

Nandhini S
192311005

PRACTICE EXERCISE 01

1. Create a table name STUDENT with following structure.

```
CREATE TABLE STUDENT(  
    RegNO NUMBER(3),  
    Name VARCHAR(15),  
    Gender CHAR(1),  
    DOB DATE,  
    MobileNO NUMBER(10),  
    City VARCHAR(15)  
);
```

2. Create a table name FACULTY with following structure.

```
CREATE TABLE FACULTY(  
    FacNO NUMBER(4),  
    FacName VARCHAR(15),  
    Gender CHAR(1),  
    DOB DATE,  
    DOJ DATE,  
    MobileNO NUMBER(10),  
    DeptNo VARCHAR(4)  
);
```

3. Create a table name DEPARTMENT with following structure.

```
CREATE TABLE DEPARTMENT(  
    DeptNo VARCHAR2(4),  
    DeptName VARCHAR2(15),  
    DeptHead VARCHAR2(4)  
);
```

4. Create a table name COURSE with following structure.

```
CREATE TABLE COURSE(  
    CourseNo VARCHAR2(3),  
    CourseDesc VARCHAR2(14),  
    CourseType CHAR(1),  
    SemNO CHAR(1),  
    HallNo VARCHAR2(4),  
    FacNo VARCHAR2(4)  
);
```

5. Modify the table FACULTY by adding a column name DeptNo of datatype VARCHAR(4).

```
ALTER TABLE FACULTY  
ADD (DeptNo VARCHAR2(5));
```

6. Alter the table STUDENT with following structure.
Column Constraints # Name PRIMARY 1 RegNo
KEY 2 MobileNo NOT NULL

```
ALTER TABLE STUDENT  
MODIFY (RegNo NUMBER(3) PRIMARY KEY,  
        MobileNo NUMBER(10) NOT NULL);
```

7. Alter the table name FACULTY with following structure. The DeptNo in this table refers the DeptNo in the DEPARTMENT table. Column Constraints #
Name FacNo PRIMARY 1 KEY Gender CHECK 2
'M' or 'F'.

```
ALTER TABLE FACULTY  
ADD CONSTRAINT FacNo_pk PRIMARY KEY (FacNo);  
ALTER TABLE FACULTY  
ADD CONSTRAINT Gender_ck CHECK (Gender IN ('M', 'F'));
```

8. After the FACULTY table is successfully created, test if you can add a constraint FOREIGN KEY to the DeptNo of this table.

```
ALTER TABLE FACULTY  
ADD CONSTRAINT DeptNo_fk FOREIGN KEY (DeptNo)  
REFERENCES DEPARTMENT(DeptNo);
```

9. Alter the table name DEPARTMENT with following structure. Column Constraint # Name DeptNo
PRIMARY 1 KEY.

```
ALTER TABLE DEPARTMENT  
    ADD CONSTRAINT DeptNo_pk PRIMARY KEY (DeptNo);
```

10. ALTER the table name COURSE with following structure. Column Constraint # Name CourseNo
PRIMARY 1 KEY 2 SemNo 1 to 6.

```
ALTER TABLE COURSE  
    ADD CONSTRAINT CourseNo_pk PRIMARY KEY (CourseNo);  
ALTER TABLE COURSE  
    ADD CONSTRAINT SemNo_ck CHECK (SemNo IN  
('1', '2', '3', '4', '5', '6'));
```

11. Populate all the five tables with your own data.

```
INSERT INTO STUDENT (RegNo, Name, gender, DOB,
MobileNo, City)
VALUES
(192311005,
 'Nandhini S',
 'F'
 TO_DATE('2006-06-06', 'YYYY-MM-DD'),
 6380689317,
 'Coimbatore');
```

```
INSERT INTO DEPARTMENT (DeptNo, DeptName, DeptHead)
VALUES ('A001', 'CSE', 'F001');
```

```
INSERT INTO FACULTY (FacNo, FacName, Gender, DOB, DOJ,
MobileNo, DeptNo)
VALUES ('F001', 'NANDY', 'F', TO_DATE('2006-06-06',
'YYYY-MM-DD'), TO_DATE('2023-08-03', 'YYYY-MM-DD'),
 6380689317, 'D001');
```

