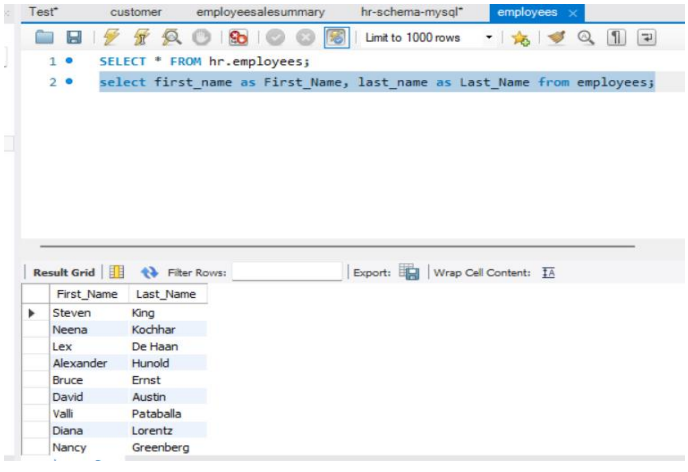
SQL Assignment

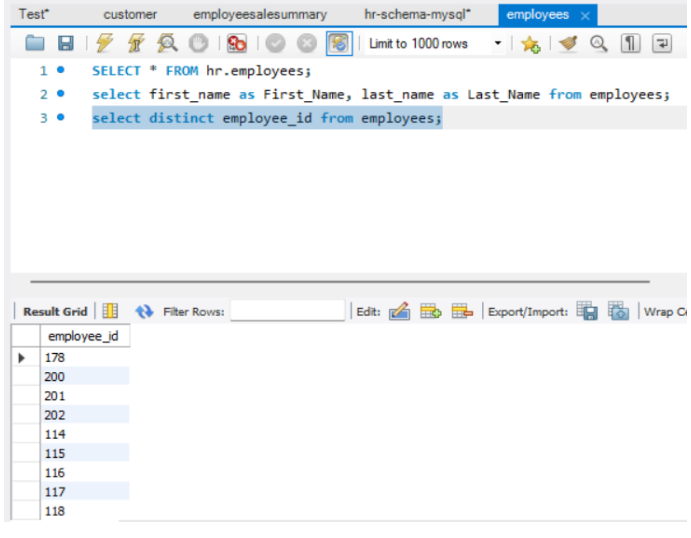
Download SQL Database file and read the document to add database to My SQL and then complete the project.

HR Database Exercises –

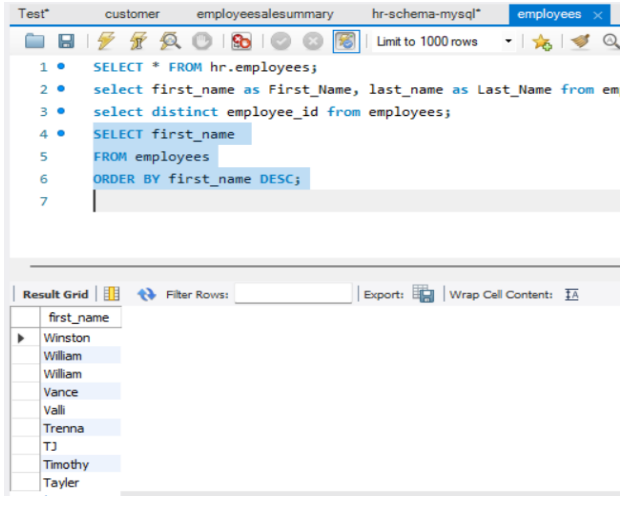
1. Write a query to display the names (first_name, last_name) using alias name “First Name", "Last Name"



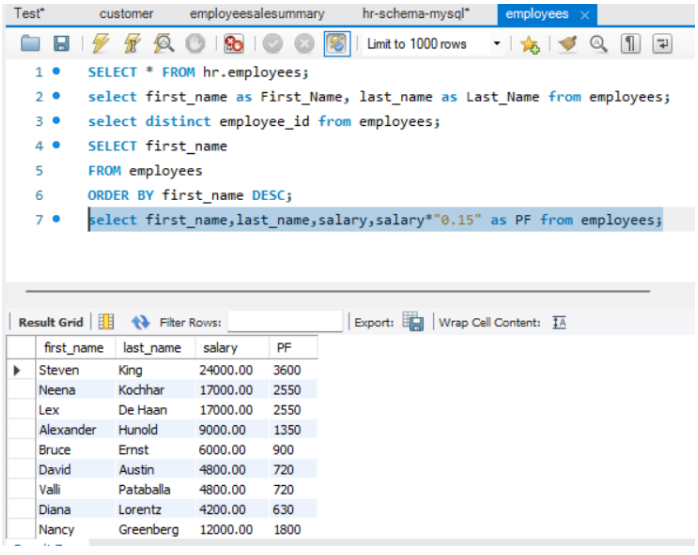
2. Write a query to get unique department ID from employee table



