PL/SQL TASK 3

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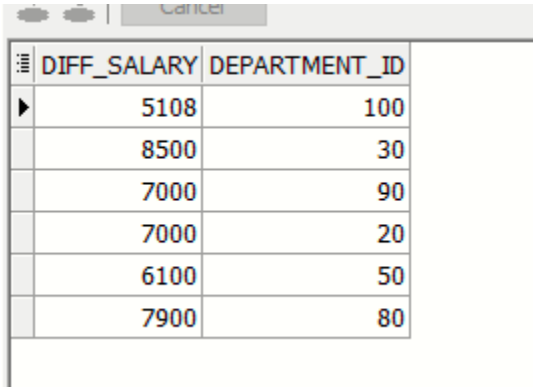
Dec 9, 2022

Task 3

1. Write a query that will display the difference between the highest and lowest salaries in each department, exclude employees with null department and whose difference <5000

```
Select max(salary)-min(salary)  as Diff_salary , DEPARTMENT_ID2
 FROM EMPLOYEES
 where DEPARTMENT_ID is not null
 GROUP BY DEPARTMENT_ID
 having max(salary)-min(salary)>5000;
```



DIFF_SALARY	DEPARTMENT_ID
5108	100
8500	30
7000	90
7000	20
6100	50
7900	80

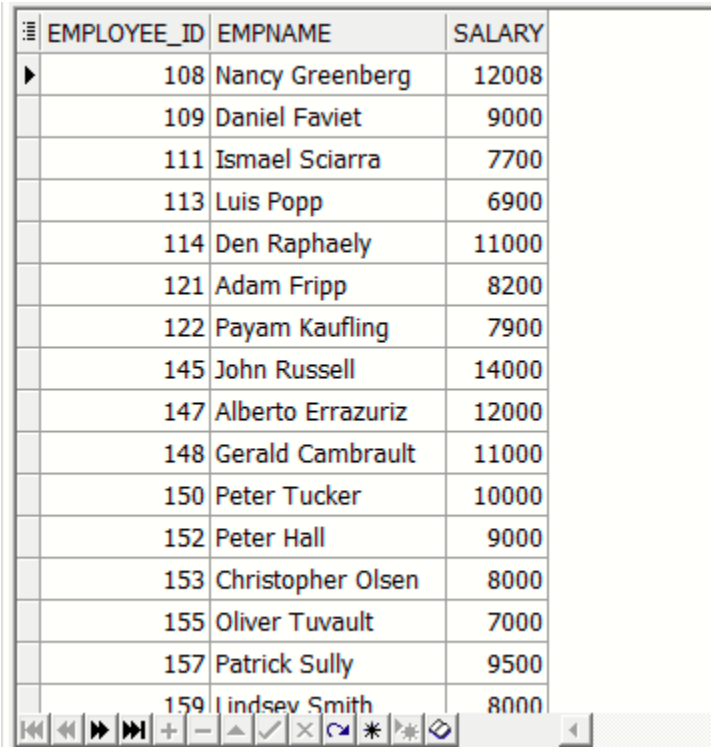
2. write a query that will display the department name, job title, number of employees and the average salary for all employee in that department along this job, round the average salary to two decimal places.

```
SELECT d.department_name as dname, j.job_title as job_title,
COUNT(*) as emp_count,
ROUND(AVG(salary),2) as AVGSalary
FROM employees e, departments d,jobs j
WHERE e.department_id = d.department_id
And e.job_id=j.job_id
GROUP BY d.department_name, j.job_title;
```

DNAME	JOB_TITLE	EMP_COUNT	AVGSALARY
Administration	Administration Assistant	1	4400
Shipping	Stock Manager	5	7280
Accounting	Public Accountant	1	8300
Marketing	Marketing Manager	1	13000
Finance	Finance Manager	1	12008
Marketing	Marketing Representative	1	6000
Human Resources	Human Resources Representative	1	6500
Sales	Sales Manager	5	12200
Executive	Administration Vice President	2	17000
Shipping	Shipping Clerk	20	3215
Public Relations	Public Relations Representative	1	10000
Sales	Sales Representative	20	8206.55

3. Display the employee number, name and salary for all employee who earn more than the average salary.

```
SELECT employee_id, first_name||' '||last_name as empname ,salary
FROM employees
WHERE salary > (SELECT AVG(salary)
FROM employees);
```



