

Answer Sheet - SQL

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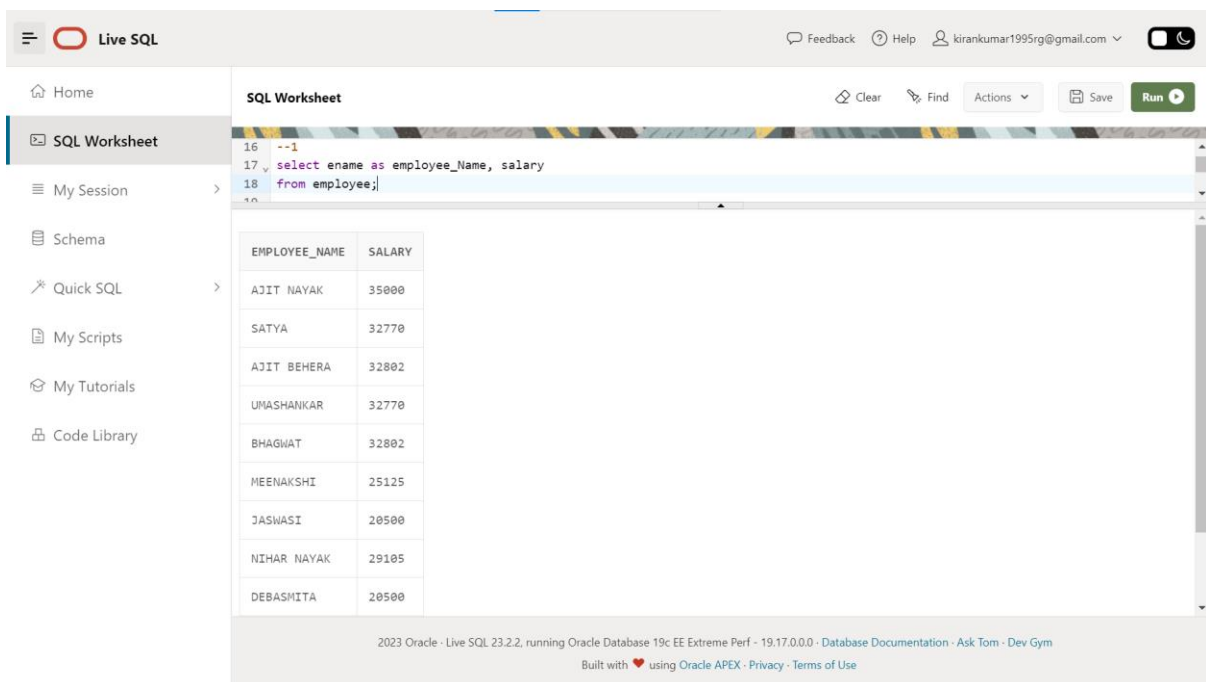
Email : kirankumar1995rg@gmail.com

Major Question 1

A)List the salary of all the employees.

```
select ename as employees_Name, salary
from employee;
```

Insert Image-



The screenshot shows the 'Live SQL' web application interface. On the left is a sidebar with navigation links: Home, SQL Worksheet (selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled 'SQL Worksheet' and contains a text editor with the following SQL query:

```
--1
select ename as employee_Name, salary
from employee;
```

Below the editor, the query results are displayed in a table:

