

SQL ASSIGNMENTS

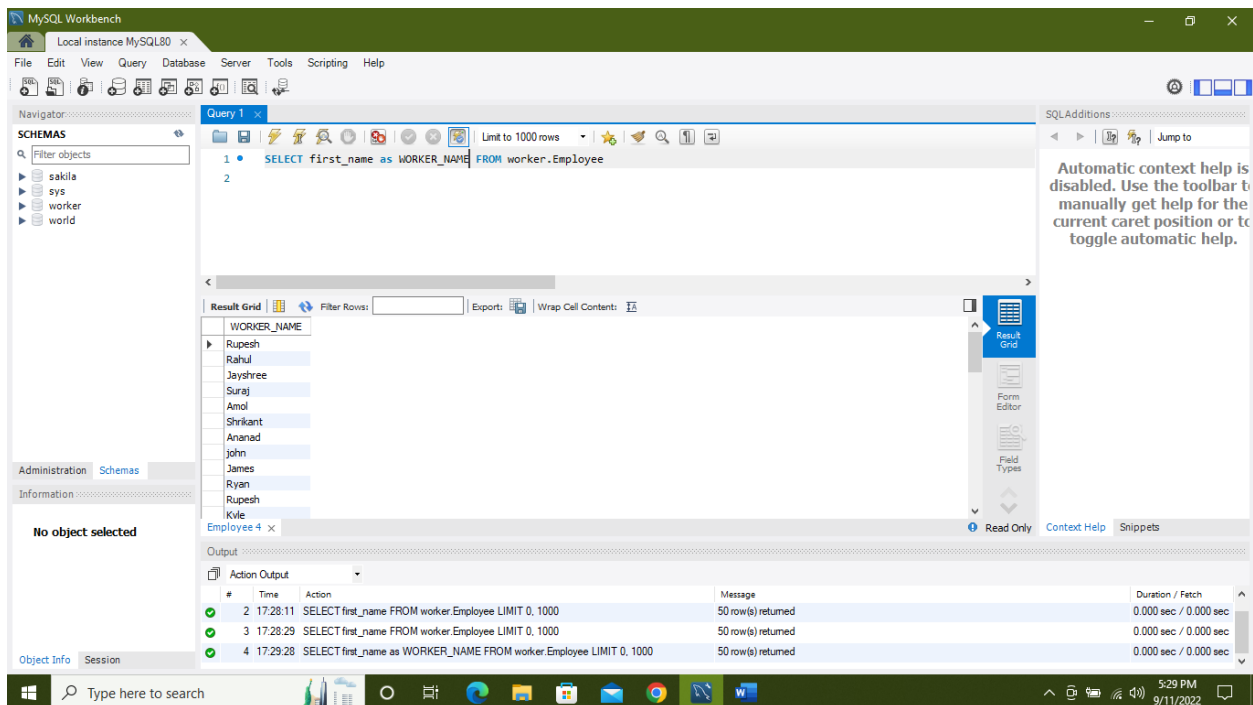
BY (RUPESH.MARATHE)

BATCH -E3(DATA ENGINEERING)

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

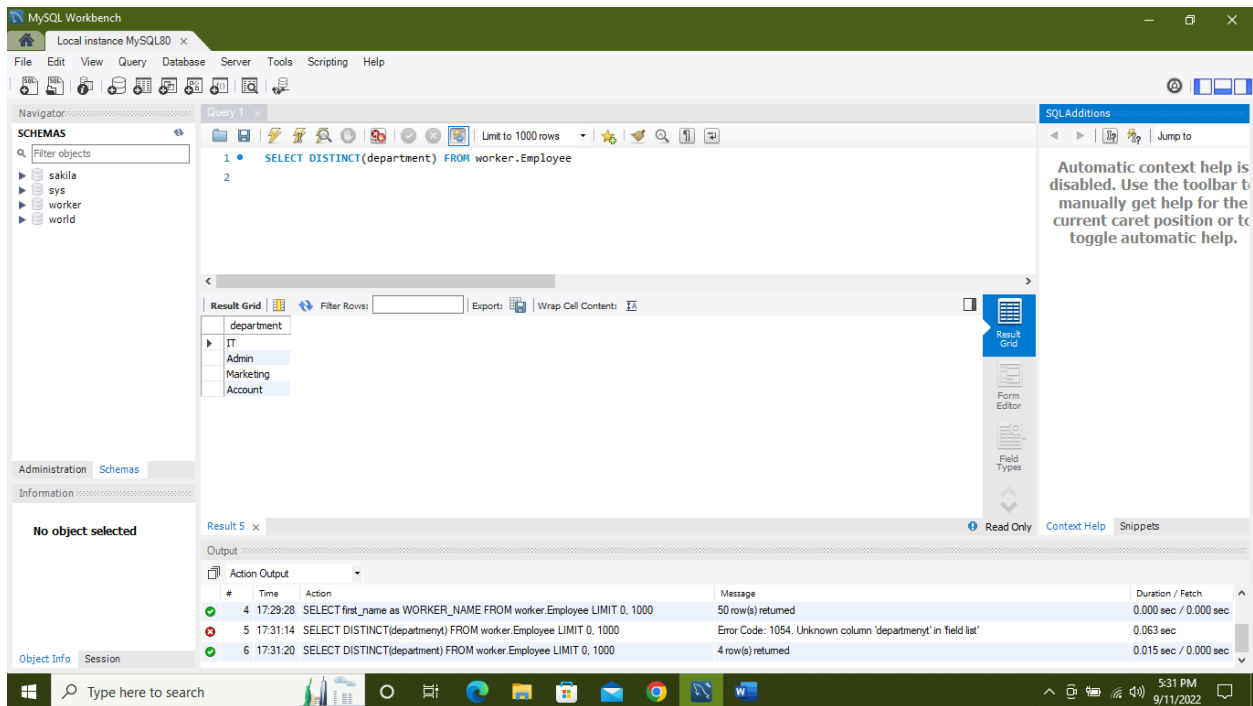
- 1) Write an SQL query to fetch "FIRST_NAME" from the Worker table using the alias name as <WORKER_NAME>.

```
SELECT first_name as WORKER_NAME FROM worker.Employee
```



