```
/*

Name of DS : Abdalla Elbedwihi (TP041553)
Name of SAS program: Fifth_sas_program.sas
Description: Fifth SAS program -- Fifth session Exercises
Date first written: Fri, 19-March-2021
Date last updated: Fri, 19-March-2021
Folder name : MYDAP_TP041553
Library name: MYLIBFEB

*/

/*
QUestion 8.0
List the name and job of employees who have the same job as ‘JONES’.

*/

PROC SQL;

TITLE 'List the name and job of employees';
TITLE2 'who have the same job as JONES';


SELECT  ei.emp_name LABEL 'Employee Name',
        ei.emp_job LABEL 'Employee Job'
FROM MYLIBFEB.EMP_DS ei
WHERE   ( ei.emp_name NE 'JONES' ) AND
        ( ei.emp_job EQ ( SELECT eo.emp_job
                          FROM MYLIBFEB.EMP_DS eo
                          WHERE ( eo.emp_name EQ 'JONES' ) ) );                                                            /

QUIT;

/* eo for employee dataset outer query, ei for emp dataset inner query */

/*

8.1
Find the staff-name who receives the maximum salary.

*/

PROC SQL;

SELECT emp_name LABEL 'Employee Name',
        emp_salary LABEL 'Employee Salary'
FROM MYLIBFEB.EMP_DS
WHERE ( emp_salary EQ ( SELECT max(emp_salary)
                        FROM MYLIBFEB.EMP_DS ) );

QUIT;


/*

QUESTION 8.2

Find the staff-name who receives the smallest salary.

*/

PROC SQL;

SELECT emp_name LABEL 'Employee Name',
        emp_salary LABEL 'Employee Salary'
FROM MYLIBFEB.EMP_DS
WHERE ( emp_salary EQ ( SELECT min(emp_salary)
                        FROM MYLIBFEB.EMP_DS ) );

QUIT;


/*

8.3
```

```
List the name, job, and salary of employees who have the same job and salary as ‘Ford.’

*/

PROC SQL;

SELECT eo.emp_name LABEL 'Employee Name',
        eo.emp_job LABEL 'Employee Job',
        eo.emp_salary LABEL 'Employee Salary'
FROM MYLIBFEB.EMP_DS eo
WHERE ( ( eo.emp_name NE 'FORD' ) AND
        ( eo.emp_salary EQ ( SELECT ei.emp_salary
                            FROM MYLIBFEB.EMP_DS ei
                            WHERE ( ei.emp_name EQ 'FORD' ) ) ) AND
        ( eo.emp_job EQ ( SELECT ei1.emp_job
                            FROM MYLIBFEB.EMP_DS ei1
                            WHERE ( ei1.emp_name EQ 'FORD' ) ) ) );

QUIT;


/*

8.4
List the name, job, and department of employee whose salary is greater than or equal to ‘Ford’.

*/

PROC SQL;

SELECT eo.emp_name LABEL 'Employee Name',
        eo.emp_job LABEL 'Employee Job',
        eo.dept_no LABEL 'Department number',
        eo.emp_salary LABEL 'Salary'
FROM MYLIBFEB.EMP_DS eo
WHERE ( ( eo.emp_name NE 'FORD' ) AND
        ( eo.emp_salary GE ( SELECT ei.emp_salary
                            FROM MYLIBFEB.EMP_DS ei
                            WHERE ( ei.emp_name EQ 'FORD' ) ) ) );

QUIT;

/*
8.5
Find the employees located in Chicago and who have the same job as Allen. List the results in alphabetical order by employee

*/

PROC SQL;

SELECT eo.emp_name LABEL 'Employee Name',
        eo.emp_job LABEL 'Employee Job',
        do.dept_loc LABEL 'Department Location'
FROM MYLIBFEB.EMP_DS eo,
        MYLIBFEB.DEPT_DS do
WHERE ( ( eo.dept_no EQ do.dept_no ) AND/* Always connect datasets first befroe other conditions*/
        ( eo.emp_name NE 'ALLEN' ) AND
        ( do.dept_loc EQ 'CHICAGO' ) AND
        ( eo.emp_job EQ ( SELECT ei.emp_job
                            FROM MYLIBFEB.EMP_DS ei
                            WHERE ( ei.emp_name EQ 'ALLEN' ) ) ) )
ORDER BY eo.emp_name;

QUIT;


/*
Exercise 9
9.1
Delete the employee whose name is ‘JONES’.
