SQL ASSIGNMENTS

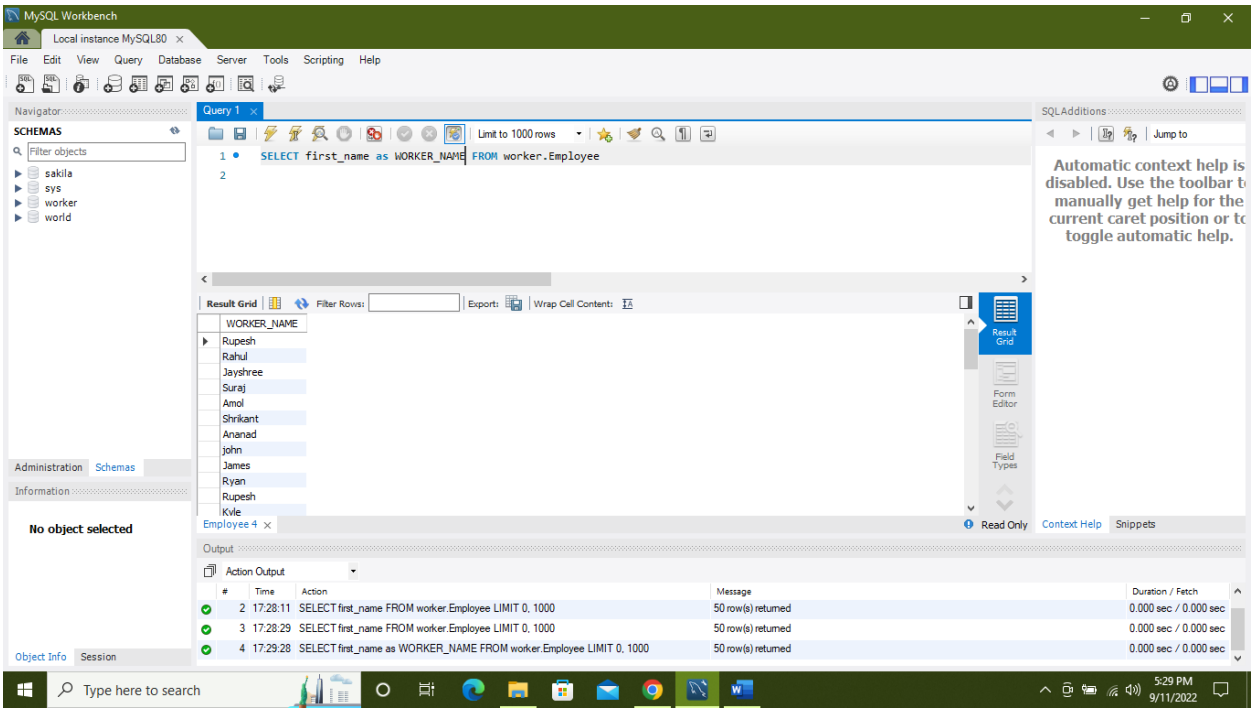
BY (RUPESH.MARATHE)

BATCH -E3(DATA ENGINEERING)

Create a database worker that should contain first name, last name email, department, salary, Join Date with 50 employees.

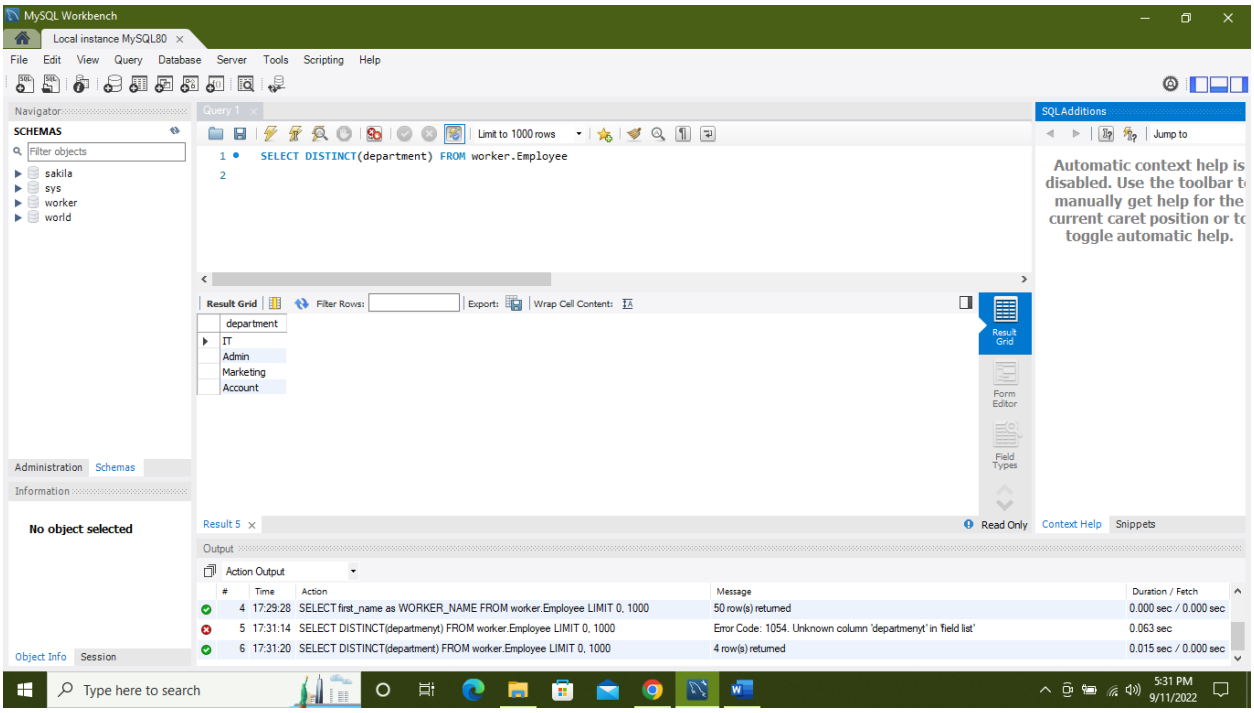
1) Write an SQL query to fetch “FIRST_NAME” from the Worker table using the alias name as <WORKER_NAME>.

SELECT first_name as WORKER_NAME FROM worker.Employee



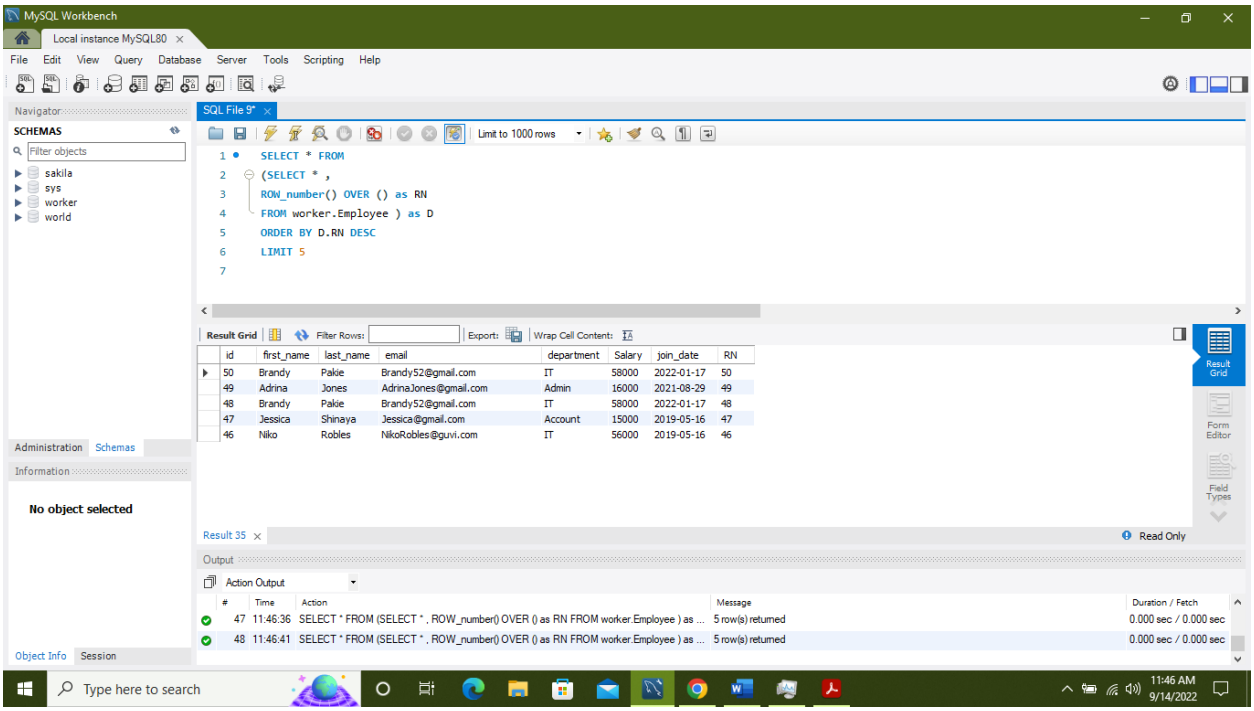
2) Write an SQL query to fetch unique values of DEPARTMENT from the Worker table.

SELECT DISTINCT(department) FROM worker.Employee



3) Write an SQL query to show the last 5 records from a table.

