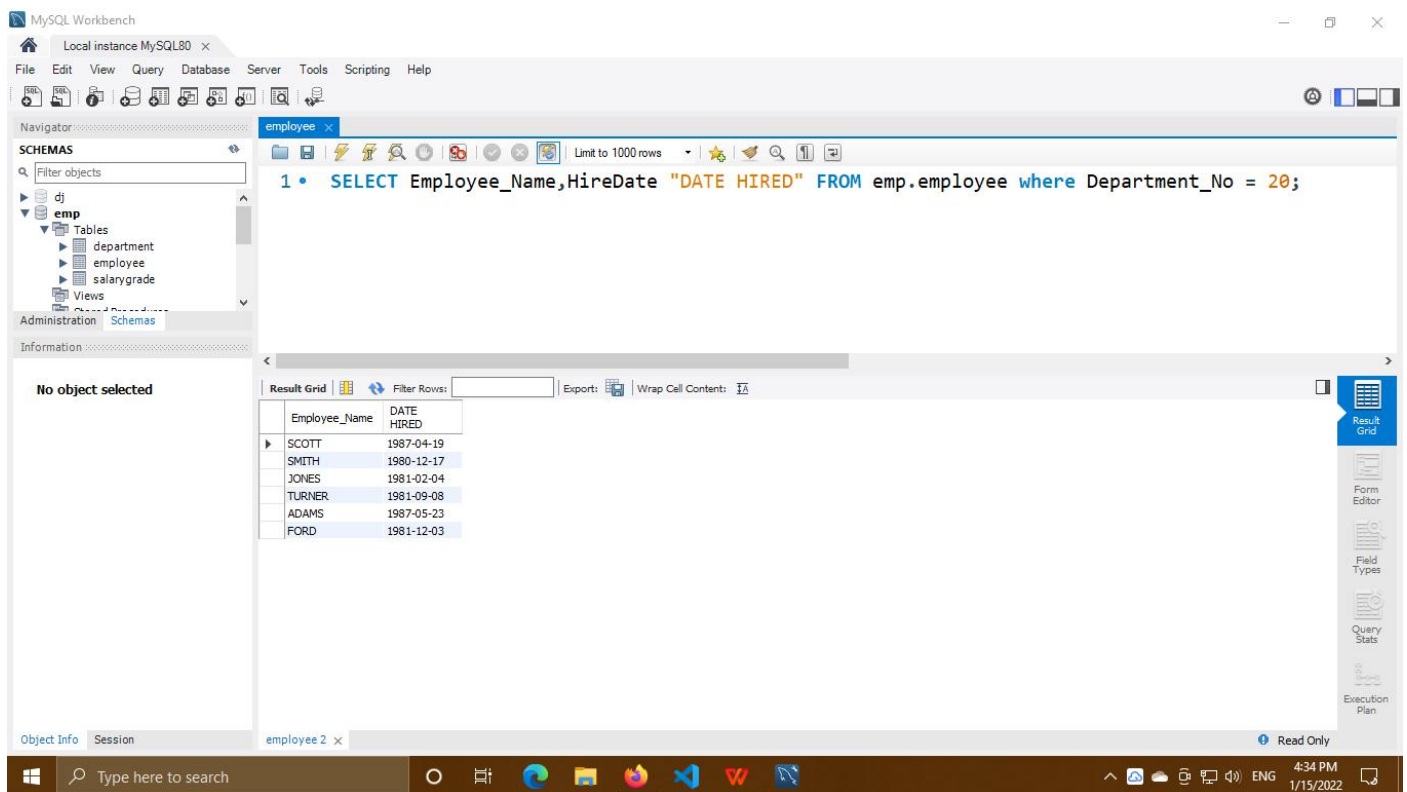


Database Technologies Assignment - 02

Rollno: 210950320034, Name: Deepankar jadhav

Q1) Display each employee's name and hiredate from department number 20. Make sure that you specify the alias 'DATE HIRED'.

```
SELECT Employee_Name, HireDate "DATE HIRED" FROM emp.employee  
where Department_No = 20;
```



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

```
1 • SELECT Employee_Name, HireDate "DATE HIRED" FROM emp.employee where Department_No = 20;
```

The results are displayed in the Result Grid, showing a table with two columns: Employee_Name and DATE HIRED. The data is as follows:

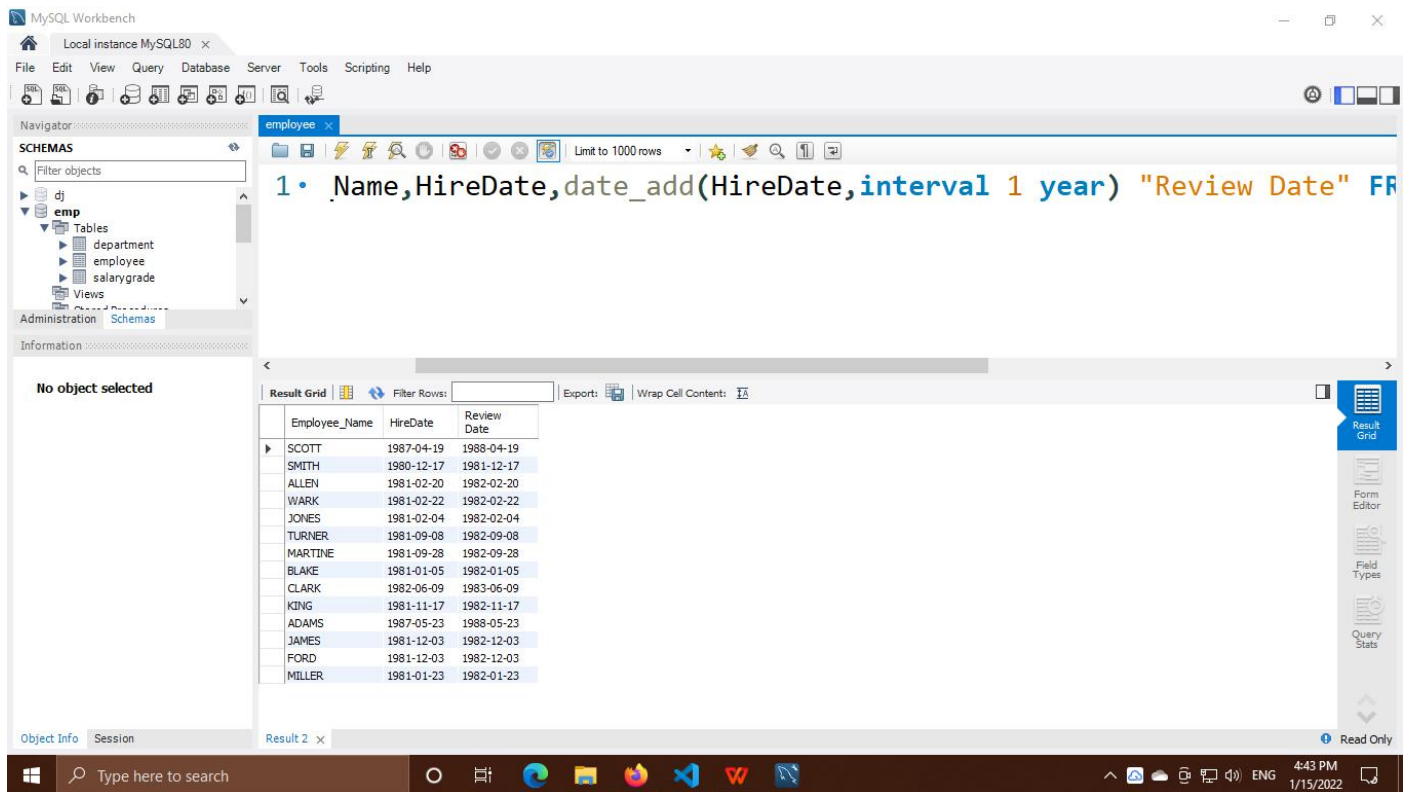
Employee_Name	DATE HIRED
SCOTT	1987-04-19
SMITH	1980-12-17
JONES	1981-02-04
TURNER	1981-09-08
ADAMS	1987-05-23
FORD	1981-12-03