3. Write a query to get all employee details from the employee table order by first name, descending



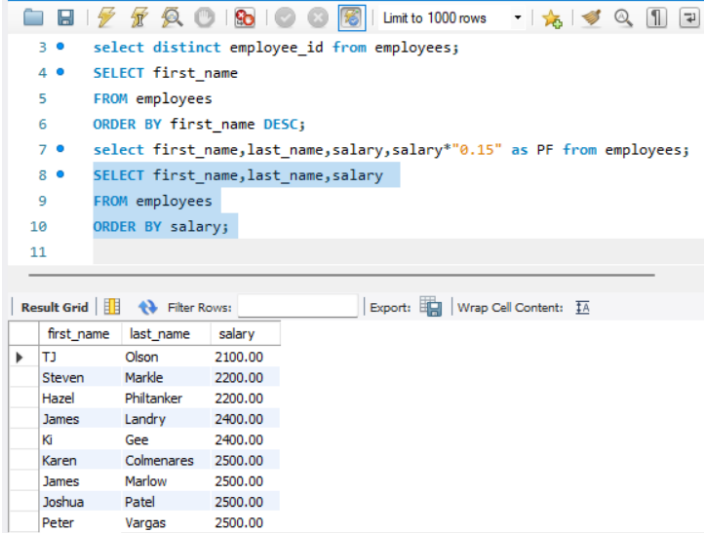
4. Write a query to get the names (first_name, last_name), salary, PF of all the employees (PF is calculated as 15% of salary)



```
SELECT * FROM hr.employees;
select first_name as First_Name, last_name as Last_Name from employees;
select distinct employee_id from employees;
SELECT first_name
FROM employees
ORDER BY first_name DESC;
select first_name,last_name,salary,salary*"0.15" as PF from employees;
```

first_name	last_name	salary	PF
Steven	King	24000.00	3600
Neena	Kochhar	17000.00	2550
Lex	De Haan	17000.00	2550
Alexander	Hunold	9000.00	1350
Bruce	Ernst	6000.00	900
David	Austin	4800.00	720
Valli	Pataballa	4800.00	720
Diana	Lorentz	4200.00	630
Nancy	Greenberg	12000.00	1800

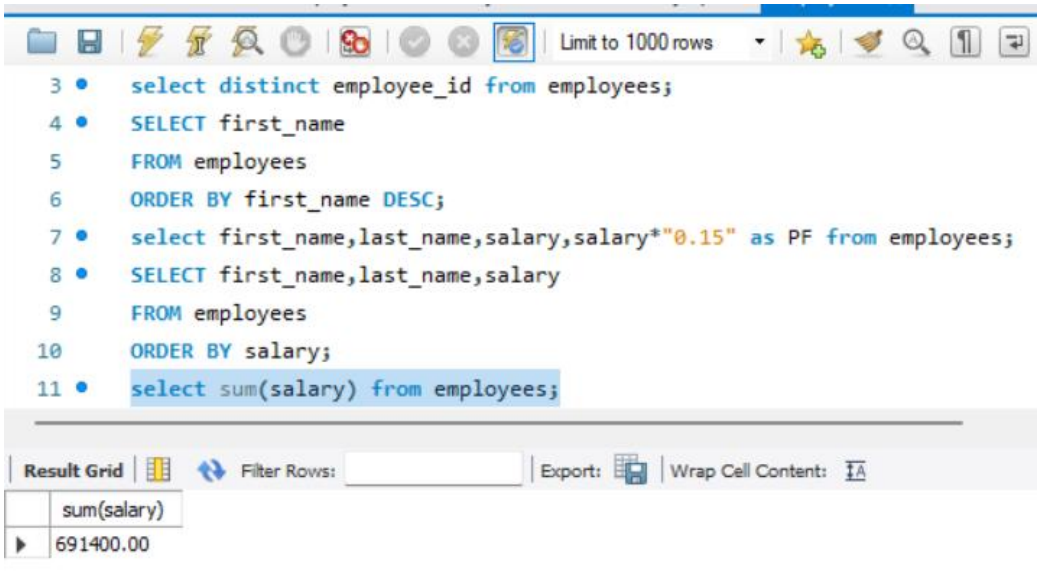
5. Write a query to get the employee ID, names (first_name, last_name), salary in ascending order of salary



```
select distinct employee_id from employees;
SELECT first_name
FROM employees
ORDER BY first_name DESC;
select first_name,last_name,salary,salary*"0.15" as PF from employees;
SELECT first_name,last_name,salary
FROM employees
ORDER BY salary;
```