12. update the value of student name whose register number is '192311005'

```
UPDATE STUDENT  
SET Name = 'Nandy'  
WHERE RegNO = 192311005
```

13. Delete the record in the table FACULTY, who resigned her job

```
DELETE FROM FACULTY  
WHERE FACNAME = 'RETHANYA';
```

14. Modify the date of birth for the faculty whose name is RAM; with a value '1983-05-01'.

```
UPDATE FACULTY  
SET DOB = TO_DATE('1982-05-01', 'YYYY-MM-DD')  
WHERE FACName = 'RAM';
```

15. Remove all faculty who are having over 65 years.

```
DELETE FROM FACULTY  
WHERE MONTHS_BETWEEN(SYSDATE, DOB) / 12 > 65;
```


16. View all the records from the five tables.

```

1  SELECT * FROM STUDENT;
2  SELECT * FROM COURSE;
3  SELECT * FROM FACULTY;
4  SELECT * FROM DEPARTMENT;

```

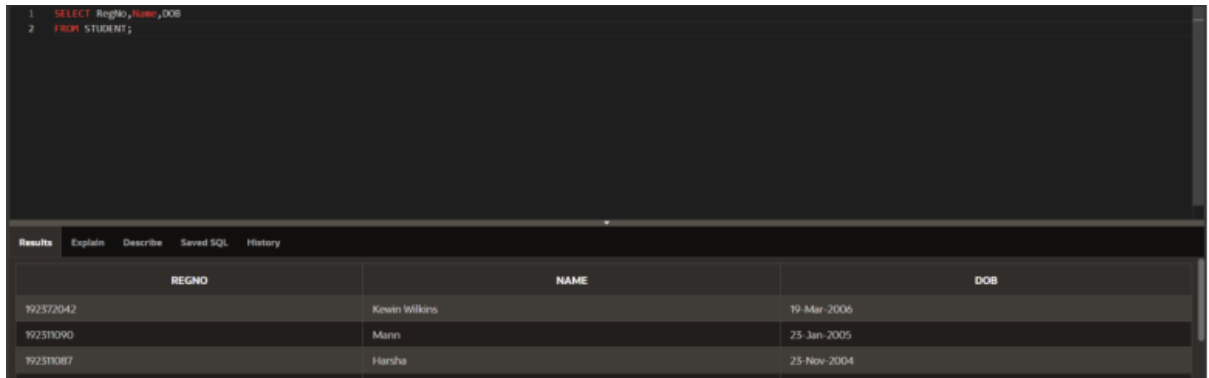
REGNO	NAME	GENDER	DOB	MOBILENO	CITY
192372042	Kevin Wilkins	M	19-Mar-2006	9876543210	Kodakkanal
192311090	Mann	M	23-Jan-2005	9876543212	Chennai
192311087	Harsha	M	23-Nov-2004	9876543211	Chennai
191711342	John Wick	M	19-Mar-1817	9784651521	CARIBBEAN
192311078	Tony Stark	M	23-Nov-1970	9876543211	New York

COURSENO	COURSEDESC	COURSETYPE	SEMNO	HALLNO	FACNO
CS5	PYTHON	P	1	H103	F004
CS4	JAVA	J	2	H103	F003
CS1	C	C	3	-	F001
CS2	Algorithms	C	4	H102	F001
CS6	CPP	P	5	-	F005
CS3	DBMS	D	1	H102	F002

DEPTNO	DEPTNAME	DEPTHEAD
D001	ComputerScience	F001
D002	ECE	F002
D005	EEE	F005
D003	mech	F003
D004	Civil	F004