EMPLOYEE_ID	EMPNAME	SALARY
108	Nancy Greenberg	12008
109	Daniel Faviet	9000
111	Ismael Sciarra	7700
113	Luis Popp	6900
114	Den Raphaely	11000
121	Adam Fripp	8200
122	Payam Kaufling	7900
145	John Russell	14000
147	Alberto Errazuriz	12000
148	Gerald Cambrault	11000
150	Peter Tucker	10000
152	Peter Hall	9000
153	Christopher Olsen	8000
155	Oliver Tuvault	7000
157	Patrick Sully	9500
159	Lindsey Smith	8000

4. Display the employee name and employee salary along with their supervisor's name and supervisor's salary . Put suitable aliases

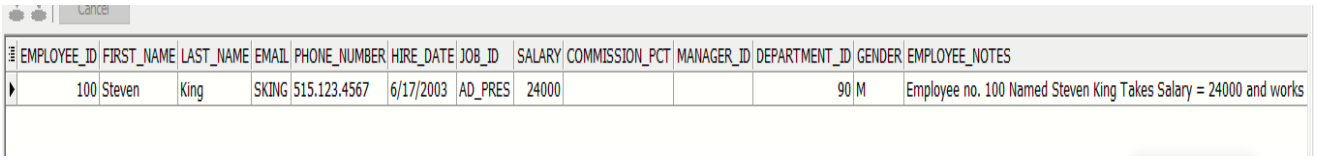
```
SELECT e.FIRST_NAME||' '||e.LAST_NAME as emp_name, e.salary  as "Empolyee salary",
s.FIRST_NAME||' '||s.LAST_NAME  as Supervisor, s.salary as "Supervisor salary"
FROM employees e join employees s
ON (e.manager_id = s.employee_id);
```

EMP_NAME	Empolyee salary	SUPERVISOR	Supervisor salary
Jose Manuel Urman	7800	Nancy Greenberg	12008
John Chen	8200	Nancy Greenberg	12008
Luis Popp	6900	Nancy Greenberg	12008
Ismael Sciarra	7700	Nancy Greenberg	12008
Daniel Faviet	9000	Nancy Greenberg	12008
Guy Himuro	2600	Den Raphaely	11000
Alexander Khoo	3100	Den Raphaely	11000
Karen Colmenares	2500	Den Raphaely	11000
Sigal Tobias	2800	Den Raphaely	11000
Shelli Baida	2900	Den Raphaely	11000
Julia Dellinger	3400	Adam Fripp	8200
James Marlow	2500	Adam Fripp	8200
Anthony Cabrio	3000	Adam Fripp	8200
Alexis Bull	4100	Adam Fripp	8200

5. Create a query to display the employees that earn salary that is higher than the salary of all the IT_PROG job id. Sort results on salary from highest to lowest.

Note: use Multi-row sub query.

```
SELECT * FROM employees
WHERE salary > ALL (SELECT salary FROM employees  WHERE job_id = 'IT_PROG')
ORDER BY salary DESC;
```



EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID	GENDER	EMPLOYEE_NOTES
100	Steven	King	SKING	515.123.4567	6/17/2003	AD_PRES	24000			90	M	Employee no. 100 Named Steven King Takes Salary = 24000 and works

6. Display the manager number and the salary of the lowest paid employee for the manager. Exclude any one whose manager is not known. Exclude any groups where the minimum salary is less than $3000. Sort the output in descending order of salary.

```
SELECT manager_id, MIN(salary) FROM employees
WHERE manager_id IS NOT NULL
GROUP BY manager_id
HAVING MIN(salary) >= 3000
ORDER BY MIN(salary) DESC;
```

MANAGER_ID	MIN(SALARY)
102	9000
205	8300
146	7000
145	7000
108	6900
149	6200
147	6200
148	6100
201	6000
100	5800
101	4400
103	4200