first_name	last_name	salary
TJ	Olson	2100.00
Steven	Markle	2200.00
Hazel	Philtanker	2200.00
James	Landry	2400.00
Ki	Gee	2400.00
Karen	Colmenares	2500.00
James	Marlow	2500.00
Joshua	Patel	2500.00
Peter	Vargas	2500.00

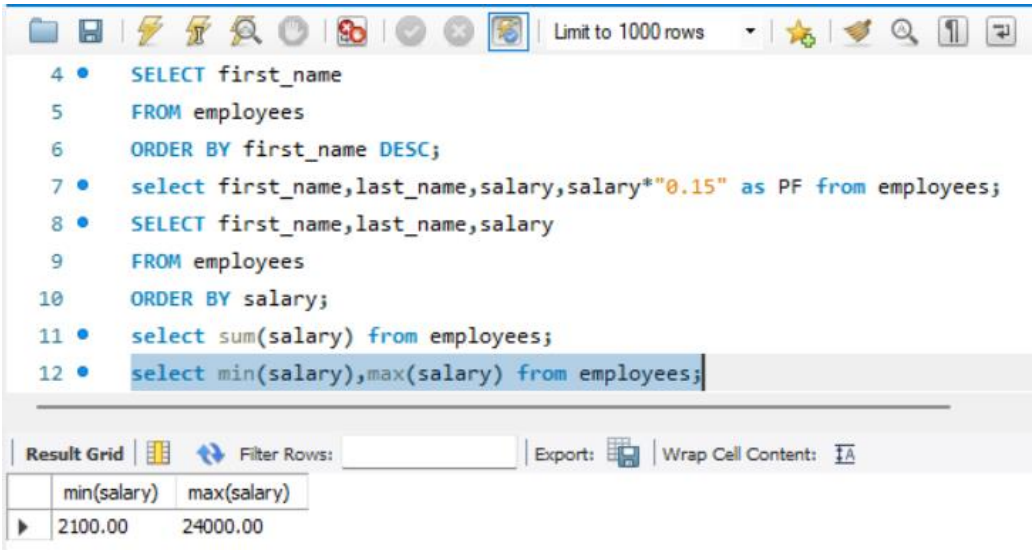
6. Write a query to get the total salaries payable to employees



```
select distinct employee_id from employees;
SELECT first_name
FROM employees
ORDER BY first_name DESC;
select first_name,last_name,salary,salary*"0.15" as PF from employees;
SELECT first_name,last_name,salary
FROM employees
ORDER BY salary;
select sum(salary) from employees;
```