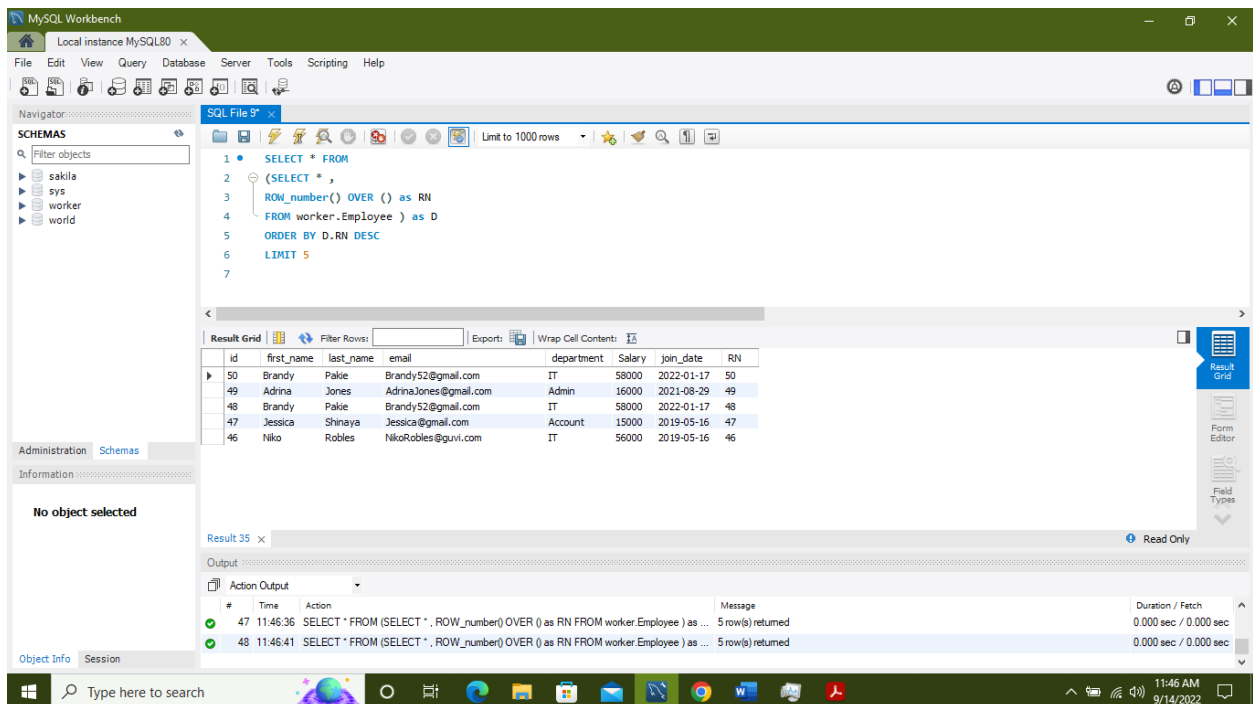
2) Write an SQL query to fetch unique values of DEPARTMENT from the Worker table.

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
```



The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following query:

```
1 SELECT * FROM  
2 (SELECT * ,  
3 ROW_number() OVER () as RN  
4 FROM worker.Employee ) as D  
5 ORDER BY D.RN DESC  
6 LIMIT 5  
7
```

The Results window displays the following data:

id	first_name	last_name	email	department	Salary	join_date	RN
50	Brandi	Pake	Brandi52@gmail.com	IT	58000	2022-01-17	50
49	Adriana	Jones	AdrianaJones@gmail.com	Admin	16000	2021-08-29	49
48	Brandi	Pake	Brandi52@gmail.com	IT	58000	2022-01-17	48
47	Jessica	Shinaya	Jessica@gmail.com	Account	15000	2019-05-16	47
46	Niko	Robles	NikoRobles@guvi.com	IT	56000	2019-05-16	46

The Action Output window shows the following messages:

#	Time	Action	Message	Duration / Fetch
47	11:46:36	SELECT * FROM (SELECT * , ROW_number() OVER () as RN FROM worker.Employee) as ...	5 row(s) returned	0.000 sec / 0.000 sec
48	11:46:41	SELECT * FROM (SELECT * , ROW_number() OVER () as RN FROM worker.Employee) as ...	5 row(s) returned	0.000 sec / 0.000 sec

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`

The screenshot displays the MySQL Workbench interface. The SQL Editor at the top contains the query: `SELECT SUBSTRING(first_name,1,3) FROM worker.Employee`. The left sidebar shows a Schemas tree with 'sakila', 'sys', 'worker', and 'world' databases. The bottom pane is divided into two sections: 'Result Grid' and 'Output'.

The 'Result Grid' section shows the results of the query in a table format:

SUBSTRING(first_name,1,3)
Rup
Rah
Jay
Sur
Amo
Shr
Ana
Joh
Jam
Rya
Rup
Kvl

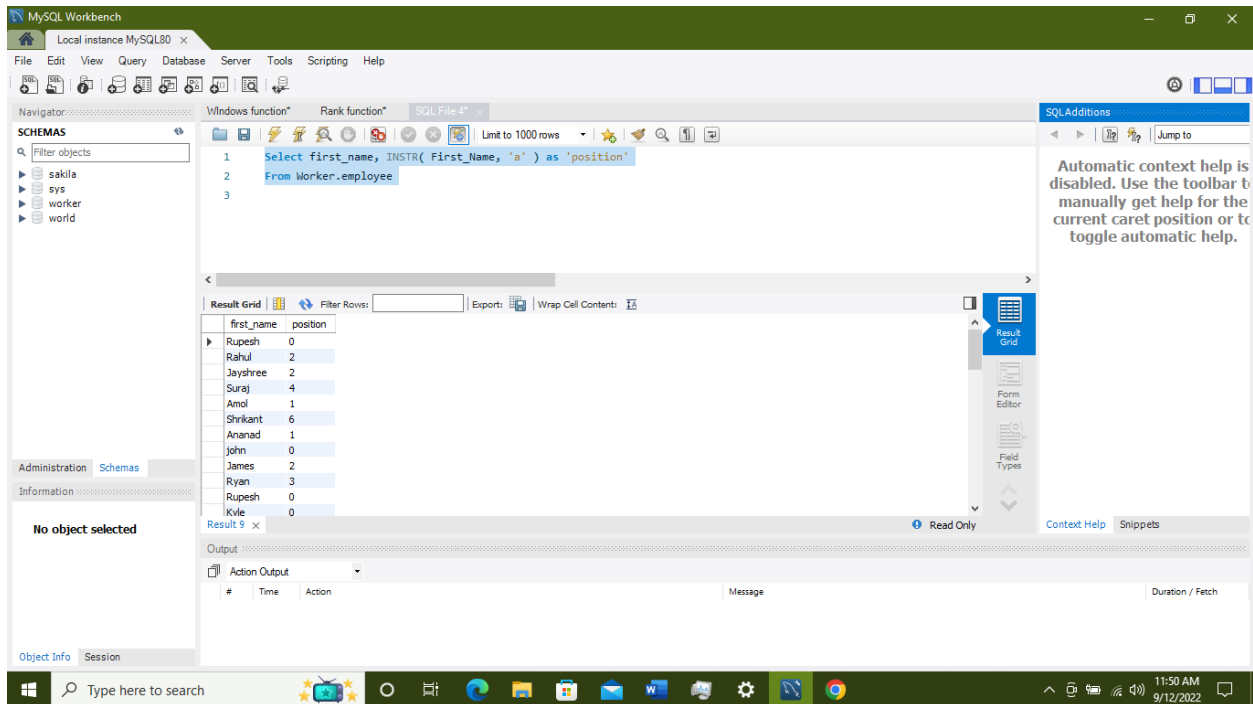
The 'Output' section shows the execution log with the following data:

#	Time	Action	Message	Duration / Fetch
54	11:04:09	SELECT SUBSTRINGfirst_name,3) FROM worker.Employee LIMIT 0, 1000	50 row(s) returned	0.000 sec / 0.000 sec
55	11:04:29	SELECT SUBSTRING(3first_name) FROM worker.Employee LIMIT 0, 1000	50 row(s) returned	0.000 sec / 0.000 sec
56	11:05:20	SELECT SUBSTRINGfirst_name,1,3) FROM worker.Employee LIMIT 0, 1000	50 row(s) returned	0.000 sec / 0.000 sec

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



The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following query:

```
1 Select first_name, INSTR( First_Name, 'a' ) as 'position'
2 From Worker.employee
3
```

The Results window displays the output of the query as a table with two columns: first_name and position. The data is as follows:

first_name	position
Rupesh	0
Rahul	2
Jayshree	2
Suraj	4
Amol	1
Shrikant	6
Ananad	1
John	0
James	2
Ryan	3
Rupesh	0
Kyle	0

The interface also shows the Schemas pane on the left with a tree view of databases (sakila, sys, worker, world) and the SQL Additions pane on the right with a message about automatic context help.

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
```

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 SELECT E.first_name,E.last_name,E.department,E.salary FROM worker.employee as E
2 JOIN
3 (SELECT department,MAX(salary) as Salary FROM worker.employee
4  GROUP BY department) as D
5 ON E.department=D.department
6 AND E.salary=D.salary
7 order by E.department
```

The Results window displays the following data:

first_name	last_name	department	salary
Andrew	Bryan	Account	89000
Justin	Rogers	Admin	84000
Jessie	Estes	IT	96000
Amol	Marathe	IT	96000
Arelly	Mckee	Marketing	65000

The bottom status bar indicates "Query Completed".

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
```

The screenshot displays the MySQL Workbench interface. The SQL Editor at the top contains the following query:

```
1 SELECT *,RTRIM(first_name), Length(first_name)as BEFORE_TRIM_Length ,  
2 Length(RTRIM(first_name)) as AFTER_TRIM_Length  
3 FROM worker.Employee  
4
```

The Results window below the editor shows a table with the following data:

id	first_name	last_name	email	department	Salary	join_date	RTRIM(first_name)	BEFORE_TRIM_Length	AFTER_TRIM_Length
41	John	Martin	JohnMartin@guvi.com	Admin	16000	2019-06-26	John	4	4
42	Jaden	Muller	JadenMuller@gmail.com	Account	23000	2019-05-30	Jaden	5	5
43	Shania	Walters	ShaniaWalters01@gmail.com	IT	12000	2022-01-24	Shania	6	6
44	Cameron	Mckay	CameronMckay@gmail.com	Marketing	11000	2020-01-23	Cameron	7	7
45	Nina	Hickman	NinaHickman@gmail.com	Account	54000	2018-12-25	Nina	4	4
46	Niko	Robles	NikoRobles@guvi.com	IT	56000	2019-05-16	Niko	5	4
47	Jessica	Shinaya	Jessica@gmail.com	Account	15000	2019-05-16	Jessica	7	7
48	Brandy	Pakie	Brandy52@gmail.com	IT	58000	2022-01-17	Brandy	6	6
49	Adrina	Jones	AdrinaJones@gmail.com	Admin	16000	2021-08-29	Adrina	6	6
50	Brandy	Pakie	Brandy52@gmail.com	IT	58000	2022-01-17	Brandy	6	6

The Output window at the bottom shows the execution log:

#	Time	Action	Message	Duration / Fetch
57	13:24:59	SELECT *,RTRIM(first_name), Length(first_name)as BEFORE_TRIM , Length(RTRIM(first_n...	50 row(s) returned	0.000 sec / 0.000 sec
58	13:25:19	SELECT *,RTRIM(first_name), Length(first_name)as BEFORE_TRIM_Length , Length(RTRI...	50 row(s) returned	0.000 sec / 0.000 sec

