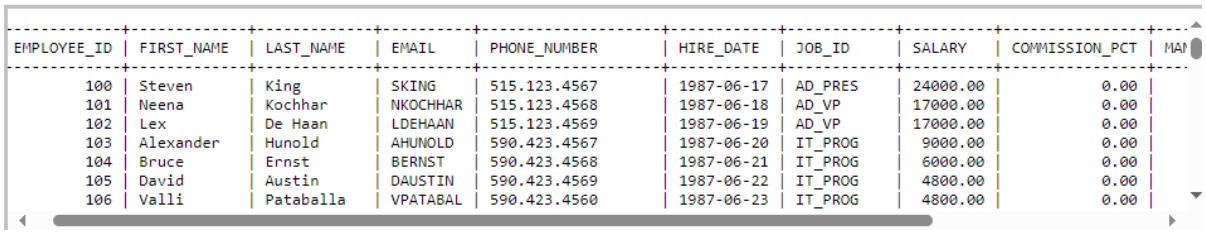
1. Write a query to display the names (first_name, last_name) and salary for all employees whose salary is not in the range $10,000 through $15,000.

```
SELECT first_name, last_name, salary
FROM employees
WHERE salary NOT BETWEEN 10000 AND 15000;
```

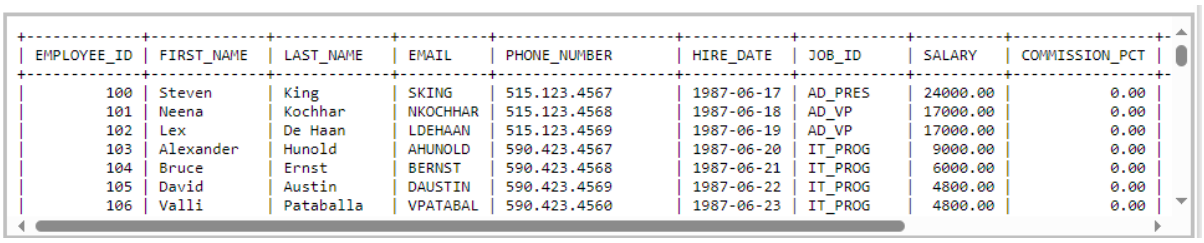
Sample table: employees



EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MAN
100	Steven	King	SKING	515.123.4567	1987-06-17	AD_PRES	24000.00	0.00	
101	Neena	Kochhar	NKOCHHAR	515.123.4568	1987-06-18	AD_VP	17000.00	0.00	
102	Lex	De Haan	LDEHAAN	515.123.4569	1987-06-19	AD_VP	17000.00	0.00	
103	Alexander	Hunold	AHUNOLD	590.423.4567	1987-06-20	IT_PROG	9000.00	0.00	
104	Bruce	Ernst	BERNST	590.423.4568	1987-06-21	IT_PROG	6000.00	0.00	
105	David	Austin	DAUSTIN	590.423.4569	1987-06-22	IT_PROG	4800.00	0.00	
106	Valli	Pataballa	VPATABAL	590.423.4560	1987-06-23	IT_PROG	4800.00	0.00	

2. 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.