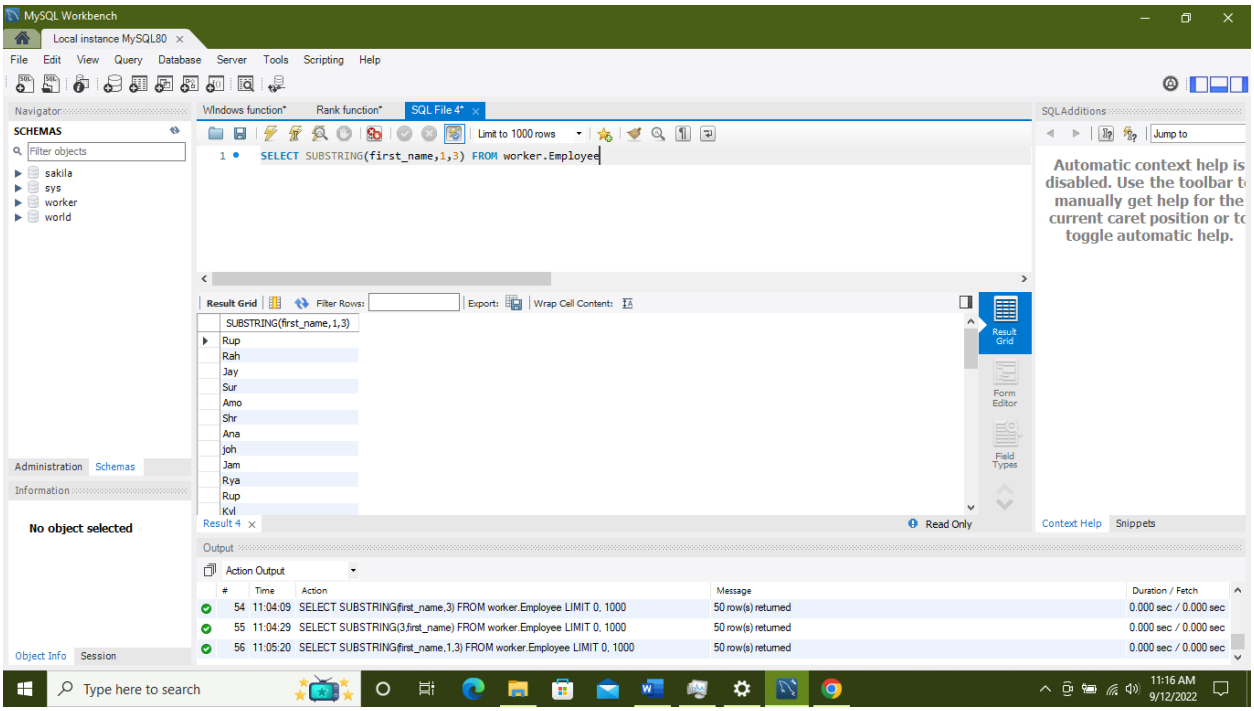
```
SELECT * FROM
(SELECT * ,
ROW_number() OVER () as RN
FROM worker.Employee ) as D
ORDER BY D.RN DESC
LIMIT 5
```



Task-2

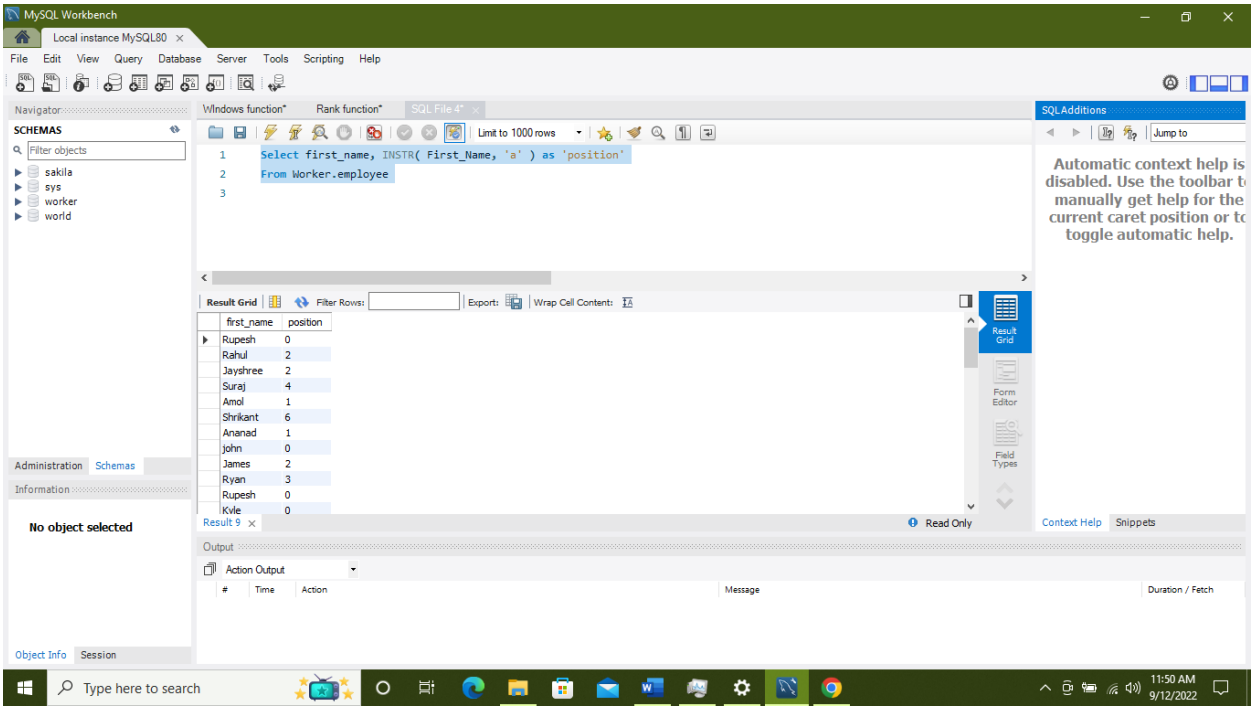
1. Write an SQL query to print the first three characters of FIRST_NAME from Worker

SELECT SUBSTRING(first_name,1,3) FROM worker.Employee



2) Write an SQL query to find the position of the alphabet (‘a’) in the first name

```
Select first_name, INSTR( First_Name, 'a' ) as 'position'
From Worker.employee
```

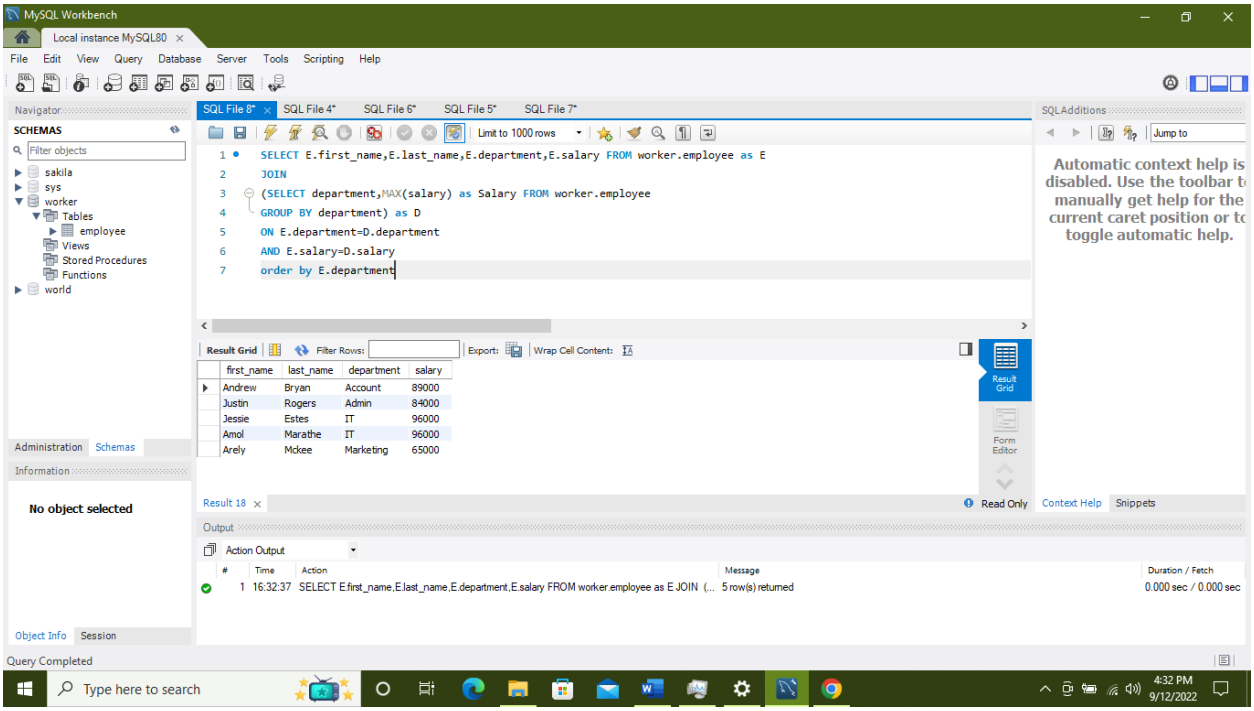


3) Write an SQL query to print the name of employees who have the highest salary in each department

```
SELECT E.first_name,E.last_name,E.department,E.salary FROM worker.employee as E
JOIN
(SELECT department,MAX(salary) as Salary FROM worker.employee
GROUP BY department) as D
ON E.department=D.department
AND E.salary=D.salary
order by E.department
```

or

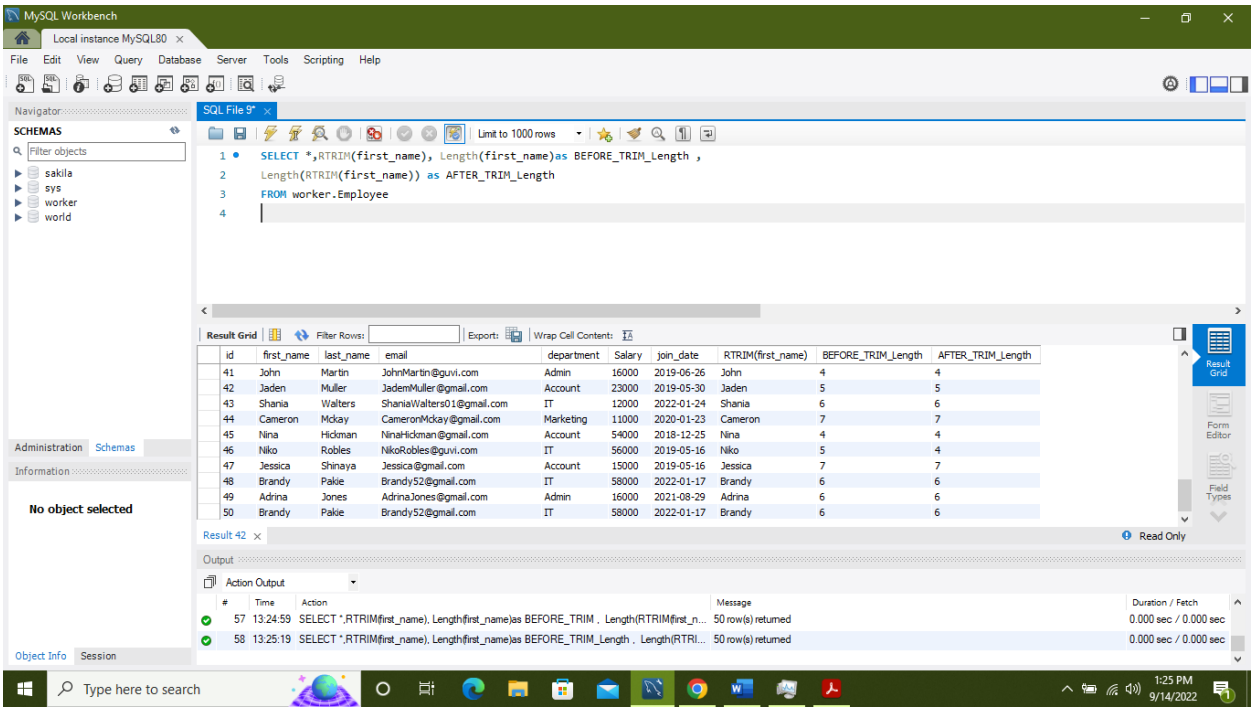
```
SELECT D.first_name,D.last_name,D.department,D.salary FROM
(SELECT first_name,last_name,department,salary ,
dense_rank() OVER (partition by department order by salary DESC) as Ranks
FROM worker.Employee) as D
WHERE Ranks=1
```