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
```

The screenshot shows the MySQL Workbench interface. The SQL editor contains the query: `SELECT DISTINCT(length(department)),department FROM worker.employee`. The Results window displays the output of the query, showing the length of the department names and the department names themselves. The Output window shows the execution log, indicating that the query was executed successfully and returned 4 rows.

(length(department))	department
2	IT
5	Admin
9	Marketing
7	Account

#	Time	Action	Message	Duration / Fetch
19	16:39:52	SELECT DISTINCT(department) FROM worker.Employee WHERE length(department) IN (S...	4 row(s) returned	0.000 sec / 0.000 sec
20	16:40:01	SELECT DISTINCT(length(department)) FROM worker.employee LIMIT 0, 1000	4 row(s) returned	0.015 sec / 0.000 sec
21	16:40:11	SELECT DISTINCT(length(department)),department FROM worker.employee LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec

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

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 SELECT D.first_name,D.last_name,D.department,D.salary FROM
2 (SELECT first_name,last_name,department,salary ,
3 dense_rank() OVER ( order by salary DESC) as Ranks
4 FROM worker.Employee) as D
5 WHERE Ranks=1
6
```

The Results window displays the following data:

first_name	last_name	department	salary
Amol	Meraathe	IT	96000
Jessie	Estes	IT	96000

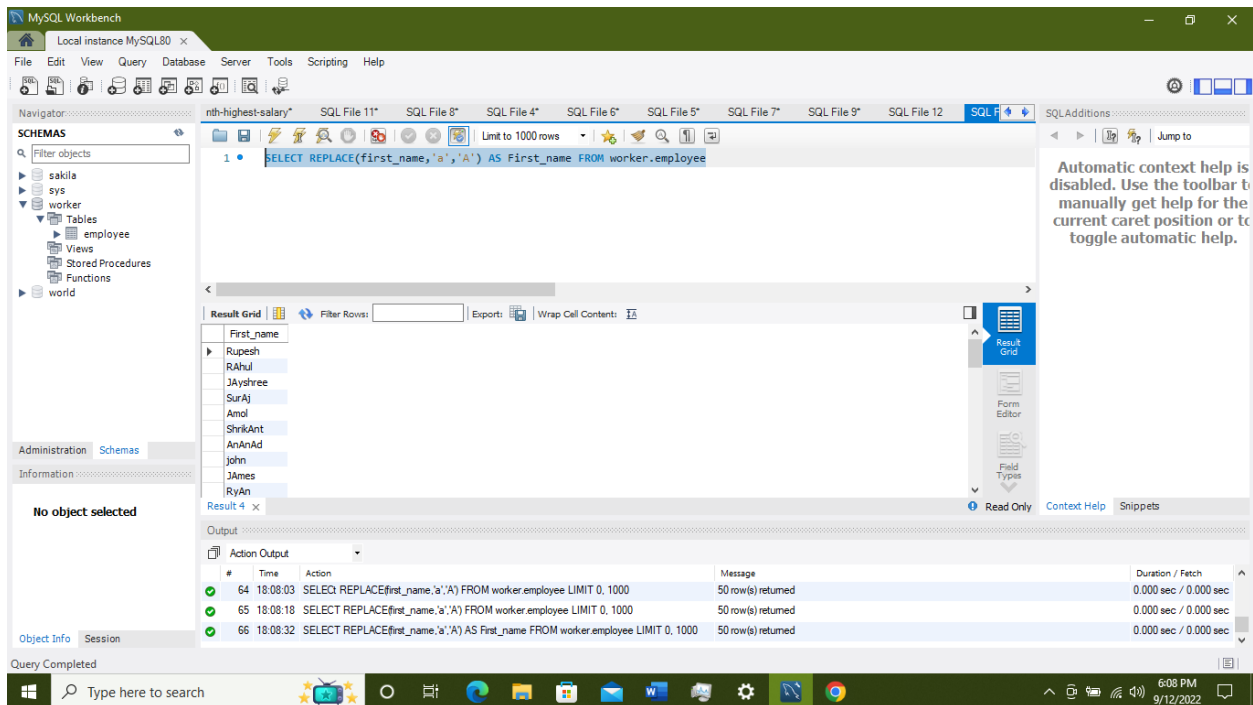
The bottom panel shows the Output window with the following messages:

#	Time	Action	Message	Duration / Fetch
59	18.04.26	SELECT D.first_name,D.last_name,D.department,D.salary FROM (SELECT first_name,last_n...	1 row(s) returned	0.000 sec / 0.000 sec
60	18.04.29	SELECT D.first_name,D.last_name,D.department,D.salary FROM (SELECT first_name,last_n...	2 row(s) returned	0.000 sec / 0.000 sec
61	18.04.33	SELECT D.first_name,D.last_name,D.department,D.salary FROM (SELECT first_name,last_n...	2 row(s) returned	0.000 sec / 0.000 sec

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;`

The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following query:

```
1 SELECT * FROM worker.employee
2 ORDER BY first_name ASC,DEPARTMENT DESC;
```

The Results Grid displays the following data:

	id	first_name	last_name	email	department	Salary	join_date
▶	18	Adam	Ferrell	AdamFerrell@guvi.com	Marketing	12300	2019-12-19
	49	Adrina	Jones	AdrinaJones@gmail.com	Admin	16000	2021-08-29
	5	Amol	Marathe	Amol@gmail.com	IT	96000	2020-11-17
	7	Ananad	Shukla	Anands89@gmail.com	Marketing	24000	2020-01-25
	23	Andrew	Bryan	Andrew@gmail.com	Account	89000	2022-03-25
	38	Anney	Mille	AnneyMill@yahoo.com	Account	23500	2020-05-16
	27	Arely	McKee	ArelyMcKee@gmail.com	Marketing	65000	2021-12-05
	50	Brandy	Pakie	Brandy52@gmail.com	IT	58000	2022-01-17
	48	Brandy	Pakie	Brandy52@gmail.com	IT	58000	2022-01-17
	44	Cameron	McKay	CameronMcKay@gmail.com	Marketing	11000	2020-01-23

The Output pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
68	18:13:19	SELECT * FROM worker.employee ORDER BY first_name,last_name DESC LIMIT 0, 1000	50 row(s) returned	0.000 sec / 0.000 sec
69	18:14:00	SELECT * FROM worker.employee ORDER BY first_name,DEPARTMENT DESC LIMIT 0, 1...	50 row(s) returned	0.000 sec / 0.000 sec
70	18:14:17	SELECT * FROM worker.employee ORDER BY first_name ASC,DEPARTMENT DESC LIM...	50 row(s) returned	0.000 sec / 0.000 sec