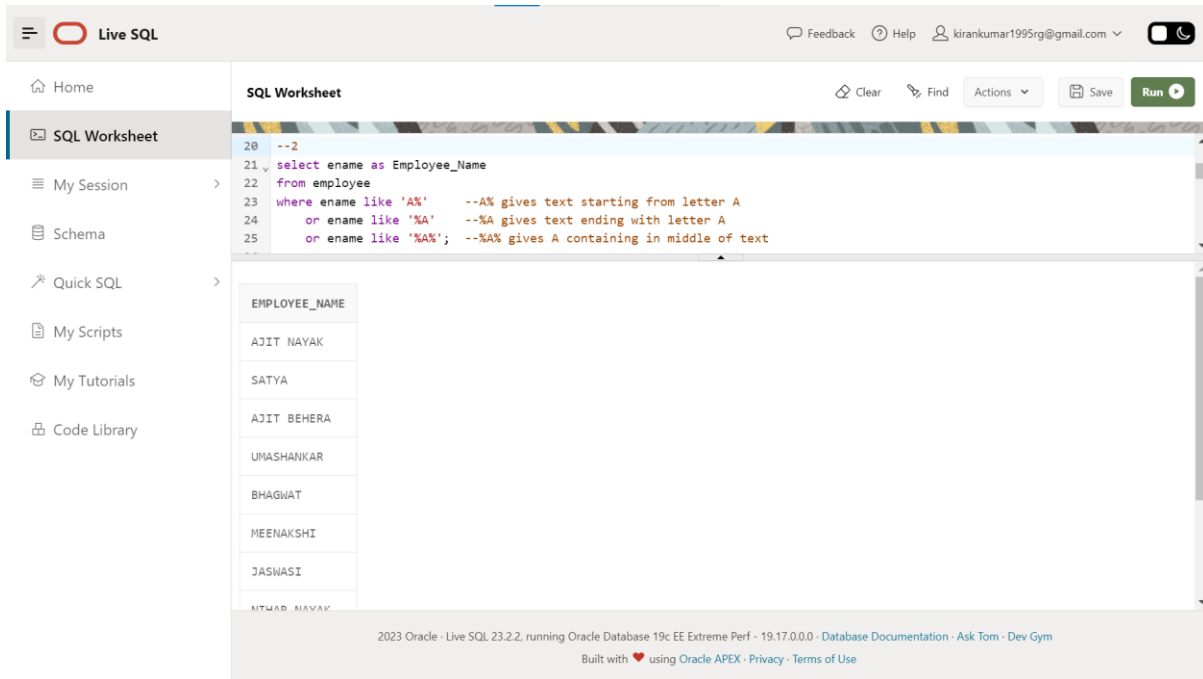
EMPLOYEE_NAME	SALARY
AJIT NAYAK	35000
SATYA	32770
AJIT BEHERA	32802
UMASHANKAR	32770
BHAGWAT	32802
MEENAKSHI	25125
JASWASI	20500
NIHAR NAYAK	29105
DEBASHMITA	20500

At the bottom of the interface, there is a footer with the text: '2023 Oracle - Live SQL 23.2.2, running Oracle Database 19c EE Extreme Perf - 19.17.0.0.0 - Database Documentation - Ask Tom - Dev Gym' and 'Built with ❤️ using Oracle APEX - Privacy - Terms of Use'.

B) Display the names of all employees with any “A” at any place of the name.

```
select ename as Employee_Name
from employee
where ename like 'A%'           --A% gives text starting from letter A
or ename like '%A'             --%A gives text ending with letter A
or ename like '%A%';           --%A% gives A containing in middle of text
```

Insert Image —



The screenshot shows the Live SQL interface. The SQL Worksheet contains the following query:

```
--2
select ename as Employee_Name
from employee
where ename like 'A%' --A% gives text starting from letter A
or ename like '%A' --%A gives text ending with letter A
or ename like '%A%'; --%A% gives A containing in middle of text
```

The results are displayed in a table with the following data:

EMPLOYEE_NAME
AJIT NAYAK
SATYA
AJIT BEHERA
UMASHANKAR
BHAGWAT
MEENAKSHI
JASWASI
NITMAD NAYAK

At the bottom of the interface, it states: 2023 Oracle - Live SQL 23.2.2, running Oracle Database 19c EE Extreme Perf - 19.17.0.0.0 - Database Documentation - Ask Tom - Dev Gym. Built with ❤️ using Oracle APEX - Privacy - Terms of Use.

C) Show all employees who were hired in the first half of the month (Before the 16th of the month).

```
select *
from (select em.ename as emp_name,em.esrno,dp.mgrstartd,extract(day from dp.mgrstartd) as date_of_join
from employee em
inner join department dp
on em.dno = dp.dnumber)
where date_of_join < 16;
```

Insert Image -

SQL Worksheet

 Clear

 Find

Actions 

```
1 select *
2 from (select em.ename as emp_name,em.esrno,dp.mgrstartd,extract(day from dp.mgrstartd) as date_of_join
3 from employee em
4 inner join department dp
5 on em.dno = dp.dnumber)
6 where date_of_join < 16;          --extract day helps getting day from given date
7
```

EMP_NAME	ESRNO	MGRSTARTD	DATE_OF_JOIN
AJIT NAYAK	133100	06-JAN-88	6

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D)Display the name of all female employees.

```
select ename as employee_name, address, esrno
from employee
where sex='F';
```

