ASSIGNMENT 8

STUDENT

STU_ROLL	NAME	DOB	MARK	BRANCH	SECTION
	AMIT	13/05/2010	600	SCE	IT-1
	AJAY	25/09/2009	550	IT	IT-2
	ROHIT	15/12/2008	450	IT	CS-1
	MUKESH	02/11/2007	390	SCE	CS-2
	JOHN	30/03/2005	400	IT	CS-3

FACULTY

FACULTY_ID	FAC_NAME	STU_ROLL	FAC_SUBJECT	CLASS_ROOM	CLASS_DATE_TIME
	JOSEPH		JAVA	C1	
	STEPHEN		C++	C2	
	RICHARDSON		DOTNET	C3	
	JAMES		PHP	C4	
	AKS		ORACLE	C5	

TIPS:- CLASS_DATE_TIME DATATYPE IS TIMESTAMP(2) - TIMESTAMP IS USED FOR TO SPECIFY TIME. 2 MEANS AFTER SECOND VALUE FRACTION VALUE WON'T DISPLAY. ONLY TWO DIGIT SECOND DISPLAY.

INSERT INTO TABLE VALUES(TO_DATE('12-JAN-2001 13:34:56','DD-MON-YY HH24:MI:SS'));

TABLE CREATION

1. STUDENT

```
SQL> CREATE TABLE STUDENT_2005017(STU_ROLL VARCHAR2(10), NAME VARCHAR(2), DOB DATE,
 MARK NUMBER(5), BRANCH VARCHAR2(5), SECTION VARCHAR2(10));
```

```
SQL> ALTER TABLE STUDENT_2005017 MODIFY(STU_ROLL NUMBER(10));

Table altered.

SQL> DESC STUDENT_2005017;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 STU_ROLL                                           NUMBER(10)
 NAME                                               VARCHAR2(2)
 DOB                                                DATE
 MARK                                               NUMBER(5)
 BRANCH                                             VARCHAR2(5)
 SECTION                                            VARCHAR2(10)
```

```
SQL> ALTER TABLE STUDENT_2005017 MODIFY(NAME VARCHAR2(20));

Table altered.
```

```
SQL> INSERT INTO STUDENT_2005017 VALUES('', 'AMIT', TO_DATE('13-05-2010', 'DD-MM-YY
YY'), 600, 'SCE', 'IT-1');

1 row created.
```

```
SQL> INSERT INTO STUDENT_2005017 VALUES('', 'AJAY', TO_DATE('25-09-2009', 'DD-MM-YY
YY'), 550, 'IT', 'IT-2');

1 row created.

SQL> INSERT INTO STUDENT_2005017 VALUES('', 'ROHIT', TO_DATE('15-12-2008', 'DD-MM-Y
YYY'), 450, 'IT', 'CS-1');

1 row created.

SQL> INSERT INTO STUDENT_2005017 VALUES('', 'MUKESH', TO_DATE('02-11-2007', 'DD-MM-
YYYY'), 390, 'SCE', 'CS-2');

1 row created.

SQL> INSERT INTO STUDENT_2005017 VALUES('', 'JOHN', TO_DATE('30-03-2005', 'DD-MM-YY
YY'), 400, 'IT', 'CS-3');

1 row created.

SQL> SELECT * FROM STUDENT_2005017;

  STU_ROLL NAME                 DOB             MARK BRANC SECTION
---------- -------------------- --------- ---------- ----- ----------
           AMIT                 13-MAY-10         600 SCE   IT-1
           AJAY                 25-SEP-09         550 IT    IT-2
           ROHIT                15-DEC-08         450 IT    CS-1
           MUKESH               02-NOV-07         390 SCE   CS-2
           JOHN                 30-MAR-05         400 IT    CS-3
```

