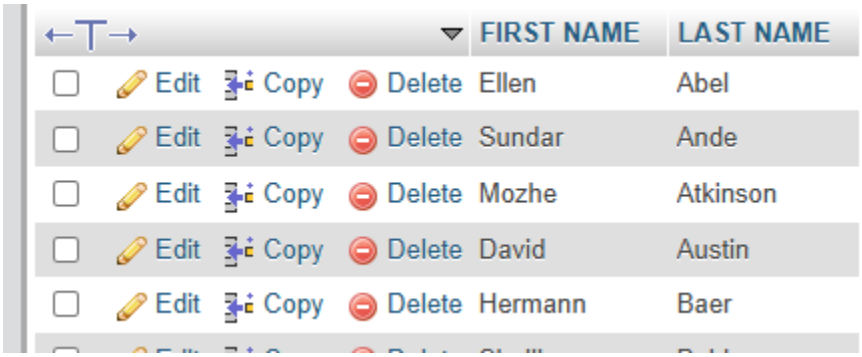
Select statement

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

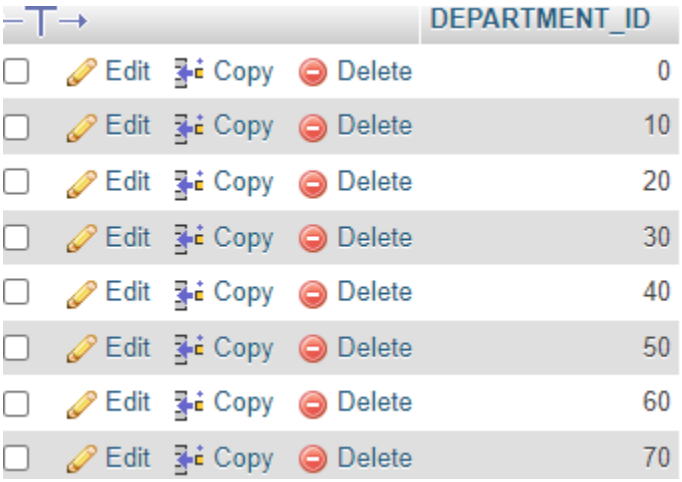
SELECT FIRST_NAME AS "FIRST NAME", LAST_NAME AS "LAST NAME" FROM employees;



	FIRST NAME	LAST NAME
Edit Copy Delete	Ellen	Abel
Edit Copy Delete	Sundar	Ande
Edit Copy Delete	Mozhe	Atkinson
Edit Copy Delete	David	Austin
Edit Copy Delete	Hermann	Baer

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

SELECT DISTINCT DEPARTMENT_ID FROM employees;



	DEPARTMENT_ID
Edit Copy Delete	0
Edit Copy Delete	10
Edit Copy Delete	20
Edit Copy Delete	30
Edit Copy Delete	40
Edit Copy Delete	50
Edit Copy Delete	60
Edit Copy Delete	70

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

SELECT * FROM `employees` ORDER BY FIRST_NAME DESC;

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
Edit Copy Delete	180	Winston	Taylor	WTAYLOR	650.507.9876	1987-09-05	SH_CLERK	3200.00	0.00	120	50
Edit Copy Delete	206	William	Gietz	WGIETZ	515.123.8181	1987-10-01	AC_ACCOUNT	8300.00	0.00	205	110
Edit Copy Delete	171	William	Smith	WSMITH	011.44.1343.629268	1987-08-27	SA_REP	7400.00	0.15	148	80
Edit Copy Delete	195	Vance	Jones	VJONES	650.501.4876	1987-09-20	SH_CLERK	2800.00	0.00	123	50
Edit Copy Delete	106	Valli	Pataballa	VPATABAL	590.423.4560	1987-06-23	IT_PROG	4800.00	0.00	103	60
Edit Copy Delete	141	Trenna	Rajs	TRAJS	650.121.8009	1987-07-28	ST_CLERK	3500.00	0.00	124	50

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 FIRST_NAME, LAST_NAME, SALARY, ((SALARY * 15) / 100) AS PF FROM employees;

Or

SELECT FIRST_NAME, LAST_NAME, SALARY, SALARY * 0.15 AS PF FROM employees;

	FIRST_NAME	LAST_NAME	SALARY	PF
Edit Copy Delete	Steven	King	24000.00	3600.000000
Edit Copy Delete	Neena	Kochhar	17000.00	2550.000000
Edit Copy Delete	Lex	De Haan	17000.00	2550.000000
Edit Copy Delete	Alexander	Hunold	9000.00	1350.000000
Edit Copy Delete	Bruce	Ernst	6000.00	900.000000