Sample table: employees

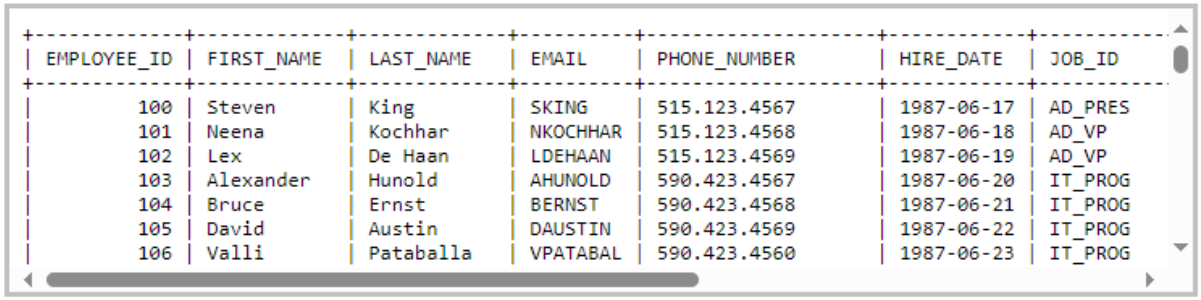


EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT
100	Steven	King	SKING	515.123.4567	1987-06-17	AD_PRES	24000.00	0.00
101	Neena	Kochhar	NKOCHHAR	515.123.4568	1987-06-18	AD_VP	17000.00	0.00
102	Lex	De Haan	LDEHAAN	515.123.4569	1987-06-19	AD_VP	17000.00	0.00
103	Alexander	Hunold	AHUNOLD	590.423.4567	1987-06-20	IT_PROG	9000.00	0.00
104	Bruce	Ernst	BERNST	590.423.4568	1987-06-21	IT_PROG	6000.00	0.00
105	David	Austin	DAUSTIN	590.423.4569	1987-06-22	IT_PROG	4800.00	0.00
106	Valli	Pataballa	VPATABAL	590.423.4560	1987-06-23	IT_PROG	4800.00	0.00

```
SELECT first_name, last_name, department_id
FROM employees
WHERE department_id IN (30, 100)
ORDER BY department_id ASC;
```

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

Sample table: employees



EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID
100	Steven	King	SKING	515.123.4567	1987-06-17	AD_PRES
101	Neena	Kochhar	NKOCHHAR	515.123.4568	1987-06-18	AD_VP
102	Lex	De Haan	LDEHAAN	515.123.4569	1987-06-19	AD_VP
103	Alexander	Hunold	AHUNOLD	590.423.4567	1987-06-20	IT_PROG
104	Bruce	Ernst	BERNST	590.423.4568	1987-06-21	IT_PROG
105	David	Austin	DAUSTIN	590.423.4569	1987-06-22	IT_PROG
106	Valli	Pataballa	VPATABAL	590.423.4560	1987-06-23	IT_PROG

```
SELECT first_name, last_name, hire_date
FROM employees
WHERE YEAR(hire_date) LIKE '1987%';
```

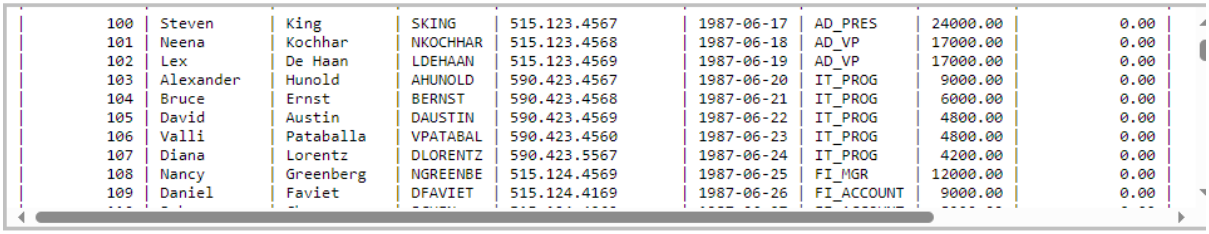
4. Write a query to display the first_name of all employees who have both "b" and "c" in their first name.

```
SELECT first_name
FROM employees
WHERE first_name LIKE '%b%'
AND first_name LIKE '%c%';
```

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

```
SELECT last_name FROM employees WHERE last_name LIKE '______';
```