2. FACULTY

```
SQL> CREATE TABLE FACULTY_2005017(FACULTY_ID NUMBER(10), FAC_NAME VARCHAR2(20), STU
_ROLL NUMBER(10), FAC_SUBJECT VARCHAR2(20), CLASS_ROOM VARCHAR2(5), CLASS_DATE_TIME
 TIMESTAMP(2));

Table created.

SQL> DESC FACULTY_2005017;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 FACULTY_ID                                         NUMBER(10)
 FAC_NAME                                           VARCHAR2(20)
 STU_ROLL                                           NUMBER(10)
 FAC_SUBJECT                                        VARCHAR2(20)
 CLASS_ROOM                                         VARCHAR2(5)
 CLASS_DATE_TIME                                    TIMESTAMP(2)
```

```
SQL> INSERT INTO FACULTY_2005017 VALUES('', 'JOSEPH', '', 'JAVA', 'C1', '');

1 row created.

SQL> INSERT INTO FACULTY_2005017 VALUES('', 'STEPHEN', '', 'C++', 'C2', '');

1 row created.

SQL> INSERT INTO FACULTY_2005017 VALUES('', 'RICHARDSON', '', 'DOTNET', 'C3', '');

1 row created.
```

```
SQL> INSERT INTO FACULTY_2005017 VALUES('', 'JAMES', '', 'PHP', 'C4', '');

1 row created.

SQL> INSERT INTO FACULTY_2005017 VALUES('', 'AKS', '', 'ORACLE', 'C5', '');

1 row created.

SQL> INSERT INTO FACULTY_2005017 VALUES('', 'JAMES', '', 'PHP', 'C4', '');

1 row created.

SQL> INSERT INTO FACULTY_2005017 VALUES('', 'AKS', '', 'ORACLE', 'C5', '');

1 row created.
```

```
SQL> SELECT * FROM FACULTY_2005017;

FACULTY_ID FAC_NAME              STU_ROLL FAC_SUBJECT         CLASS
---------- -------------------- ---------- -------------------- -----
CLASS_DATE_TIME
---------------------------------------------------------------------------
           JOSEPH                          JAVA                 C1


           STEPHEN                         C++                  C2


           RICHARDSON                      DOTNET               C3



FACULTY_ID FAC_NAME              STU_ROLL FAC_SUBJECT         CLASS
---------- -------------------- ---------- -------------------- -----
CLASS_DATE_TIME
---------------------------------------------------------------------------
           JAMES                           PHP                  C4


           AKS                             ORACLE               C5
```

1. Enter exact data into student table. But roll should insert using sequence, it should start from 1 and increment by 1.[total 5 records]

```
SQL> CREATE SEQUENCE stu_roll_seq INCREMENT BY 1 START WITH 1 MAXVALUE 5 NOCACHE;

Sequence created.

SQL> UPDATE STUDENT_2005017 SET STU_ROLL=STU_ROLL_SEQ.NEXTVAL WHERE NAME='AMIT';

1 row updated.

SQL> UPDATE STUDENT_2005017 SET STU_ROLL=STU_ROLL_SEQ.NEXTVAL WHERE NAME='AJAY';

1 row updated.

SQL> UPDATE STUDENT_2005017 SET STU_ROLL=STU_ROLL_SEQ.NEXTVAL WHERE NAME='ROHIT';

1 row updated.

SQL> UPDATE STUDENT_2005017 SET STU_ROLL=STU_ROLL_SEQ.NEXTVAL WHERE NAME='MUKESH';

1 row updated.

SQL> UPDATE STUDENT_2005017 SET STU_ROLL=STU_ROLL_SEQ.NEXTVAL WHERE NAME='JOHN';

1 row updated.

SQL> SELECT * FROM STUDENT_2005017;

  STU_ROLL NAME                 DOB             MARK BRANC SECTION
---------- -------------------- --------- ---------- ----- ----------
         1 AMIT                 13-MAY-10         600 SCE   IT-1
         2 AJAY                 25-SEP-09         550 IT    IT-2
         3 ROHIT                15-DEC-08         450 IT    CS-1
         4 MUKESH               02-NOV-07         390 SCE   CS-2
         5 JOHN                 30-MAR-05         400 IT    CS-3
```