Task-3

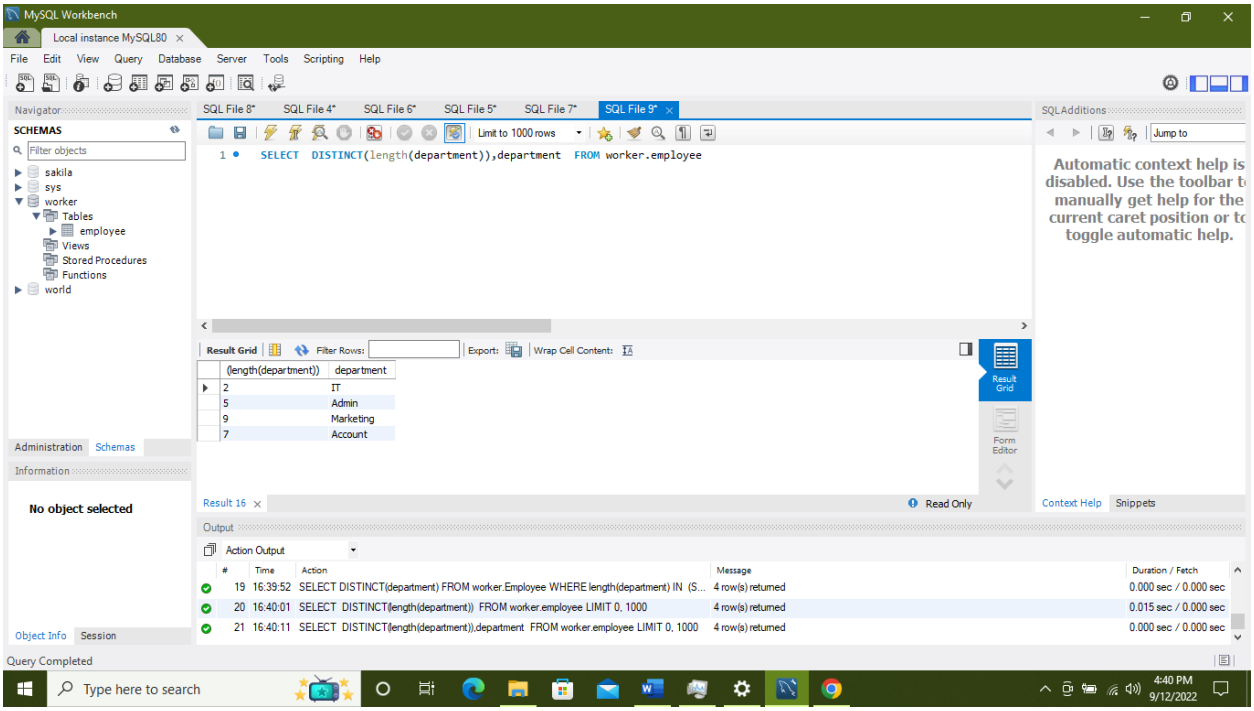
1. Write an SQL query to print the FIRST_NAME from the Worker table after removing white spaces from the right side.

```
SELECT *,RTRIM(first_name), Length(first_name)as BEFORE_TRIM_Length ,
Length(RTRIM(first_name)) as AFTER_TRIM_Length
FROM worker.Employee
```



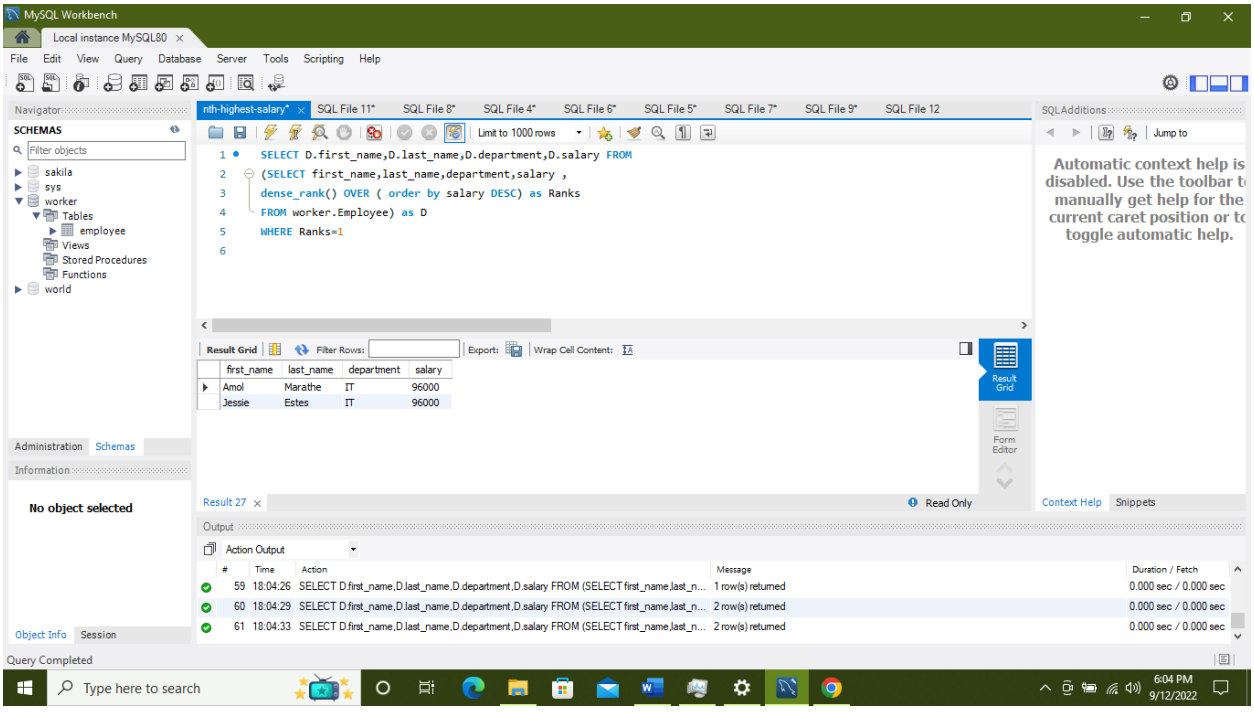
2) Write an SQL query that fetches the unique values of DEPARTMENT from the Worker table and prints its length.

```
SELECT  DISTINCT(length(department)),department  FROM worker.employee
```



3) Write an SQL query to fetch nth max salaries from a table

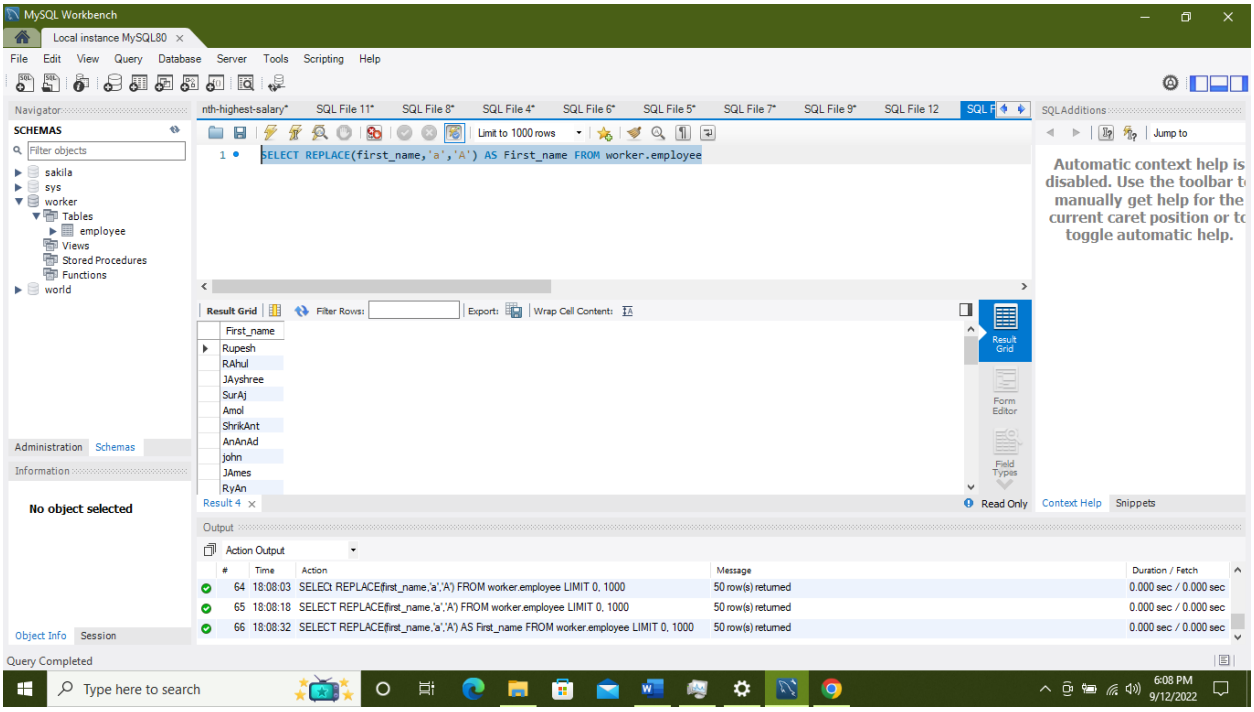
```
SELECT * FROM worker.Employee
WHERE salary =
(SELECT Max(salary) FROM worker.Employee)
OR

SELECT D.first_name,D.last_name,D.department,D.salary FROM
(SELECT first_name,last_name,department,salary ,
dense_rank() OVER (order by salary DESC) as Ranks
FROM worker.Employee) as D
WHERE Ranks=1
```