Database Technologies Assignment - 02

Rollno: 210950320034, Name: Deepankar jadhav

Q2) Display each employee's name with hiredate and salary review date. Assume review date is one year after hiredate.

```
SELECT Employee_Name,HireDate,date_add(HireDate,interval 1 year) "Review Date" FROM emp.employee;
```



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

```
1 • Name,HireDate,date_add(HireDate,interval 1 year) "Review Date" FR
```

The query results are displayed in the Result Grid, showing a list of employees with their names, hire dates, and review dates (one year after the hire date).

Employee_Name	HireDate	Review Date
SCOTT	1987-04-19	1988-04-19
SMITH	1980-12-17	1981-12-17
ALLEN	1981-02-20	1982-02-20
WARD	1981-02-22	1982-02-22
JONES	1981-02-04	1982-02-04
TURNER	1981-09-08	1982-09-08
MARTINE	1981-09-28	1982-09-28
BLAKE	1981-01-05	1982-01-05
CLARK	1982-06-09	1983-06-09
KING	1981-11-17	1982-11-17
ADAMS	1987-05-23	1988-05-23
JAMES	1981-12-03	1982-12-03
FORD	1981-12-03	1982-12-03
MILLER	1981-01-23	1982-01-23

Database Technologies Assignment - 02
Rollno: 210950320034, Name: Deepankar jadhav

Q3) Print a list of employees displaying just salary if more than 1500. If exactly 1500 then display 'On Target', if less than 1500 then display 'below 1500'.

```
Select *,  
CASE WHEN (Salary < 1500) THEN 'Below 1500'  
WHEN (Salary = 1500) THEN 'On Target'  
ELSE Salary END RESULT from emp.employee;
```

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

```
1 Select *,  
2 CASE WHEN (Salary < 1500) THEN 'Below 1500'  
3 WHEN (Salary = 1500) THEN 'On Target'  
4 ELSE Salary END RESULT from emp.employee;
```

The Results window displays the output of the query in a table format. The table has the following columns: Employee_No, Employee_Name, Job, MGR, HireDate, Salary, Commission, Department_No, and RESULT. The results are as follows:

Employee_No	Employee_Name	Job	MGR	HireDate	Salary	Commission	Department_No	RESULT
2788	SCOTT	ANALYST	7566	1987-04-19	3000.00	NULL	20	3000.00
7369	SMITH	CLERK	7902	1980-12-17	800.00	NULL	20	Below 1500
7499	ALLEN	SALESPERSON	7698	1981-02-20	1000.00	300.00	30	Below 1500
7521	WARD	SALESPERSON	7698	1981-02-22	1250.00	500.00	30	Below 1500
7566	JONES	MANAGER	7839	1981-02-04	2975.00	NULL	20	2975.00
7644	TURNER	SALESMAN	7698	1981-09-08	1500.00	NULL	20	On Target
7654	MARTINE	SALESPERSON	7698	1981-09-28	1250.00	1400.00	30	Below 1500
7698	BLAKE	SALESPERSON	7839	1981-01-05	2850.00	NULL	30	2850.00
7782	CLARK	MANAGER	7839	1982-06-09	2450.00	NULL	10	2450.00
7839	KING	PRESIDENT	NULL	1981-11-17	5000.00	NULL	10	5000.00
7879	ADAMS	CLERK	7788	1987-05-23	1100.00	NULL	20	Below 1500
7900	JAMES	SALESPERSON	7698	1981-12-03	950.00	NULL	30	Below 1500
7902	FORD	ANALYST	7566	1981-12-03	3000.00	NULL	20	3000.00
7934	MILLER	CLERK	7782	1981-01-23	1300.00	NULL	10	Below 1500

Database Technologies Assignment - 02
Rollno: 210950320034, Name: Deepankar jadhav

Q4) Write a query, which will return the day of the week for any date entered in the format dd.mm.yy.

```
SELECT date_format(Hiredate,'%W') from emp.employee;
```

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

```
1 • SELECT date_format(Hiredate,'%W') from emp.employee;
```

The left sidebar shows the 'SCHEMAS' panel with a tree view of the database structure. The 'emp' schema is expanded, showing tables: department, employee, and salarygrade. The 'employee' table is selected, and its structure is displayed in the 'Table: employee' section:

Columns:	
Employee_No	int PK
Employee_Name	varchar(10)
Job	varchar(15)
MGR	int
HireDate	date
Salary	double(7,2)
Commission	double(7,2)
Department_No	int

The 'Result Grid' panel shows the output of the query, displaying the day of the week for each employee's hire date:

date_format(hiredate,'%W')
Sunday
Wednesday
Friday
Sunday
Wednesday
Tuesday
Monday
Monday
Wednesday
Tuesday
Saturday
Thursday
Thursday
Friday

The bottom status bar shows the system time as 8:33 PM on 1/15/2022.

Database Technologies Assignment - 02
Rollno: 210950320034, Name: Deepankar jadhav

5. Employees hired on or before that 15th of any month are paid on the last Friday of that month. Those hired after 15th are paid the first Friday of the following month. Print the list of employees and their hire date and the first pay date. Sort on hire date.

```
SELECT *,  
CASE WHEN DAY(HireDate) <= 15 THEN 'Last Friday'  
ELSE 'First Friday'  
END AS 'First_Pay'  
FROM emp.employee order by HireDate;
```

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

```
1 SELECT *, CASE WHEN DAY(HireDate) <= 15 THEN 'Last Friday'  
2 ELSE 'First Friday'  
3 END AS 'First_Pay' FROM emp.employee order by HireDate;
```