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)
```

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

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

The query is executed, and the results are displayed in the Result Grid:

first_name	last_name	department	salary
Amol	Marathe	IT	96000
Jessie	Estes	IT	96000

The bottom panel shows the Action Output with the following details:

#	Time	Action	Message	Duration / Fetch
76	18:16:41	SELECT * FROM worker.Employee WHERE salary IN (SELECT Max(salary) FROM worker....	2 row(s) returned	0.000 sec / 0.000 sec
77	18:16:45	SELECT * FROM worker.Employee WHERE salary = (SELECT Max(salary) FROM worker E...	2 row(s) returned	0.000 sec / 0.000 sec
78	18:17:10	SELECT first_name,last_name,department,salary FROM worker.Employee WHERE salary = ...	2 row(s) returned	0.000 sec / 0.000 sec

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 'Rahul' and 'shrikant'

```
SELECT * FROM worker.Employee
```

```
WHERE first_name NOT IN ('Rahul','Shrikant')
```

The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following query:

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

The Results window displays the output of the query, showing 14 rows of employee data. The columns are: id, first_name, last_name, email, department, Salary, and join_date.

id	first_name	last_name	email	department	Salary	join_date
1	Rupesh	Marathe	rupeshmarathe5@gmail...	IT	95000	2019-05-12
3	Jayshree	Gobole	JaushreeGobole@guvi...	Admin	45000	2020-06-15
4	Suraj	pathan	Surajpathan@guvi...	Marketing	10000	2021-01-19
5	Amol	Marathe	Amol@gmail.com	IT	96000	2020-11-17
7	Ananad	Shukla	Anands89@gmail.com	Marketing	24000	2020-01-25
8	John	Parker	Johnparker@guvi...	IT	60000	2020-12-15
9	James	Wong	Jameswong@gmail.com	Account	15000	2021-10-18
10	Ryan	Green	RyanGreen@gmail.com	Account	56000	2022-05-23
11	Rupesh	Marathe	rupeshmarathe5@gmail...	IT	33000	2019-12-05
12	Kyle	Pierce	Kyle@gmail.com	Account	31000	2021-02-05
13	Jasmine	Hall	JasmineHall@gmail.com	Account	32000	2019-05-16
14	Jason	Smith	Jasonsmith@gamil.com	Admin	50000	2022-01-19

The Output window shows the execution of the query, indicating that 48 rows were returned.

Query Completed

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`

The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following query:

```
1 SELECT * FROM worker.Employee
2 WHERE first_name LIKE '%h'
3 and length(first_name)=6
```

The Results window displays the following data:

id	first_name	last_name	email	department	Salary	join_date
1	Rupesh	Marathe	rupeshmarathe5@gmail....	IT	95000	2019-05-12
11	Rupesh	Marathe	rupeshmarathe5@gmail....	IT	33000	2019-12-05

The Output window shows the execution log:

#	Time	Action	Message	Duration / Fetch
103	18:31:12	SELECT * FROM worker.Employee WHERE first_name LIKE '%h' and length(first_name)=6 L...	2 row(s) returned	0.000 sec / 0.000 sec
104	18:31:18	SELECT * FROM worker.Employee WHERE first_name LIKE '%h' and length(first_name)=6 ...	2 row(s) returned	0.000 sec / 0.000 sec
105	18:31:25	SELECT * FROM worker.Employee WHERE first_name LIKE '%h' and length(first_name)=6 L...	2 row(s) returned	0.000 sec / 0.000 sec

- 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'
```

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

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

The Results tab displays the following table:

id	first_name	last_name	email	department	Salary	join_date
3	Jayshree	Gobole	JayshreeGobole@guvi.com	Admin	45000	2020-06-15
4	Suraj	pathan	Surajpathan@guvi.com	Marketing	10000	2021-01-19
8	John	Parker	Johnparker@guvi.com	IT	60000	2020-12-15
17	Robert	Smith	RobertSmith@guvi.com	Marketing	56000	2018-01-06
18	Adam Ferrell	Ferrell	AdamFerrell@guvi.com	Marketing	12300	2019-12-19
31	Shanaya	White	ShanayaWhite@guvi.com	Admin	19500	2022-01-18
41	John	Martin	JohnMartin@guvi.com	Admin	16000	2019-06-26
46	Niko	Robles	NikoRobles@guvi.com	IT	56000	2019-05-16

The Action Output tab shows the following log:

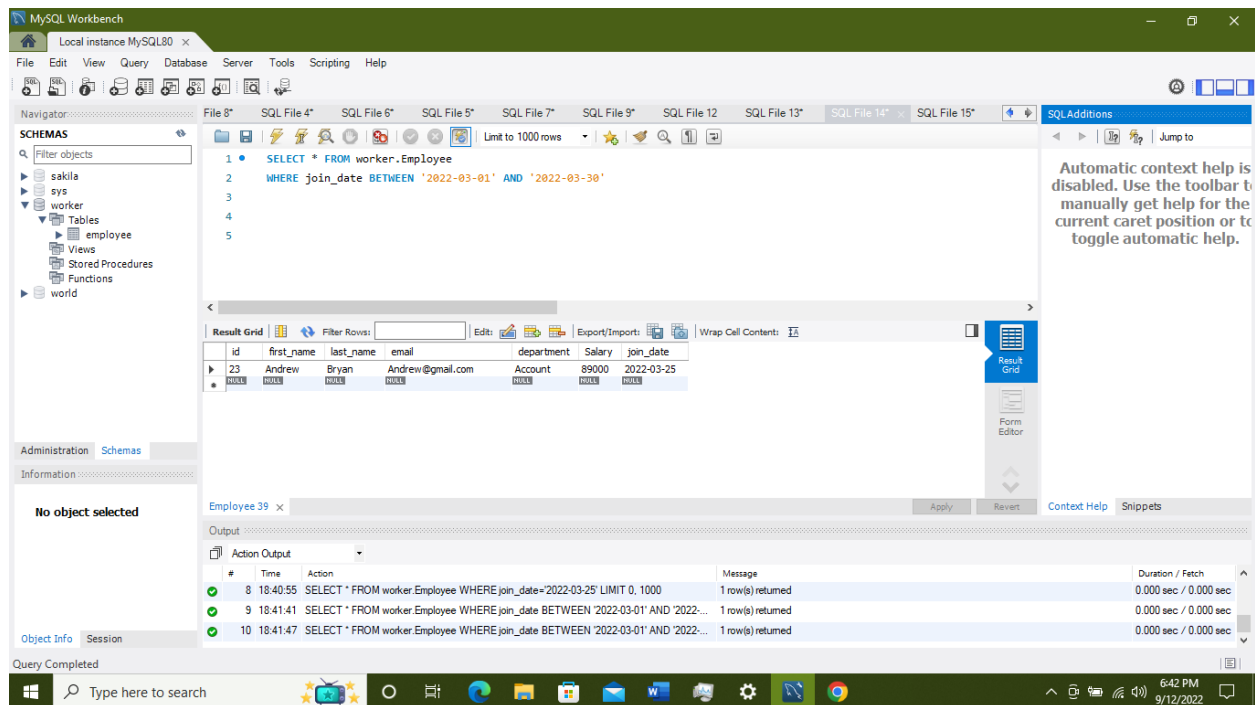
#	Time	Action	Message	Duration / Fetch
2	23:32:51	SELECT * FROM worker.Employee LIMIT 0, 1000	50 row(s) returned	0.000 sec / 0.000 sec
3	23:35:16	SELECT * FROM worker.Employee LIMIT 0, 1000	50 row(s) returned	0.015 sec / 0.000 sec
4	23:35:43	SELECT * FROM worker.Employee WHERE email LIKE '%@guvi.com' LIMIT 0, 1000	8 row(s) returned	0.016 sec / 0.000 sec

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)
```

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 SELECT * FROM worker.employee
2 WHERE first_name IN
3 (SELECT first_name FROM worker.Employee
4 GROUP By first_name,last_name,email
5 HAVING COUNT(*)>1)
6
```

The query was executed, and the results are displayed in the Result Grid. The table has 7 columns: id, first_name, last_name, email, department, Salary, and join_date. The results show 11 rows, with the first two rows being duplicates of the first row.

	id	first_name	last_name	email	department	Salary	join_date
1	1	Rupesh	Marathe	rupeshmarathe5@gmail.com	IT	95000	2019-05-12
11	11	Rupesh	Marathe	rupeshmarathe5@gmail.com	IT	33000	2019-12-05
14	14	Jason	Smith	Jasonsmith@gamil.com	Admin	50000	2022-01-19
19	19	Jason	Smith	Jasonsmith@gamil.com	Admin	50000	2022-01-19
32	32	Elizabeth	Snow	Elizabethsnow15@gamil.com	Marketing	26000	2019-08-11
37	37	Elizabeth	Snow	Elizabethsnow15@gamil.com	Marketing	26000	2019-08-11
48	48	Brandy	Pakie	Brandy52@gmail.com	IT	58000	2022-01-17
50	50	Brandy	Pakie	Brandy52@gmail.com	IT	58000	2022-01-17
1000	1000	1000	1000	1000	1000	1000	1000

The Output pane shows the following messages:

```
110 14:32:19 SELECT * FROM worker.employee WHERE first_name IN (SELECT first_name,last_name F... Error Code: 1241. Operand should contain 1 column(s) 0.000 sec
111 14:32:24 SELECT * FROM worker.employee WHERE first_name IN (SELECT first_name FROM work... 8 row(s) returned 0.000 sec / 0.000 sec
```

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

The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following query:

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

The Results window displays the following data:

id	first_name	last_name	email	department	Salary	join_date	RN
48	Brandy	Pakie	Brandy52@gmail.com	IT	58000	2022-01-17	2
37	Elizabeth	Snow	Elizabethsnow15@gamil....	Marketing	26000	2019-08-11	2
14	Jason	Smith	Jasonsmith@gamil.com	Admin	90000	2022-01-19	2
1	Rupesh	Marathe	rupeshmarathe5@gmail....	IT	95000	2019-05-12	2

The Output window shows the execution log:

#	Time	Action	Message	Duration / Fetch
73	23:44:05	SELECT *, row_number OVER(partition by email order BY email) as 'DENSE_RANK' FROM ...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds ...	0.000 sec
74	23:44:30	SELECT *, Row_number() OVER(partition by email order BY email) as 'DENSE_RANK' FRO ...	50 row(s) returned	0.000 sec / 0.000 sec
75	23:45:56	SELECT * FROM (SELECT *, Row_number() OVER(partition by email order BY email) as 'RN' ...	4 row(s) returned	0.000 sec / 0.000 sec

