Exercise Vaibhav Ghangale 240840320121

exercise 1 and 2

5. Display all the data from the S table.

```
select * from s;
```

6. Display only the S# and SNAME fields from the S table.

```
select  S# , SNAME from s;
```

7. Display the PNAME and COLOR from the P table for the CITY=”London”.

```
select PNAME, COLOR from p
where CITY = 'London';
```

8. Display all the Suppliers from London.

```
select * from s
where CITY = 'LONDON';
```

9. Display all the Suppliers from Paris or Athens.

```
select * from s
where city in ('Paris','Athens');
```

10. Display all the Projects in Athens.

```
select * from j
where city = 'Athens';
```

11. Display all the Partnames with the weight between 12 and 14 (inclusive of both).

```
select * from p
where weight between 12 and 14;
```

12. Display all the Suppliers with a Status greater than or equal to 20.

```
select * from s
where STATUS >= 18;
```

13. Display all the Suppliers except the Suppliers from London.

```
select * from s
where CITY != 'London';
```

14. Display only the Cities from where the Suppliers come from.

```
select distinct CITY from s;
```

15. Assuming that the Part Weight is in GRAMS, display the same in MILLIGRAMS and KILOGRAMS.

select PNAME, WEIGHT "Weight in grams", WEIGHT*1000 "Weight in milligrams", WEIGHT/1000 "Weight in kilograms" from p;

exercise 3

1. Display all the Supplier names with the initial letter capital.

select concat(upper(substr(sname, 1, 1)),substr(sname, 2)) "NAME" from s;

2. Display all the Supplier names in upper case.

select upper(sname) from s;

3. Display all the Supplier names in lower case.

select lower(sname) from s;

4. Display all the Supplier names padded to 25 characters, with spaces on the left.

select lpad(sname, 25, ' ') from s;

5. Display all the Supplier names (with ‘la’ replaced by ‘ro’).

- [ ] HINT: REPLACE.

select sname, replace(sname, 'la', 'ro') from s;

6. Implement the above command such that ‘l’ is replaced with ‘r’ and ‘a’ is replaced with ‘o’.

select sname, replace(replace(sname, 'l', 'r'), 'a', 'o') from s;

7. Display the Supplier names and the lengths of the names.

select sname, length(sname) from s;

8. Use the soundex function to search for a supplier by the name of ‘BLOKE’.

select sname from s

where soundex(sname) = soundex('BLOKE');

9. Display the Supplier name and the status (as Ten, Twenty, Thirty, etc.).

select sname, status,

case

when status = 10 then 'Ten'

when status = 20 then 'Twenty'

when status = 30 then 'Thirty'

else 'None'

end "Solution"

from s;

10. Display the current day (e.g. Thursday).

select dayname(sysdate());

exercise 4

1. Display the minimum Status in the Supplier table.

select sname, min(status) from s;

2. Display the maximum Weight in the Parts table.

select pname, max(weight) from p;

3. Display the average Weight of the Parts.

select avg(weight) from p;

4. Display the total Quantity sold for part ‘P1’.

select * from spj

order by 2;

select sum(qty) from spj

where `P#` = 'P1';

5. Display the total Quantity sold for each part.

select `P#` , sum(qty) from spj

group by 1

order by 1;

6. Display the average Quantity sold for each part.

select `P#` , avg(qty) from spj

group by 1

order by 1;

7. Display the maximum Quantity sold for each part, provided the maximum Quantity is greater than 800.

select `P#` , max(qty) from spj

where qty > 800

group by 1;

8. Display the Status and the count of Suppliers with that Status.

```
select status, count(sname) from s
group by status;
```

9. Display the count of Projects going on in different cities.

```
select city, count(city) from j
group by city;
```

10. What is the difference between COUNT(Status) and COUNT(*) ?

```
select count(*) from s;
select count(status) from s;
```

11. Display the Status and the Count of Suppliers with that Status in the following format as shown below:-

```
select
case
when status = 10 then 'Ten'
when status = 20 then 'Twenty'
when status = 30 then 'Thirty'
else 'NA'
end "Status", count(sname)
from s
group by 1
order by 1;
```

exercise 5

1. Display the Supplier name and the Quantity sold.

```
select * from s;
select * from spj
order by 1;
select s. S# , s.sname, spj.qty from spj, s
where (s. S#  = spj. S# );
select s. S# , s.sname, sum(spj.qty) "Total Quantity" from spj, s
where (s. S#  = spj. S# )
group by 1
order by 1;
```

```
select s. S# , s.sname, sum(spj.qty) "Total Quantity" from spj
left outer join s on (s. S# = spj. S# )
group by 1
order by 1;
```

