Review Test Submission: L4-functions

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Course	Database Design II and SQL Using Oracle
Test	L4-functions
Started	2/1/19 10:01 AM
Submitted	2/1/19 8:34 PM
Due Date	2/1/19 11:59 PM
Status	Needs Grading
Attempt Score	Grade not available.
Time Elapsed	10 hours, 33 minutes
Instructions	Remember .... SQL and output whenever question allows for that response.

Remember .... SQL and output whenever question allows for that response. Also Oracle syntax only.

This should be completed in *week 4* if you are keeping up

Results Displayed	All Answers, Submitted Answers, Correct Answers

Question 1

Needs Grading

-- List all the countries that start with a letter entered by the user (prompt). BUT .. if user enters something else it should still work.

NOTE: The user must enter a lowercase letter

Selected Answer:

```
SELECT *
FROM countries
WHERE LOWER(country_name) LIKE LOWER
('&EnterLetter%');
```

Correct Answer:

```
old:SELECT *
FROM countries
WHERE country_name LIKE '&EnterrLetter%'
new:SELECT *
FROM countries
WHERE country_name LIKE 'a%'   -- used lowercase
a
no rows selected
Because it didn't handle lowercase, then you
need to write it so it handles any case
```

Question 2

Needs Grading

-- let's make the previous question easier for the user !!!

SELECT * FROM countries

WHERE UPPER(country_name) LIKE UPPER('&EnterLetter%');

Try it by entering an UPPER and a LOWER value to see the effect. It is very different when compared to the previous questions results.

JUST ANSWER YES if you tried it.

Selected Answer: YES
Correct Answer: Hopefully ... YES

Question 3

Needs Grading

Calculate how many letters each country name has in it

and list them from most letters to least letters

Selected Answer:

```
SELECT country_name,LENGTH(country_name)
FROM countries
ORDER BY  LENGTH(country_name)desc
```

COUNTRY_NAME	LENGTH(COUNTRY_NAME)
United States of America	24
United Kingdom	14
Netherlands	11
Switzerland	11
Argentina	9
Singapore	9
Australia	9
Zimbabwe	8
HongKong	8
Nigeria	7
Belgium	7

Correct Answer:

```
SELECT  country_name, LENGTH(country_name) as "No. of Characters"
FROM countries
ORDER BY "No. of Characters" DESC;
COUNTRY_NAME                                No. of
Characters
---------------------------------------- ---------------
--
United States of America
24
United Kingdom
14
Netherlands
11
Switzerland
11
Argentina
9
Singapore
9
Australia
9
Zimbabwe
8
HongKong
8
Nigeria
7
Belgium
7
Denmark
7
Germany
7
Mexico
6
Kuwait
6
France
6
Canada
6
Brazil
6
Israel
6
Zambia
6
India
5
Egypt
5
China
5
Italy
5
Japan
5
 25 rows selected
```

Question 4

Needs Grading

Show the date 10 days before today (today is not hard coded but is supplied by the system)

Selected Answer:

```
SELECT (SYSDATE-10) AS "10TH day"
FROM dual;


10TH day
---------
22-JAN-19
```

Correct Answer:

```
SELECT sysdate "to show today"
       sysdate - 10 AS "to show 10 Days Ago"
FROM dual;
```

Question 5

Needs Grading

What date is the next Saturday from now

Selected Answer:

```
SELECT NEXT_DAY(SYSDATE,'SATUDAY') AS "Next
Saturday"
FROM dual
Next Satu
--------------
02-FEB-19
```

Correct Answer:

```
SELECT  NEXT_DAY(sysdate,'Saturday') AS "Next Saturday"
   FROM dual
```

Question 6

Needs Grading

Display the difference between the Average pay and Lowest pay in the company.

Name this result *The gap*

Selected Answer:

```
SELECT ROUND(AVG(salary) - MIN(salary)) AS "Difference"
FROM employees;

Difference
--------------
      7472
```

Correct Answer:

```
SELECT AVG(salary)-MIN(salary) AS "The gaP"
FROM employees;

   The gap
----------
7361.111111   --- you should round it for the
user
```

Question 7

Needs Grading

Display the (1) department number and (2) Highest, (3) Lowest and (4)Average pay per each department. Do not label the columns .Round the average.