Task-4

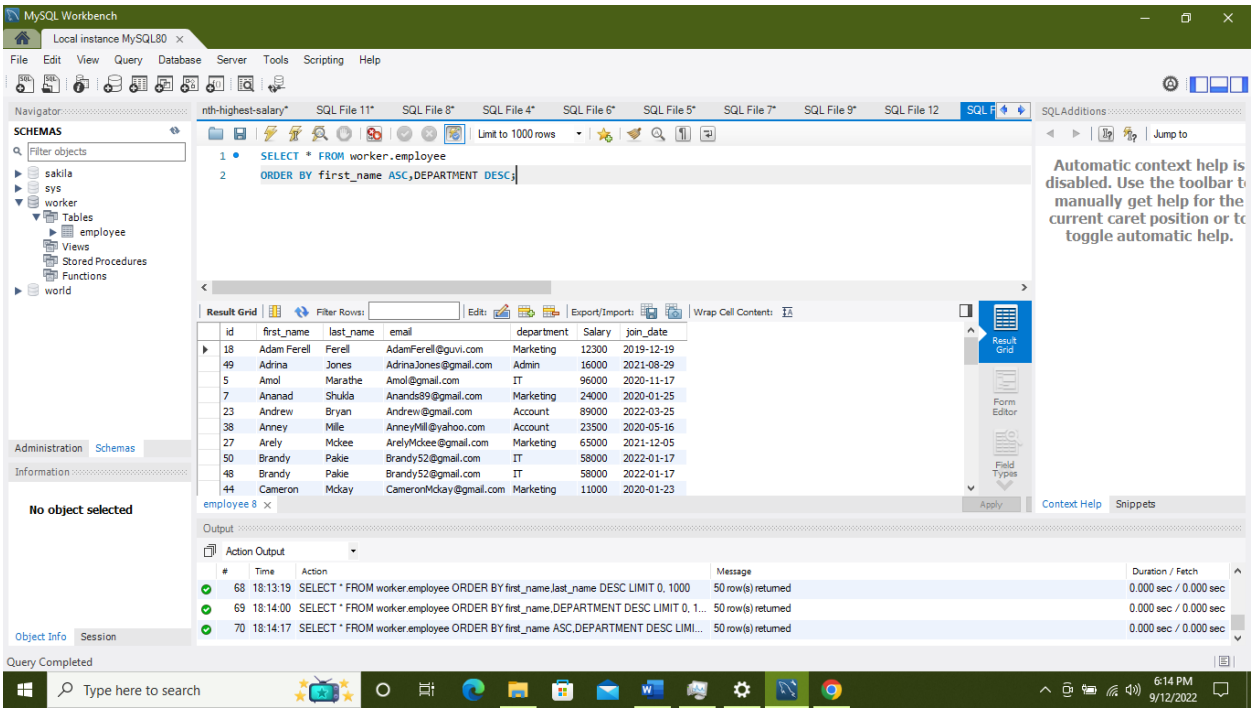
1. Write an SQL query to print the FIRST_NAME from the Worker table after replacing ‘a’ with ‘A’.

SELECT REPLACE(first_name,'a','A') AS First_name FROM worker.employee



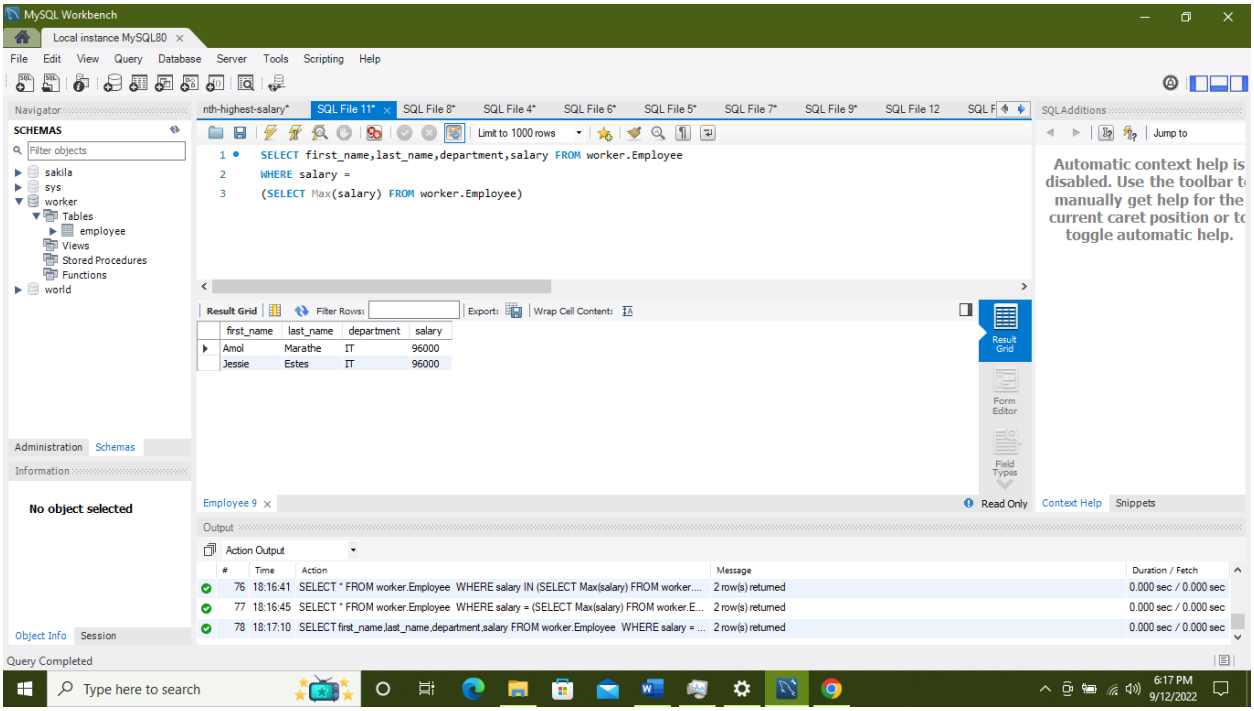
2) Write an SQL query to print all Worker details from the Worker table order FIRST_NAME Ascending and DEPARTMENT Descending.

```
SELECT * FROM worker.employee

ORDER BY first_name ASC,DEPARTMENT DESC;
```



3) Write an SQL query to fetch the names of workers who earn the highest salary.

```
SELECT first_name,last_name,department,salary FROM worker.Employee
WHERE salary =
(SELECT Max(salary) FROM worker.Employee)
```