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

SELECT EMPLOYEE_ID, FIRST_NAME, LAST_NAME, SALARY FROM employees ORDER BY SALARY DESC;

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	SALARY 1
Edit Copy Delete	100	Steven	King	24000.00
Edit Copy Delete	101	Neena	Kochhar	17000.00
Edit Copy Delete	102	Lex	De Haan	17000.00
Edit Copy Delete	145	John	Russell	14000.00
Edit Copy Delete	146	Karen	Partners	13500.00

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

SELECT SUM(SALARY) AS TOTAL_SALARY FROM employees;

TOTAL_SALARY
691400.00

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

SELECT MIN(SALARY) AS MIN_SALARY, MAX(SALARY) AS MAX_SALARY FROM employees;

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.

SELECT AVG(SALARY) AS AVG_SALARY, COUNT(EMPLOYEE_ID) AS TOTAL_EMPLOYEES FROM employees;

AVG_SALARY	TOTAL_EMPLOYEES
6461.682243	107

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

SELECT COUNT(EMPLOYEE_ID) AS TOTAL_EMPLOYEES FROM employees;

TOTAL_EMPLOYEES
107

10. Write a query to get the number of jobs available in the employees table.

SELECT COUNT(DISTINCT JOB_ID) AS TOTAL_EMPLOYEES FROM employees;

TOTAL_EMPLOYEES
19

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

SELECT UPPER(FIRST_NAME) AS FIRST_NAME FROM employees;

FIRST_NAME
ELLEN
SUNDAR
MOZHE
DAVID
HERMANN
SHELLI

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

SELECT SUBSTRING(FIRST_NAME, 1,3) AS FIRST_NAME_3_CHARACTERS FROM employees;

FIRST_NAME_3_CHARACTERS
Ell
Sun
Moz
Dav

13. Write a query to calculate 171*214+625.

SELECT 171*214+625 RESULT;

RESULT
37219

14. Write a query to get the names (for example Ellen Abel, Sundar Ande etc.) of all the employees from employees table.

SELECT CONCAT(FIRST_NAME , " " , LAST_NAME) EMPLOYEE FROM employees;

EMPLOYEE
Ellen Abel
Sundar Ande
Mozhe Atkinson
David Austin
Hermann Baer
Shelli Baida
Amit Banda
Elizabeth Bates
Sarah Bell
David Bernstein
Laura Bissot
Harrison Bloom
Alexis Bull

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

SELECT TRIM(FIRST_NAME) FIRST_NAME FROM employees;

FIRST_NAME
Ellen
Sundar
Mozhe
David
Hermann

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

SELECT LENGTH(FIRST_NAME) + LENGTH(LAST_NAME) TOTAL_LENGTH FROM employees;

TOTAL_LENGTH
9
10
13
11
11
11
9
14

17. Write a query to check if the first_name fields of the employees table contains numbers.

SELECT * FROM employees WHERE FIRST_NAME REGEXP '[0-9]';

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID

18. Write a query to select first 10 records from a table.

SELECT * FROM employees LIMIT 10;

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
Edit Copy Delete	100	Steven	King	SKING	515.123.4567	1987-06-17	AD_PRES	24000.00	0.00	0	90
Edit Copy Delete	101	Neena	Kochhar	NKOCHHAR	515.123.4568	1987-06-18	AD_VP	17000.00	0.00	100	90
Edit Copy Delete	102	Lex	De Haan	LDEHAAN	515.123.4569	1987-06-19	AD_VP	17000.00	0.00	100	90
Edit Copy Delete	103	Alexander	Hunold	AHUNOLD	590.423.4567	1987-06-20	IT_PROG	9000.00	0.00	102	60

19. Write a query to get monthly salary (round 2 decimal places) of each and every employee
Note : Assume the salary field provides the 'annual salary' information.

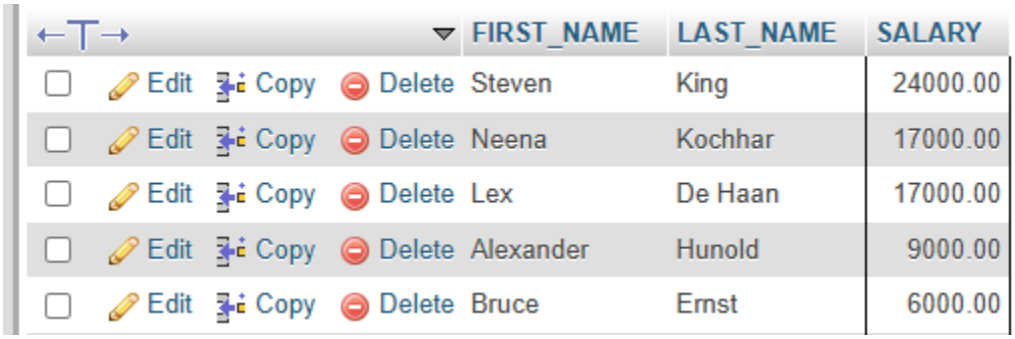
SELECT FIRST_NAME, LAST_NAME, SALARY, ROUND(SALARY / 12, 2) MONTHLY_SALARY FROM employees ;

