**Query No. :**

**Aim : 1) Create a Table with Primary Key.**

**2) Create a Table with Foreign Key, Not Null and Unique Constraints.**

**3) Create a Table with Check and Default Constraints.**

**4) Insert the data in the Tables created with Constraints.**

SQL\*Plus: Release 10.2.0.3.0 - Production on Tue Apr 7 00:05:40 2009

Copyright (c) 1982, 2006, Oracle. All Rights Reserved.

Connected to:

Oracle Database 10g Enterprise Edition Release 10.2.0.3.0 - Production

With the Partitioning, OLAP and Data Mining options

SQL> create table project

2 (

3 Project\_code int primary key,

4 Project\_name varchar2(25) unique not null,

5 Project\_hour int,

6 Project\_dept varchar2(25) default ('Systems')

7 );

Table created.

SQL> create table student

2 (

3 Name varchar2(25) not null,

4 Student\_ID int primary key,

5 Gender char(7) check (Gender in ('Male','Female')),

6 Project\_code int,

7 foreign key(Project\_code) references Project(Project\_code)

8 );

Table created.

SQL> desc project;

Name Null? Type

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

PROJECT\_CODE NOT NULL NUMBER(38)

PROJECT\_NAME NOT NULL VARCHAR2(25)

PROJECT\_HOUR NUMBER(38)

PROJECT\_DEPT VARCHAR2(25)

SQL> desc student;

Name Null? Type

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

NAME NOT NULL VARCHAR2(25)

STUDENT\_ID NOT NULL NUMBER(38)

GENDER CHAR(7)

PROJECT\_CODE NUMBER(38)

SQL> insert into project values

2 ('&Project\_Code','&Project\_Name','&Project\_Hours','&Project\_department');

Enter value for project\_code: 001

Enter value for project\_name: Database Converter

Enter value for project\_hours: 45

Enter value for project\_department: Database Administration

old 2: ('&Project\_Code','&Project\_Name','&Project\_Hours','&Project\_department')

new 2: ('001','Database Converter','45','Database Administration')

1 row created.

SQL> /

Enter value for project\_code: 002

Enter value for project\_name: Antivirus

Enter value for project\_hours: 40

Enter value for project\_department:

old 2: ('&Project\_Code','&Project\_Name','&Project\_Hours','&Project\_department')

new 2: ('002','Antivirus','40','Systems')

1 row created.

SQL> /

Enter value for project\_code: 003

Enter value for project\_name: Application Interface

Enter value for project\_hours: 60

Enter value for project\_department: Application Management

old 2: ('&Project\_Code','&Project\_Name','&Project\_Hours','&Project\_department')

new 2: ('003','Application Interface','60','Application Management')

1 row created.

SQL> select \* from project;

PROJECT\_CODE PROJECT\_NAME PROJECT\_HOUR PROJECT\_DEPT

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

1 Database Converter 45 Database Administration

2 Antivirus 40 Systems

3 Application Interface 60 Application Management

SQL> insert into project values (002,null,40,'Systems');

insert into project values (002,null,40,'Systems')

\*

ERROR at line 1:

ORA-01400: cannot insert NULL into ("SYSTEM"."PROJECT"."PROJECT\_NAME")

SQL> insert into project values (002,'Website Deployment',25,'Website Maintenance');

insert into project values (002,'Website Deployment',25,'Website Maintenance')

\*

ERROR at line 1:

ORA-00001: unique constraint (SYSTEM.SYS\_C005483) violated

SQL> insert into student values

2 ('&Name','&Student\_ID','&Gender','&Project\_code');

Enter value for name: Rohit Aggarwal

Enter value for student\_id: 001

Enter value for gender: Male

Enter value for project\_code: 003

old 2: ('&Name','&Student\_ID','&Gender','&Project\_code')

new 2: ('Rohit Aggarwal','001','Male','003')

1 row created.

SQL> /

Enter value for name: Prateek Varshney

Enter value for student\_id: 002

Enter value for gender: Male

Enter value for project\_code: 003

old 2: ('&Name','&Student\_ID','&Gender','&Project\_code')

new 2: ('Prateek Varshney','002','Male','003')

1 row created.

SQL> /

Enter value for name: Priyanka Chauhan

Enter value for student\_id: 003

Enter value for gender: Female

Enter value for project\_code: 002

old 2: ('&Name','&Student\_ID','&Gender','&Project\_code')

new 2: ('Priyanka Chauhan','003','Female','002')

1 row created.

SQL> /

Enter value for name: Ojassvi Chawla

Enter value for student\_id: 004

Enter value for gender: Male

Enter value for project\_code: 003

old 2: ('&Name','&Student\_ID','&Gender','&Project\_code')

new 2: ('Ojassvi Chawla','004','Male','003')

1 row created.

SQL> select \* from student;

NAME STUDENT\_ID GENDER PROJECT\_CODE

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

Rohit Aggarwal 1 Male 3

Prateek Varshney 2 Male 3

Priyanka Chauhan 3 Female 2

Ojassvi Chawla 4 Male 3

4 rows selected.

SQL> insert into student values ('Chetan',002,'Male',006);

insert into student values ('Chetan',002,'Male',006)

\*

ERROR at line 1:

ORA-00001: unique constraint (SYSTEM.SYS\_C005487) violated

SQL> insert into student values ('Chetan',005,'Male',007);

insert into student values ('Chetan',005,'Male',007)

\*

ERROR at line 1:

ORA-02291: integrity constraint (SYSTEM.SYS\_C005488) violated - parent key not

found

SQL> insert into student values ('Chetan',005,'M',001);

insert into student values ('Chetan',005,'M',001)

\*

ERROR at line 1:

ORA-02290: check constraint (SYSTEM.SYS\_C005486) violated

**Written By :**

**Name : Rohit Aggarwal**

**Roll No. : 7CS-097**