FACNO	FACNAME	GENDER	DOB	DOJ	MOBILENO	DEPTNO
F001	RAM	M	01-May-1985	15-Aug-2010	9123456780	D001
F004	Dr. Vikram	M	22-May-1986	20-Jun-2006	9123857783	D004
F002	Dr. John Justin	M	22-Jul-1980	20-Jun-2012	9123456783	D002
F003	Dr. Strange	M	22-Jul-1979	20-Jun-2006	9123856783	D003
F005	Dr. Karan	M	22-May-1983	20-Jun-2015	9123857788	D004

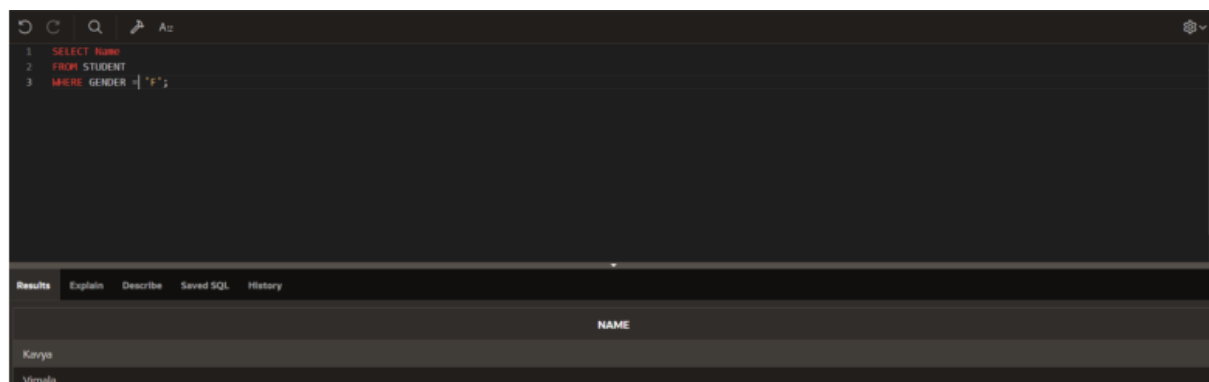
17. The student counsellor wanted to display the registration number, student name and date of birth for all the students.



```
1 SELECT REGNO,NAME,DOB
2 FROM STUDENT;
```

REGNO	NAME	DOB
992572042	Kevin Wilkins	19-Mar-2006
99231090	Mann	25-Jan-2005
99231087	Hansha	25-Nov-2004

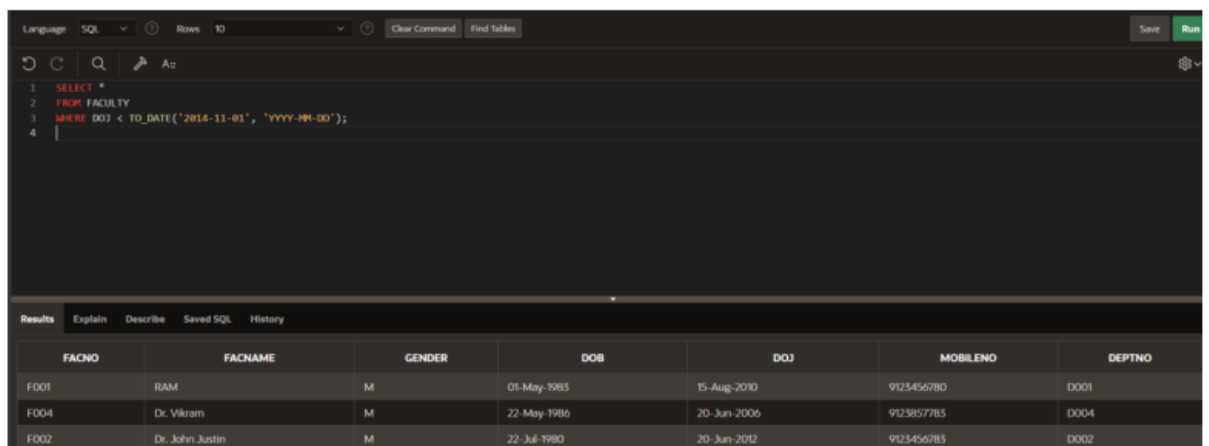
18. The controller of examinations wanted to list all the female students.



```
1 SELECT NAME
2 FROM STUDENT
3 WHERE GENDER = 'F';
```