	FIRST_NAME	LAST_NAME	SALARY	MONTHLY_SALARY
Edit Copy Delete	Steven	King	24000.00	2000.00
Edit Copy Delete	Neena	Kochhar	17000.00	1416.67
Edit Copy Delete	Lex	De Haan	17000.00	1416.67
Edit Copy Delete	Alexander	Hunold	9000.00	750.00
Edit Copy Delete	Bruce	Ernst	6000.00	500.00

Restructuring and sorting data

1. 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.

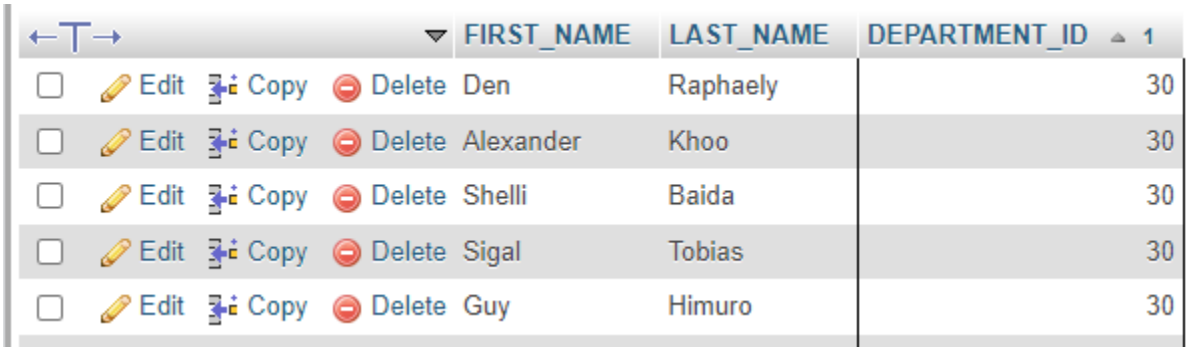
SELECT FIRST_NAME, LAST_NAME, SALARY FROM employees WHERE SALARY NOT BETWEEN 10000 AND 15000;



	FIRST_NAME	LAST_NAME	SALARY
Edit Copy Delete	Steven	King	24000.00
Edit Copy Delete	Neena	Kochhar	17000.00
Edit Copy Delete	Lex	De Haan	17000.00
Edit Copy Delete	Alexander	Hunold	9000.00
Edit Copy Delete	Bruce	Ernst	6000.00

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.

SELECT FIRST_NAME, LAST_NAME, DEPARTMENT_ID FROM employees WHERE DEPARTMENT_ID IN(30,100) ORDER BY DEPARTMENT_ID ASC;



	FIRST_NAME	LAST_NAME	DEPARTMENT_ID ▲ 1
Edit Copy Delete	Den	Raphaely	30
Edit Copy Delete	Alexander	Khoo	30
Edit Copy Delete	Shelli	Baida	30
Edit Copy Delete	Sigal	Tobias	30
Edit Copy Delete	Guy	Himuro	30

3. 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.

SELECT FIRST_NAME, LAST_NAME, SALARY, DEPARTMENT_ID FROM employees WHERE SALARY NOT BET WEEN 10000 AND 15000 AND DEPARTMENT_ID IN(30,100);

	FIRST_NAME	LAST_NAME	SALARY	DEPARTMENT_ID
Edit Copy Delete	Alexander	Khoo	3100.00	30
Edit Copy Delete	Shelli	Baida	2900.00	30
Edit Copy Delete	Sigal	Tobias	2800.00	30
Edit Copy Delete	Guy	Himuro	2600.00	30
Edit Copy Delete	Karen	Colmenares	2500.00	30

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

SELECT FIRST_NAME, LAST_NAME, HIRE_DATE FROM employees WHERE HIRE_DATE BETWEEN '1987-01-01' AND '1987-12-31';