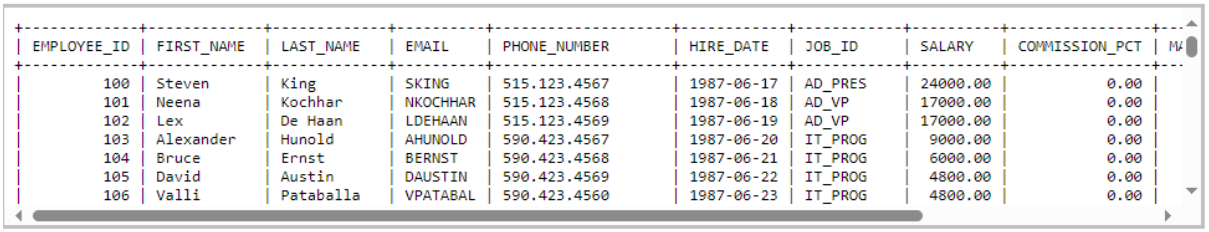
Sample table: employees



100	Steven	King	SKING	515.123.4567	1987-06-17	AD_PRES	24000.00	0.00
101	Neena	Kochhar	NKOCHHAR	515.123.4568	1987-06-18	AD_VP	17000.00	0.00
102	Lex	De Haan	LDEHAAN	515.123.4569	1987-06-19	AD_VP	17000.00	0.00
103	Alexander	Hunold	AHUNOLD	590.423.4567	1987-06-20	IT_PROG	9000.00	0.00
104	Bruce	Ernst	BERNST	590.423.4568	1987-06-21	IT_PROG	6000.00	0.00
105	David	Austin	DAUSTIN	590.423.4569	1987-06-22	IT_PROG	4800.00	0.00
106	Valli	Pataballa	VPATABAL	590.423.4560	1987-06-23	IT_PROG	4800.00	0.00
107	Diana	Lorentz	DLORENTZ	590.423.5567	1987-06-24	IT_PROG	4200.00	0.00
108	Nancy	Greenberg	NGREENBE	515.124.4569	1987-06-25	FI_MGR	12000.00	0.00
109	Daniel	Faviet	DFAVIET	515.124.4169	1987-06-26	FI_ACCOUNT	9000.00	0.00

6. Write a query to select all record from employees where last name in 'BLAKE', 'SCOTT', 'KING' and 'FORD'.

Sample table: employees



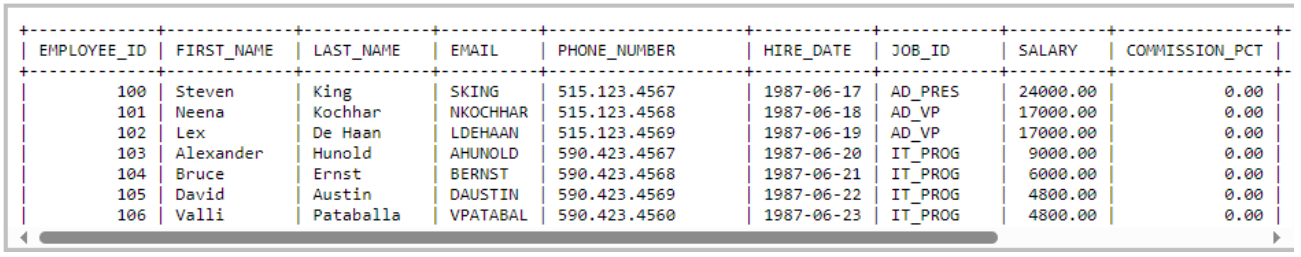
EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MA
100	Steven	King	SKING	515.123.4567	1987-06-17	AD_PRES	24000.00	0.00	
101	Neena	Kochhar	NKOCHHAR	515.123.4568	1987-06-18	AD_VP	17000.00	0.00	
102	Lex	De Haan	LDEHAAN	515.123.4569	1987-06-19	AD_VP	17000.00	0.00	
103	Alexander	Hunold	AHUNOLD	590.423.4567	1987-06-20	IT_PROG	9000.00	0.00	
104	Bruce	Ernst	BERNST	590.423.4568	1987-06-21	IT_PROG	6000.00	0.00	
105	David	Austin	DAUSTIN	590.423.4569	1987-06-22	IT_PROG	4800.00	0.00	
106	Valli	Pataballa	VPATABAL	590.423.4560	1987-06-23	IT_PROG	4800.00	0.00	

```
SELECT *
FROM employees
WHERE last_name IN('JONES', 'BLAKE', 'SCOTT', 'KING', 'FORD');
```