sum(salary)
691400.00

7. Write a query to get the maximum and minimum salary from employees' table

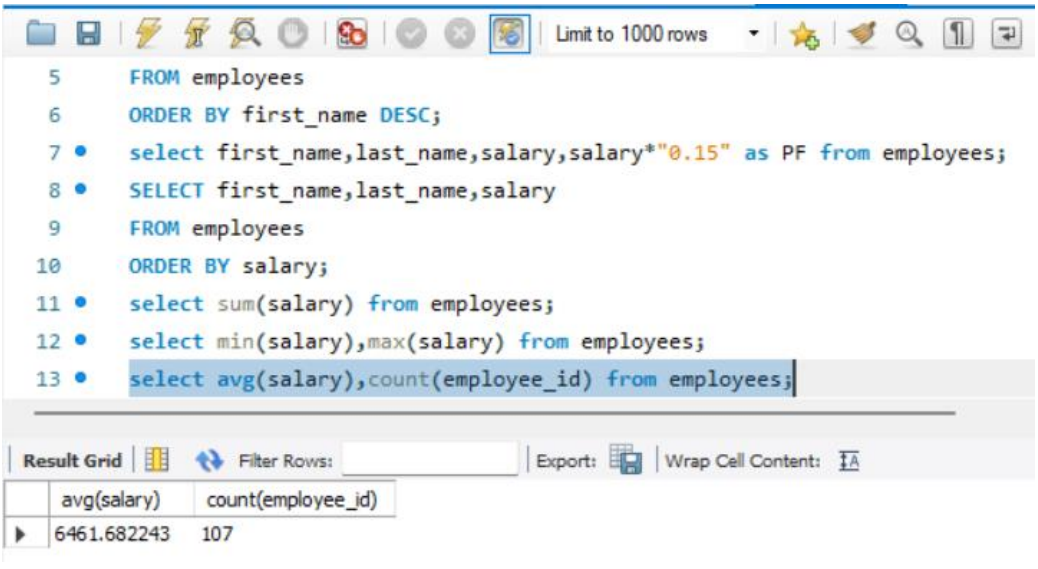


```
4  SELECT first_name
5  FROM employees
6  ORDER BY first_name DESC;
7  select first_name,last_name,salary,salary*"0.15" as PF from employees;
8  SELECT first_name,last_name,salary
9  FROM employees
10 ORDER BY salary;
11 select sum(salary) from employees;
12 select min(salary),max(salary) from employees;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

min(salary)	max(salary)
2100.00	24000.00

8. Write a query to get the average salary and number of employees in the employees' table

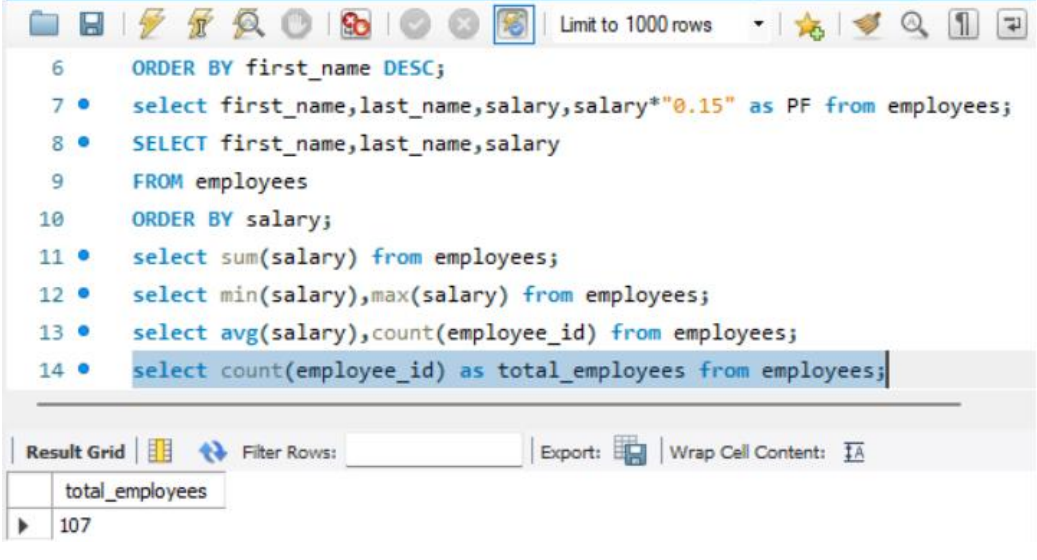


```
5  FROM employees
6  ORDER BY first_name DESC;
7  select first_name,last_name,salary,salary*"0.15" as PF from employees;
8  SELECT first_name,last_name,salary
9  FROM employees
10 ORDER BY salary;
11 select sum(salary) from employees;
12 select min(salary),max(salary) from employees;
13 select avg(salary),count(employee_id) from employees;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

avg(salary)	count(employee_id)
6461.682243	107

9. Write a query to get the number of employees working with the company



```
6  ORDER BY first_name DESC;
7  select first_name,last_name,salary,salary*"0.15" as PF from employees;
8  SELECT first_name,last_name,salary
9  FROM employees
10 ORDER BY salary;
11 select sum(salary) from employees;
12 select min(salary),max(salary) from employees;
13 select avg(salary),count(employee_id) from employees;
14 select count(employee_id) as total_employees from employees;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

total_employees
107

10. Write a query get all first name from employees table in upper case.