	FIRST_NAME	LAST_NAME	HIRE_DATE
Edit Copy Delete	Steven	King	1987-06-17
Edit Copy Delete	Neena	Kochhar	1987-06-18
Edit Copy Delete	Lex	De Haan	1987-06-19
Edit Copy Delete	Alexander	Hunold	1987-06-20
Edit Copy Delete	Bruce	Ernst	1987-06-21
Edit Copy Delete	David	Austin	1987-06-22

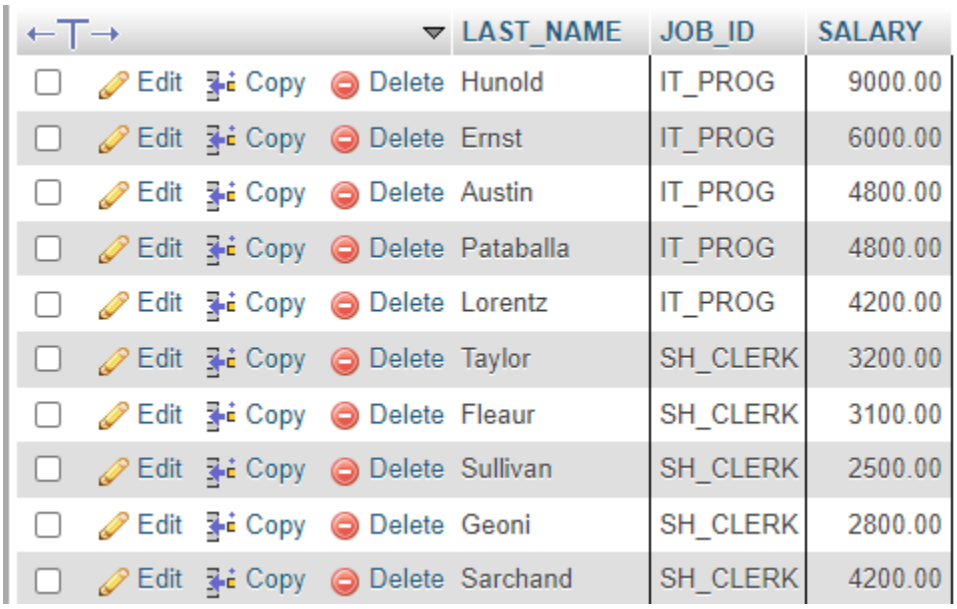
5. Write a query to display the first_name of all employees who have both "b" and "c" in their first name.

SELECT FIRST_NAME FROM employees WHERE FIRST_NAME LIKE '%b%' AND FIRST_NAME LIKE '%c%';

	FIRST_NAME
Edit Copy Delete	Bruce

6. 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.

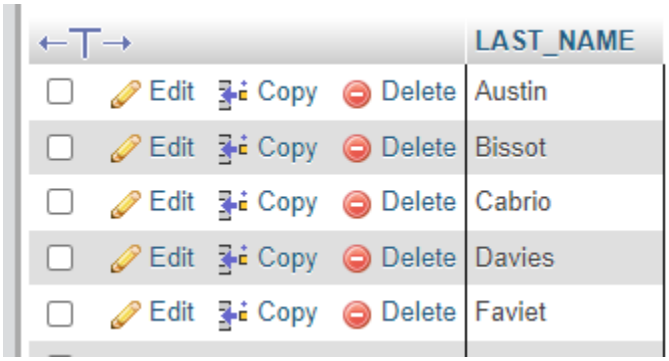
SELECT LAST_NAME, JOB_ID, SALARY FROM employees WHERE JOB_ID IN('IT_PROG', 'SH_CLERK ') AND SALARY NOT IN (4500,10000,15000);



	LAST_NAME	JOB_ID	SALARY
Edit Copy Delete	Hunold	IT_PROG	9000.00
Edit Copy Delete	Ernst	IT_PROG	6000.00
Edit Copy Delete	Austin	IT_PROG	4800.00
Edit Copy Delete	Pataballa	IT_PROG	4800.00
Edit Copy Delete	Lorentz	IT_PROG	4200.00
Edit Copy Delete	Taylor	SH_CLERK	3200.00
Edit Copy Delete	Fleaur	SH_CLERK	3100.00
Edit Copy Delete	Sullivan	SH_CLERK	2500.00
Edit Copy Delete	Geoni	SH_CLERK	2800.00
Edit Copy Delete	Sarchand	SH_CLERK	4200.00