Sort the output so that the department with highest average salary is shown first.

Selected Answer:

```
SELECT department_id, MAX(salary), MIN(salary),ROUND(AVG
(salary),0)
FROM employees
GROUP BY department_id
ORDER BY MAX(salary)desc;

DEPARTMENT_ID MAX(SALARY) MIN(SALARY) ROUND(AVG
(SALARY),0)
------------- ----------- ----------- ----------------------------------------------
--------------
                   90      24000                17000
        19333
                   10      17000                 4400
        10700
                   20      13000                 6000
         9500
                  110      12000                 8300
        10150
                   80      12000                 7000
        10546
                   60       9000                 4200
         6400
                            7000                 7000
         7000
                   50       5800                 2500
         3500
```

Correct Answer:

```
SELECT department_id, max(salary), min
(salary), round(avg (salary),0)
FROM employees
GROUP BY department_id
ORDER BY max(salary)DESC;
DEPARTMENT_ID MAX(SALARY) MIN(SALARY) ROUND
(AVG(SALARY),0)
------------- ----------- ----------- --------
------------
           90       24000
17000                19333
           10       17000
4400                 10700
           20       13000
6000                  9500
          110       12000
8300                 10150
           80       12000
7000                 10546
           60        9000
4200                  6400
                      7000
7000                  7000
           50        5800
2500                  3500
 8 rows selected
```

Question 8

Needs Grading

Display how many people work the same job in the same department.

Name these headings results as .... No., Job, How Many.

Include only jobs that involve more than one person.

Sort the output so that jobs with the most people involved are shown first.

Selected Answer:

```
SELECT  department_id as "No.", Job_id as "Job",COUNT(*)
as "How Many"
FROM employees
GROUP BY department_id, job_id
HAVING COUNT(*)>1
ORDER BY COUNT(*)desc;
```

```
     No. Job        How Many
---------- ---------- --------------------
     80 SA_REP            34
     50 ST_CLERK           4
     60 IT_PROG            3
        SA_REP             2
     90 AD_VP              2
```

Correct Answer:

```
     Will have different alias
     50    5    5
     80    3    3
     90    3    3
     60    3    3
     20    2    2
     110   2    2
```

Question 9

Needs Grading

Remember .... SQL and output whenever question allows for that response. Also Oracle syntax only.

This should be completed in *week 4* if you are keeping up.

For each job ID display the job iD and total amount paid each month for this type of the job. Exclude titles *AD_PRES* and *AD_VP* and also include only jobs that require or exceed more than $15,000.

Sort the output so that top paid jobs are shown first.

Selected Answer:

```
SELECT JOB_ID,SUM(SALARY) AS "Sum"
FROM EMPLOYEES
GROUP BY JOB_ID
HAVING JOB_ID!='AD_VP' AND  JOB_ID!='AD_PRES'
 AND SUM(salary)>15000
ORDER BY STDDEV(SALARY);
```

```
JOB_ID          Sum
---------- ----------
AC_REP          17000
SA_REP         372600
IT_PROG         19200
```

Correct Answer:

```
SELECT JOB_ID, SUM(SALARY) AS "Monthly Total"
FROM EMPLOYEES
GROUP BY JOB_ID
HAVING JOB_ID != 'AD_VP'
  AND JOB_ID != 'AD_PRES'
  AND SUM(SALARY) > 15000
ORDER BY STDDEV(SALARY);
```

```
JOB_ID            Sum
---------- ----------
SA_REP         383600
IT_PROG         19200
```

Question 10

Needs Grading

For each department show the latest and earliest hire date, BUT
- exclude departments 10, 30 and 40

- also exclude those departments where the last person was hired in this century (2000 plus).

- Sort the output so that the most recent, meaning latest hire dates, are shown first.