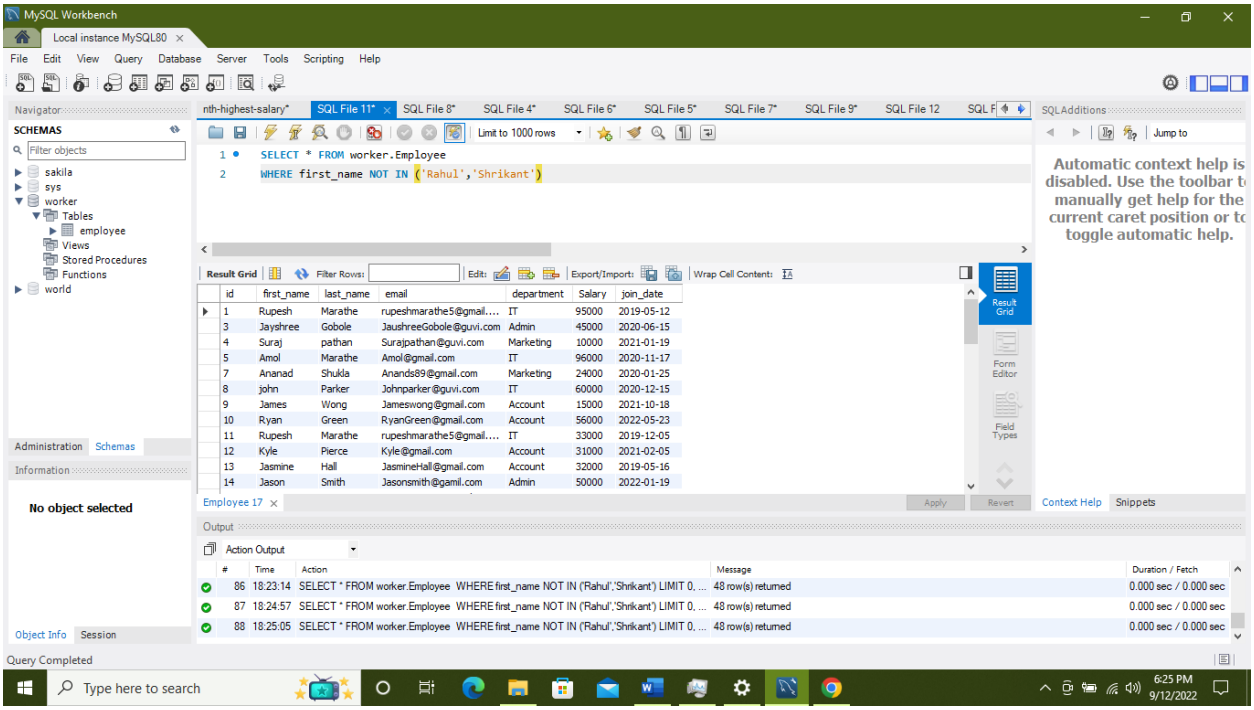


Task-5

1. Write an SQL query to print details of workers excluding first names, “Ramesh” and “Santhosh” from the Worker table.

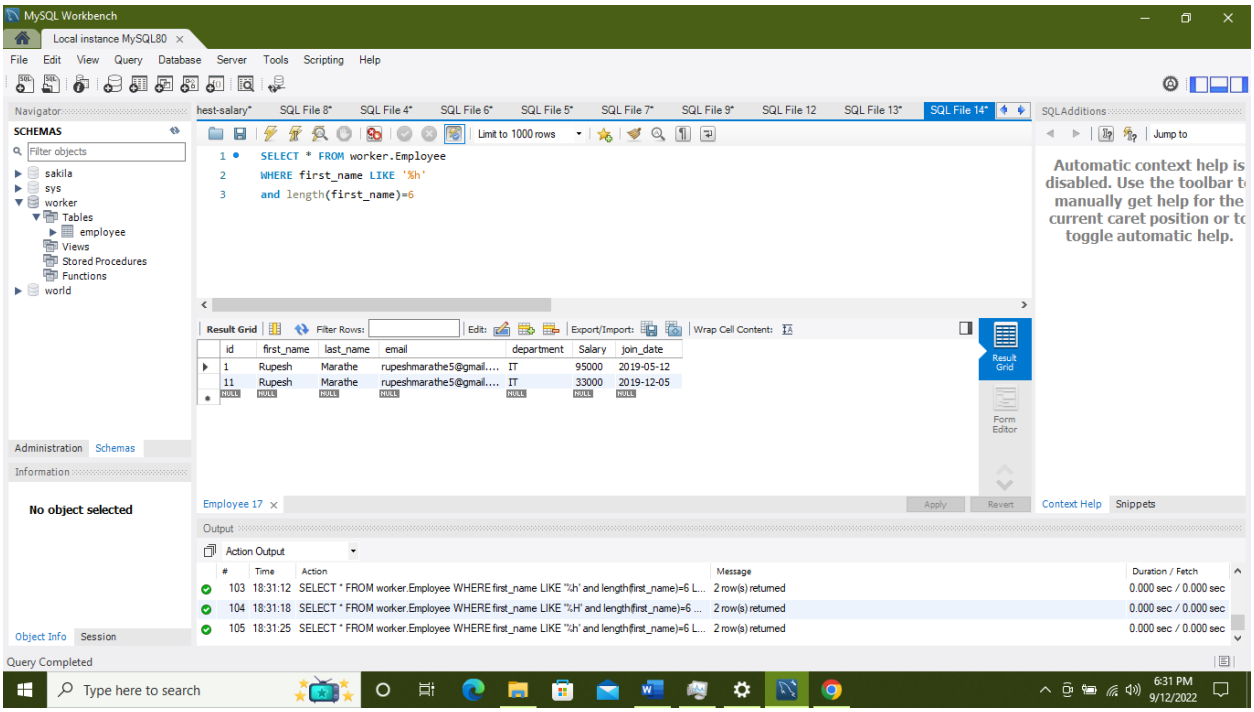
Note: instead of ‘Ramesh’ and ‘Santosh’ I used the first name for Example is ‘Rahu’l and ‘shrikant’

```
SELECT * FROM worker.Employee
WHERE first_name NOT IN ('Rahul','Shrikant')
```



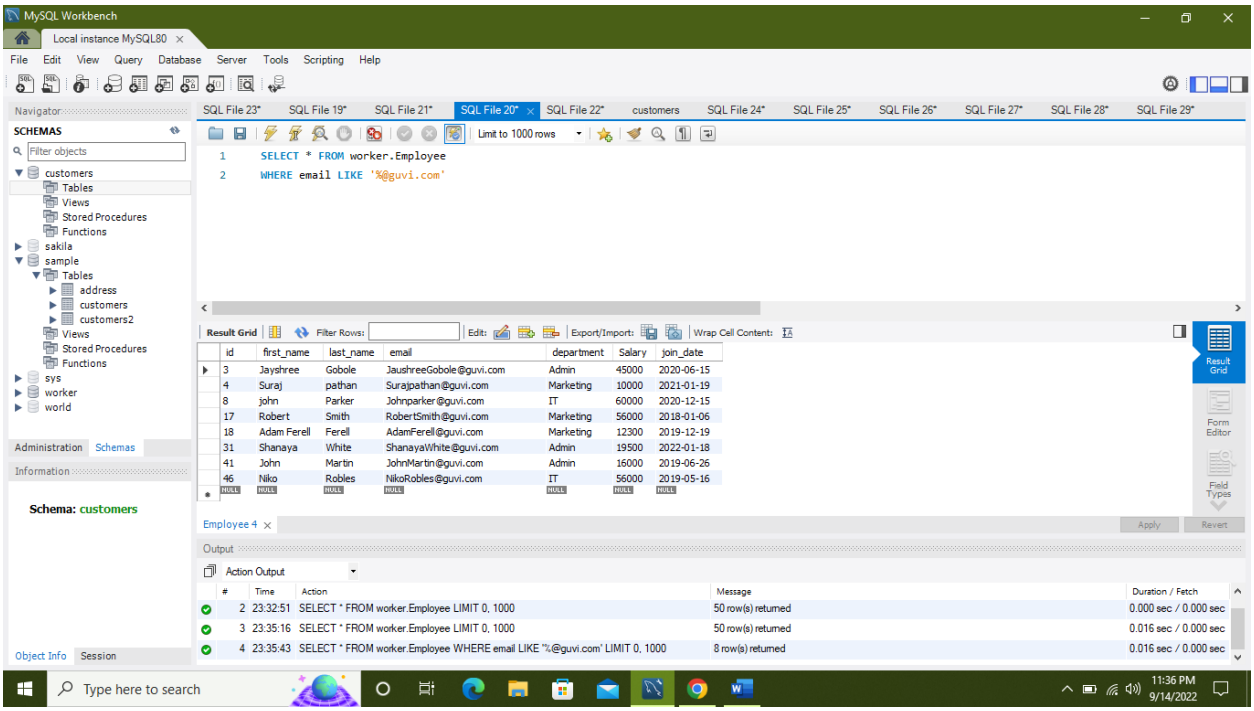
2) Write an SQL query to print details of the Workers whose FIRST_NAME ends with ‘h’ and contains six alphabets.

```
SELECT * FROM worker.Employee

WHERE first_name LIKE '%h'

and length(first_name)=6
```



3) Write a query to validate Email of Employee (email should have first name last name and guvi.com example (first name=Kamal last name= raja and the mail id should be kamalraja@guvi.com).

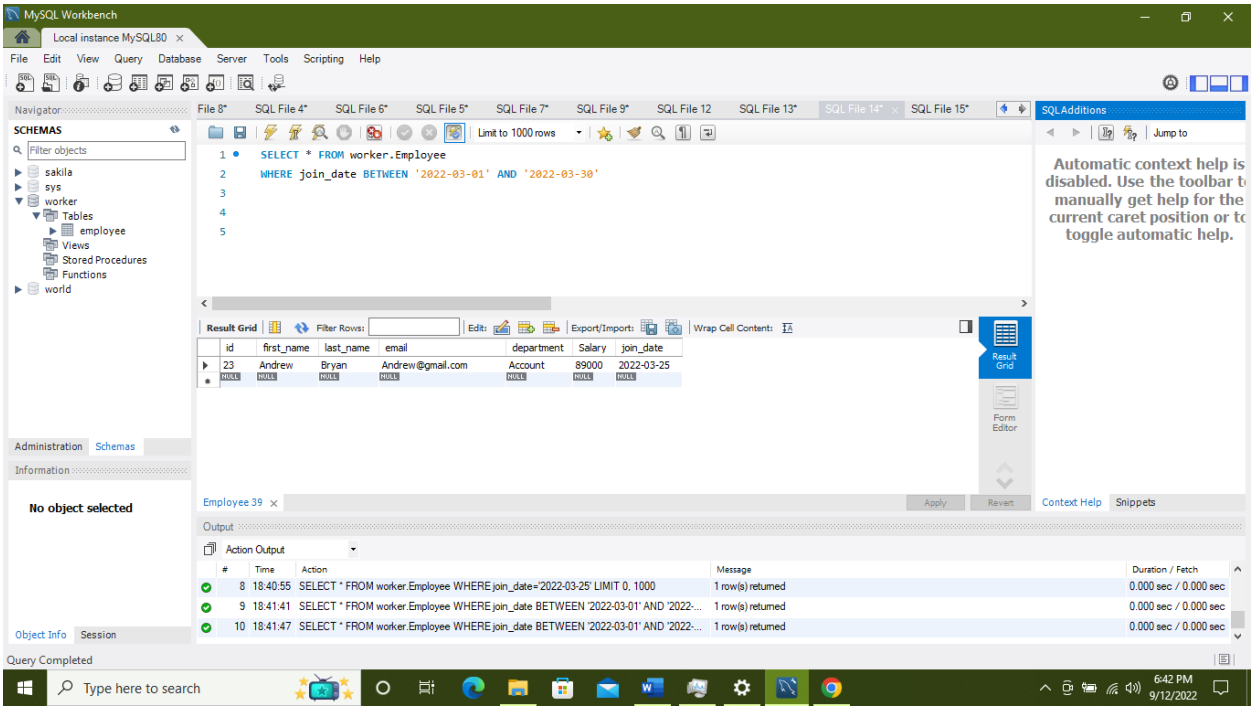
```
SELECT * FROM worker.Employee
WHERE email LIKE '%@guvi.com'
```



Task-6

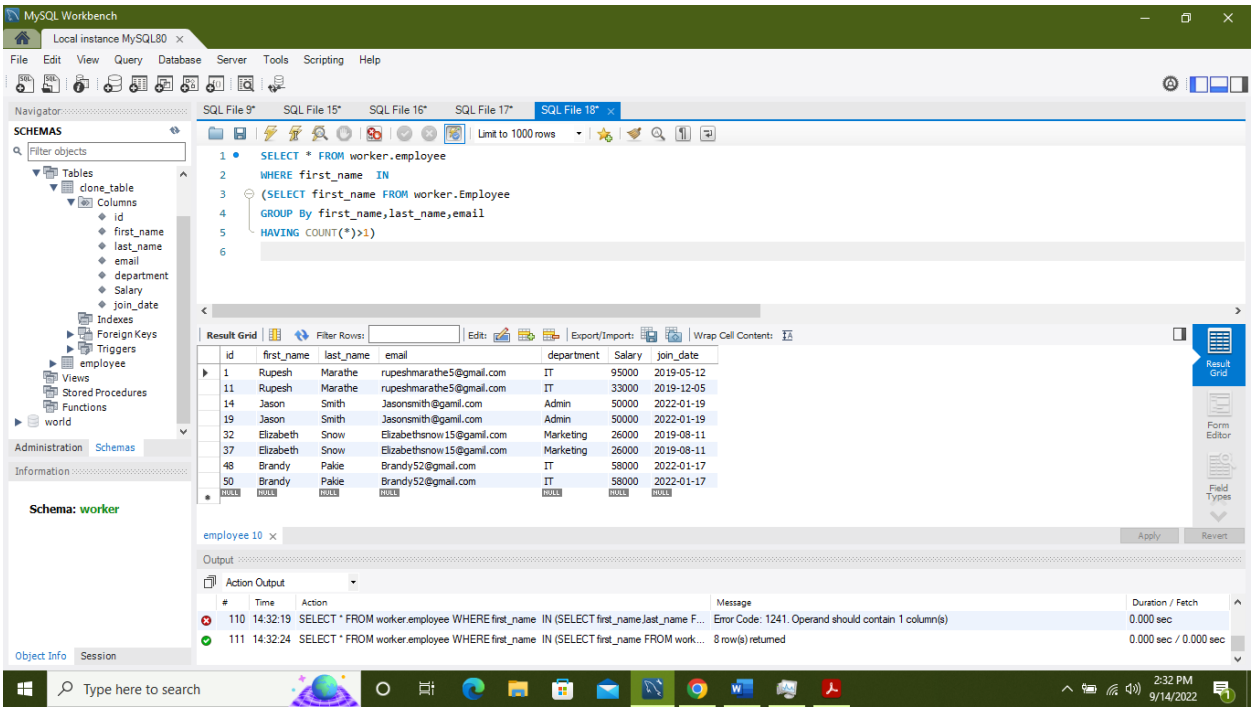
1. Write an SQL query to print details of the Workers who have joined in March '2021.

```
SELECT * FROM worker.Employee

WHERE join_date BETWEEN '2022-03-01' AND '2022-03-30'
```



