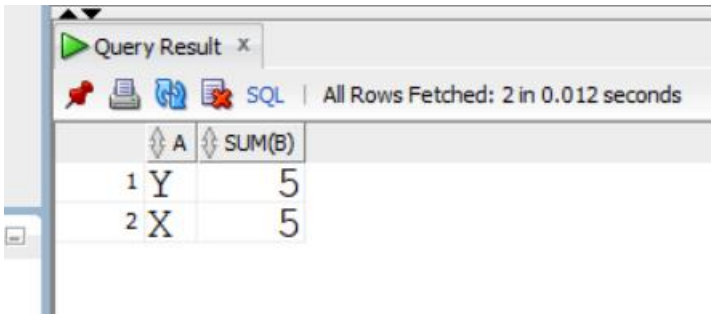
Rasul Khanbayov

GGUSA3

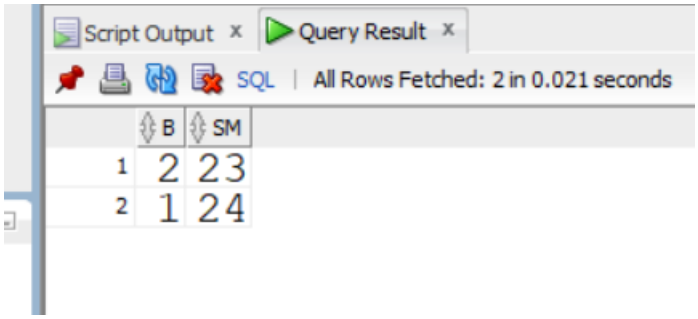
Exercise 1

1. select A, sum(B) from (select distinct A, B from nikovits.R) group by A;



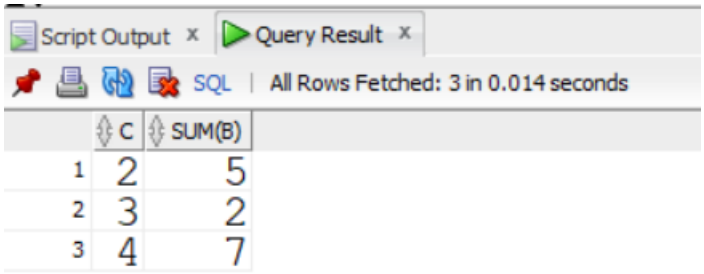
2. select B, sum(D) sm from nikovits.R natural join nikovits.S group by B

having avg(D) < 13 and sum(D) < 50 order by sm;



3. select nikovits.R.C ,sum(B) from nikovits.R,(select distinct C from nikovits.S) S

where nikovits.R.C = S.C group by nikovits.R.C;



Exercise 2

Tmp1 =

π fruits Likes

-

π fruits σ name = 'Kanga' Likes

π name, fruits (Likes ⋈ Tmp1)

$$\pi_{\text{name, fruits}} (\text{Likes} \bowtie (\pi_{\text{fruits}} \text{Likes} - \pi_{\text{fruits}} \sigma_{\text{name = 'Kanga'}} \text{Likes}))$$

Likes.name	Likes.fruits
'Piglet'	'pear'
'Piglet'	'raspberry'
'Winnie'	'pear'
'Tiger'	'pear'

‹ 1 ›

Exercise 3

select dname from nikovits.dept,

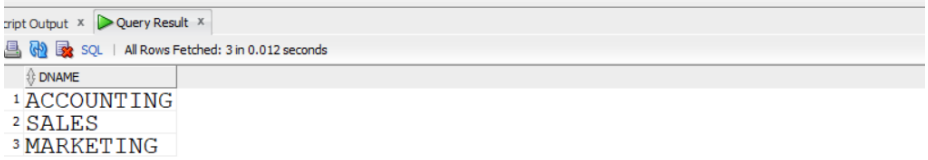
(select deptno d from nikovits.emp, nikovits.sal_cat

where sal between lowest_sal and highest_sal group by deptno

having count(distinct nikovits.sal_cat.category) >= 3)

where d = dept.deptno;

```
select dname from nikovits.dept,
(select deptno d from nikovits.emp, nikovits.sal_cat
where sal between lowest_sal and highest_sal group by deptno
having count(distinct nikovits.sal_cat.category) >= 3)
where d = dept.deptno;
```