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

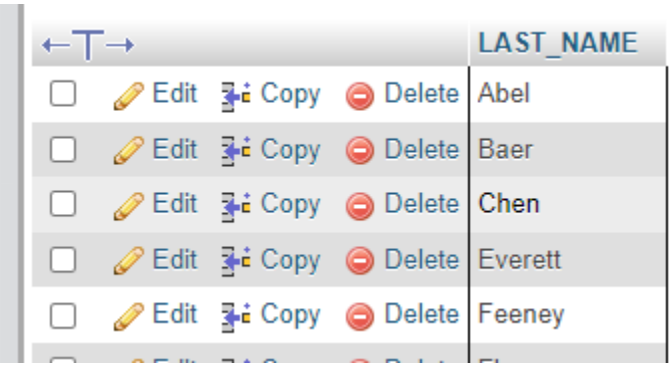
SELECT LAST_NAME FROM employees WHERE LENGTH(LAST_NAME) = 6;



	LAST_NAME
Edit Copy Delete	Austin
Edit Copy Delete	Bissot
Edit Copy Delete	Cabrio
Edit Copy Delete	Davies
Edit Copy Delete	Faviet

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

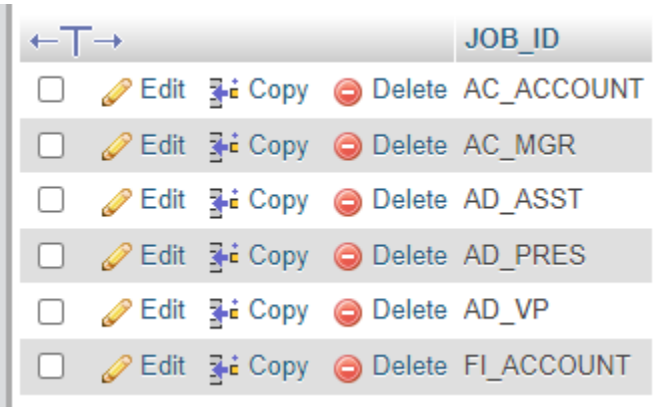
SELECT LAST_NAME FROM employees WHERE LAST_NAME LIKE '__E%';



	LAST_NAME
Edit Copy Delete	Abel
Edit Copy Delete	Baer
Edit Copy Delete	Chen
Edit Copy Delete	Everett
Edit Copy Delete	Feeney

9. Write a query to display the jobs/designations available in the employees table.

SELECT DISTINCT JOB_ID FROM employees;



	JOB_ID
Edit Copy Delete	AC_ACCOUNT
Edit Copy Delete	AC_MGR
Edit Copy Delete	AD_ASST
Edit Copy Delete	AD_PRES
Edit Copy Delete	AD_VP
Edit Copy Delete	FI_ACCOUNT

10. Write a query to display the name (first_name, last_name), salary and PF (15% of salary) of all employees.

SELECT FIRST_NAME, LAST_NAME, SALARY, SALARY * 0.15 AS PF FROM employees;

	FIRST_NAME	LAST_NAME	SALARY	PF
Edit Copy Delete	Steven	King	24000.00	3600.0000
Edit Copy Delete	Neena	Kochhar	17000.00	2550.0000
Edit Copy Delete	Lex	De Haan	17000.00	2550.0000
Edit Copy Delete	Alexander	Hunold	9000.00	1350.0000
Edit Copy Delete	Bruce	Ernst	6000.00	900.0000
Edit Copy Delete	David	Austin	4800.00	720.0000
Edit Copy Delete	Valli	Pataballa	4800.00	720.0000
Edit Copy Delete	Diana	Lorentz	4200.00	630.0000

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

SELECT LAST_NAME FROM employees WHERE LAST_NAME IN ('BLAKE', 'SCOTT', 'KING', 'FORD');

	LAST_NAME
Edit Copy Delete	King
Edit Copy Delete	King

Aggregate functions

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

SELECT COUNT(DISTINCT JOB_ID) AS JOB FROM employees;

JOB
19

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

SELECT SUM(SALARY) AS TOTAL FROM employees;

TOTAL
691400.00

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

SELECT MIN(SALARY) AS LOW_SALARY FROM employees;

LOW_SALARY
2100.00

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

SELECT MAX(SALARY) AS MAX_SALARY FROM employees WHERE JOB_ID = 'IT_PROG';

MAX_SALARY
9000.00

5. Write a query to get the average salary and number of employees working the department 90.

SELECT AVG(SALARY) AS AVG_SALARY, COUNT(*) AS COUNT FROM employees WHERE DEPARTMENT_ID = 90;

AVG_SALARY	COUNT
19333.333333	3

6. Write a query to get the highest, lowest, sum, and average salary of all employees.

SELECT MIN(SALARY) AS MIN_SALARY, MAX(SALARY) AS MAX_SALARY, SUM(SALARY) AS TOTAL, AVG(SALARY) AS AVG_SALARY FROM employees;