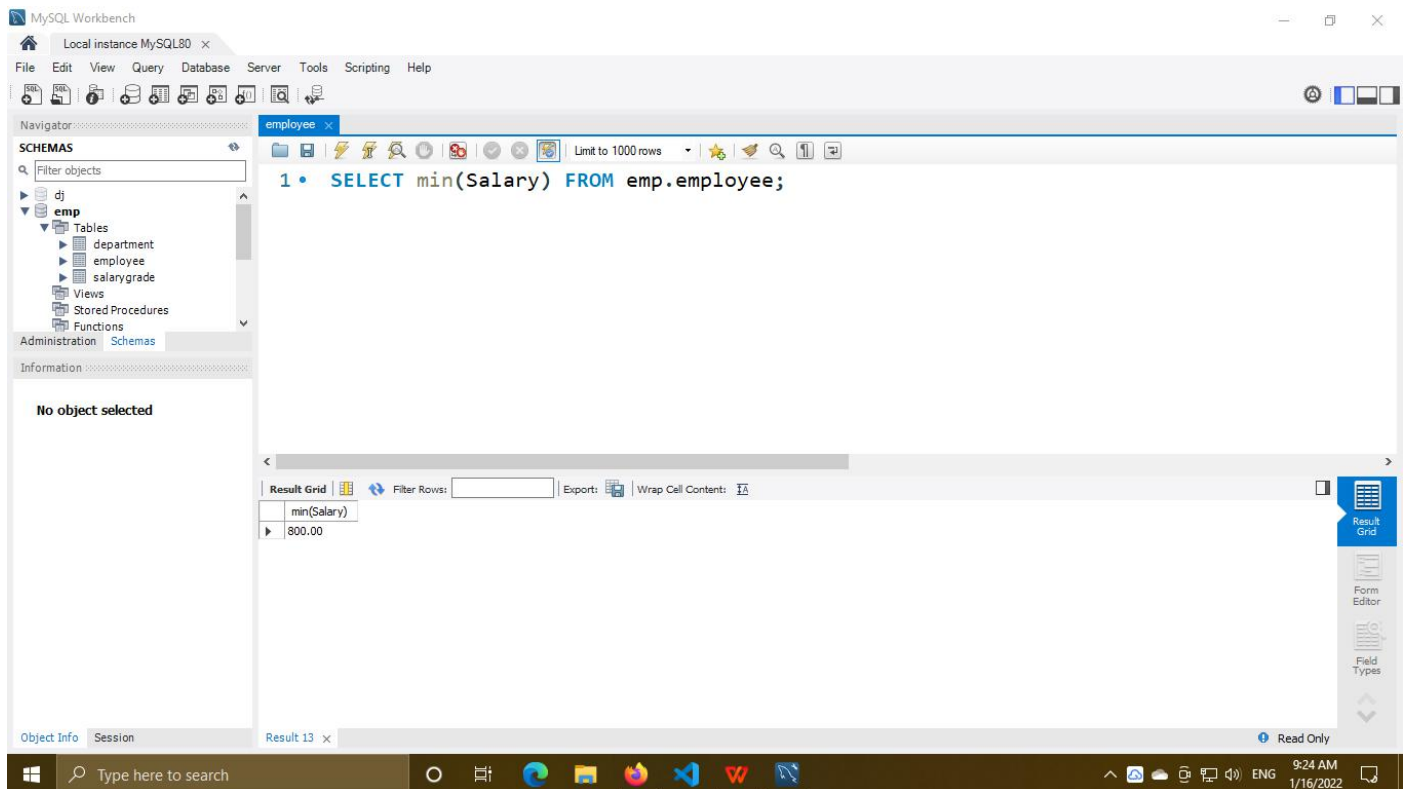
The result grid displays the following data:

Employee_No	Employee_Name	Job	MGR	HireDate	Salary	Commission	Department_No	First_Pay
7369	SMITH	CLERK	7902	1980-12-17	800.00	10.00	20	First Friday
7698	BLAKE	SALESPERSON	7839	1981-01-05	2850.00	10.00	30	Last Friday
7934	MILLER	CLERK	7782	1981-01-23	1300.00	10.00	10	First Friday
7566	JONES	MANAGER	7839	1981-02-04	2975.00	10.00	20	Last Friday
7499	ALLEN	SALESPERSON	7698	1981-02-20	1000.00	30.00	30	First Friday
7521	WARD	SALESPERSON	7698	1981-02-22	1250.00	50.00	30	First Friday
7644	TURNER	SALESMAN	7698	1981-09-08	1500.00	10.00	20	Last Friday
7654	MARTINE	SALESPERSON	7698	1981-09-28	1250.00	14.00	30	First Friday
7839	KING	PRESIDENT	7698	1981-11-17	5000.00	10.00	10	First Friday
7900	JAMES	SALESPERSON	7698	1981-12-03	950.00	10.00	30	Last Friday

Database Technologies Assignment - 02
Rollno: 210950320034, Name: Deepankar jadhav

Q6) Find the minimum salary of all employees.

`SELECT min(Salary) FROM emp.employee;`



The screenshot shows the MySQL Workbench interface. The 'Schemas' pane on the left displays the 'emp' database with tables 'department', 'employee', and 'salarygrade'. The main editor contains the query: `1 • SELECT min(Salary) FROM emp.employee;`. The 'Result Grid' at the bottom shows the output:

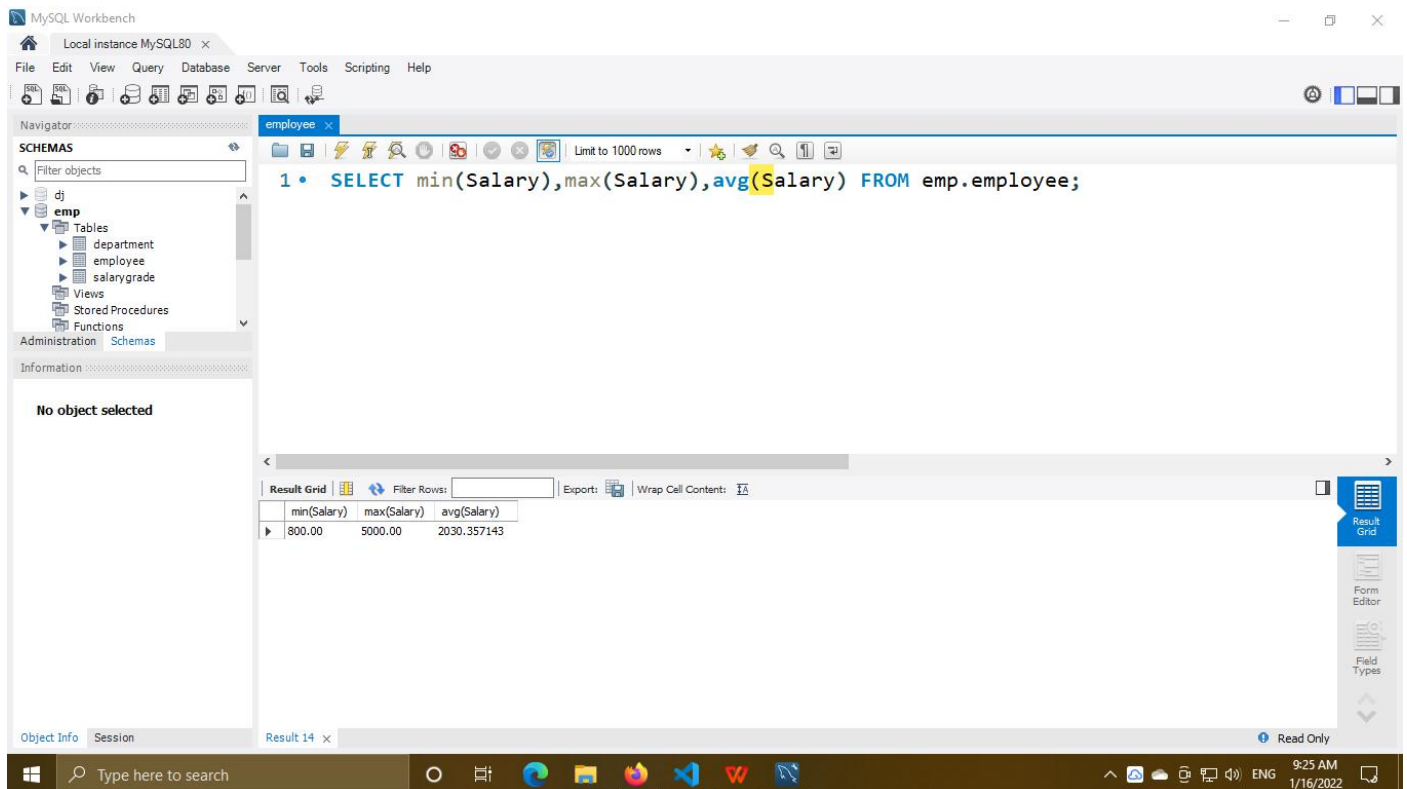
min(Salary)
800.00

The status bar at the bottom indicates 'Read Only' and the system time is 9:24 AM on 1/16/2022.