2. Enter exact data into faculty table. But faculty id should insert using sequence, it should start from 1 and increment by 3[total 5 records]. E.g. 1, 4, 7, 10, 13 Also enter student roll into faculty table using sequence but it should be increment by 2. E.g. 1, 3, 5, 7, 9 [total 5 records].

```
SQL> CREATE SEQUENCE faculty_id_seq INCREMENT BY 3 START WITH 1 MAXVALUE 100 NOCAC
HE;

Sequence created.
```

```
SQL> CREATE SEQUENCE student_roll_seq INCREMENT BY 2 START WITH 1 MAXVALUE 100 NOC
ACHE;

Sequence created.
```

```
SQL> UPDATE FACULTY_2005017 SET FACULTY_ID=FACULTY_ID_SEQ.NEXTVAL WHERE FAC_NAME='
JOSEPH';

1 row updated.

SQL> UPDATE FACULTY_2005017 SET FACULTY_ID=FACULTY_ID_SEQ.NEXTVAL WHERE FAC_NAME='
STEPHEN';

1 row updated.

SQL> UPDATE FACULTY_2005017 SET FACULTY_ID=FACULTY_ID_SEQ.NEXTVAL WHERE FAC_NAME='
RICHARDSON';

1 row updated.

SQL> UPDATE FACULTY_2005017 SET FACULTY_ID=FACULTY_ID_SEQ.NEXTVAL WHERE FAC_NAME='
JAMES';

1 row updated.

SQL> UPDATE FACULTY_2005017 SET FACULTY_ID=FACULTY_ID_SEQ.NEXTVAL WHERE FAC_NAME='
AKS';

1 row updated.
```

```
SQL> UPDATE FACULTY_2005017 SET STU_ROLL=STUDENT_ROLL_SEQ.NEXTVAL WHERE FAC_NAME='
JOSEPH';

1 row updated.

SQL> UPDATE FACULTY_2005017 SET STU_ROLL=STUDENT_ROLL_SEQ.NEXTVAL WHERE FAC_NAME='
STEPHEN';

1 row updated.

SQL> UPDATE FACULTY_2005017 SET STU_ROLL=STUDENT_ROLL_SEQ.NEXTVAL WHERE FAC_NAME='
RICHARDSON';

1 row updated.

SQL> UPDATE FACULTY_2005017 SET STU_ROLL=STUDENT_ROLL_SEQ.NEXTVAL WHERE FAC_NAME='
JAMES';

1 row updated.

SQL> UPDATE FACULTY_2005017 SET STU_ROLL=STUDENT_ROLL_SEQ.NEXTVAL WHERE FAC_NAME='
AKS';

1 row updated.
```

```
SQL> SELECT * FROM FACULTY_2005017;

FACULTY_ID FAC_NAME              STU_ROLL FAC_SUBJECT         CLASS
---------- -------------------- ---------- -------------------- -----
CLASS_DATE_TIME
---------------------------------------------------------------------------
         1 JOSEPH                        1 JAVA                 C1


         4 STEPHEN                       3 C++                  C2


         7 RICHARDSON                    5 DOTNET               C3


FACULTY_ID FAC_NAME              STU_ROLL FAC_SUBJECT         CLASS
---------- -------------------- ---------- -------------------- -----
CLASS_DATE_TIME
---------------------------------------------------------------------------
        10 JAMES                         7 PHP                  C4


        13 AKS                           9 ORACLE               C5
```

3.Waq to display sequence name, minimum value, maximum value from all created sequences.

```
SQL> SELECT * FROM USER_SEQUENCES;

SEQUENCE_NAME                  MIN_VALUE  MAX_VALUE INCREMENT_BY C O CACHE_SIZE
------------------------------ ---------- ---------- ------------ - - ----------
LAST_NUMBER
-----------
FACULTY_ID_SEQ                          1        100            3 N N          0
         16

STUDENT_ROLL_SEQ                        1        100            2 N N          0
         11

STU_ROLL_SEQ                            1          5            1 N N          0
          6
```