```
7  select first_name,last_name,salary,salary*"0.15" as PF from employees;
8  SELECT first_name,last_name,salary
9  FROM employees
10 ORDER BY salary;
11 select sum(salary) from employees;
12 select min(salary),max(salary) from employees;
13 select avg(salary),count(employee_id) from employees;
14 select count(employee_id) as total_employees from employees;
15 select upper(first_name) from employees;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

upper(first_name)
STEVEN
NEENA
LEX
ALEXANDER
BRUCE
DAVID
VALLI
DIANA
NANCY

11. Write a query to get the first 3 characters of first name from employees' table.

Limit to 1000 rows

```
10 ORDER BY salary;
11 select sum(salary) from employees;
12 select min(salary),max(salary) from employees;
13 select avg(salary),count(employee_id) from employees;
14 select count(employee_id) as total_employees from employees;
15 select upper(first_name) from employees;
16 SELECT SUBSTRING(first_name, 1, 3) AS FirstThreeChars
17 FROM Employees;
18
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

FirstThreeChars
Ste
Nee
Lex
Ale
Bru
Dav
Val
Dia
Nan
Dan

12. Write a query to get first name from employees table after removing white spaces from both side.

```
13  select avg(salary),count(employee_id) from employees;
14  select count(employee_id) as total_employees from employees;
15  select upper(first_name) from employees;
16  SELECT SUBSTRING(first_name, 1, 3) AS FirstThreeChars
17  FROM Employees;
18  SELECT TRIM(first_name) AS TrimmedFirstName
19  FROM Employees;
20
21
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