*/

PROC SQL;

DELETE FROM MYLIBFEB.EMP_DS_COPY
WHERE ( emp_name EQ 'JONES' );
```

```
QUIT;

/*

9.2
Delete the employee whose employee id is 7934.

*/

PROC SQL;

DELETE FROM MYLIBFEB.EMP_DS_COPY
WHERE ( emp_no EQ 7934 );

QUIT;

/*

9.3
Delete the employees whose salary is between 1200 and 1500.

*/

PROC SQL;

DELETE FROM MYLIBFEB.EMP_DS_COPY
WHERE ( emp_salary BETWEEN 1200 AND 1500 );

QUIT;

/*

QUESTION 9.4

Delete the employees who work in department number 10.

*/

PROC SQL;

DELETE FROM MYLIBFEB.EMP_DS_COPY
WHERE ( dept_no EQ 10 );

QUIT;


/*
QUESTION 9.6

Delete the employees who work in NEW YORK.
*/



/* Exercise 10 -- Question 10.o

Increase all staff salary by 10%

*/



PROC SQL;

/*dUPLICATE TABLE FIRST O AVOID LOSS OF DATA*/

CREATE TABLE MYLIBFEB.EMP_COPY2_DS AS
SELECT * FROM MYLIBFEB.EMP_DS;

/* Before increasing salary by 10%*/
SELECT * FROM MYLIBFEB.EMP_COPY2_DS;

/* Increase salary by 10%*/

UPDATE MYLIBFEB.EMP_COPY2_DS
SET emp_salary = ( emp_salary * 1.1 );
```

```
/* aFTER INCREASING SALARY BY 10%*/
SELECT * FROM MYLIBFEB.EMP_COPY2_DS;

QUIT;



/*
Question 10.1
Increase all staff comission by 15%
*/


/*
Question 10.1
Increase all staff comission by 15%

Required to covnert emp_comm from character to numeric
*/

/* First identify data type of commisioNn*/

PROC CONTENTS DATA = MYLIBFEB.EMP_COPY3_DS;

QUIT;

/* Then, converrt to numeric*/

PROC SQL;

/*dUPLICATE TABLE FIRST TO AVOID LOSS OF DATA*/

CREATE TABLE MYLIBFEB.EMP_COPY2_DS AS
SELECT * FROM MYLIBFEB.EMP_DS;

/* Before increasing comission by 15%*/
TITLE 'Before increasing comission';
SELECT * FROM MYLIBFEB.EMP_DS;

/* Increasing Comission */

UPDATE MYLIBFEB.EMP_COPY3_DS
SET emp_comm = PUT(INPUT(emp_comm,14.) * 1.15, 14); /* PUT converts data from numeric to character, INPUT converts data from

/* aFTER INCREASING Comissin BY 15%*/

TITLE 'After increasing Comission by 15%';
SELECT * FROM MYLIBFEB.EMP_COPY3_DS;

QUIT;


/*
Question 10.2

Increase all staff salary by 10% for those who work in dept. no_ 10
*/

PROC SQL;

/*dUPLICATE TABLE FIRST O AVOID LOSS OF DATA*/

CREATE TABLE MYLIBFEB.EMP_COPY4_DS AS
SELECT * FROM MYLIBFEB.EMP_DS;

/* Before increasing salary by 10% for dept 10*/
SELECT * FROM MYLIBFEB.EMP_COPY4_DS
WHERE ( dept_no EQ 10);

/* Increase salary by 10% for dept 10*/

UPDATE MYLIBFEB.EMP_COPY4_DS
SET emp_salary = ( emp_salary * 1.1 )
WHERE ( dept_no EQ 10 );

/* aFTER INCREASING SALARY BY 10%*/
SELECT * FROM MYLIBFEB.EMP_COPY4_DS
```

```
WHERE ( dept_no EQ 10);

QUIT;

/*
Question 10.3

Increase all staff salary by 10% for those who are managers
*/

PROC SQL;

/*dUPLICATE TABLE FIRST O AVOID LOSS OF DATA*/