4. Waq to drop these two sequences.

```
SQL> DROP SEQUENCE STUDENT_ROLL_SEQ;

Sequence dropped.

SQL> DROP SEQUENCE FACULTY_ID_SEQ;

Sequence dropped.
```

5. Create synonym s55 for student table. And query all rows from synonym. Then drop it.

```
SQL> DROP SEQUENCE FACULTY_ID_SEQ;

Sequence dropped.

SQL> CREATE SYNONYM S55 FOR STUDENT_2005017;

Synonym created.

SQL> SELECT * FROM S55;

  STU_ROLL NAME                 DOB            MARK BRANC SECTION
---------- -------------------- --------- ---------- ----- ----------
         1 AMIT                 13-MAY-10         600 SCE   IT-1
         2 AJAY                 25-SEP-09         550 IT    IT-2
         3 ROHIT                15-DEC-08         450 IT    CS-1
         4 MUKESH               02-NOV-07         390 SCE   CS-2
         5 JOHN                 30-MAR-05         400 IT    CS-3

SQL> DROP SYNONYM S55;

Synonym dropped.
```

6. Create view stv1 from student table by selecting roll, name , mark & branch column.

```
SQL> CREATE VIEW STV1 AS SELECT STU_ROLL, NAME, MARK, BRANCH FROM STUDENT_2005017;


View created.
```

```
SQL> SELECT * FROM STV1;

  STU_ROLL NAME                      MARK BRANC
---------- -------------------- ---------- -----
         1 AMIT                        600 SCE
         2 AJAY                        550 IT
         3 ROHIT                       450 IT
         4 MUKESH                      390 SCE
         5 JOHN                        400 IT
```

8. Waq to create view stv2 from student table selecting roll, name, dob & mark of rollno 3 which can't be deleted from view.

```
SQL> CREATE VIEW STV2 AS SELECT STU_ROLL, NAME, DOB, MARK FROM STUDENT_2005017 WHE
RE STU_ROLL=3 WITH READ ONLY CONSTRAINT ROLL3_CONSTRAINT;

View created.
```

```
SQL> SELECT * FROM STV2;

  STU_ROLL NAME                 DOB            MARK
---------- -------------------- --------- ----------
         3 ROHIT                15-DEC-08         450
```

9. Drop these two view from database.

```
SQL> DROP VIEW STV1;

View dropped.

SQL> DROP VIEW STV2;

View dropped.
```

10. Waq to create view st_fa from student & faculty selecting stu_roll, stu name, faculty id, faculty name where rollno of student table should same to student roll of faculty table.

```
SQL> CREATE VIEW ST_FA AS SELECT S.STU_ROLL, S.NAME, F.FACULTY_ID, F.FAC_NAME FROM
 STUDENT_2005017 S, FACULTY_2005017 F WHERE S.STU_ROLL=F.STU_ROLL;

View created.
```

```
SQL> select * from st_fa;

  STU_ROLL NAME                FACULTY_ID FAC_NAME
---------- -------------------- ---------- --------------------
         1 AMIT                          1 JOSEPH
         3 ROHIT                         4 STEPHEN
         5 JOHN                          7 RICHARDSON
```

11.Select and drop st_fa view.

```
SQL> DROP VIEW ST_FA;

View dropped.
```

12. Waq to display the student roll, name, dob, mark and faculty name, subject, classroom, from student, faculty table those student rollno are common to student rollno of faculty table using equi join.

```
SQL> SELECT S.STU_ROLL, S.NAME, S.DOB, S.MARK, F.FAC_NAME, F.CLASS_ROOM FROM STUDE
NT_2005017 S, FACULTY_2005017 F WHERE S.STU_ROLL=F.STU_ROLL;

  STU_ROLL NAME                DOB            MARK FAC_NAME            CLASS
---------- -------------------- --------- ---------- -------------------- -----
         1 AMIT                 13-MAY-10        600 JOSEPH               C1
         3 ROHIT                15-DEC-08        450 STEPHEN              C2
         5 JOHN                 30-MAR-05        400 RICHARDSON           C3
```