Content

Practice 1

1. SQL statements are always held in a buffer. True/False.
2. SQL*Plus commands assist with querying data. True/False.
3. You cannot order by a column that you have not selected. True/False.
4. Show the structure of the EMP table.

```
Name                  Null?        Type
-------------------   ---------    --------
EMPNO                 NOT NULL     NUMBER(4)
ENAME                              VARCHAR2(10)
JOB                                VARCHAR2(9)
MGR                                NUMBER(4)
HIREDATE                           DATE
SAL                                NUMBER(7, 2)
COMM                               NUMBER(7, 2)
DEPTNO                NOT NULL     NUMBER(2)
```

5. Display the name, job title, salary, and department number of the employees earning more than $1,500 and not working in department 10, in alphabetical order by name, Merge the first name and job, separating them with a comma and a space, and give the column the title "Employees".

```
Employees                        SAL              DEPTNO
---------------------------      -----            -------
ALLEN, SALESMAN                  1600                30
BLAKE, MANAGER                   2850                30
FORD, ANALYST                    3000                20
JONES, MANAGER                   2975                20
SCOTT, ANALYST                   3000                20
```

6. Display all employees whose last name contains an S.

```
ENAME
------------
JONES
JAMES
SMITH
SCOTT
ADAMS
```

7. Display the name, salary, commission, and total annual salary for all employees. Use an alias for the total annual salary. Sort the result by ascending salary. Save your query to a file named p1q7.sql. Remember that when you are using an arithmetic operator with a null value, the results are always nulls.

```
ENAME       SAL     COMM       Annual Salary
----------  ------  -----      -------------
SMITH       800                     9600
JAMES       950                    11400
ADAMS       1100                   13200
MARTIN      1250    1400           16400
WARD        1250    500            15500
MILLER      1300                   15600
TURNER      1500    0              18000
```

ALLEN	1600	300	19500
CLARK	2450		29400
BLAKE	2850		34200
JONES	2S75		35100
FORD	3000		36000
SCOTT	3000		36000
KING	5000		60000

14 rows selected.

8. *Display the customer number, customer name, and order number of all customers and their orders. Display the customer number and name even if they have not placed an order.

CUSTID	NAME	ORDID
------	---------------	-------
100	JOCKSPQRTS	606
100	JOCKSPORTS	609
100	JOCKSPORTS	620
100	JOCKSPORTS	621
101	TKB SPORT SHOP	610
102	VOLLYRITE	611
102	VOLLYRITE	618
102	VOLLYRITE	602
102	VOLLYRITE	614
102	VOLLYRITE	603
103	JUST TENNIS	616
104	EVERY MOUNTAIN	612
104	EVERY MOUNTAIN	619
104	EVERY MOUNTAIN	608
104	EVERY MOUNTAIN	607
105	K + T SPORTS	617
106	SHAPE UP	601
106	SHAPE UP	604
106	SHAPE UP	605
107	WOMENS SPORTS	615
108	NORTH WOODS HEALTH AND FITNESS SUPPLY CENTER	613

21 rows selected.

9. *Display the employee name and employee number along with their manager's name and manager number. Label the columns Employee, Empno, Manager, and Mgr#, respectively. Your query should also display those employees who have no managers. Display the output in descending order of manager numbers.

EMPLOYEE	EMPNO	MANAGER	MGR#
--------------	-----	-----------	----
KING	7839		
SMITH	7369	FORD	7902
JONES	7566	KING	7839
CLARK	7782	KING	7839
BLAKE	7698	KING	7839
ADAMS	7876	SCOTT	7788
MILLER	7934	CLARK	7782
ALLEN	7499	BLAKE	7698
MARTIN	7654	BLAKE	7698
WARD	7521	BLAKE	7698
JAMES	7900	BLAKE	7698
TURNER	7844	BLAKE	7698

```
SCOTT              7788        JONES           7566
FORD               7902        JONES           7566
14 rows selected.
```

10. *Display the department number and name for all departments without employees.

```
DEPTNO             DNAME
------    --------------
    40             OPERATIONS
```

Practice 2

1. Single-row functions work on many rows to produce a single result. True/False.

2. You can use all of the arithmetic operators on date values. True/False.

3. Display the employee numbers, names, and salaries increased by 15%, expressed to the nearest whole number of all employees. The report should look like the output below.

```
EMPNO      ENAME        NEW SALARY
-----      ----------   ----------
7839       KING               5750
7698       BLAKE              3278
7782       CLARK              2818
7566       JONES              3421
7654       MARTIN             1438
7499       ALLEN              1840
7844       TURNER             1725
7900       JAMES              1093
7521       WARD               1438
7902       FORD               3450
7369       SMITH               920
7788       SCOTT              3450
7876       ADAMS              1265
7934       MILLER             1495
14 rows selected.
```

4. Display each employee's name and job title in parentheses for all employees. The report should look like the output below.

```
EMPLOYEE
--------------------------
King (president)
Blake (manager)
Clark (manager)
Jones (manager)
Martin (salesman)
Allen (salesman)
Turner (salesman)
James (clerk)
Ward (salesman)
Ford (analyst)
Smith (clerk)
Scott (analyst)
Adams (clerk)
Miller (clerk)
14 rows selected.
```