TrimmedFirstName
Steven
Neena
Lex
Alexander
Bruce
David
Valli
Diana
Nancy
Daniel

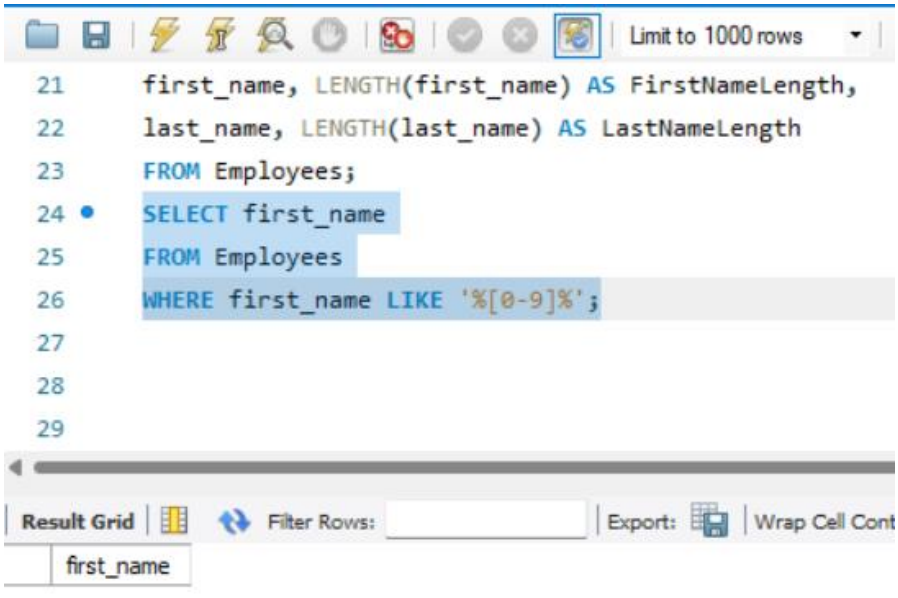
13. Write a query to get the length of the employee names (first_name, last_name) from employees' table.

```
15  select upper(first_name) from employees;
16  SELECT SUBSTRING(first_name, 1, 3) AS FirstThreeChars
17  FROM Employees;
18  SELECT TRIM(first_name) AS TrimmedFirstName
19  FROM Employees;
20  SELECT
21  first_name, LENGTH(first_name) AS FirstNameLength,
22  last_name, LENGTH(last_name) AS LastNameLength
23  FROM Employees;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

first_name	FirstNameLength	last_name	LastNameLength
Steven	6	King	4
Neena	5	Kochhar	7
Lex	3	De Haan	7
Alexander	9	Hunold	6
Bruce	5	Ernst	5
David	5	Austin	6
Valli	5	Pataballa	9
Diana	5	Lorentz	7
Nancy	5	Greenberg	9
Daniel	6	Faviet	6

14. Write a query to check if the first_name fields of the employees table contain numbers.

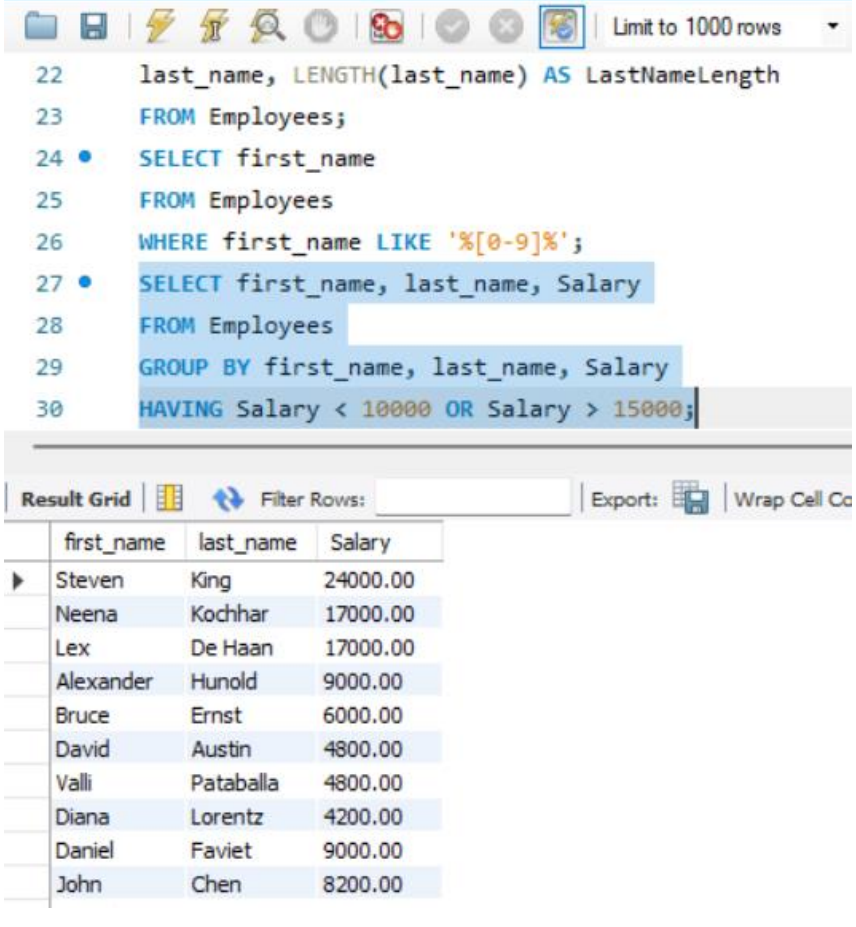


```
21    first_name, LENGTH(first_name) AS FirstNameLength,
22    last_name, LENGTH(last_name) AS LastNameLength
23    FROM Employees;
24    SELECT first_name
25    FROM Employees
26    WHERE first_name LIKE '%[0-9]%';
27
28
29
```

Result Grid | Filter Rows: | Export: | Wrap Cell Cont

first_name

15. Write a query to display the name (first_name, last_name) and salary for all employees whose salary is not in the range $10,000 through $15,000.



```
22    last_name, LENGTH(last_name) AS LastNameLength
23    FROM Employees;
24    SELECT first_name
25    FROM Employees
26    WHERE first_name LIKE '%[0-9]%';
27    SELECT first_name, last_name, Salary
28    FROM Employees
29    GROUP BY first_name, last_name, Salary
30    HAVING Salary < 10000 OR Salary > 15000;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Co

first_name	last_name	Salary
Steven	King	24000.00
Neena	Kochhar	17000.00
Lex	De Haan	17000.00
Alexander	Hunold	9000.00
Bruce	Ernst	6000.00
David	Austin	4800.00
Valli	Pataballa	4800.00
Diana	Lorentz	4200.00
Daniel	Faviet	9000.00
John	Chen	8200.00

16. Write a query to display the name (first_name, last_name) and department ID of all employees in departments 30 or 100 in ascending order.

```
28      FROM Employees
29      GROUP BY first_name, last_name, Salary
30      HAVING Salary < 10000 OR Salary > 15000;
31 •    SELECT first_name,last_name,department_id
32      FROM employees
33      where department_id in (30,100)
34      ORDER BY first_name asc , last_name asc ;
35
36
```