MySQL Aggregate Function: Exercise-1 with Solution

1. Write a query to list the number of jobs available in the employees table.

Sample table: employees



EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT
100	Steven	King	SKING	515.123.4567	1987-06-17	AD_PRES	24000.00	0.00
101	Neena	Kochhar	NKOCHHAR	515.123.4568	1987-06-18	AD_VP	17000.00	0.00
102	Lex	De Haan	LDEHAAN	515.123.4569	1987-06-19	AD_VP	17000.00	0.00
103	Alexander	Hunold	AHUNOLD	590.423.4567	1987-06-20	IT_PROG	9000.00	0.00
104	Bruce	Ernst	BERNST	590.423.4568	1987-06-21	IT_PROG	6000.00	0.00
105	David	Austin	DAUSTIN	590.423.4569	1987-06-22	IT_PROG	4800.00	0.00
106	Valli	Pataballa	VPATABAL	590.423.4560	1987-06-23	IT_PROG	4800.00	0.00

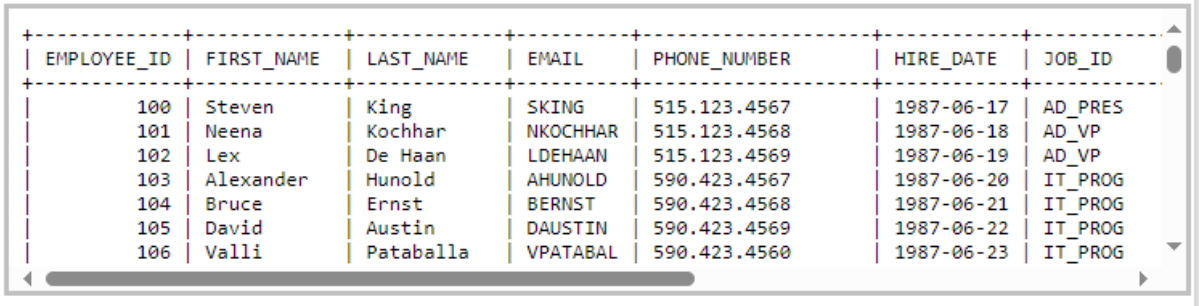
```
SELECT COUNT(DISTINCT job_id)

FROM employees;
```

1. Write a query to get the minimum salary from employees table.

```
SELECT MIN(salary)
 FROM employees;
```

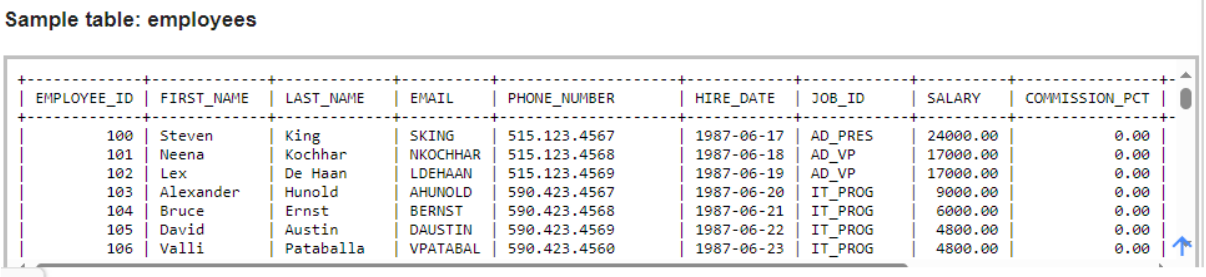
Sample table: employees



EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID
100	Steven	King	SKING	515.123.4567	1987-06-17	AD_PRES
101	Neena	Kochhar	NKOCHHAR	515.123.4568	1987-06-18	AD_VP
102	Lex	De Haan	LDEHAAN	515.123.4569	1987-06-19	AD_VP
103	Alexander	Hunold	AHUNOLD	590.423.4567	1987-06-20	IT_PROG
104	Bruce	Ernst	BERNST	590.423.4568	1987-06-21	IT_PROG
105	David	Austin	DAUSTIN	590.423.4569	1987-06-22	IT_PROG
106	Valli	Pataballa	VPATABAL	590.423.4560	1987-06-23	IT_PROG

