Practice 3

Part 1

1. Write a query to display the current date. Label the column `Date`.

Date
31-DEC-03

2. The HR department needs a report to display the employee number, last name, salary, and salary increased by 15.5% (expressed as a whole number) for each employee. Label the column `New Salary`. Place your SQL statement in a text file named `lab_03_02.sql`.

3. Run your query in the file `lab_03_02.sql`.

EMPLOYEE_ID	LAST_NAME	SALARY	New Salary
100	King	24000	27720
101	Kochhar	17000	19635
...			
202	Fay	6000	6930
205	Higgins	12000	13860
206	Gietz	8300	9587

20 rows selected.

4. Modify your query `lab_03_02.sql` to add a column that subtracts the old salary from the new salary. Label the column `Increase`. Save the contents of the file as `lab_03_04.sql`. Run the revised query.

EMPLOYEE_ID	LAST_NAME	SALARY	New Salary	Increase
100	King	24000	27720	3720
101	Kochhar	17000	19635	2635
102	De Haan	17000	19635	2635
...				
202	Fay	6000	6930	930
205	Higgins	12000	13860	1860
206	Gietz	8300	9587	1287

20 rows selected.

Practice 3 (continued)

5. Write a query that displays the last name (with the first letter uppercase and all other letters lowercase) and the length of the last name for all employees whose name starts with the letters *J, A,* or *M*. Give each column an appropriate label. Sort the results by the employees' last names.

Name	Length
Abel	4
Matos	5
Mourgos	7

Rewrite the query so that the user is prompted to enter a letter that starts the last name. For example, if the user enters `H` when prompted for a letter, then the output should show all employees whose last name starts with the letter *H*.

Name	Length
Hartstein	9
Higgins	7
Hunold	6

Practice 3 (continued)

6. The HR department wants to find the length of employment for each employee. For each employee, display the last name and calculate the number of months between today and the date on which the employee was hired. Label the column `MONTHS_WORKED`. Order your results by the number of months employed. Round the number of months up to the closest whole number.
   Note: Your results will differ.

LAST_NAME	MONTHS_WORKED
Zlotkey	47
Mourgos	50
Grant	55
Lorentz	59
Vargas	66
Taylor	69
Matos	70
Fay	76
Davies	83
Abel	92
Hartstein	94
Rajs	98
Higgins	115
Gietz	115
De Haan	132
Ernst	151
Hunold	168
Kochhar	171
Whalen	195
King	198

20 rows selected.

Practice 3 (continued)

Part 2

7. Create a report that produces the following for each employee: `<employee last name> earns <salary> monthly but wants <3 times salary>`. Label the column `Dream Salaries`.

Dream Salaries
King earns $24,000.00 monthly but wants $72,000.00.
Kochhar earns $17,000.00 monthly but wants $51,000.00.
De Haan earns $17,000.00 monthly but wants $51,000.00.
▪ ▪ ▪
Hartstein earns $13,000.00 monthly but wants $39,000.00.
Fay earns $6,000.00 monthly but wants $18,000.00.
Higgins earns $12,000.00 monthly but wants $36,000.00.
Gietz earns $8,300.00 monthly but wants $24,900.00.

20 rows selected.

If you have time, complete the following exercises:

8. Create a query to display the last name and salary for all employees. Format the salary to be 15 characters long, left-padded with the $ symbol. Label the column `SALARY`.

LAST_NAME	SALARY
King	$$$$$$$$$24000
Kochhar	$$$$$$$$$17000
De Haan	$$$$$$$$$17000
Hunold	$$$$$$$$$$9000
▪ ▪ ▪	
Fay	$$$$$$$$$$6000
Higgins	$$$$$$$$$12000
Gietz	$$$$$$$$$$8300

20 rows selected.

Practice 3 (continued)

9. Display each employee's last name, hire date, and salary review date, which is the first Monday after six months of service. Label the column `REVIEW`. Format the dates to appear in the format similar to "Monday, the Thirty-First of July, 2000."

LAST_NAME	HIRE_DATE	REVIEW
King	17-JUN-87	Monday, the Twenty-First of December, 1987
Kochhar	21-SEP-89	Monday, the Twenty-Sixth of March, 1990
De Haan	13-JAN-93	Monday, the Nineteenth of July, 1993
Hunold	03-JAN-90	Monday, the Ninth of July, 1990
Ernst	21-MAY-91	Monday, the Twenty-Fifth of November, 1991
Lorentz	07-FEB-99	Monday, the Ninth of August, 1999
...		
Higgins	07-JUN-94	Monday, the Twelfth of December, 1994
Gietz	07-JUN-94	Monday, the Twelfth of December, 1994

20 rows selected.

10. Display the last name, hire date, and day of the week on which the employee started. Label the column `DAY`. Order the results by the day of the week, starting with Monday.

LAST_NAME	HIRE_DATE	DAY
Grant	24-MAY-99	MONDAY
Ernst	21-MAY-91	TUESDAY
Mourgos	16-NOV-99	TUESDAY
Taylor	24-MAR-98	TUESDAY
...		
Lorentz	07-FEB-99	SUNDAY
Fay	17-AUG-97	SUNDAY
Matos	15-MAR-98	SUNDAY

20 rows selected.

Practice 3 (continued)

If you want an extra challenge, complete the following exercises:

11. Create a query that displays the employees' last names and commission amounts. If an employee does not earn commission, show "No Commission." Label the column `COMM`.

LAST_NAME	COMM
King	No Commission
Kochhar	No Commission
▪ ▪ ▪	
Zlotkey	.2
Abel	.3
Taylor	.2
Grant	.15
Whalen	No Commission
Hartstein	No Commission
Fay	No Commission
Higgins	No Commission
Gietz	No Commission

20 rows selected.

12. Create a query that displays the first eight characters of the employees' last names and indicates the amounts of their salaries with asterisks. Each asterisk signifies a thousand dollars. Sort the data in descending order of salary. Label the column `EMPLOYEES_AND_THEIR_SALARIES`.

EMPLOYEES_AND_THEIR_SALARIES
King **********
Kochhar *********
De Haan *********
Hartstei ********
Higgins ********
▪ ▪ ▪
Matos **
Vargas **

20 rows selected.

Practice 3 (continued)

13. Using the `DECODE` function, write a query that displays the grade of all employees based on the value of the column `JOB_ID`, using the following data:

Job	*Grade*
AD_PRES	A
ST_MAN	B
IT_PROG	C
SA_REP	D
ST_CLERK	E
None of the above	0

JOB_ID	GRA
AC_ACCOUNT	0
AC_MGR	0
AD_ASST	0
AD_PRES	A
AD_VP	0
AD_VP	0
IT_PROG	C
IT_PROG	C
IT_PROG	C
MK_MAN	0
MK_REP	0
SA_MAN	0
SA_REP	D
SA_REP	D
SA_REP	D
ST_CLERK	E
ST_CLERK	E
ST_CLERK	E
ST_CLERK	E
ST_MAN	B

20 rows selected.

14. Rewrite the statement in the preceding exercise using the `CASE` syntax.