Result Grid | Filter Rows: | Export: | Wrap Cel

first_name	last_name	department_id
Alexander	Khoo	30
Daniel	Faviet	100
Den	Raphaely	30
Guy	Himuro	30
Ismael	Sciarra	100
John	Chen	100
Jose Manuel	Urman	100
Karen	Colmenares	30
Luis	Popp	100
Nancy	Greenberg	100

17. Write a query to display the name (first_name, last_name) and salary for all employees whose salary is not in the range $10,000 through $15,000 and are in department 30 or 100

```
31 •    SELECT first_name,last_name,department_id
32      FROM employees
33      where department_id in (30,100)
34      ORDER BY first_name asc , last_name asc ;
35 •    SELECT first_name,last_name,salary
36      FROM employees
37      WHERE department_id in (30,100)
38      and Salary < 10000 OR Salary > 15000
39      order by salary;
```

Result Grid | Filter Rows: | Export: | Wrap Cell

first_name	last_name	salary
Shelli	Baida	2900.00
Alexander	Khoo	3100.00
Luis	Popp	6900.00
Ismael	Sciarra	7700.00
Jose Manuel	Urman	7800.00
John	Chen	8200.00
Daniel	Faviet	9000.00
Neena	Kochhar	17000.00
Lex	De Haan	17000.00
Steven	King	24000.00

18. Write a query to display the name (first_name, last_name) and hire date for all employees who were hired in 1987.

```
32      FROM employees
33      where department_id in (30,100)
34      ORDER BY first_name asc , last_name asc ;
35 •    SELECT first_name,last_name,salary
36      FROM employees
37      WHERE department_id in (30,100)
38      and Salary < 10000 OR Salary > 15000
39      order by salary;
40 •    select first_name, last_name, hire_date
```

Result Grid | Filter Rows: | Export: | Wrap Cell C

first_name	last_name	hire_date
Steven	King	1987-06-17
Jennifer	Whalen	1987-09-17

19. Write a query to display the first_name of all employees who have both "b" and "c" in their first name.

```
39      order by salary;
40 •    select first_name, last_name, hire_date
41      from employees
42      where year(hire_date) = 1987;
43 •    select first_name
44      from employees
45      where first_name like'%b%'
46      and first_name like'%c%';
47
```

Result Grid | Filter Rows: | Export: | Wrap

first_name
Bruce

20. Write a query to display the last name, job, and salary for all employees whose job is that of a Programmer or a Shipping Clerk, and whose salary is not equal to $4,500, $10,000, or $15,000.

```
43 •  select first_name
44    from employees
45    where first_name like'%b%'
46    and first_name like'%c%';
47 •  select last_name, job_id, salary
48    from employees
49    where salary not in ('4500','10000','15000')
50    and job_id in ('it_prog','sh_clerk');
51
```

Result Grid | Filter Rows: | Export: | Wra

last_name	job_id	salary
Hunold	IT_PROG	9000.00
Ernst	IT_PROG	6000.00
Austin	IT_PROG	4800.00
Pataballa	IT_PROG	4800.00
Lorentz	IT_PROG	4200.00
Taylor	SH_CLERK	3200.00
Fleaur	SH_CLERK	3100.00
Sullivan	SH_CLERK	2500.00
Geoni	SH_CLERK	2800.00
Sarchand	SH_CLERK	4200.00

21. Write a query to display the last name of employees whose names have exactly 6 characters.

```
47 •  select last_name, job_id, salary
48    from employees
49    where salary not in ('4500','10000','15000')
50    and job_id in ('it_prog','sh_clerk');
51
52 •  select first_name
53    from employees
54    where first_name like '_____';
55
```

Result Grid | Filter Rows: | Export: | Wra

first_name
Steven
Daniel
Ismael
Shelli
Shanta
Steven
Renske
Joshua
Trenna
Curtis

22. Write a query to display the last name of employees having 'e' as the third character.

```
51
52 •    select first_name
53      from employees
54      where first_name like '_____';
55
56 •    select last_name
57      from employees
58      where last_name like '__e%';
59
```

Result Grid | Filter Rows: | Export

last_name
Greenberg
Chen
Gee
McEwen
Greene
Lee
Ozer
Abel
Fleaur
Everett