2. Write a query to get the maximum salary of an employee working as a Programmer.

Sample table: employees



EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT
100	Steven	King	SKING	515.123.4567	1987-06-17	AD_PRES	24000.00	0.00
101	Neena	Kochhar	NKOCHHAR	515.123.4568	1987-06-18	AD_VP	17000.00	0.00
102	Lex	De Haan	LDEHAAN	515.123.4569	1987-06-19	AD_VP	17000.00	0.00
103	Alexander	Hunold	AHUNOLD	590.423.4567	1987-06-20	IT_PROG	9000.00	0.00
104	Bruce	Ernst	BERNST	590.423.4568	1987-06-21	IT_PROG	6000.00	0.00
105	David	Austin	DAUSTIN	590.423.4569	1987-06-22	IT_PROG	4800.00	0.00
106	Valli	Pataballa	VPATABAL	590.423.4560	1987-06-23	IT_PROG	4800.00	0.00

```
SELECT MAX(salary)
FROM employees
 WHERE job_id = 'IT_PROG';
 FROM employees;
```

3. Write a query to get the number of employees with the same job.

Sample table: employees

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID
100	Steven	King	SKING	515.123.4567	1987-06-17	AD_PRES
101	Neena	Kochhar	NKOCHHAR	515.123.4568	1987-06-18	AD_VP
102	Lex	De Haan	LDEHAAN	515.123.4569	1987-06-19	AD_VP
103	Alexander	Hunold	AHUNOLD	590.423.4567	1987-06-20	IT_PROG
104	Bruce	Ernst	BERNST	590.423.4568	1987-06-21	IT_PROG
105	David	Austin	DAUSTIN	590.423.4569	1987-06-22	IT_PROG
106	Valli	Pataballa	VPATABAL	590.423.4560	1987-06-23	IT_PROG

```
SELECT job_id, COUNT(*)
FROM employees
GROUP BY job_id;
```

4. Write a query to get the difference between the highest and lowest salaries.

```
SELECT MAX(salary) - MIN(salary) DIFFERENCE
FROM employees;
```

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT
100	Steven	King	SKING	515.123.4567	1987-06-17	AD_PRES	24000.00	0.00
101	Neena	Kochhar	NKOCHHAR	515.123.4568	1987-06-18	AD_VP	17000.00	0.00
102	Lex	De Haan	LDEHAAN	515.123.4569	1987-06-19	AD_VP	17000.00	0.00
103	Alexander	Hunold	AHUNOLD	590.423.4567	1987-06-20	IT_PROG	9000.00	0.00
104	Bruce	Ernst	BERNST	590.423.4568	1987-06-21	IT_PROG	6000.00	0.00
105	David	Austin	DAUSTIN	590.423.4569	1987-06-22	IT_PROG	4800.00	0.00
106	Valli	Pataballa	VPATABAL	590.423.4560	1987-06-23	IT_PROG	4800.00	0.00

5. Write a query to get the job ID and maximum salary of the employees where maximum salary is greater than or equal to $4000.

Sample table: employees

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT
100	Steven	King	SKING	515.123.4567	1987-06-17	AD_PRES	24000.00	0.00
101	Neena	Kochhar	NKOCHHAR	515.123.4568	1987-06-18	AD_VP	17000.00	0.00
102	Lex	De Haan	LDEHAAN	515.123.4569	1987-06-19	AD_VP	17000.00	0.00
103	Alexander	Hunold	AHUNOLD	590.423.4567	1987-06-20	IT_PROG	9000.00	0.00
104	Bruce	Ernst	BERNST	590.423.4568	1987-06-21	IT_PROG	6000.00	0.00
105	David	Austin	DAUSTIN	590.423.4569	1987-06-22	IT_PROG	4800.00	0.00
106	Valli	Pataballa	VPATABAL	590.423.4560	1987-06-23	IT_PROG	4800.00	0.00

```
SELECT job_id, MAX(salary)
FROM employees
GROUP BY job_id
HAVING MAX(salary) >=4000;
```