--filtering done based on sex

Insert Image -

SQL Worksheet

ClearFindActions

```
1  select ename as employee_name, address, esrno
2  from employee
3  where sex='F';
```

--filtering done based on sex

EMPLOYEE_NAME	ADDRESS	ESRNO
MEENAKSHI	73 BRIKLY	334548
DEBASMITA	1 QUEENS LAND	295485

E) Display the employee who is paid most in the company.

```
--5 1st method
select employee_name,salary
from(select ename as Employee_name,salary,
    dense_rank() over (order by salary desc) as rank --definesd subquery and assigned rank from max to min salary
from employee)
where rank = 1 ;           --since we need max salary we assigning rank = 1

--another method
select ename as Employee_name,salary
from employee
where salary = (select max(salary) --created a column having max salary and assigned max salary to salary column
from employee)
```

Insert Image —

SQL Worksheet

ClearFindActionsSave

```
1  --5 1st method
2  select employee_name,salary
3  from(select ename as Employee_name,salary,
4      dense_rank() over (order by salary desc) as rank --definesd subquery and assigned rank from max to min salary
5  from employee)
6  where rank = 1 ;           --since we need max salary we assigning rank = 1
7
8  --another method
9  select ename as Employee_name,salary
10 from employee
11 where salary = (select max(salary) --created a column having max salary and assigned max salary to salary column
12 from employee)
13
```

EMPLOYEE_NAME	SALARY
AJIT NAYAK	35000

Download CSV

Note : *I have solved this question by using 2 methods*

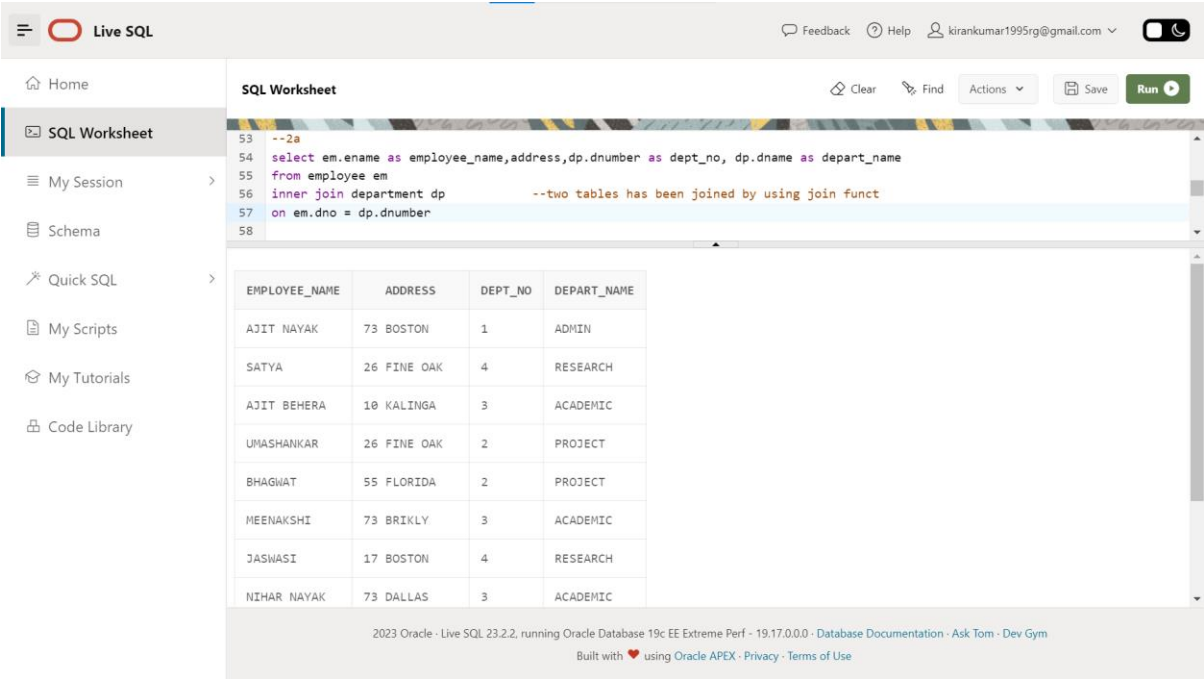
- 1) Using window function and subquery*
- 2) Using subquery and filtering*