MIN_SALARY	MAX_SALARY	TOTAL	AVG_SALARY
2100.00	24000.00	691400.00	6461.682243

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

SELECT JOB_ID, COUNT(*) AS COUNT FROM employees GROUP BY JOB_ID;

JOB_ID	COUNT
AC_ACCOUNT	1
AC_MGR	1
AD_ASST	1
AD_PRES	1
AD_VP	2
FI_ACCOUNT	5
FI_MGR	1
HR_REP	1
IT_PROG	5

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

SELECT MAX(SALARY)-MIN(SALARY) AS DIFFERENCE FROM employees;

DIFFERENCE
21900.00

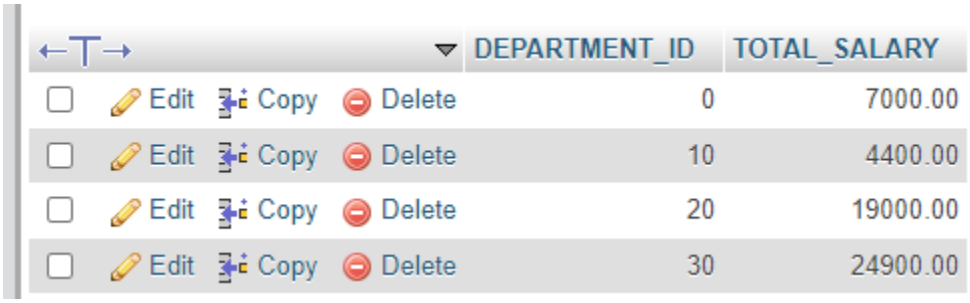
9. Write a query to find the manager ID and the salary of the lowest-paid employee for that manager.

SELECT MANAGER_ID, MIN(SALARY) AS MIN_SALARY FROM employees GROUP BY MANAGER_ID;

	MANAGER_ID	MIN_SALARY
Edit Copy Delete	0	24000.00
Edit Copy Delete	100	5800.00
Edit Copy Delete	101	4400.00
Edit Copy Delete	102	9000.00

10. Write a query to get the department ID and the total salary payable in each department.

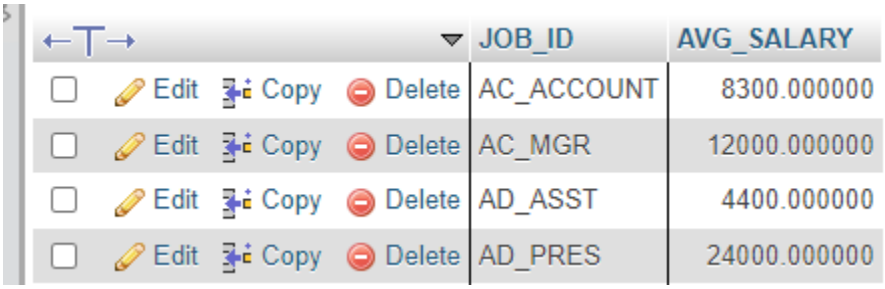
SELECT DEPARTMENT_ID, SUM(SALARY) AS TOTAL_SALARY FROM employees GROUP BY DEPARTMENT_ID;



	DEPARTMENT_ID	TOTAL_SALARY
Edit Copy Delete	0	7000.00
Edit Copy Delete	10	4400.00
Edit Copy Delete	20	19000.00
Edit Copy Delete	30	24900.00

11. Write a query to get the average salary for each job ID excluding programmer.

SELECT JOB_ID, AVG(SALARY) AS AVG_SALARY FROM employees WHERE JOB_ID != 'IT_PROG' GROUP BY JOB_ID;



	JOB_ID	AVG_SALARY
Edit Copy Delete	AC_ACCOUNT	8300.000000
Edit Copy Delete	AC_MGR	12000.000000
Edit Copy Delete	AD_ASST	4400.000000
Edit Copy Delete	AD_PRES	24000.000000

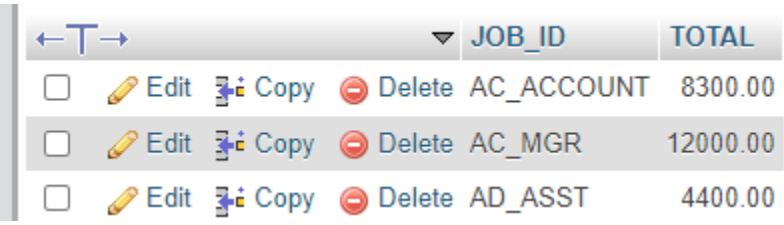
12. Write a query to get the total salary, maximum, minimum, average salary of employees (job ID wise), for department ID 90 only.