Database Technologies Assignment - 02
Rollno: 210950320034, Name: Deepankar jadhav

Q7) Find the minimum, maximum and average salaries of all employees.

SELECT min(Salary),max(Salary),avg(Salary) FROM emp.employee;



The screenshot shows the MySQL Workbench interface. The 'Schemas' pane on the left shows the 'emp' database selected, with tables 'department', 'employee', and 'salarygrade' listed. The 'Query Editor' in the center contains the SQL query: `1 • SELECT min(Salary),max(Salary),avg(Salary) FROM emp.employee;`. The 'Result Grid' at the bottom displays the query results in a table with three columns: min(Salary), max(Salary), and avg(Salary). The results are: min(Salary) = 800.00, max(Salary) = 5000.00, and avg(Salary) = 2030.357143. The status bar at the bottom indicates 'Read Only' and the time is 9:25 AM on 1/16/2022.

min(Salary)	max(Salary)	avg(Salary)
800.00	5000.00	2030.357143

Database Technologies Assignment - 02
Rollno: 210950320034, Name: Deepankar jadhav

Q8) List the minimum and maximum salary for each job type.

SELECT *,min(Salary),max(Salary) FROM emp.employee group by Job;

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

```
1 • SELECT *,min(Salary),max(Salary) FROM emp.employee group by Job;
```

The result grid displays the following data:

Employee_No	Employee_Name	Job	MGR	HireDate	Salary	Commission	Department_No	min(Salary)	max(Salary)
2788	SCOTT	ANALYST	7566	1987-04-19	3000.00	10.00	20	3000.00	3000.00
7369	SMITH	CLERK	7902	1980-12-17	800.00	0.00	20	800.00	1300.00
7499	ALLEN	SALESPERSON	7698	1981-02-20	1000.00	30.00	30	950.00	2850.00
7566	JONES	MANAGER	7839	1981-02-04	2975.00	0.00	20	2450.00	2975.00
7644	TURNER	SALESMAN	7698	1981-09-08	1500.00	0.00	20	1500.00	1500.00
7839	KING	PRESIDENT	0	1981-11-17	5000.00	0.00	10	5000.00	5000.00

Database Technologies Assignment - 02
Rollno: 210950320034, Name: Deepankar jadhav

Q9) Find out how many managers are there without listing them.

`SELECT *,count(Job) FROM emp.employee where Job = 'MANAGER';`

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

```
1 • SELECT *,count(Job) FROM emp.employee where Job = 'MANAGER';
```

The query has been executed, and the results are displayed in the 'Result Grid' tab. The results show one row for the employee JONES, who is a manager.

Employee_No	Employee_Name	Job	MGR	HireDate	Salary	Commission	Department_No	count(Job)
7566	JONES	MANAGER	7839	1981-02-04	2975.00	10%	20	2

The interface also shows the 'Navigator' pane on the left with the 'emp' schema selected, and the 'Object Info' pane at the bottom left.

Database Technologies Assignment - 02

Rollno: 210950320034, Name: Deepankar jadhav

Q10) Find out the average salary and total remuneration for each job type.

```
SELECT *,avg(Salary),Salary*12+ifnull(Commission,0) as 'Total Remuneration'  
FROM emp.employee group by Job;
```

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

```
1 • SELECT *,avg(Salary),Salary*12+ifnull(Commission,0) as 'Total  
2 FROM emp.employee group by Job;
```

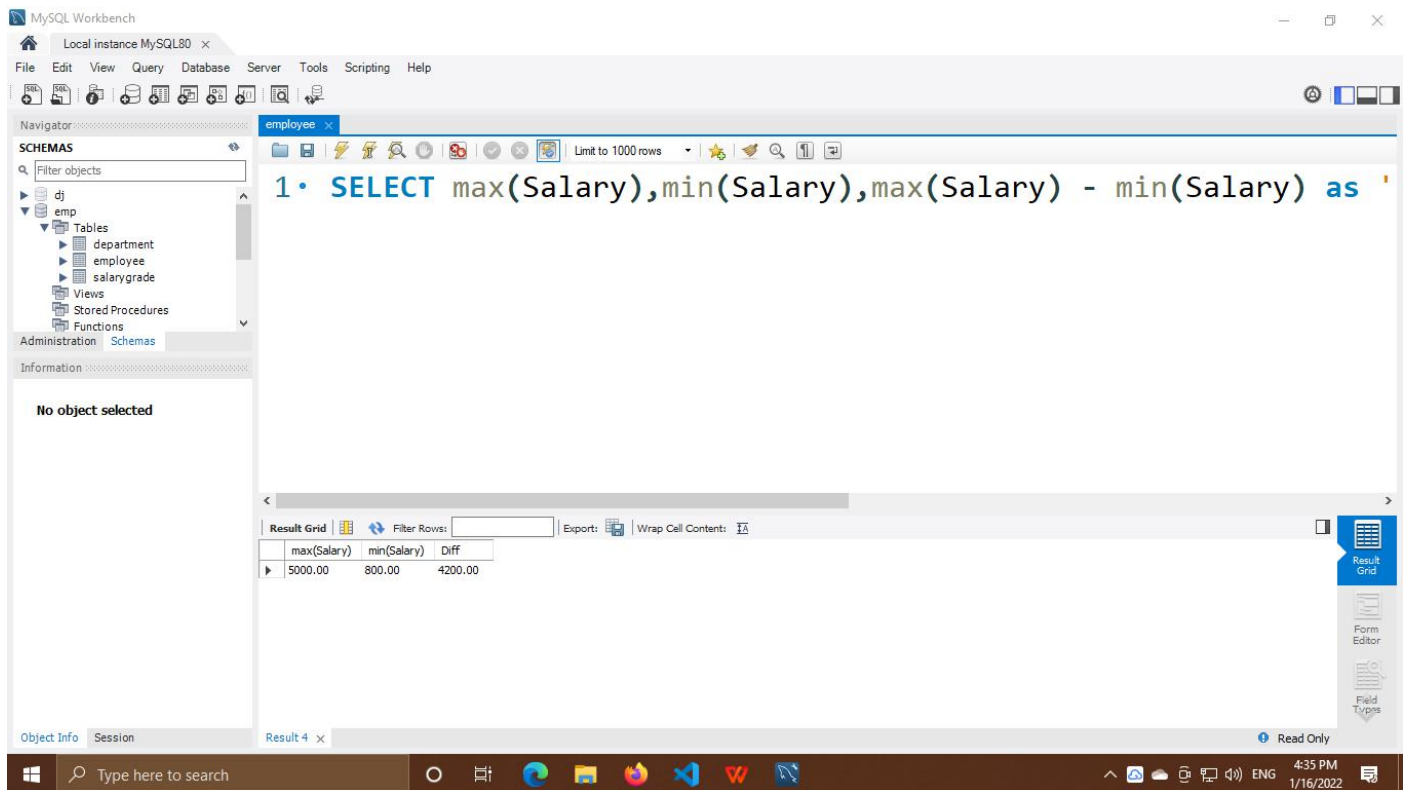
The Results window displays the following data:

