, name, department)

    2   values (73,'jegan','IT');

1 row created.

SQL> insert into stdetails (id, name, department)

    2   values (74,'jeyasanjay','IT');

1 row created.

DISPLAY TABLE

SQL> select * from stdetails;

ID	NAME	DEPARTMENT
75	kabesh	IT
76	kamalesh	IT
73	jegan	IT
74	jeyasanjay	IT

MODIFYING THE STRUCTURE OF TABLES

a) Add new columns

SQL> alter table stdetails add (age number(2));

Table altered.

SQL> update stdetails set age=19;

4 rows updated.

SQL> select * from stdetails;

ID	NAME	DEPARTMENT	AGE
75	kabesh	IT	19
76	kamalesh	IT	19
73	jegan	IT	19
74	jeyasanjay	IT	19

b) Dropping a column from a table

SQL> alter table stdetails drop column department;

Table altered.

SQL> select * from stdetails;

```
    ID     NAME          AGE
---------- --------------     ----------
    75  kabesh            19
    76  kamalesh          19
    73  jegan             19
    74  jeyasanjay        19
```

MODIFYING EXISITING COLUMNS

SQL> alter table stdetails add (age number(2));

Table altered.

SQL> update stdetails set age=19;

4 rows updated.

SQL> select * from stdetails;

```
    ID   NAME       DEPARTMENT     AGE
---------- --------------- ------------------- ----------
    75   kabesh       IT              19
    76   kamalesh     IT              19
    73   jegan        IT              19
    74   jeyasanjay   IT              19
```

SQL> alter table stdetails drop column department;

Table altered.

SQL> select * from stdetails;

```
   ID     NAME         AGE
---------- --------------- ----------
   75    kabesh          19
   76    kamalesh        19
   73    jegan           19
   74    jeyasanjay      19
```

SQL> alter table stdetails modify (age number(5));

Table altered.

SQL> desc stdetails;

Name	Null?	Type
ID		NUMBER(5)
NAME		VARCHAR2(15)
AGE		NUMBER(5)

RENAMING THE TABLES

SQL> rename stdetails to stud_details;

Table renamed.

SQL> delete from stud_details where name='kabesh';

1 row deleted.

SQL> select * from stud_details;

ID	NAME	AGE
76	kamalesh	19
73	jegan	19
74	jeyasanjay	19

TRUNCATING THE TABLES

SQL> truncate table stud_details;

Table truncated.

SQL> select * from stud_details;

no rows selected.

DESTROYING TABLES

SQL> drop table stud_details;

Table dropped.

SQL> select * from stud_details;

select * from stud_details;

ERROR at line 1:

ORA-00942: table or view does not exist

CONSTRAINTS

SQL> create table stu_det(id number(5) PRIMARY KEY,name varchar(20) NOT NULL UNIQUE,age number(20) NOT NULL CHECK(age>=18),year number(2) DEFAULT '2');

Table created.

SQL> insert into stu_det values(&id,'&name',&age,&year);

Enter value for id: 73

Enter value for name: Jegan

Enter value for age: 18

Enter value for year: 2

1 row created.

NOT NULL CONSTRAINT

SQL> insert into stu_det values(&id,'&name',&age,&year);

Enter value for id: 10005

Enter value for name:

Enter value for age: 18

Enter value for year: 2

old   1: insert into stu_det values(&id,'&name',&age,&year)

new   1: insert into stu_det values(75,'',18,1)

insert into stu_det values(75,'',18,1)

        *

ERROR at line 1:

ORA-00947: not enough values

DEFAULT CONSTAINT

SQL> alter table stu_det add(attendance_percentage number(4) DEFAULT '100');

Table altered.

SQL> select * from stu_det;

ID	NAME	AGE	YEAR	ATTENDANCE_PERCENTAGE
76	Kamalesh	18	2	100
73	Jegan	18	3	100
74	Jeyasanjay	18	4	100

UNIQUE CONSTRAINT

SQL> insert into stu_det values(&id,'&name',&age,&year);

Enter value for id: 76

Enter value for name: Kamalesh

Enter value for age: 18

Enter value for year: 2

old   1: insert into stu_det values(&id,'&name',&age,&year)

new   1: insert into stu_det values(76,'Kamalesh',18,2)

insert into stu_det values(76,'Kamalesh,18,2)

*

ERROR at line 1:

ORA-00001: unique constraint (STUDENT.SYS_C004109) violated

PRIMARY CONSTRAINT

SQL> insert into stu_det values(&id,'&name',&age,&year);

Enter value for id: 74

Enter value for name: Jeyasanjay

Enter value for age: 18

Enter value for year: 2

old   1: insert into stu_det values(&id,'&name',&age,&year)

new   1: insert into stu_det values(76,'Kamalesh',18,2)

insert into stu_det values(76,'Kamalesh',18,2)

*

ERROR at line 1:

ORA-00001: unique constraint (STUDENT.SYS_C004108) violated

CHECK CONSTRAINT

SQL> insert into stu_det values(&id,'&name',&age,&year);

Enter value for id: 75

Enter value for name: Kabesh

Enter value for age: 15

Enter value for year: 2

old   1: insert into stu_det values(&id,'&name',&age,&year)

new   1: insert into stu_det values(75,'Kabesh',15,2)

insert into stu_det values(75,'Kabesh',15,2)

*

ERROR at line 1:

ORA-02290: check constraint (STUDENT.SYS_C004107) violated

DROPPING CONSTRAINT

create table student (name char(20),age int not null check(age>=18),id int not null primary key,dept char(10));

Table created.

SQL> alter table student drop primary key;

Table altered.

SQL> desc student;

```
Name              Null?         Type

-------------- ----------------------- --------------------

NAME                            CHAR(20)

AGE            NOT NULL     NUMBER(38)

ID             NOT NULL     NUMBER(38)

DEPT                            CHAR(10)
```

CONTENTS	MARKS ALLOTTED	MARKS OBTAINED
Aim, Algorithm, SQL, PL/SQL		
Execution and Result		
Viva		
Total		

RESULT

Thus Data Definition Language commands and Integrity Constraints were executed.