**Assignment 4**

**Single Row function and Customized Output**

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

Solution: select sysdate "Date" from dual;

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.*

Solution: select employee\_id,last\_name,salary,

round(salary\*1.155,0) "New Salary" from employees;

­­­­­ 3.*Modify the query created in the last question to add a column that subtracts the old salary from the new salary. Label the column Increase.*

Solution: select employee\_id,last\_name,salary,round(salary\*1.155,0) "New Salary",

round(salary \* 1.15, 0) - salary "Increase" from employees;

4. *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 last names of the employees.*

Solution: select initcap(last\_name) Name,length(last\_name) Length from hr.employees

where last\_name like 'J%' or last\_name like 'A%' or last\_name like 'M%'

order by last\_name;

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, the output should show all employees whose last name starts with the letter H.

5. *The HR department wants to find the duration 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.*

Solution: select last\_name,hire\_date,round(months\_between(sysdate,hire\_Date))

MONTH\_WORKED from hr.employees

order by months\_between(sysdate,hire\_Date);

6. *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.*

Solution:

select last\_name || ' earns '|| salary || ' monthly but wants ' || 3\*salary "Dream Salaries" from employees

OR

SELECT last\_name || ' earns '

|| TO\_CHAR(salary, 'fm$99,999.00') || ' monthly but wants '

|| TO\_CHAR(salary \* 3, 'fm$99,999.00') || '.' "Dream Salaries"

FROM employees;

7. *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.*

Solution:

select last\_name,salary,lpad(salary,15,'$') SALARY from employees;

*8. 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.”*

Solution:

select last\_name,hire\_date,salary,

to\_char(next\_day(add\_months(hire\_date,6),'Monday'),

'fmDay,"the" Ddspth "of" Month, YYYY') REVIEW

from employees;

select last\_name,hire\_date,salary, to\_char(next\_day(add\_months(hire\_date,6),'Monday'),

'fmDay,"the" DDth "of" Month, YYYY') REVIEW from employees;

Output:

|  |
| --- |
| Monday,the 22ND of December, 2003 |
|  |
|  |
|  |

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

Solution:

10. *Create a query that displays the employees’ last names and commission amounts. If an employee does not earn a commission, show “No Commission.” Label the column COMM*

Solution: select last\_name,

nvl(to\_char(commission\_pct),'No Commission') COMM

from employees;

11. *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.*

Solution: select salary,rpad(last\_name,8) ||' '||rpad(' ',salary/1000,'\*') EMPLOYEES\_AND\_THEIR\_SALARIES

from employees

order by salary desc;

*12. Using the DECODE function, write a query that displays the grade of all employees based on the value of the JOB\_ID column, using the following data:*

Solution: select job\_id,

decode ( job\_id, 'AD\_PRES', 'A',

'ST\_MAN', 'B',

'IT\_PROG','C',

'SA\_REP','D',

'ST\_CLERK','E',

'0') Grade

from employees;

13. Rewrite the statement in the preceding exercise using the CASE syntax.

Solution:

select job\_id,

case job\_id when 'AD\_PRES' then 'A'

when' ST\_MAN' then 'B'

when 'IT\_PROG' then 'C'

when 'SA\_REP' then 'D'

when 'ST\_CLERK' then 'E'

else '0' end Grade

from employees;