Major Question 2

A)Display employee name, address, department no and department name.

```
select em.ename as employee_name,address,dp.dnumber as dept_no, dp.dname as depart_name
from employee em
inner join department dp          --two tables has been joined by using join funct
on em.dno = dp.dnumber
```

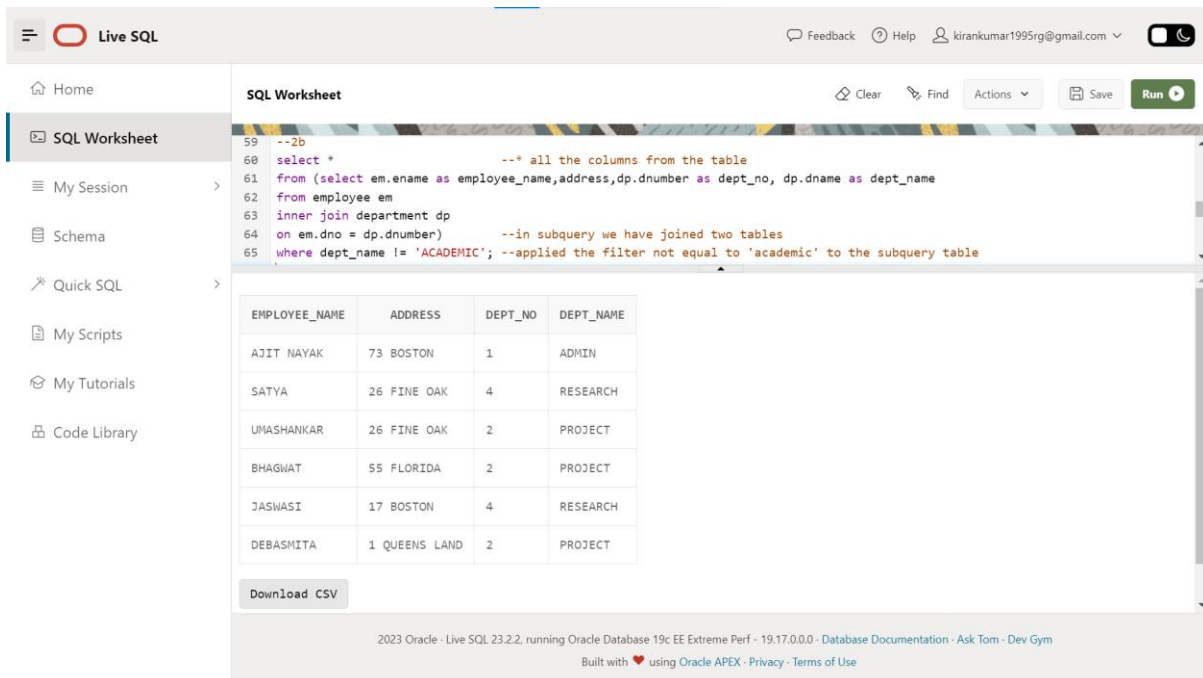
Insert Image –



B) Display all the employees who are *not in* ACADEMIC department

```
select *                                --* all the columns from the table
from (select em.ename as employee_name,address,dp.dnumber as dept_no, dp.dname as dept_name
from employee em
inner join department dp
on em.dno = dp.dnumber)                --in subquery we have joined two tables
where dept_name != 'ACADEMIC';          --applied the filter not equal to 'academic' to the subquery table
```

Insert Image –



The screenshot displays the Live SQL web application interface. On the left is a sidebar with navigation links: Home, SQL Worksheet (selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled 'SQL Worksheet' and contains a SQL query with line numbers 59 to 65. The query is an inner join between the 'employee' and 'department' tables, filtering out the 'ACADEMIC' department. Below the query editor, the results are shown in a table with columns EMPLOYEE_NAME, ADDRESS, DEPT_NO, and DEPT_NAME. The table contains seven rows of data. At the bottom of the results area is a 'Download CSV' button. The footer of the application shows the version '2023 Oracle - Live SQL 23.2.2' and other technical details.

```
59 --2b
60 select *                                --* all the columns from the table
61 from (select em.ename as employee_name,address,dp.dnumber as dept_no, dp.dname as dept_name
62 from employee em
63 inner join department dp
64 on em.dno = dp.dnumber)                --in subquery we have joined two tables
65 where dept_name != 'ACADEMIC';          --applied the filter not equal to 'academic' to the subquery table
```