Employee_No	Employee_Name	Job	MGR	HireDate	Salary	Commission	Department_No	avg(Salary)	Total Remuneration
2788	SCOTT	ANALYST	7566	1987-04-19	3000.00	NULL	20	3000.000000	36000.00
7369	SMITH	CLERK	7902	1980-12-17	800.00	NULL	20	1066.666667	9600.00
7499	ALLEN	SALESPERSON	7698	1981-02-20	1000.00	300.00	30	1460.000000	12300.00
7566	JONES	MANAGER	7839	1981-02-04	2975.00	NULL	20	2712.500000	35700.00
7644	TURNER	SALESMAN	7698	1981-09-08	1500.00	NULL	20	1500.000000	18000.00
7839	KING	PRESIDENT	NULL	1981-11-17	5000.00	NULL	10	5000.000000	60000.00

Database Technologies Assignment - 02
Rollno: 210950320034, Name: Deepankar jadhav

Q11) Find out the difference between highest and lowest salaries.

```
SELECT max(Salary),min(Salary),max(Salary) - min(Salary) as 'Diff' FROM  
emp.employee;
```



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

```
1 • SELECT max(Salary),min(Salary),max(Salary) - min(Salary) as 'Diff' FROM emp.employee;
```

The query has been executed, and the results are displayed in the 'Result Grid' at the bottom. The grid shows the following data:

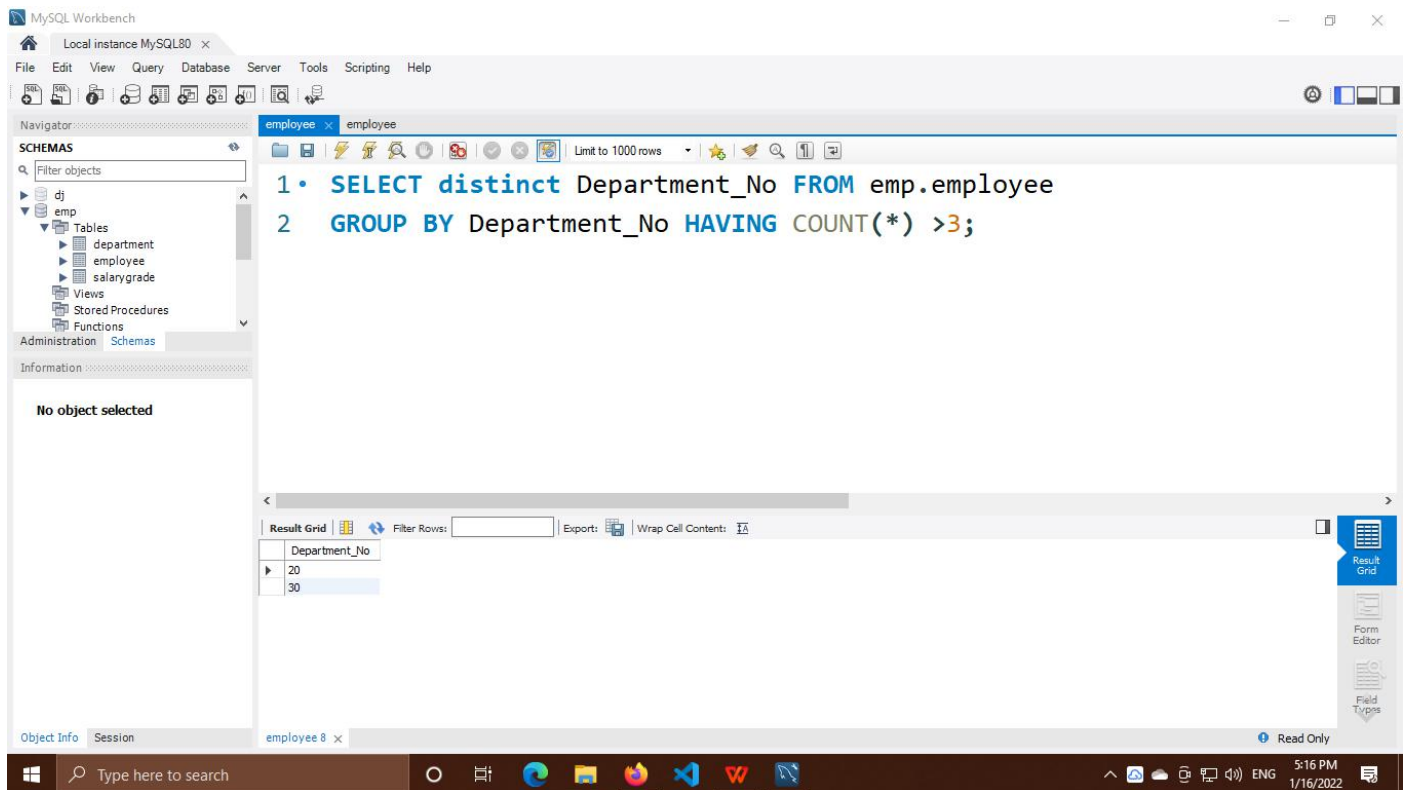
max(Salary)	min(Salary)	Diff
5000.00	800.00	4200.00

The interface also shows the 'Navigator' pane on the left with the 'Schemas' tab selected, displaying the 'emp' database and its tables: 'department', 'employee', and 'salarygrade'. The 'Information' pane at the bottom left shows 'No object selected'. The status bar at the bottom right indicates 'Read Only' and the date '1/16/2022'.

Database Technologies Assignment - 02
Rollno: 210950320034, Name: Deepankar jadhav

Q12) Find all departments, which have more than 3 employees.

```
SELECT distinct Department_No FROM emp.employee  
GROUP BY Department_No HAVING COUNT(*) >3;
```



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

```
1 • SELECT distinct Department_No FROM emp.employee  
2 GROUP BY Department_No HAVING COUNT(*) >3;
```