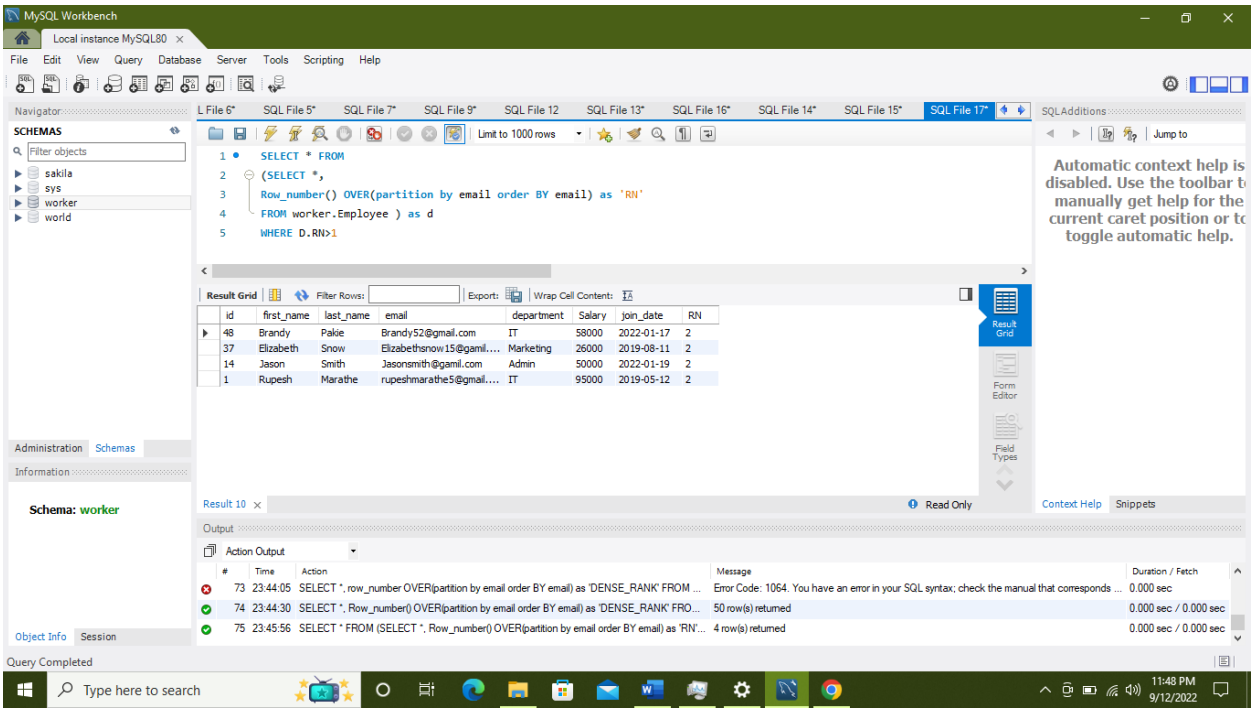
2) Write an SQL query to fetch duplicates that have matching data in some fields of a table.

```
SELECT * FROM worker.employee
WHERE first_name  IN
(SELECT first_name FROM worker.Employee
GROUP By first_name,last_name,email
HAVING COUNT(*)>1)
```



3) How to remove duplicate rows from the Employees table.

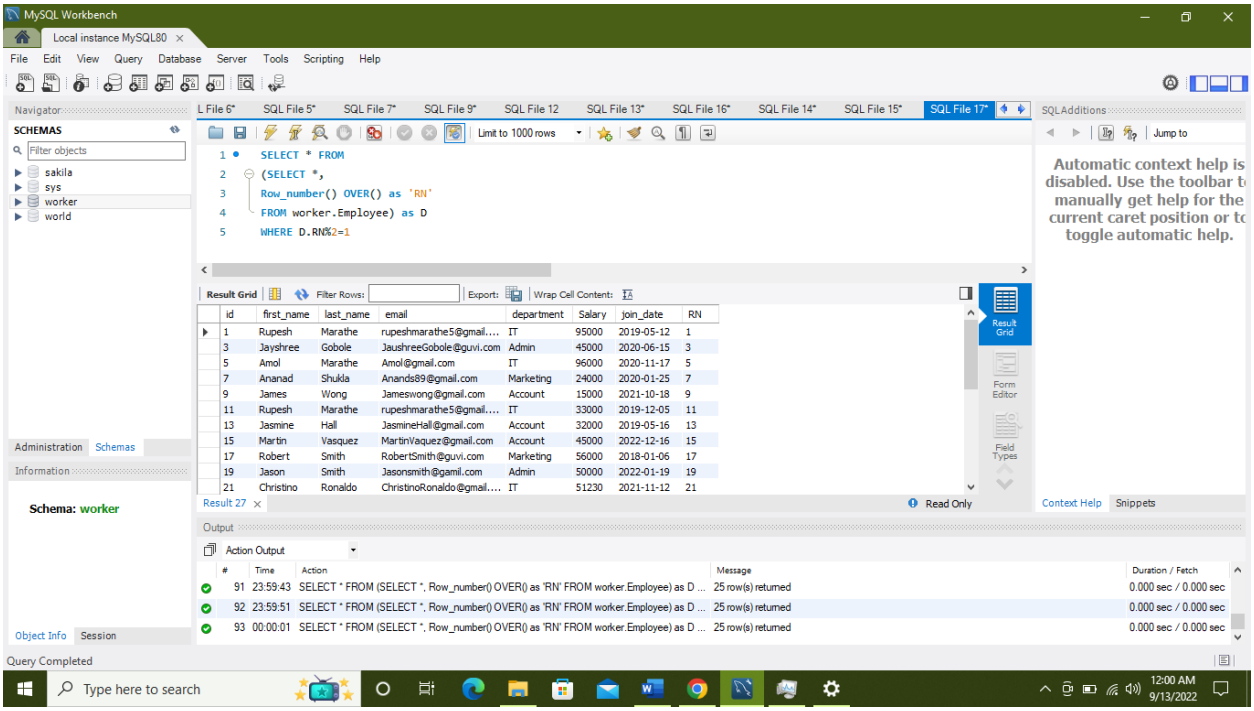
```
SELECT * FROM
(SELECT *,
Row_number() OVER(partition by email order BY email) as 'RN'
FROM worker.Employee ) as d
WHERE D.RN>1
```



Task-7

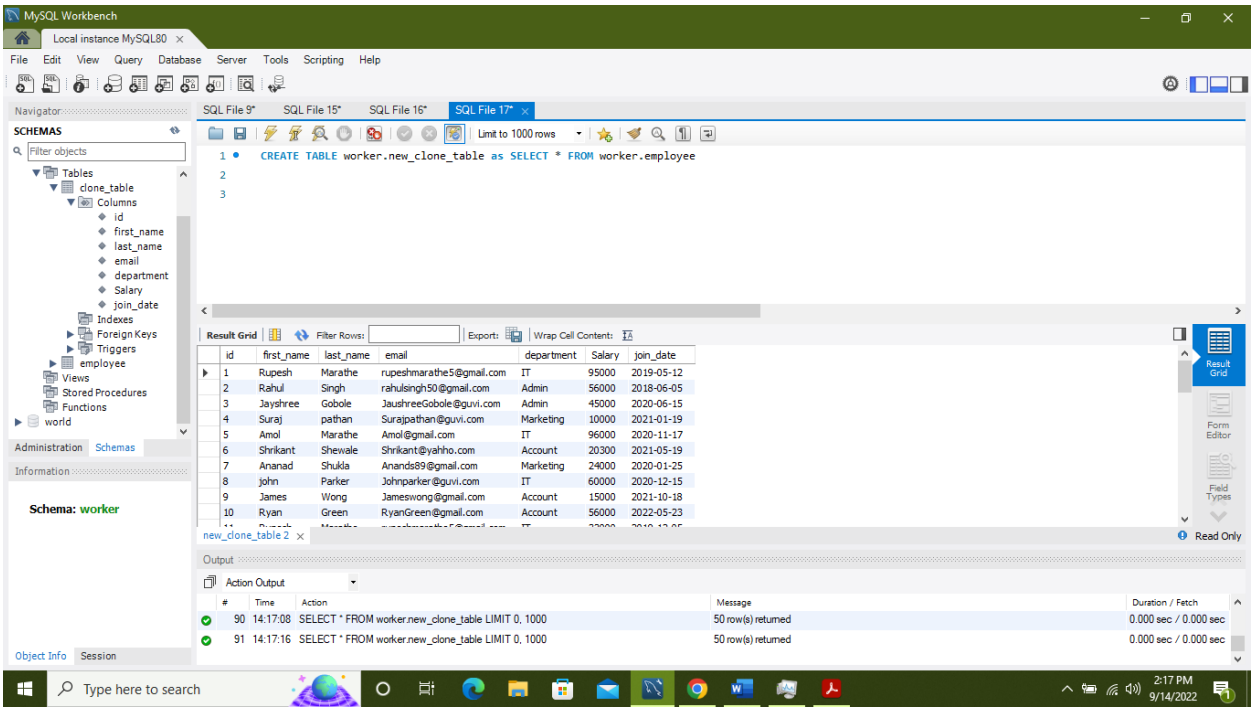
1. Write an SQL query to show only odd rows from a table.

```
SELECT * FROM
(SELECT *,
Row_number() OVER() as 'RN'
FROM worker.Employee) as D
WHERE D.RN%2=1
```