5. Display name, hire date, and salary review date, which is the first Monday after six months of service for those employees who were hired after 01-SEP-81. The date should be entered in the format 01.09.1981. Format the dates to appear in the format Eighth of May 1982.

```
ENAME           HIREDATE          REVIEW
----------      ---------         --------------------------
MARTIN          28-SEP-81         Twenty-Ninth of March 1982
SCOTT           19-APR-87         Twenty-Sixth of October 1987
KING            17-NOV-81         Twenty-Fourth of May 1982
TURNER          08-SEP-81         Fifteenth of March 1982
ADAMS           23-MAY-87         Thirtieth of November 1987
JAMES           03-DEC-81         Seventh of June 1982
FORD            03-DEC-81         Seventh of June 1982
MILLER          23-JAN-82         Twenty-Sixth of July 1982
8 rows selected.
```

6. Display the day on which you were born. The output should look like the example below (25-SEP-59 is the birthday in the example):

```
My birthday
------------------------
Friday
```

7. *Display the name for all employees, their hire date, and the day of the week that they started. Order the results by the day of the week, starting with Monday.

```
ENAME           HIREDATE      Day
--------        ---------     ----------
MARTIN          28-SEP-81     MONDAY
KING            17-NOV-81     TUESDAY
TURNER          08-SEP-81     TUESDAY
CLARK           09-JUN-81     TUESDAY
SMITH           17-DEC-80     WEDNESDAY
ADAMS           12-JAN-83     WEDNESDAY
JONES           02-APR-81     THURSDAY
SCOTT           09-DEC-82     THURSDAY
FORD            03-DEC-81     THURSDAY
JAMES           03-DEC-81     THURSDAY
BLAKE           01-MAY-81     FRIDAY
ALLEN           20-FEB-81     FRIDAY
MILLER          23-JAN-82     SATURDAY
WARD            22-FEB-81     SUNDAY
14 rows selected.
```

8. *Write a query that produces the following for each employee: <employee name> earns <salary> monthly, but wants <3 times salary>.

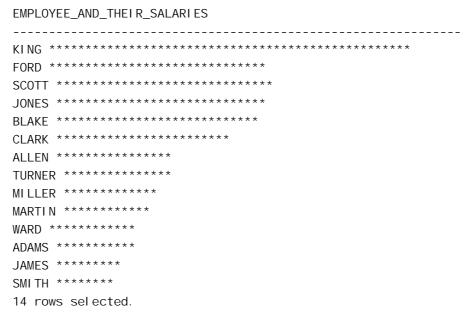```
Dream Salaries

KING earns $5,000 monthly, but wants $15,000.
BLAKE earns $2,850 monthly, but wants $8,550.
CLARK earns $2,450 monthly, but wants $7,350.
JONES earns $2,975 monthly, but wants $8,925.
MARTIN earns $1,250 monthly, but wants $3,750.
ALLEN earns $1,600 monthly, but wants $4,800.
TURNER earns $1,500 monthly, but wants $4,500.
```

JAMES earns $950 monthly, but wants $2,850.
WARD earns $1,250 monthly, but wants $3,75Q.
FORD earns $3,000 monthly, but wants $9,000.
SMITH earns $800 monthly, but wants $2,400.
SCOTT earns $3,000 monthly, but wants $9,000.
ADAMS earns $1,100 monthly, but wants $3,300.
MILLER earns $1,300 monthly, but wants $3,900.
14 rows selected.

9.  *Create a query that will display the employee name and commission amount. If the employee does not earn commission, enter "No Commission" label the column COMM.

```
ENAME           COMM

--------     --------------
SMITH           No Commission
ALLEN           300
WARD            500
JONES           No Commission
MARTIN          1400
BLAKE           No Commission
CLARK           No Commission
SCOTT           No Commission
KING            No Commission
TURNER          0
ADAMS           No Commission
JAMES           No Commission
FORD            No Commission
MILLER     No Commission
14 rows selected.
```

10. *Create a query that displays the employees' names and indicates the amounts of their salaries through asterisks. Each asterisk signifies a hundred dollars. Sort the data in descending order of salary. Label the column EMPLOYEE_AND_THEIR_SALARIES.

```
EMPLOYEE_AND_THEIR_SALARIES

-----------------------------------------------------------
KING ************************************************
FORD ***************************
SCOTT ***************************
JONES **************************
BLAKE *************************
CLARK ***********************
ALLEN ****************
TURNER ***************
MILLER *************
MARTIN ************
WARD ************
ADAMS ***********
JAMES *********
SMITH ********
14 rows selected.
```

11. *Write a query that displays the grade of all employees based on the value of the column JOB, as per the table shown below:

JOB	GRADE
CLERK	E
SALESMAN	D
ANALYST	C
MANAGER	B
PRESIDENT	A
None of the above	O

```
JOB          GRADE
-----------  ------
CLERK        E
SALESMAN     D
SALESMAN     D
MANAGER      B
SALESMAN     D
MANAGER      B
MANAGER      B
ANALYST      C
PRESIDENT    A
SALESMAN     D
CLERK        E
CLERK        E
ANALYST      C
CLERK        E
14 rows selected.
```