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
```

The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following query:

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

The Results Grid displays the output of the query, showing 21 rows of employee data where the row number (RN) is odd. The columns are: id, first_name, last_name, email, department, Salary, join_date, and RN.

	id	first_name	last_name	email	department	Salary	join_date	RN
1	1	Rupesh	Marathe	rupeshmarathe5@gmail....	IT	95000	2019-05-12	1
3	3	Jayshree	Gobole	JaushreeGobole@guvi.com	Admin	45000	2020-06-15	3
5	5	Amol	Marathe	Amol@gmail.com	IT	96000	2020-11-17	5
7	7	Ananad	Shukla	Anands89@gmail.com	Marketing	24000	2020-01-25	7
9	9	James	Wong	Jameswong@gmail.com	Account	15000	2021-10-18	9
11	11	Rupesh	Marathe	rupeshmarathe5@gmail....	IT	33000	2019-12-05	11
13	13	Jasmine	Hall	JasmineHall@gmail.com	Account	32000	2019-05-16	13
15	15	Martin	Vasquez	MartinVasquez@gmail.com	Account	45000	2022-12-16	15
17	17	Robert	Smith	RobertSmith@guvi.com	Marketing	56000	2018-01-06	17
19	19	Jason	Smith	Jasonsmith@gamil.com	Admin	50000	2022-01-19	19
21	21	Christino	Ronaldo	ChristnoRonaldo@gmail....	IT	51230	2021-11-12	21

The Output tab shows the execution log with three successful queries, each returning 25 rows (though the grid shows 21 rows, likely due to a limit or filter applied during execution).

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

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

The screenshot shows the MySQL Workbench interface. The SQL editor contains the query: `CREATE TABLE worker.new_clone_table as SELECT * FROM worker.employee`. The left sidebar shows the 'Schemas' panel with the 'worker' schema selected. The 'Tables' list shows 'clone_table' with columns: id, first_name, last_name, email, department, salary, and join_date. The 'Result Grid' displays the data from the 'worker.employee' table, which has been cloned into 'new_clone_table 2'. The 'Output' panel shows the execution results of the query.

#	Time	Action	Message	Duration / Fetch
90	14:17:08	SELECT * FROM worker.new_clone_table LIMIT 0, 1000	50 row(s) returned	0.000 sec / 0.000 sec
91	14:17:16	SELECT * FROM worker.new_clone_table LIMIT 0, 1000	50 row(s) returned	0.000 sec / 0.000 sec

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

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 SELECT customers.ID,customers.NAME,customers.AGE,customers.ADDRESS,customers.SALARY FROM sample.customers
2 INNER JOIN sample.customers2
3 ON customers.ID=customers2.ID
4
```

The query results are displayed in the Result Grid, showing 3 rows returned:

ID	NAME	AGE	ADDRESS	SALARY
3	kaushik	23	Kota	2000.00
5	Hardik	27	Bhopal	8500.00
6	Komal	22	MP	4500.00

The Output pane shows the execution details:

#	Time	Action	Message	Duration / Fetch
1	19:00:38	SELECT customers.ID,customers.NAME,customers.AGE,customers.ADDRESS,customers.SA...	3 row(s) returned	0.000 sec / 0.000 sec

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

The screenshot shows the MySQL Workbench interface. The SQL editor contains the query: `SELECT * FROM sample.customers`. The result grid displays the following data:

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Ahmedabad	2000.00
2	Khilan	25	Delhi	1500.00
3	Kaushik	23	Kota	2000.00
4	Chaitali	25	Mumbai	6500.00
5	Hardik	27	Bhopal	8500.00
6	Komal	22	MP	4500.00

The Action Output pane shows the execution of the query:

#	Time	Action	Message	Duration / Fetch
13	18:40:41	SELECT * FROM sample.customers LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
14	18:40:48	SELECT * FROM sample.customers LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec

The screenshot shows the MySQL Workbench interface. The SQL editor contains the query: `SELECT * FROM sample.address`. The result grid displays the following data:

ID	state	Joining_Date
2	Maharashtra	2012-09-10
3	Kolkata	2015-05-14
4	Mumbai	2011-02-13

The Action Output pane shows the execution of the query:

#	Time	Action	Message	Duration / Fetch
14	18:40:48	SELECT * FROM sample.customers LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
15	18:41:15	SELECT * FROM sample.address LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

SELECT * FROM sample.customers
WHERE ID NOT IN
(SELECT ID FROM sample.address)

The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following query:

```
1 SELECT * FROM sample.customers
2 WHERE ID NOT IN
3 (SELECT ID FROM sample.address)
4
```

The Results window displays the output of the query in a table format:

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Ahmedabad	2000.00
5	Hardik	27	Bhopal	8500.00
6	Komal	22	MP	4500.00

The Action Output window shows the execution details:

#	Time	Action	Message	Duration / Fetch
11	18:39:05	SELECT * FROM sample.customers WHERE ID NOT IN (SELECT ID FROM sample.address...	3 row(s) returned	0.000 sec / 0.000 sec
12	18:39:20	SELECT * FROM sample.customers WHERE ID NOT IN (SELECT ID FROM sample.address...	3 row(s) returned	0.000 sec / 0.000 sec

Task-9

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

SELECT * FROM worker.Employee

LIMIT 15;

The screenshot shows the MySQL Workbench interface. The SQL Editor contains the query: `SELECT * FROM worker.Employee LIMIT 15;`. The Results window displays the top 15 records of the `worker.Employee` table. The table has columns: `id`, `first_name`, `last_name`, `email`, `department`, `salary`, and `join_date`.

id	first_name	last_name	email	department	salary	join_date
1	Rupesh	Marathe	rupeshmarathe5@gmail.com	IT	95000	2019-05-12
2	Rahul	Singh	rahulsingh50@gmail.com	Admin	56000	2018-06-05
3	Jayshree	Gobole	JayshreeGobole@guvi.com	Admin	45000	2020-06-15
4	Suraj	pathan	Surajpathan@guvi.com	Marketing	10000	2021-01-19
5	Amol	Marathe	Amol@gmail.com	IT	96000	2020-11-17
6	Shrikant	Shewale	Shrikant@yahoo.com	Account	20300	2021-05-19
7	Ananad	Shukla	Anands89@gmail.com	Marketing	24000	2020-01-25
8	John	Parker	Johnparker@guvi.com	IT	60000	2020-12-15
9	James	Wong	Jameswong@gmail.com	Account	15000	2021-10-18
10	Ryan	Green	RyanGreen@gmail.com	Account	56000	2022-05-23
11	Rupesh	Marathe	rupeshmarathe5@gmail.com	IT	33000	2019-12-05
12	Kyle	Pierce	Kyle@gmail.com	Account	31000	2021-02-05
13	Jasmine	Hall	JasmineHall@gmail.com	Account	32000	2019-05-16
14	Jason	Smith	Jasonsmith@gamil.com	Admin	50000	2022-01-19

The Output window shows the execution of the query, indicating that 15 rows were returned.