2.Write an SQL query to clone a new table from another table

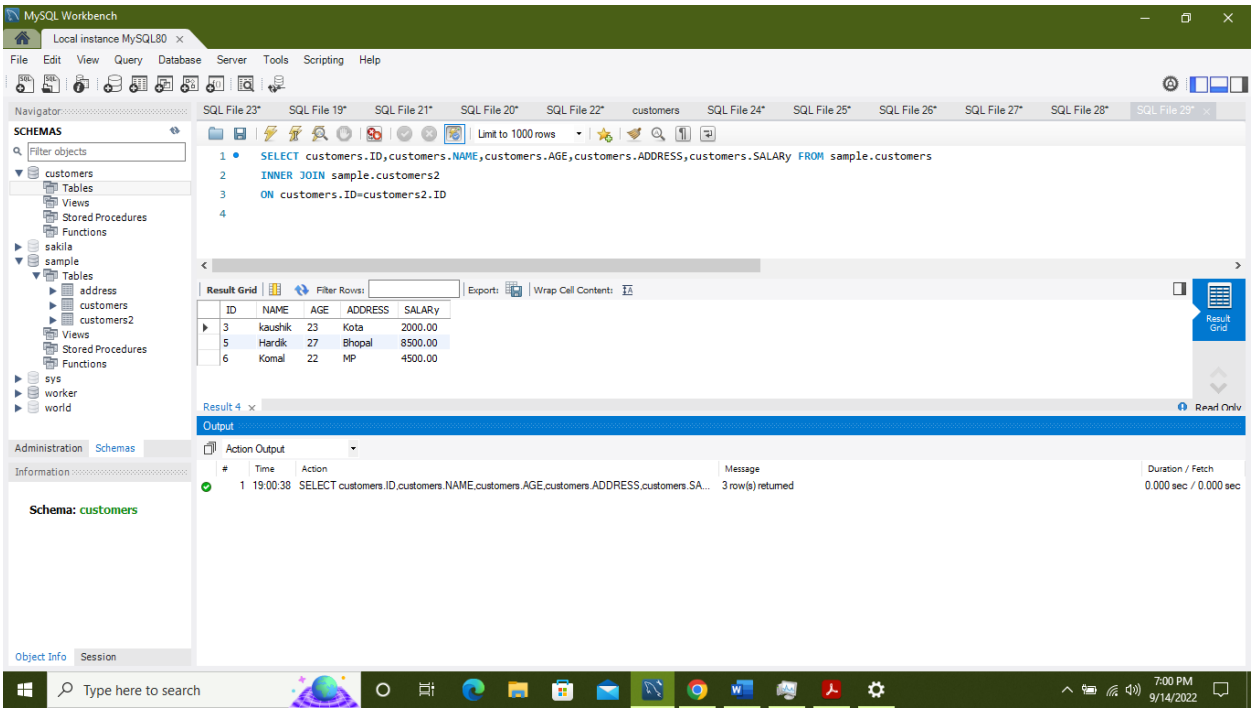
CREATE TABLE worker.new_clone_table as SELECT * FROM worker.employee



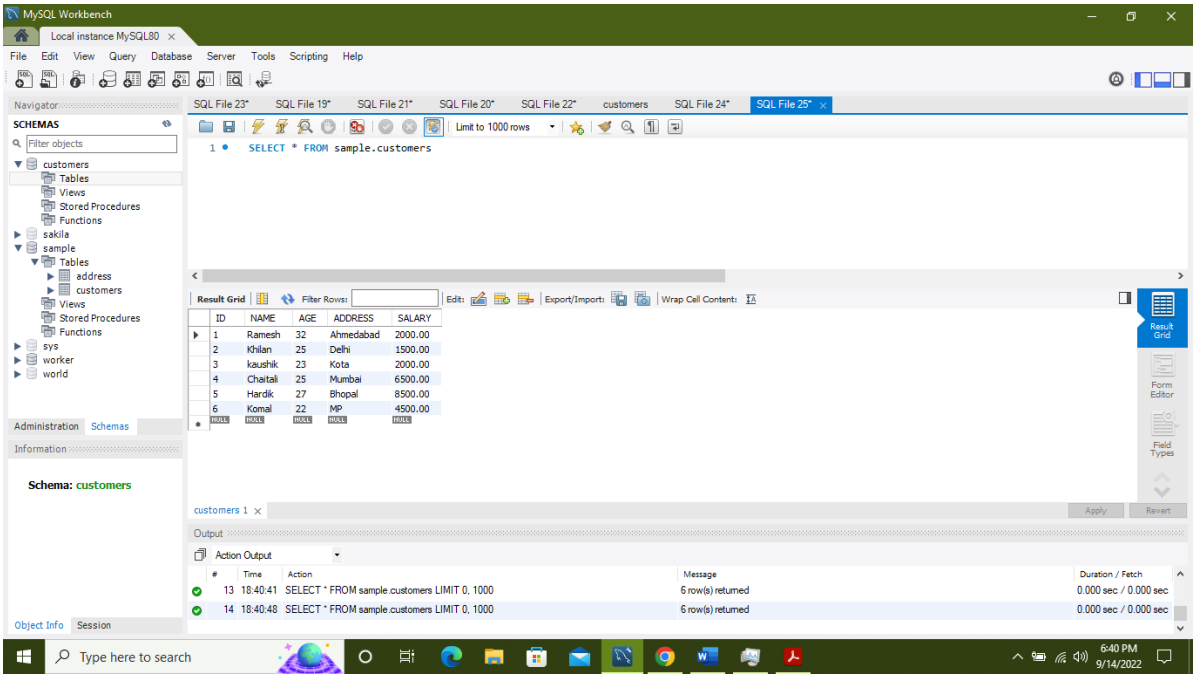
Task-8

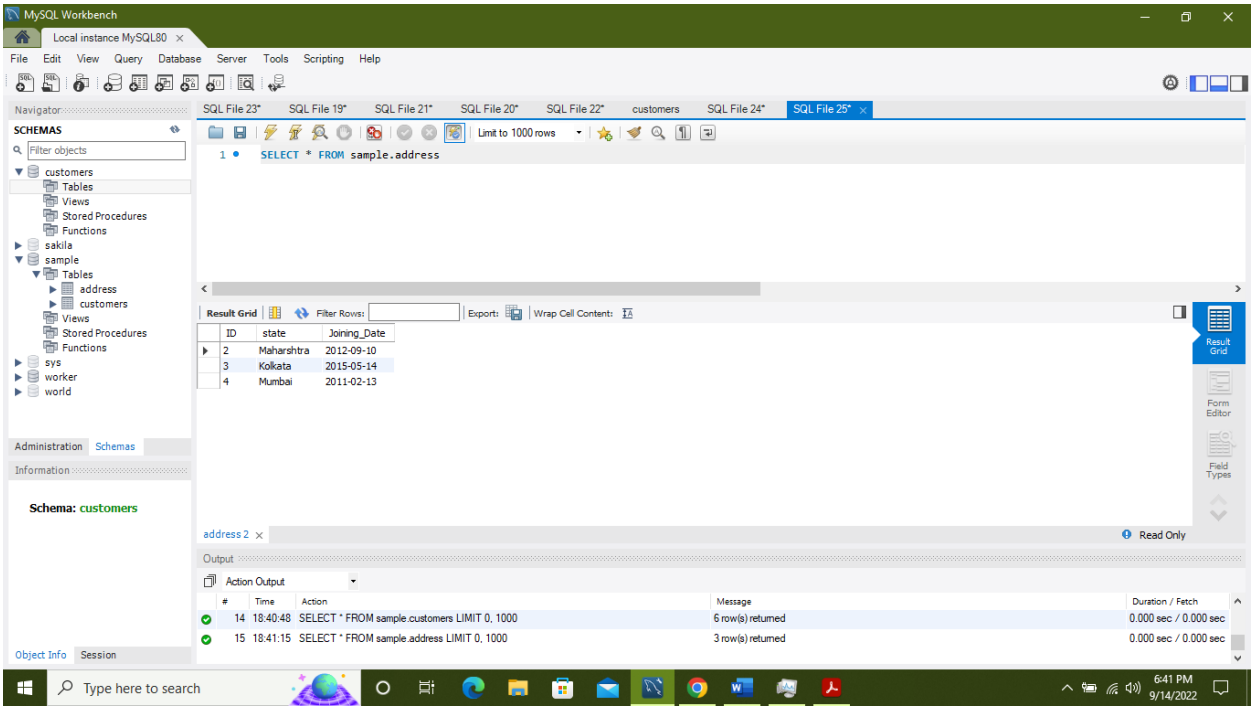
1. Write an SQL query to fetch intersecting records of two tables.

```
SELECT customers.ID,customers.NAME,customers.AGE,customers.ADDRESS,customers.SALARy FROM sample.customers

INNER JOIN sample.customers2

ON customers.ID=customers2.ID
```



2) Write an SQL query to show records from one table that another table does not have