Selected Answer:

```
SELECT department_id,MAX(hire_date),MIN(hire_date)
FROM employees
WHERE  department_id NOT IN (10,30,40)
GROUP BY  department_id

DEPARTMENT_ID MAX(HIRE_ MIN(HIRE_
------------- --------- -----------------------------------
           20 17-AUG-97 17-FEB-96
           50 16-NOV-99 17-OCT-95
           60 07-FEB-99 03-JAN-90
           80 27-JUL-17 11-MAY-96
           90 13-JAN-93 17-JUN-87
          110 07-JUN-94 07-JUN-94
```

Correct Answer:

Output needs fixing to handle --> hired in this century (2000 plus

```
select department_id, min(hire_date), max
(hire_date)
from employees
where department_id NOT IN (10, 30, 40)
group by department_id;
```

select department_id, min(hire_date), max(hire_date) from employees where department_id NOT IN (10, 30, 40) group by department_id;

```
DEPARTMENT_ID MIN(HIRE_DATE) MAX(HIRE_DATE)
------------- -------------- --------------
           20 17-FEB-96      17-AUG-97
           50 17-OCT-95      16-NOV-99
           60 03-JAN-90      07-FEB-99
           80 11-MAY-96      27-JUL-17
           90 17-JUN-87      13-JAN-93
          110 07-JUN-94      07-JUN-94
  6 rows selected
```

Question 11

Needs Grading

List all the countries and replace all letter "a"'s with a space.

Selected Answer: SELECT country_name, REPLACE(country_name,'a',' ') as "New" FROM countries;

Correct Answer:

```
SELECT  country_name,
REPLACE(country_name,'a',' ') AS  "New"
FROM countries;

Kuwait                                    Kuw
it
Mexico
 Mexico
Nigeria
Nigeri
Netherlands                               Netherl
nds
Singapore                                 Sing
pore
United Kingdom                            United
Kingdom
United States of America                  United
St tes of Americ
Zambia                                    Z
mbi
Zimbabwe                                  Zimb
bwe
```

Question 12 Needs Grading

For each manager number display how many persons he / she supervises.

-- Exclude managers with numbers 100, 101 and 102 and

-- include only those managers that supervise more than 2 persons.

-- Sort the output so that manager numbers with the most supervised persons are shown first.

This is often on a test or a question like it.

Selected Answer:

```
SELECT  manager_id,COUNT(*)
FROM employees
WHERE  manager_id NOT IN (100,101,102)
GROUP BY  manager_id
HAVING COUNT(*)>2
ORDER BY COUNT(*)desc

MANAGER_ID   COUNT(*)
---------- ----------
       149         37
       124          4
```

Correct Answer:

no answer provided as this is often on a test or assignment

Question 13 Needs Grading

Select dept. ID, job and count of number employees as long as there are more than 2 employees with that job in a department.
Sort by department then by job within department
EXTRA if you want to do it:
Display each department id with department name and highest salary in that department

Selected Answer:

```
SELECT  department_id, job_id,COUNT(department_id)
FROM employees
GROUP BY department_id, job_id
HAVING COUNT(*)>2
ORDER BY department_id, job_id;


DEPARTMENT_ID JOB_ID      COUNT(*)
------------- ---------- ----------
           50 ST_CLERK            4
           60 IT_PROG             3
           80 SA_REP             34
```

Correct Answer:

```
select  department_id, job_id, count(*)
 from employees
 group by job_id, department_id
 having count(*) > 2
order by 1,2
DEPARTMENT_ID JOB_ID       COUNT(*)
------------- ---------- ----------
           50 ST_CLERK            4
           60 IT_PROG             3
           80 SA_REP             34
```

Question 14

Needs Grading

TRY THIS ONE

List the customer number and how many orders they have placed. Only show those customers that have more than4 orders. List the customers based on the highest number of orders first down to the lowest.

Selected Answer:

```
SELECT cust_no,COUNT(channel)
FROM orders
GROUP BY cust_no
HAVING Count(channel)>4
ORDER BY 2 desc
```

Correct Answer:

```
SELECT cust_no, count(order_no)
FROM orders
GROUP BY cust_no
having count (order_no) > 4
order by 1;
   CUST_NO COUNT(ORDER_NO)
---------- ---------------
      1008              12
      1011               9
      1022               9
      1036               6
      1038               5
      1041               6
      1056              11
      1066               8
      1085               5
      1092               6
      1095               8
      1102               5
      1130               6
      1148               9
 14 rows selected
```

Friday, February 1, 2019 8:34:28 PM EST

← OK