EMPLOYEE_NAME	ADDRESS	DEPT_NO	DEPT_NAME
AJIT NAYAK	73 BOSTON	1	ADMIN
SATYA	26 FINE OAK	4	RESEARCH
UMASHANKAR	26 FINE OAK	2	PROJECT
BHAGWAT	55 FLORIDA	2	PROJECT
JASWASI	17 BOSTON	4	RESEARCH
DEBASHMITA	1 QUEENS LAND	2	PROJECT

Download CSV


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C) Display SATYAS' project location.

```
select em.ename as Emp_name, em.address, dl.plocation
from employee em
inner join project dl          --join funct to join taables
on em.dno = dl.dnum
where ename = 'SATYA';        --applied filter for ename column
```

Insert Image -

SQL Worksheet

 Clear

```
78
79 v select em.ename as Emp_name, em.address, dl.plocation
80 from employee em
81 inner join project dl          --join funct to join taables
82 on em.dno = dl.dnum
83 where ename = 'SATYA';        --applied filter for ename column
84
```

EMP_NAME	ADDRESS	PLOCATION
SATYA	26 FINE OAK	KOREA

Download CSV

D) Find the total working hours of *each* female employee.

```
select ename,sex, total_hours
from(
select em.ename,em.sex,sum(w.hours) as total_hours,em.esrno
from employee em
right join works_on w
on em.esrno = w.esrno
group by em.ename,em.esrno,em.sex) --in subquery we have joined two table and cal the total working hours on
each employee
where sex = 'F' ;           -- feltering done to subquery table based on gender
```

Insert Image -

SQL Worksheet

ClearFindActionsSaveRun

```
1 select ename,sex, total_hours
2 from(
3 select em.ename,em.sex,sum(w.hours) as total_hours,em.esrno
4 from employee em
5 right join works_on w
6 on em.esrno = w.esrno
7 group by em.ename,em.esrno,em.sex) --in subquery we have joined two table and cal the total working hours on each employee
8 where sex = 'F' ;           -- feltering done to subquery table based on gender
9
```

ENAME	SEX	TOTAL_HOURS
DEBASMITA	F	13.91
MEENAKSHI	F	8.32

E) Display the details of the people whose projects are located at SOUTH AFRICA.

```
select *                -- '*' is used to get details of each employee
from employee em
inner join project p    --joining the two table
on em.dno = p.dnum
where plocation = 'SOUTH AFRICA' --filtering done based on project location
```

Insert Image –

The screenshot shows the Live SQL interface. On the left is a sidebar with navigation links: Home, SQL Worksheet (selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled 'SQL Worksheet' and contains a text editor with the following SQL query:

```
--2e
select *                -- '*' is used to get details of each employee
from employee em
inner join project p    --joining the two table
on em.dno = p.dnum
where plocation = 'SOUTH AFRICA' --filtering done based on project location
```

Below the editor, the results of the query are displayed in a table with 12 columns: ENAME, ESRNO, BDATE, ADDRESS, SEX, SALARY, MGRSRNO, DNO, PNAME, PNUMBER, PLOCATION, and DNUM. The table contains 3 rows of data.

ENAME	ESRNO	BDATE	ADDRESS	SEX	SALARY	MGRSRNO	DNO	PNAME	PNUMBER	PLOCATION	DNUM
AJIT BEHERA	315152	09-JUL-71	10 KALINGA	M	32802	133100	3	BIO INFORMATICS	19	SOUTH AFRICA	3
MEENAKSHI	334548	25-APR-79	73 BRIKLY	F	25125	315152	3	BIO INFORMATICS	19	SOUTH AFRICA	3
NIHAR NAYAK	334524	17-DEC-66	73 DALLAS	M	29105	315152	3	BIO INFORMATICS	19	SOUTH AFRICA	3

Below the table, there is a 'Download CSV' button and the text '3 rows selected.' At the bottom of the interface, a footer contains the text: '2023 Oracle · Live SQL 23.2.2, running Oracle Database 19c EE Extreme Perf · 19.17.0.0.0 · Database Documentation · Ask Tom · Dev Gym Built with ❤️ using Oracle APEX · Privacy · Terms of Use'.