NAME
Kavya
Venula

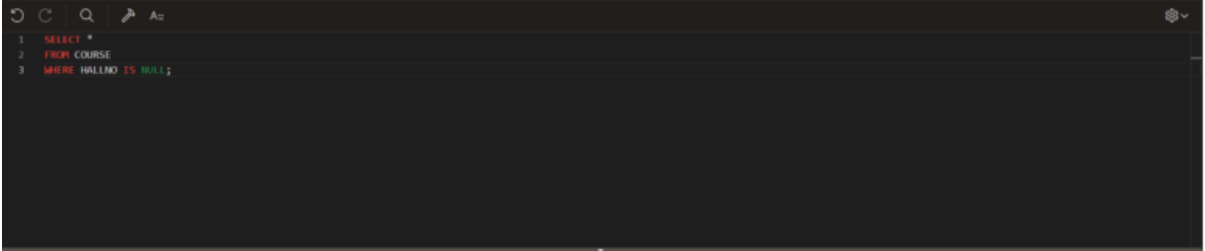
19. Display all faculty details joined before “November 2014”



```
1 SELECT *
2 FROM FACULTY
3 WHERE DOJ < TO_DATE('2014-11-01', 'YYYY-MM-DD');
```

FACNO	FACNAME	GENDER	DOB	DOJ	MOBILENO	DEPTNO
F001	RAM	M	01-May-1983	15-Aug-2010	9923456780	D001
F004	Dr. Vikram	M	22-May-1986	20-Jun-2006	9923857783	D004
F002	Dr. John Justin	M	22-Jul-1980	20-Jun-2012	9923456783	D002

20. Display all the courses not allotted to halls.

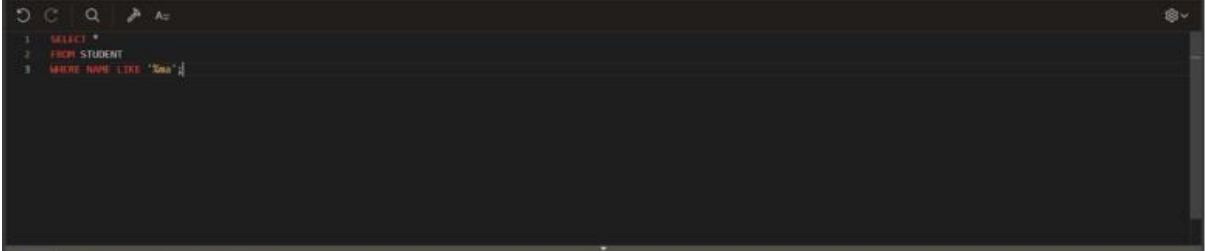


```
1 SELECT *
2 FROM COURSE
3 WHERE HALLNO IS NULL;
```