2. Display the Part name and Quantity sold.

```
select p. P# , p.pname, sum(spj.qty) "Total Quantity" from spj
left outer join p on (p. P# = spj. P# )
group by 1
order by 1;
```

3. Display the Project name and Quantity sold.

```
select j. J# , j.jname, sum(spj.qty) "Total Quantity" from spj
left outer join j on (j. J# = spj. J# )
group by 1
order by 1;
```

4. Display the Supplier name, Part name, Project name and Quantity sold.

```
select s.sname, p.pname, j.jname, spj.qty "Total Quantity" from spj
left outer join s on (s. s# = spj. S# )
left outer join p on (p. p# = spj. P# )
left outer join j on (j. J# = spj. J# )
group by 1
order by 1;
select * from s;
select * from p;
select * from j;
select * from spj;
```

5. Display the Supplier name, Supplying Parts to a Project in the same City.

```
select s.city, j.jname "Project", s.sname "Supplier",p.pname "Parts" from spj
left outer join s on (spj. s# = s. s# )
left outer join p on (spj. p# = p. p# )
left outer join j on (spj. j# = j. j# )
order by 1;
```

6. Display the Part name that is ‘Red’ is color, and the Quantity sold.

```
select p. p# , p.pname, sum(spj.qty) from spj
left outer join p on (p. p# = spj. p# )
where p. P# in
(select p. P# from p
where color = 'red')
group by 1
order by 1;
```

7. Display all the Quantity sold by Suppliers with the Status = 20.

```
select s. s# , s.sname, sum(qty) from spj
left outer join s on (s. s# = spj. s# )
where s. S# in
(select s. s# from s
where status = 20)
group by 1
order by 1;
```

8. Display all the Parts and Quantity with a Weight > 14.

```
select p.pname, p.weight, spj.qty from p
left outer join spj on (spj. p# = p. p# )
where p. p# in
(select p. p# from p
where weight > 14)
order by 1;
select p.pname, p.weight, sum(spj.qty) from p
left outer join spj on (spj. p# = p. p# )
where p. p# in
(select p. p# from p
where weight > 14)
group by 1
order by 1;
```

9. Display all the Project names and City, which has bought more than 500 Parts.

```
select jname, j.city from j, spj
where j. J# = spj. j# and qty >500
group by jname, j.city;
```

10. Display all the Part names and Quantity sold that have a Weight less than 15.

```
select p. p# , p.pname, p.weight, spj.qty from spj
left outer join p on (p. p#  = spj. p# )
where p. p#  in
(select p. p#  from p
where p.weight < 15)
group by 1
order by 1;
```

exercise 6

1. Display all the Suppliers with the same Status as the supplier, ‘CLARK’.

```
select * from s
where status =
(select status from s
where sname = 'Clark');
```

2. Display all the Employees in the same department as the employee ‘MILLER’.
3. Display all the Parts which have more Weight than all the blue parts.

```
select * from p
where weight > all
(select max(weight) from p
where color = 'blue');
```

4. Display all the Projects going on in the same city as the project ‘TAPE’.

```
select * from p
where city =
(select city from j
where jname = 'Tape');
```

5. Display all the Parts with Weight less than all the Green parts.

```
select * from p
where weight <
(select min(weight) from p
```

where color = 'green');

6. Display the name of the Supplier who has sold the maximum Quantity (in one sale).

```
select sname, max(qty) from spj, s
where (s. s#  = spj. s# );
```

7. Display the name of the Employee with the minimum Salary.

```
select ename, min(sal) from emp;
```

8. Display the name of the Supplier who has sold the maximum overall Quantity (sum of Sales).

```
select Sname, sum(Qty) from S,SPJ
where S. S# =SPJ. S#  group by Sname
having sum(Qty)=(select max(sum_qty) from
(select sum(Qty) as sum_qty from SPJ group by  S# ) as tempp);
```

9. Display the name of the Department with the maximum number of Employees.

```
SELECT d.deptno,
d.dname,
count(*)
FROM emp e,
dept d
WHERE e.deptno = d.deptno
GROUP BY d.deptno
HAVING count(*) =
(SELECT MAX(mycount)
FROM
(SELECT COUNT(*) mycount
FROM emp
GROUP BY deptno) a);
```