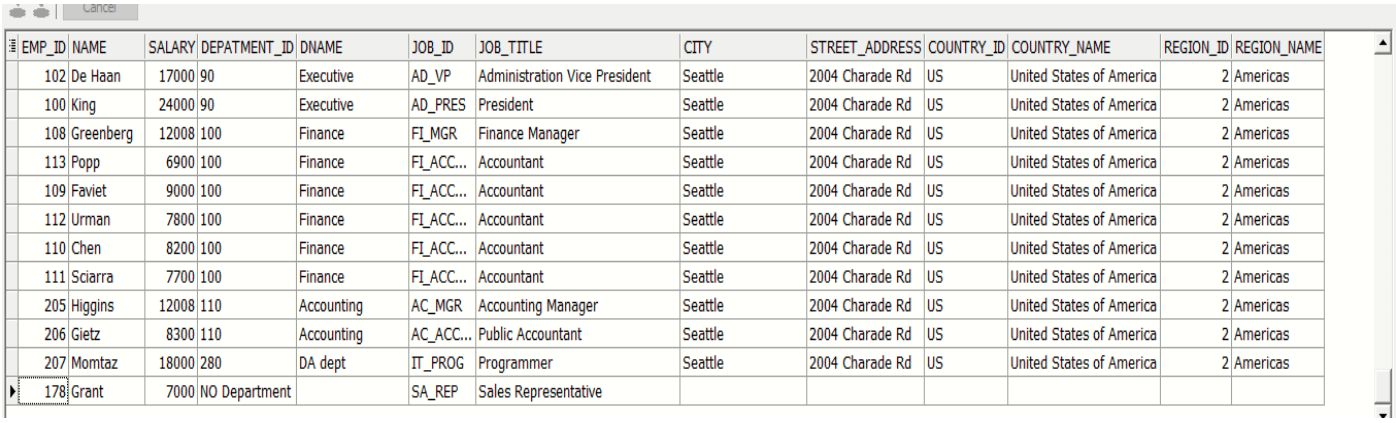
7. Display the minimum salary in each department excluding the dept with the minimum salary.

select min(salary),DEPARTMENT_ID from employees group by DEPARTMENT_ID having min(salary)>(select min(salary) from employees);

MIN(SALARY)	DEPARTMENT_ID
6900	100
2500	30
18000	280
7000	
17000	90
6000	20
10000	70
8300	110
6100	80
6500	40
4200	60
4400	10

8. Write a query to display employee_id, last_name, salary, dept id, dept name, job Id, job title, city, street address, country id, country name, region id, region name for all employees including those employees whose have no department too.

```
SELECT e.employee_id as emp_id,e.last_name as name ,e.salary
,nvl(to_char(e.DEPARTMENT_ID) ,'NO Department') as depatment_id
,d.department_name as dname,e.job_id,j.job_title as job_title,
l.CITY,l.STREET_ADDRESS,l.COUNTRY_ID,c.COUNTRY_NAME,
c.REGION_ID,r.REGION_NAME
from employees e join jobs j
on e.job_id=j.job_id
left join departments d
on e.department_id = d.department_id
left join locations l
on d.LOCATION_ID =l.LOCATION_ID
left join countries c
on l.country_id = c.country_id
left join regions r
 on R.REGION_ID= C.REGION_ID ;
```



EMP_ID	NAME	SALARY	DEPATMENT_ID	DNAME	JOB_ID	JOB_TITLE	CITY	STREET_ADDRESS	COUNTRY_ID	COUNTRY_NAME	REGION_ID	REGION_NAME
102	De Haan	17000	90	Executive	AD_VP	Administration Vice President	Seattle	2004 Charade Rd	US	United States of America	2	Americas
100	King	24000	90	Executive	AD_PRES	President	Seattle	2004 Charade Rd	US	United States of America	2	Americas
108	Greenberg	12008	100	Finance	FI_MGR	Finance Manager	Seattle	2004 Charade Rd	US	United States of America	2	Americas
113	Popp	6900	100	Finance	FI_ACC...	Accountant	Seattle	2004 Charade Rd	US	United States of America	2	Americas
109	Faviet	9000	100	Finance	FI_ACC...	Accountant	Seattle	2004 Charade Rd	US	United States of America	2	Americas
112	Urman	7800	100	Finance	FI_ACC...	Accountant	Seattle	2004 Charade Rd	US	United States of America	2	Americas
110	Chen	8200	100	Finance	FI_ACC...	Accountant	Seattle	2004 Charade Rd	US	United States of America	2	Americas
111	Sciarra	7700	100	Finance	FI_ACC...	Accountant	Seattle	2004 Charade Rd	US	United States of America	2	Americas
205	Higgins	12008	110	Accounting	AC_MGR	Accounting Manager	Seattle	2004 Charade Rd	US	United States of America	2	Americas
206	Gietz	8300	110	Accounting	AC_ACC...	Public Accountant	Seattle	2004 Charade Rd	US	United States of America	2	Americas
207	Momtaz	18000	280	DA dept	IT_PROG	Programmer	Seattle	2004 Charade Rd	US	United States of America	2	Americas
178	Grant	7000	NO Department		SA_REP	Sales Representative						