CREATE TABLE MYLIBFEB.EMP_COPY5_DS AS
SELECT * FROM MYLIBFEB.EMP_DS;

/* Before increasing salary by 10% for Managers*/
SELECT * FROM MYLIBFEB.EMP_COPY5_DS
WHERE ( emp_job EQ 'MANAGER');

/* Increase salary by 10% for dept 10*/

UPDATE MYLIBFEB.EMP_COPY5_DS
SET emp_salary = ( emp_salary * 1.1 )
WHERE ( emp_job EQ 'MANAGER' );

/* aFTER INCREASING SALARY BY 10%*/
SELECT * FROM MYLIBFEB.EMP_COPY5_DS
WHERE ( emp_job EQ 'MANAGER');

QUIT;


/*
Question 10.4
Assign the salary to 5555, f any staff's salary is equal to 5000
*/

PROC SQL;

/*DUPLICATE TABLE FIRST TO AVOID LOSS OF DATA*/

CREATE TABLE MYLIBFEB.EMP_COPY6_DS AS
SELECT * FROM MYLIBFEB.EMP_DS;

/* Before REPLACING SALARY*/
TITLE 'Employees with salary equals to 5000';
SELECT * FROM MYLIBFEB.EMP_COPY6_DS
WHERE ( emp_salary EQ 5000);

/* Replace salary to 5555*/

UPDATE MYLIBFEB.EMP_COPY6_DS
SET emp_salary = 5555
WHERE ( emp_salary EQ 5000 );

/* After replacing salary*/
TITLE 'Salary of employee after being converted from 5000 to 5555';
SELECT * FROM MYLIBFEB.EMP_COPY6_DS
WHERE ( emp_salary EQ 5555 );

QUIT;


/*
QUestion 10.5
Increase the staff salary by 10% for those who work in 'New York'
*/

PROC SQL;

/*dUPLICATE TABLE FIRST O AVOID LOSS OF DATA*/

CREATE TABLE MYLIBFEB.EMP_COPY7_DS AS
SELECT * FROM MYLIBFEB.EMP_DS;
```

```
/* Before increasing salary by 10% for 'New York'*/
SELECT * FROM MYLIBFEB.EMP_COPY7_DS e,
                MYLIBFEB.DEPT_DS d
WHERE ( e.dept_no EQ d.dept_no ) AND
        ( d.dept_loc EQ 'New York' );

/* Increase salary by 10% for dept 10*/

UPDATE MYLIBFEB.EMP_COPY7_DS
SET emp_salary = ( emp_salary * 1.1 )
WHERE ( dept_no EQ ( SELECT d.dept_no
                        FROM MYLIBFEB.EMP_COPY7_DS e,
                                MYLIBFEB.DEPT_DS d
                                            WHERE ( e.dept_no EQ d.dept_no ) AND
                                                    ( d.dept_loc EQ 'New York' ) ) );

/* After increasing salary by 10%*/
SELECT * FROM MYLIBFEB.EMP_COPY7_DS e,
                MYLIBFEB.DEPT_DS d,
WHERE ( dept_no EQ ( SELECT d.dept_no
                        FROM MYLIBFEB.EMP_COPY7_DS e,
                                MYLIBFEB.DEPT_DS d
                                            WHERE ( e.dept_no EQ d.dept_no ) AND
                                                    ( d.dept_loc EQ 'New York' ) ) );
QUIT;


/* To delete contents of data from a table */

PROC SQL;

DELETE FROM MYLIBFEB.EMP_COPY7_DS;

QUIT;


/* TO entirely delete data */

PROC SQL;

DROP TABLE MYLIBFEB.EMP_COPY7_DS;

QUIT;


/* To display contents of data */

PROC CONTENTS DATA = MYLIBFEB.EMP_COPY7_DS;
```