SELECT FIRST_NAME, MIN(SALARY) MIN_SALARY, MAX(SALARY) MAX_SALARY, AVG(SALARY) AVG_SALARY, SUM(SALARY) TOTAL FROM employees WHERE DEPARTMENT_ID = 90 GROUP BY JOB_ID;

	FIRST_NAME	MIN_SALARY	MAX_SALARY	AVG_SALARY	TOTAL
Edit Copy Delete	Steven	24000.00	24000.00	24000.000000	24000.00
Edit Copy Delete	Neena	17000.00	17000.00	17000.000000	34000.00

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

SELECT JOB_ID, MAX(SALARY) TOTAL FROM employees WHERE SALARY > 4000 GROUP BY JOB_ID;



	JOB_ID	TOTAL
Edit Copy Delete	AC_ACCOUNT	8300.00
Edit Copy Delete	AC_MGR	12000.00
Edit Copy Delete	AD_ASST	4400.00

14. Write a query to get the average salary for all departments employing more than 10 employees.

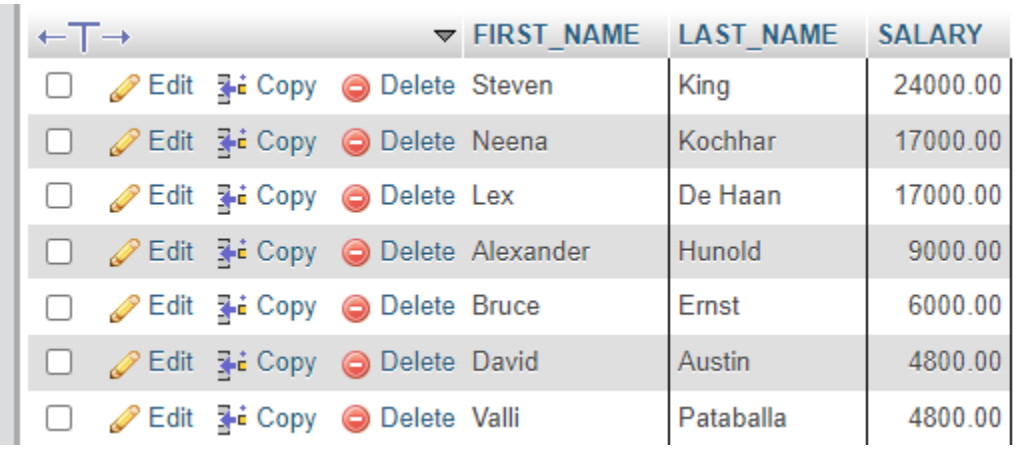
SELECT JOB_ID, AVG(SALARY), COUNT(*) AVARAGE FROM employees GROUP BY DEPARTMENT_ID HAVIN G COUNT(*) > 10;

JOB_ID	AVG(SALARY)	AVARAGE
ST_MAN	3475.555556	45
SA_MAN	8955.882353	34

Subquery

1. Write a MySQL query to find the name (first_name, last_name) and the salary of the employees who have a higher salary than the employee whose last_name='Bull'.

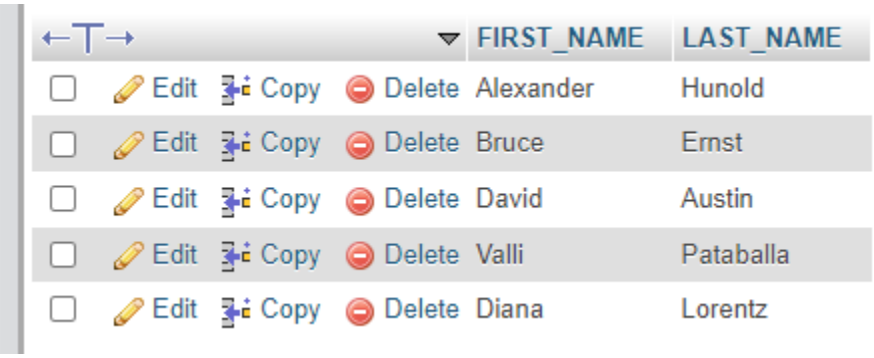
SELECT FIRST_NAME, LAST_NAME, SALARY FROM employees WHERE SALARY > (SELECT SALARY FROM e mployees WHERE LAST_NAME = 'Bull');



	FIRST_NAME	LAST_NAME	SALARY
Edit Copy Delete	Steven	King	24000.00
Edit Copy Delete	Neena	Kochhar	17000.00
Edit Copy Delete	Lex	De Haan	17000.00
Edit Copy Delete	Alexander	Hunold	9000.00
Edit Copy Delete	Bruce	Ernst	6000.00
Edit Copy Delete	David	Austin	4800.00
Edit Copy Delete	Valli	Pataballa	4800.00