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

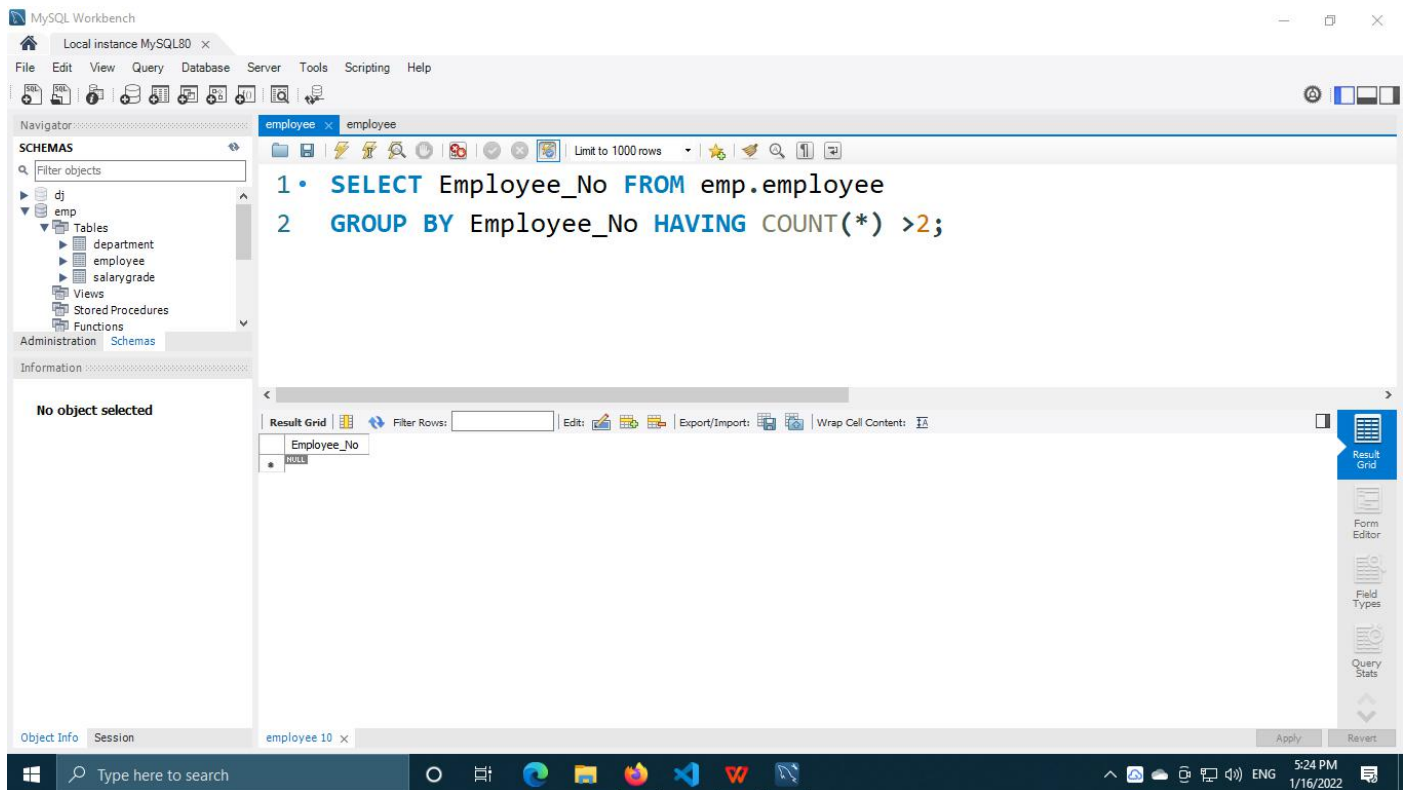
Department_No
20
30

The interface also shows the Navigator pane on the left with the database schema structure, including tables like department, employee, and salarygrade. The bottom status bar indicates the session is 'employee 8' and the system is in 'Read Only' mode.

Database Technologies Assignment - 02
Rollno: 210950320034, Name: Deepankar jadhav

Q13) Check whether all employee numbers are indeed unique.

```
SELECT Employee_No FROM emp.employee  
GROUP BY Employee_No HAVING COUNT(*) >2;
```



Database Technologies Assignment - 02
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Q14) List the lowest paid employees working for each manager. Exclude any groups where the minimum salary is less than 1000. Sort the output by salary.

```
SELECT *,min(Salary) FROM emp.employee  
group by Salary having Salary>1000 and not  
Job='Manager' and not Job='PRESIDENT' order by Salary;
```

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

```
1 • SELECT *,min(Salary) FROM emp.employee  
2 group by Salary having Salary>1000 and not  
3 Job='Manager' and not Job='PRESIDENT' order by Salary;
```

The Results window displays the following data:

Employee_No	Employee_Name	Job	MGR	HireDate	Salary	Commission	Department_No	min(Salary)
7879	ADAMS	CLERK	7788	1987-05-23	1100.00	NULL	20	1100.00
7521	WARD	SALESPERSON	7698	1981-02-22	1250.00	500.00	30	1250.00
7934	MILLER	CLERK	7782	1981-01-23	1300.00	NULL	10	1300.00
7644	TURNER	SALESMAN	7698	1981-09-08	1500.00	NULL	20	1500.00
7698	BLAKE	SALESPERSON	7839	1981-01-05	2850.00	NULL	30	2850.00
2788	SCOTT	ANALYST	7566	1987-04-19	3000.00	NULL	20	3000.00

Database Technologies Assignment - 02
Rollno: 210950320034, Name: Deepankar jadhav

Q15) Display all employee names and their department names, in the order of department name.

```
SELECT Employee_Name, department.Department_Name
FROM employee
INNER JOIN department ON
employee.Department_No = department.Department_No;
```

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

```
1 • SELECT Employee_Name, department.Department_Name
2 FROM employee
3 INNER JOIN department ON
4 employee.Department_No = department.Department_No;
```

The result grid displays the following data:

Employee_Name	Department_Name
CLARK	Accounting
KING	Accounting
MILLER	Accounting
SCOTT	Research
SMITH	Research
JONES	Research
TURNER	Research
ADAMS	Research
FORD	Research
ALLEN	Sales
WARD	Sales
MARTINE	Sales
BLAKE	Sales
JAMES	Sales

The left sidebar shows the Schemas pane with the 'emp' database selected. The 'employee' table is highlighted. The bottom status bar indicates 'Query Completed'.

Database Technologies Assignment - 02
Rollno: 210950320034, Name: Deepankar jadhav

Q16) Display all employee names, department number and department name.

```
SELECT Employee_Name, department.Department_No,  
department.Department_Name  
FROM employee  
INNER JOIN department ON  
employee.Department_No = department.Department_No;
```

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

```
1 • SELECT Employee_Name, department.Department_No, department.Department_Name  
2 FROM employee  
3 INNER JOIN department ON  
4 employee.Department_No = department.Department_No;
```

The query results are displayed in the Result Grid, showing 14 rows of data:

Employee_Name	Department_No	Department_Name
CLARK	10	Accounting
KING	10	Accounting
MILLER	10	Accounting
SCOTT	20	Research
SMITH	20	Research
JONES	20	Research
TURNER	20	Research
ADAMS	20	Research
FORD	20	Research
ALLEN	30	Sales
WARD	30	Sales
MARTINE	30	Sales
BLAKE	30	Sales
JAMES	30	Sales

The left sidebar shows the Schemas pane with the 'employee' table selected. The table structure is displayed below:

Table: employee

Columns:

- Employee_No: int PK
- Employee_Name: varchar(10)
- Job: varchar(15)
- MGR: int
- HireDate: date
- Salary: double(7,2)
- Commission: double(7,2)
- Department_No: int

Database Technologies Assignment - 02
Rollno: 210950320034, Name: Deepankar jadhav

Q17) Display the name, location and department of employees whose salary is more than 1500 a month.

```
SELECT Employee_Name, department.Location, department.Department_Name  
FROM employee  
INNER JOIN department ON  
employee.Department_No = department.Department_No  
WHERE employee.Salary > 1500;
```

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

```
1 • SELECT Employee_Name, department.Location, department.Department_Name  
2 FROM employee  
3 INNER JOIN department ON  
4 employee.Department_No = department.Department_No  
5 WHERE employee.Salary > 1500;
```

The Results Grid shows the following data:

Employee_Name	Location	Department_Name
SCOTT	Dallas	Research
JONES	Dallas	Research
BLAKE	Chicago	Sales
CLARK	New York	Accounting
KING	New York	Accounting
FORD	Dallas	Research

The left sidebar shows the Schemas pane with a tree view of the database structure. The bottom status bar indicates "Query Completed".

Database Technologies Assignment - 02
Rollno: 210950320034, Name: Deepankar jadhav

Q18) Show only employees on grade 3.

```
SELECT *, salarygrade.Grade  
FROM employee  
INNER JOIN salarygrade where salarygrade.Grade = 3;
```

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

```
1 • SELECT *, salarygrade.Grade  
2 FROM employee  
3 INNER JOIN salarygrade where salarygrade.Grade = 3;  
4
```

The query results are displayed in the Result Grid, showing 15 rows of data. The columns are: Employee_No, Employee_Name, Job, MGR, HireDate, Salary, Commission, Department_No, Grade, Low_Sal, High_Sal, and Grade. The results are filtered to show only employees with Grade 3.