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
```

The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following query:

```
1 SELECT * FROM (SELECT * ,  
2 dense_rank() OVER( order by salary DESC) as 'DN'  
3 FROM worker.Employee  
4 ) as E  
5 WHERE E.DN=10
```

The Results Grid displays the following data:

	id	first_name	last_name	email	department	Salary	join_date	DN
▶	50	Brandy	Pakie	Brandy52@gmail.com	IT	\$8000	2022-01-17	10
▶	48	Brandy	Pakie	Brandy52@gmail.com	IT	\$8000	2022-01-17	10

The Output panel shows the execution results:

#	Time	Action	Message	Duration / Fetch
9	17:28:38	SELECT * FROM (SELECT * , dense_rank() OVER(order by salary DESC) as 'DN' FROM wo...	1 row(s) returned	0.000 sec / 0.000 sec
10	17:28:42	SELECT * FROM (SELECT * , dense_rank() OVER(order by salary DESC) as 'DN' FROM wo...	2 row(s) returned	0.000 sec / 0.000 sec

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
```

The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following query:

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

The Results window displays the output of the query as a table with the following columns: id, first_name, last_name, email, department, Salary, join_date, and DR. The results show one row for the employee with ID 36, first_name Tyson, last_name Ball, email TysonBall@yahoo.com, department IT, Salary 60100, join_date 2020-11-15, and DR 8.

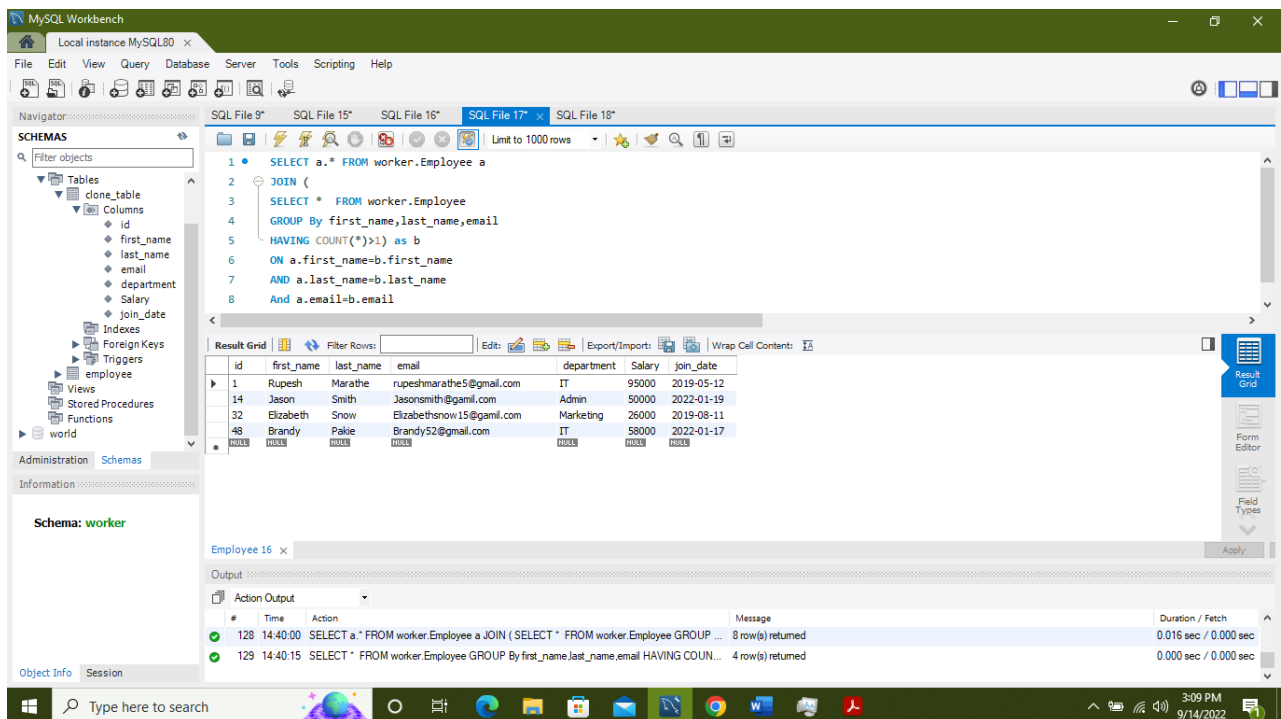
id	first_name	last_name	email	department	Salary	join_date	DR
36	Tyson	Ball	TysonBall@yahoo.com	IT	60100	2020-11-15	8

The bottom of the screenshot shows the Output window with the following messages:

```
102 00:08:47 SELECT * FROM (SELECT * , DENSE_RANK() OVER (order BY salary DESC) as DR FROM... 2 row(s) returned 0.000 sec / 0.000 sec  
103 00:08:58 SELECT * FROM (SELECT * , DENSE_RANK() OVER (order BY salary DESC) as DR FROM... 2 row(s) returned 0.000 sec / 0.000 sec  
104 00:09:01 SELECT * FROM (SELECT * , DENSE_RANK() OVER (order BY salary DESC) as DR FROM... 1 row(s) returned 0.000 sec / 0.000 sec
```

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
```



The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following query:

```
1 SELECT a.* FROM worker.Employee a
2 JOIN (
3 SELECT * FROM worker.Employee
4 GROUP By first_name,last_name,email
5 HAVING COUNT(*)>1) as b
6 ON a.first_name=b.first_name
7 AND a.last_name=b.last_name
8 And a.email=b.email
```

The Results window displays the following data:

	id	first_name	last_name	email	department	Salary	join_date
1	Rupesh	Marathe	rupeshmarathe5@gmail.com	IT	95000	2019-05-12	
14	Jason	Smith	Jasonsmith@gmail.com	Admin	90000	2022-01-19	
32	Elizabeth	Snow	Elizabethsnow15@gmail.com	Marketing	26000	2019-08-11	
48	Brandy	Pakie	Brandy52@gmail.com	IT	58000	2022-01-17	

The Output window shows the execution results:

#	Time	Action	Message	Duration / Fetch
128	14:40:00	SELECT a.* FROM worker.Employee a JOIN (SELECT * FROM worker.Employee GROUP ...	8 row(s) returned	0.016 sec / 0.000 sec
129	14:40:15	SELECT * FROM worker.Employee GROUP By first_name,last_name,email HAVING COUN...	4 row(s) returned	0.000 sec / 0.000 sec