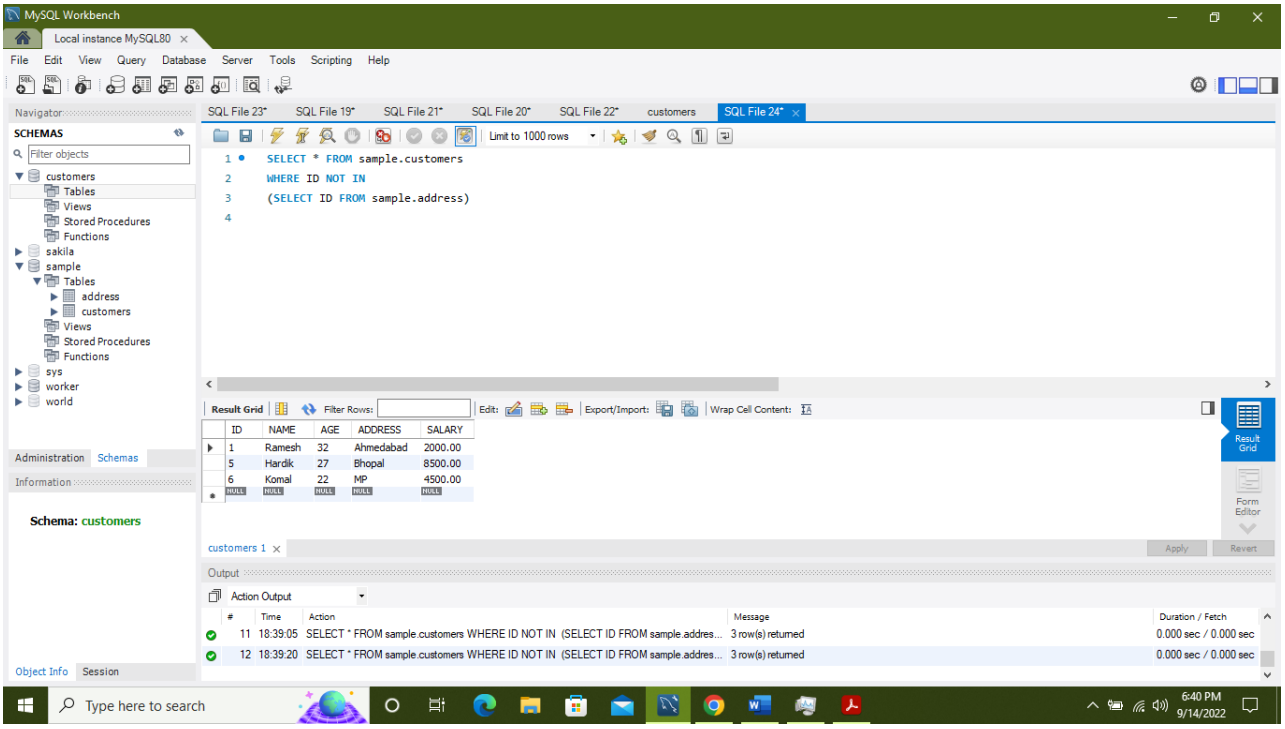




SELECT * FROM sample.customers

WHERE ID NOT IN

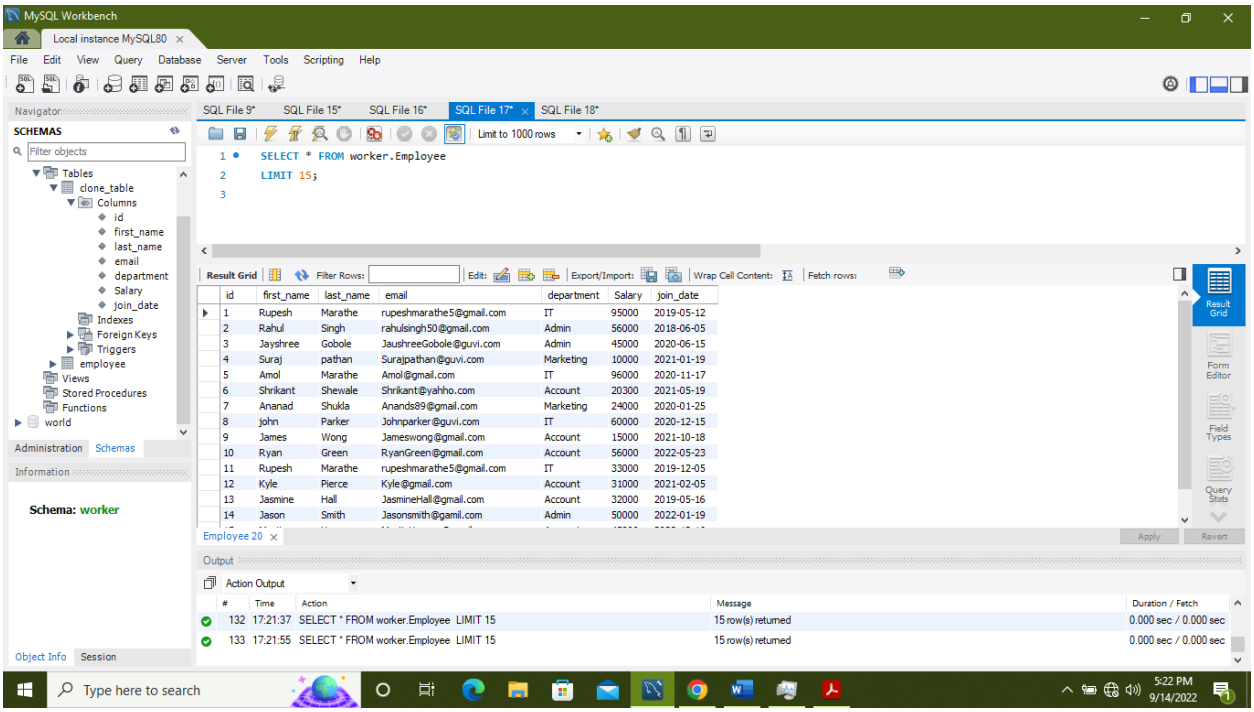
(SELECT ID FROM sample.address)



Task-9

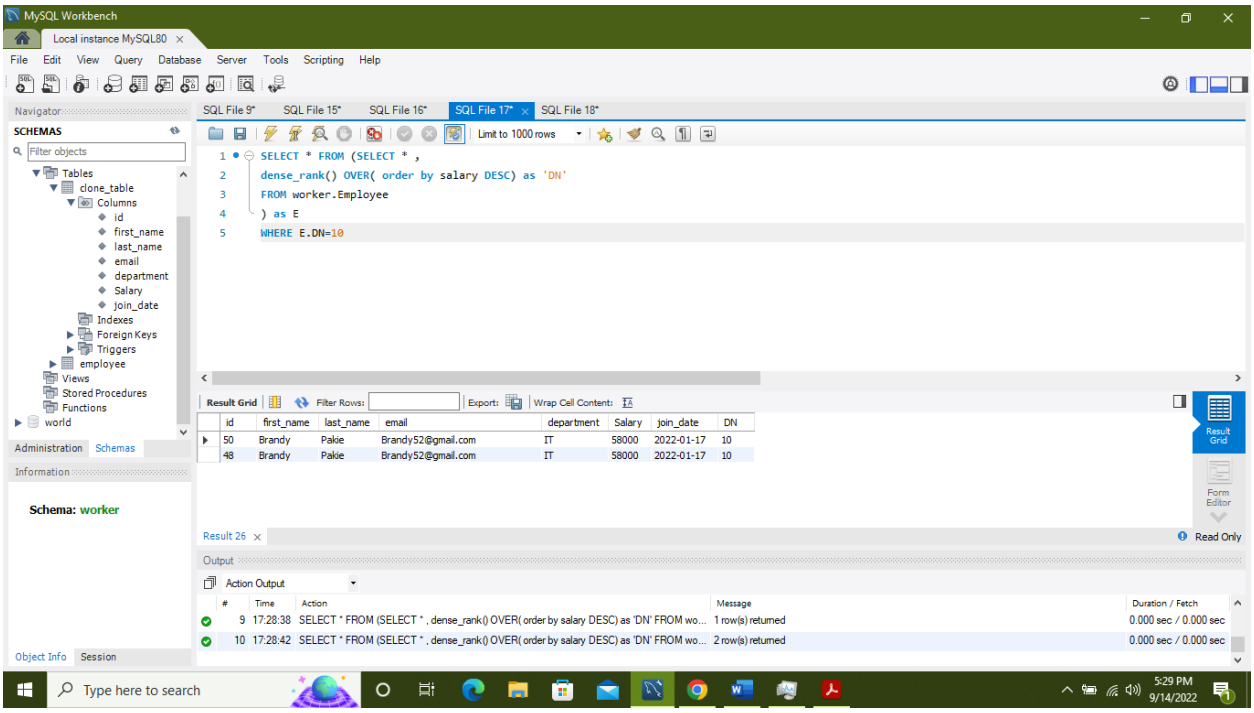
1. Write an SQL query to show the top n (say 15) records of a table.

```
SELECT * FROM worker.Employee
LIMIT 15;
```



2) Write an SQL query to determine the nth (say n=10) highest salary from a table.

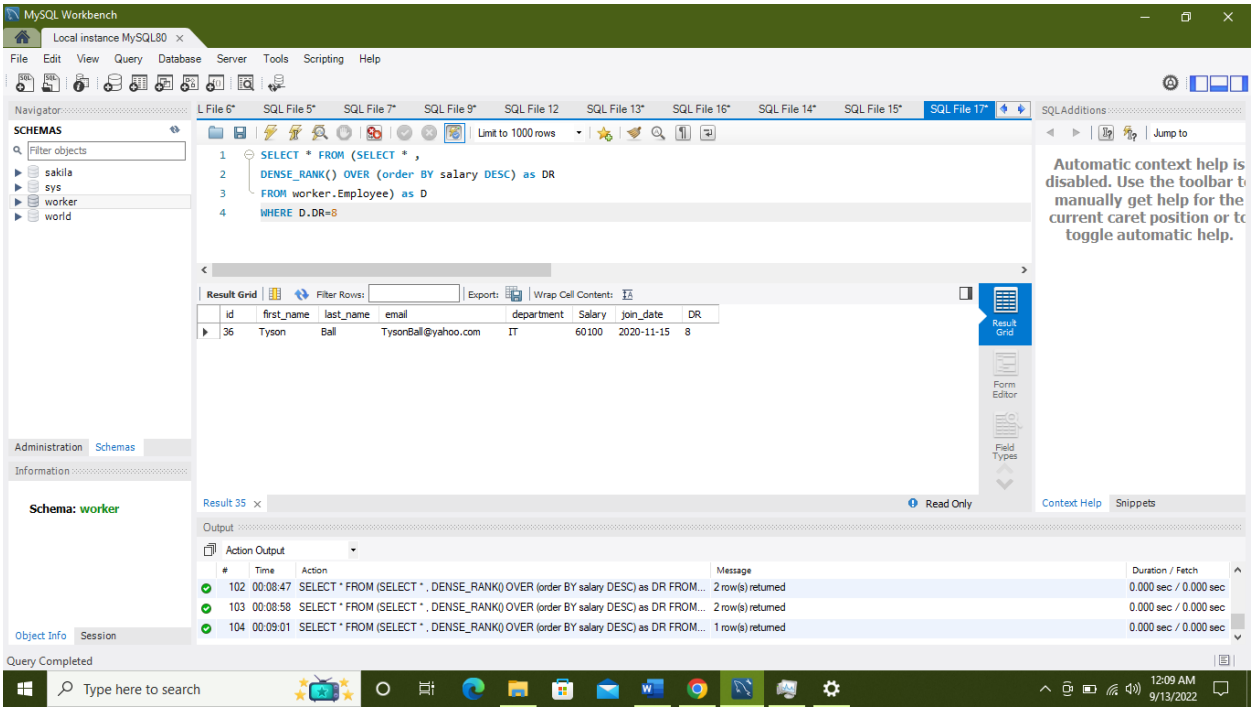
```
SELECT * FROM (SELECT * ,

dense_rank() OVER( order by salary DESC) as 'DN'

FROM worker.Employee

) as E

WHERE E.DN=10
```



Task-10

1) Write an SQL query to determine the 8th highest salary without using TOP or LIMIT methods.

```
SELECT * FROM (SELECT * ,
DENSE_RANK() OVER (order BY salary DESC) as DR
FROM worker.Employee) as D
WHERE D.DR=8
```



2) Write an SQL query to fetch the list of employees with the same salary.

```
SELECT a.* FROM worker.Employee a
JOIN (
SELECT *  FROM worker.Employee
GROUP By first_name,last_name,email
HAVING COUNT(*)>1) as b
ON a.first_name=b.first_name
AND a.last_name=b.last_name
And a.email=b.email
```