Employee_No	Employee_Name	Job	MGR	HireDate	Salary	Commission	Department_No	Grade	Low_Sal	High_Sal	Grade
2788	SCOTT	ANALYST	7566	1987-04-19	3000.00	NULL	20	3	1401	2000	3
7369	SMITH	CLERK	7902	1980-12-17	800.00	NULL	20	3	1401	2000	3
7499	ALLEN	SALESPERSON	7698	1981-02-20	1000.00	300.00	30	3	1401	2000	3
7521	WARD	SALESPERSON	7698	1981-02-22	1250.00	500.00	30	3	1401	2000	3
7566	JONES	MANAGER	7839	1981-02-04	2975.00	NULL	20	3	1401	2000	3
7644	TURNER	SALESMAN	7698	1981-09-08	1500.00	NULL	20	3	1401	2000	3
7654	MARTINE	SALESPERSON	7698	1981-09-28	1250.00	1400.00	30	3	1401	2000	3
7698	BLAKE	SALESPERSON	7839	1981-01-05	2850.00	NULL	30	3	1401	2000	3
7782	CLARK	MANAGER	7839	1982-06-09	2450.00	NULL	10	3	1401	2000	3
7839	KING	PRESIDENT	7839	1981-11-17	5000.00	NULL	10	3	1401	2000	3
7879	ADAMS	CLERK	7788	1987-05-23	1100.00	NULL	20	3	1401	2000	3
7900	JAMES	SALESPERSON	7698	1981-12-03	950.00	NULL	30	3	1401	2000	3
7902	FORD	ANALYST	7566	1981-12-03	3000.00	NULL	20	3	1401	2000	3
7934	MILLER	CLERK	7782	1981-01-23	1300.00	NULL	10	3	1401	2000	3

Database Technologies Assignment - 02
Rollno: 210950320034, Name: Deepankar jadhav

Q20) List the employee name, job, salary, and grade and department name for everyone in the company except clerks. Sort on salary, displaying the highest salary first.

```
SELECT employee.Employee_Name, employee.Job, employee.Salary,  
salarygrade.Grade, department.Department_Name  
FROM employee  
LEFT JOIN department ON  
employee.Department_No = department.Department_No  
LEFT JOIN salarygrade ON salarygrade.Grade = employee.Salary  
where not employee.Job = 'CLERK' order by Salary desc;
```

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

```
2 salarygrade.Grade, department.Department_Name  
3 FROM employee  
4 LEFT JOIN department ON  
5 employee.Department_No = department.Department_No  
6 LEFT JOIN salarygrade ON salarygrade.Grade = employee.Salary  
7 where not employee.Job = 'CLERK' order by Salary desc;  
8
```

The Results Grid displays the following data:

Employee_Name	Job	Salary	Grade	Department_Name
KING	PRESIDENT	5000.00	HALF	Accounting
SCOTT	ANALYST	3000.00	HALF	Research
FORD	ANALYST	3000.00	HALF	Research
JONES	MANAGER	2975.00	HALF	Research
BLAKE	SALESPERSON	2850.00	HALF	Sales
CLARK	MANAGER	2450.00	HALF	Accounting
TURNER	SALESMAN	1500.00	HALF	Research
WARD	SALESPERSON	1250.00	HALF	Sales
MARTINE	SALESPERSON	1250.00	HALF	Sales
ALLEN	SALESPERSON	1000.00	HALF	Sales
JAMES	SALESPERSON	950.00	HALF	Sales

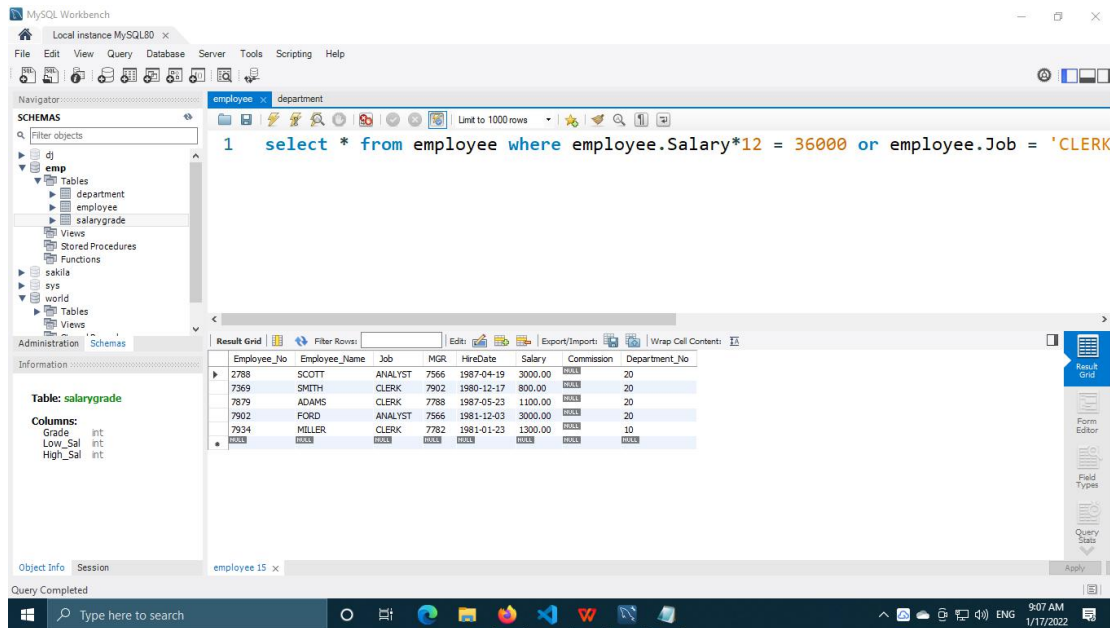
The interface also shows the Schemas pane on the left with a tree view of databases and tables. The bottom status bar indicates 'Query Completed'.

Database Technologies Assignment - 02

Rollno: 210950320034, Name: Deepankar jadhav

Q21) List the details of employees who earn 36000 a year or who are clerks.

`select * from employee where employee.Salary*12 = 36000 or employee.Job = 'CLERK';`



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

```
1 select * from employee where employee.Salary*12 = 36000 or employee.Job = 'CLERK';
```

The Results Grid displays the following data:

Employee_No	Employee_Name	Job	MGR	HireDate	Salary	Commission	Department_No
2788	SCOTT	ANALYST	7566	1987-04-19	3000.00	0.00	20
7369	SMITH	CLERK	7902	1980-12-17	800.00	0.00	20
7879	ADAMS	CLERK	7788	1987-05-23	1100.00	0.00	20
7902	FORD	ANALYST	7566	1981-12-03	3000.00	0.00	20
7934	MILLER	CLERK	7782	1981-01-23	1300.00	0.00	10

The left sidebar shows the Schemas pane with the 'emp' database selected. The 'salarygrade' table is highlighted in the 'Tables' section. The bottom status bar indicates 'Query Completed'.

