EXERCISE-3

INCLUDING CONSTRAINTS

Find the Solution for the following:

1. Add a table-level PRIMARY KEY constraint to the EMP table on the ID column.The constraint should be named at creation. Name the constraint my_emp_id_pk.

```
ALTER TABLE EMP

ADD CONSTRAINT my_emp_id_pk PRIMARY KEY (ID);
```

2. Create a PRIMARY KEY constraint to the DEPT table using the ID column. The constraint should be named at creation. Name the constraint my_dept_id_pk.

```
ALTER TABLE DEPT

ADD CONSTRAINT my_dept_id_pk PRIMARY KEY (ID);
```

3. Add a column DEPT_ID to the EMP table. Add a foreign key reference on the EMP table that ensures that the employee is not assigned to non-existent department. Name the constraint my_emp_dept_id_fk.

```
ALTER TABLE EMP
ADD DEPT_ID INT;

ALTER TABLE EMP
ADD CONSTRAINT my_emp_dept_id_fk FOREIGN KEY (DEPT_ID) REFERENCES
DEPT(ID);
```

4. Modify the EMP table. Add a COMMISSION column of NUMBER data type, precision 2, scale 2. Add a constraint to the commission column that ensures that a commission value is greater than zero.

```
ALTER TABLE EMP
ADD COMMISSION DECIMAL(2, 2);

ALTER TABLE EMP
ADD CONSTRAINT chk_commission_positive CHECK (COMMISSION > 0);
```

PRACTICE QUESTIONS

Limit Rows Selected

1. Using the Global Fast Foods database, retrieve the customer's first name, last name, and address for the customer who uses ID 456.

```
SELECT first_name, last_name, address

FROM customers

WHERE id = 456;
```

2. Show the name, start date, and end date for Global Fast Foods' promotional item "ballpen and highlighter" giveaway.

```
SELECT name, start_date, end_date

FROM promotions

WHERE name = 'ballpen and highlighter';
```

3. Create a SQL statement that produces the following output:

Oldest
The 1997 recording in our database is The Celebrants Live in Concert

```
SELECT 'Oldest' AS "Oldest",
     'The 1997 recording in our database is The Celebrants Live in Concert' AS "Description"
FROM dual;
```

4. The following query was supposed to return the CD title "Carpe Diem" but no rows were returned. Correct the mistake in the statement and show the output.

```
SELECT produce, title
FROM d_cds
WHERE title = 'carpe diem' ;
SELECT produce, title
FROM d_cds
WHERE title = 'Carpe Diem';
```

5. The manager of DJs on Demand would like a report of all the CD titles and years of CDs that were produced before 2000.

```
SELECT title, year
FROM d_cds
WHERE year < 2000;
```

6. Which values will be selected in the following query?

```
SELECT salary
FROM employees
WHERE salary < = 5000;
```

a. 5000
b. 0 - 4999
c. 2500
d. 5

b. 0 - 4999

7. Write a SQL statement that will display the student number (studentno), first name (fname), and last name (lname) for all students who are female (F) in the table named students.

```
SELECT studentno, fname, lname
FROM students
WHERE gender = 'F';
```

8. Write a SQL statement that will display the student number (studentno) of any student who has a PE major in the table named students. Title the studentno column Student Number.

```
SELECT studentno AS "Student Number"
FROM students
WHERE major = 'PE';
```

9. Write a SQL statement that lists all information about all male students in the table named students.

```
SELECT *
FROM students
WHERE gender = 'M';
```

10. Write a SQL statement that will list the titles and years of all the DJs on Demand's CDs that were not produced in 2000.

```
SELECT title, year
FROM d_cds
WHERE year <> 2000;
```

11. Write a SQL statement that lists the Global Fast Foods employees who were born before 1980.

```
SELECT *
FROM f_staffs
WHERE birthdate < '1980-01-01';
```