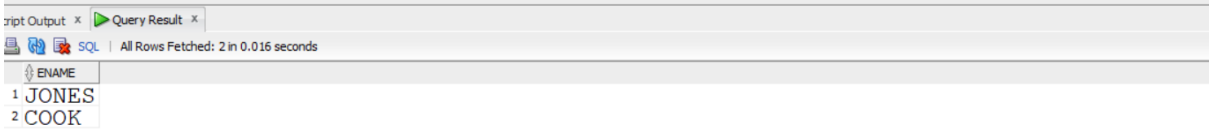


Exercise 4

select man.ename from nikovits.emp man, nikovits.emp sub where man.empno = sub.mgr

group by man.ename having count(distinct to_char(sub.hiredate, 'yyyy')) >= 2;

```
select man.ename from nikovits.emp man, nikovits.emp sub where man.empno = sub.mgr
group by man.ename having count(distinct to_char(sub.hiredate, 'yyyy')) >= 2;
```



Exercise 5

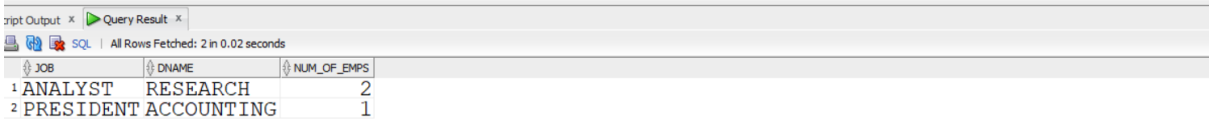
select distinct j job, dname, cnt num_of_emps from nikovits.dept, nikovits.emp,

(select job j, count(ename) cnt from nikovits.emp natural join nikovits.dept group by job

having count(distinct deptno) = 1)

where j = job and dept.deptno = emp.deptno;

```
select distinct j job, dname, cnt num_of_emps from nikovits.dept, nikovits.emp,
(select job j, count(ename) cnt from nikovits.emp natural join nikovits.dept group by job
having count(distinct deptno) = 1)
where j = job and dept.deptno = emp.deptno;
```



Exercise 6

select distinct category, to_char(hiredate, 'yyyy') year from nikovits.emp, nikovits.sal_cat

where sal between lowest_sal and highest_sal and category in

(select category from nikovits.emp, nikovits.sal_cat

where sal between lowest_sal and highest_sal group by category

having count(distinct to_char(hiredate, 'yyyy')) = 1);

```
-- Exercise 6
select distinct category, to_char(hiredate, 'yyyy') year from nikovits.emp, nikovits.sal_cat
where sal between lowest_sal and highest_sal and category in
(select category from nikovits.emp, nikovits.sal_cat
where sal between lowest_sal and highest_sal group by category
having count(distinct to_char(hiredate, 'yyyy')) = 1);
```

Script Output | Query Result

All Rows Fetched: 1 in 0.019 seconds

	CATEGORY	YEAR
1	5	1981

Exercise 7

with

deptAvg as

(select deptno d, round(avg(sal)) dept_avg from nikovits.emp group by deptno),

jobAvg as

(select job j, round(avg(sal)) job_avg from nikovits.emp group by job)

select ename, sal, dept_avg, job_avg from nikovits.emp, deptAvg, jobAvg

where sal > dept_avg and sal > job_avg and j = job and d = deptno;

```
-- Exercise 7
with
deptAvg as
(select deptno d, round(avg(sal)) dept_avg from nikovits.emp group by deptno),
jobAvg as
(select job j, round(avg(sal)) job_avg from nikovits.emp group by job)
select ename, sal, dept_avg, job_avg from nikovits.emp, deptAvg, jobAvg
where sal > dept_avg and sal > job_avg and j = job and d = deptno;
```

Script Output | Query Result

All Rows Fetched: 2 in 0.019 seconds

	ENAME	SAL	DEPT_AVG	JOB_AVG
1	BLAKE	4250	1800	3369
2	COOK	3800	2133	3369