Database Technologies Assignment - 02

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Q23) Find the employees who earn the highest salary in each job type. Sort in descending salary order.

```
SELECT *,max(Salary) FROM emp.employee  
group by Job order by Salary desc;
```

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

```
1 • SELECT *,max(Salary) FROM emp.employee  
2 group by Job order by Salary desc;
```

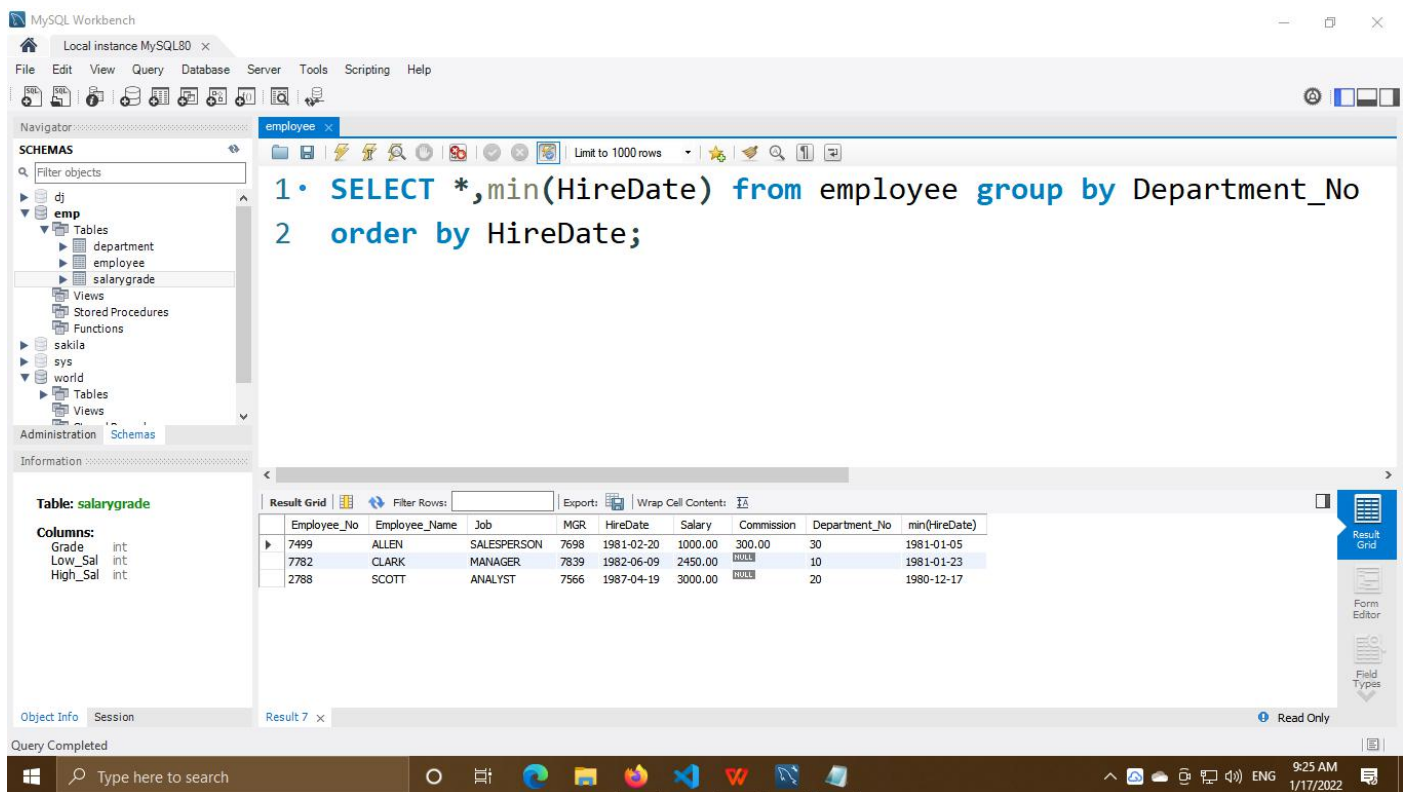
The query results are displayed in the Result Grid, showing the following data:

Employee_No	Employee_Name	Job	MGR	HireDate	Salary	Commission	Department_No	max(Salary)
7839	KING	PRESIDENT	NULL	1981-11-17	5000.00	NULL	10	5000.00
2788	SCOTT	ANALYST	7566	1987-04-19	3000.00	NULL	20	3000.00
7566	JONES	MANAGER	7839	1981-02-04	2975.00	NULL	20	2975.00
7644	TURNER	SALESMAN	7698	1981-09-08	1500.00	NULL	20	1500.00
7499	ALLEN	SALESPERSON	7698	1981-02-20	1000.00	300.00	30	2850.00
7369	SMITH	CLERK	7902	1980-12-17	800.00	NULL	20	1300.00

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Q24) Find the most recently hired employees in each department ordered by hire date.

SELECT *,min(HireDate) from employee group by Department_No
order by HireDate;



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

```
1. SELECT *,min(HireDate) from employee group by Department_No
2. order by HireDate;
```

The result grid displays the following data:

Employee_No	Employee_Name	Job	MGR	HireDate	Salary	Commission	Department_No	min(HireDate)
7499	ALLEN	SALESPERSON	7698	1981-02-20	1000.00	300.00	30	1981-01-05
7782	CLARK	MANAGER	7839	1982-06-09	2450.00	NULL	10	1981-01-23
2788	SCOTT	ANALYST	7566	1987-04-19	3000.00	NULL	20	1980-12-17

The interface also shows the 'SCHEMAS' panel on the left with the 'emp' database selected, and the 'Table: salarygrade' information panel on the bottom left.

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Q25) Display the details of employees hired between Jan and June.

```
select * from employee where  
month(HireDate) between 1 and 6;
```

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

```
1 select * from employee where  
2 month(HireDate) between 1 and 6;
```

The left sidebar shows the 'SCHEMAS' tree with the 'emp' database selected. The 'Table: salarygrade' is highlighted, showing its columns: Grade (int), Low_Sal (int), and High_Sal (int).

The 'Result Grid' displays the results of the query, showing 10 rows of employee data. The columns are: Employee_No, Employee_Name, Job, MGR, HireDate, Salary, Commission, and Department_No.

Employee_No	Employee_Name	Job	MGR	HireDate	Salary	Commission	Department_No
2788	SCOTT	ANALYST	7566	1987-04-19	3000.00	NO	20
7499	ALLEN	SALESPERSON	7698	1981-02-20	1000.00	300.00	30
7521	WARD	SALESPERSON	7698	1981-02-22	1250.00	500.00	30
7566	JONES	MANAGER	7839	1981-02-04	2975.00	NO	20
7698	BLAKE	SALESPERSON	7839	1981-01-05	2850.00	NO	30
7782	CLARK	MANAGER	7839	1982-06-09	2450.00	NO	10
7879	ADAMS	CLERK	7788	1987-05-23	1100.00	NO	20
7934	MILLER	CLERK	7782	1981-01-23	1300.00	NO	10
NO	NO	NO	NO	NO	NO	NO	NO
NO	NO	NO	NO	NO	NO	NO	NO

The bottom status bar indicates 'Query Completed'.

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Q26) Display the count, total salary and average salary of all employees in each department.

```
select count(Employee_Name), Salary+ifnull(Commission,0) as "Total salary",avg(Salary)
from employee group by Department_No;
```

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

```
1 select count(Employee_Name), Salary+ifnull(Commission,0) as "
2 from employee group by Department_No;
3
```

The results are displayed in the Result Grid, showing three columns: count(Employee_Name), Total salary, and avg(Salary). The data is grouped by Department_No.

	count(Employee_Name)	Total salary	avg(Salary)
3	3	2450.00	2916.666667
6	6	3000.00	2062.500000
5	5	1300.00	1460.000000

The interface also shows the Schemas pane on the left, listing databases like dj, emp, sakila, sys, and world. The bottom status bar indicates "Query Completed" and the system time is 9:39 AM on 1/17/2022.