Results Explain Describe Saved SQL History

COURSENO	COURSEDESC	COURSETYPE	SEMNO	HALLNO	FACNO
CS1	C	C	3	-	FO01
CS6	CPP	P	3	-	FO05

21. List the students whose name ends with the substring “ma”



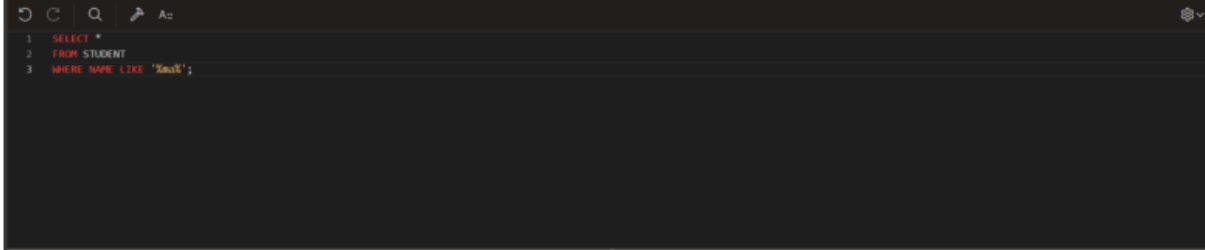
```
1 SELECT *
2 FROM STUDENT
3 WHERE NAME LIKE '%ma';
```

Results Explain Describe Saved SQL History

REGNO	NAME	GENDER	DOB	MOBILENO	CITY
19231079	Seema	F	23-Nov-1999	9875543211	Ooty
19231089	Vasima	F	23-Nov-2000	9875543211	Siriyu

2 rows returned in 0.01 seconds [Download](#)

22. Display all students whose name contains the substring “ma”

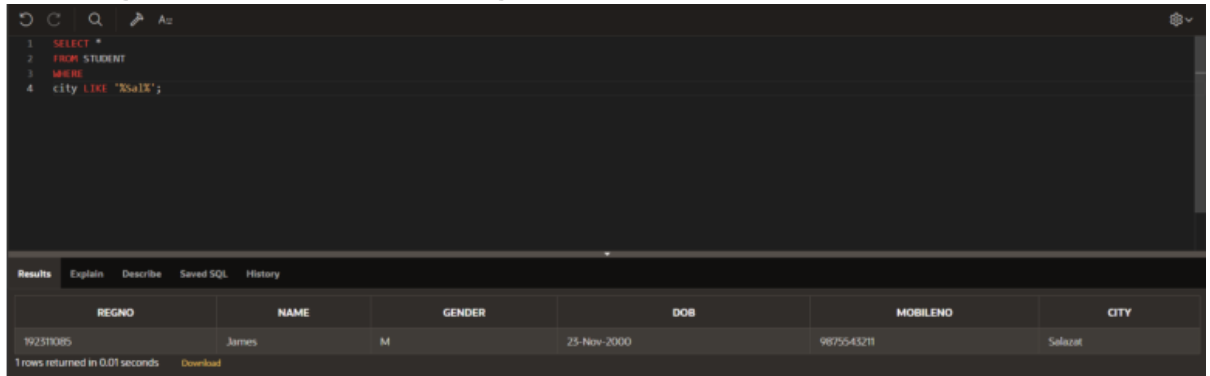


```
1 SELECT *
2 FROM STUDENT
3 WHERE NAME LIKE '%ma%';
```

Results Explain Describe Saved SQL History

REGNO	NAME	GENDER	DOB	MOBILENO	CITY
192372005	Venula	F	05-Jun-1984	9751480769	Kodakkanal
19231079	Seema	F	23-Nov-1999	9875543211	Ooty
19231089	Vasima	F	23-Nov-2000	9875543211	Siriyu

23. Find all the students who are located in cities having “Sal” as substring.



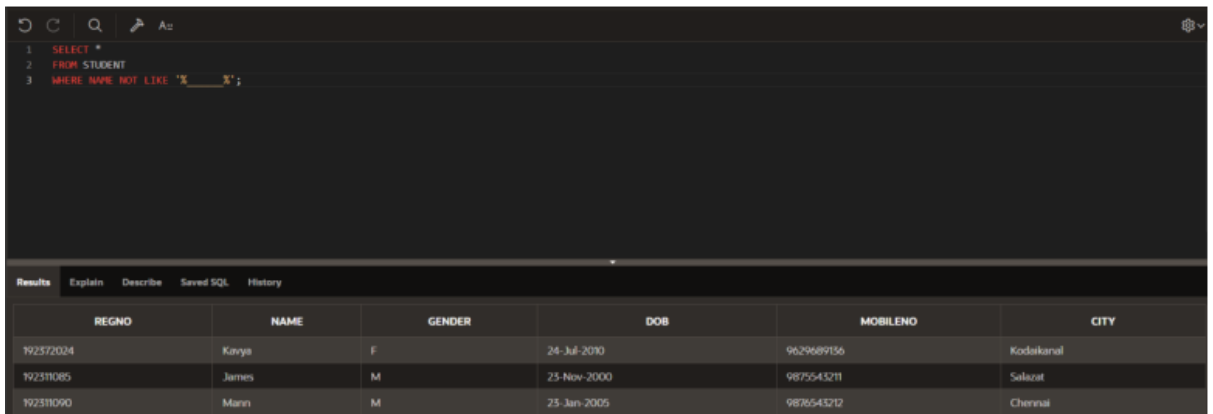
```
1 SELECT *
2 FROM STUDENT
3 WHERE
4 city LIKE "%Sal%";
```

Results Explain Describe Saved SQL History

REGNO	NAME	GENDER	DOB	MOBILENO	CITY
19251085	James	M	25-Nov-2000	9875543211	Salazar

1 rows returned in 0.01 seconds [Download](#)

24. Display the students whose names do not contain six letters.

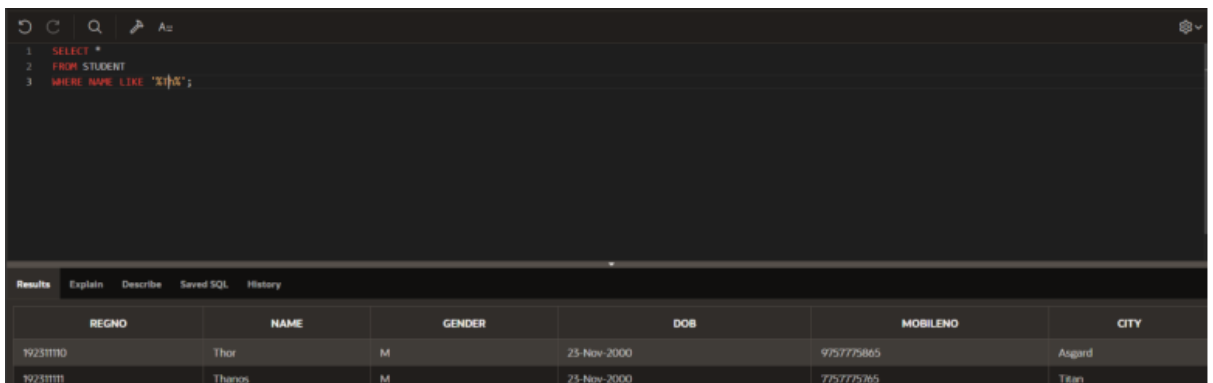


```
1 SELECT *
2 FROM STUDENT
3 WHERE NAME NOT LIKE "%_____";
```

Results Explain Describe Saved SQL History

REGNO	NAME	GENDER	DOB	MOBILENO	CITY
192572024	Kavya	F	24-Jul-2010	9629689156	Kodakanal
19251085	James	M	25-Nov-2000	9875543211	Salazar
192318090	Mann	M	25-Jan-2005	9876543212	Chennai

25. Find all the students whose names contains “th”.



```
1 SELECT *
2 FROM STUDENT
3 WHERE NAME LIKE "%th%";
```

Results Explain Describe Saved SQL History

REGNO	NAME	GENDER	DOB	MOBILENO	CITY
192311110	Thor	M	25-Nov-2000	9757775865	Asgard
192311111	Thanos	M	25-Nov-2000	7757775765	Titan