2. Write a MySQL query to find the name (first_name, last_name) of all employees who works in the IT department.

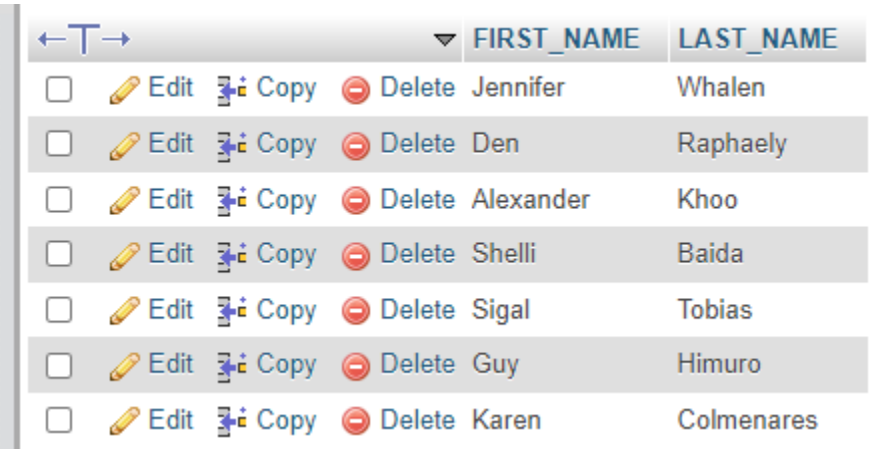
SELECT FIRST_NAME, LAST_NAME FROM employees WHERE DEPARTMENT_ID = (SELECT DEPARTMENT_I D FROM departments WHERE DEPARTMENT_NAME = 'IT');



	FIRST_NAME	LAST_NAME
Edit Copy Delete	Alexander	Hunold
Edit Copy Delete	Bruce	Ernst
Edit Copy Delete	David	Austin
Edit Copy Delete	Valli	Pataballa
Edit Copy Delete	Diana	Lorentz

3. Write a MySQL query to find the name (first_name, last_name) of the employees who have a manager and worked in a USA based department.

SELECT FIRST_NAME, LAST_NAME FROM employees WHERE MANAGER_ID IS NOT NULL AND DEPARTMENT_ID IN (SELECT DEPARTMENT_ID FROM departments WHERE LOCATION_ID IN (SELECT LOCATION_ID FROM locations WHERE COUNTRY_ID = 'US'));



	FIRST_NAME	LAST_NAME
Edit Copy Delete	Jennifer	Whalen
Edit Copy Delete	Den	Raphaely
Edit Copy Delete	Alexander	Khoo
Edit Copy Delete	Shelli	Baida
Edit Copy Delete	Sigal	Tobias
Edit Copy Delete	Guy	Himuro
Edit Copy Delete	Karen	Colmenares

4. Write a MySQL query to find the name (first_name, last_name) of the employees who are managers.

SELECT FIRST_NAME, LAST_NAME FROM employees WHERE EMPLOYEE_ID IN (SELECT MANAGER_ID FROM employees);

	FIRST_NAME	LAST_NAME
Edit Copy Delete	Steven	King
Edit Copy Delete	Neena	Kochhar
Edit Copy Delete	Lex	De Haan
Edit Copy Delete	Alexander	Hunold
Edit Copy Delete	Nancy	Greenberg
Edit Copy Delete	Den	Raphaely
Edit Copy Delete	Matthew	Weiss

5. Write a MySQL query to find the name (first_name, last_name), and salary of the employees whose salary is greater than the average salary.

SELECT FIRST_NAME, LAST_NAME, SALARY FROM employees WHERE SALARY > (SELECT AVG(SALARY) FROM employees);

	FIRST_NAME	LAST_NAME	SALARY
Edit Copy Delete	Steven	King	24000.00
Edit Copy Delete	Neena	Kochhar	17000.00
Edit Copy Delete	Lex	De Haan	17000.00
Edit Copy Delete	Alexander	Hunold	9000.00
Edit Copy Delete	Nancy	Greenberg	12000.00
Edit Copy Delete	Daniel	Faviet	9000.00
Edit Copy Delete	John	Chen	8200.00
Edit Copy Delete	Ismael	Sciarra	7700.00

6. Write a MySQL query to find the name (first_name, last_name), and salary of the employees whose salary is equal to the minimum salary for their job grade.

SELECT FIRST_NAME, LAST_NAME, SALARY FROM employees AS E WHERE SALARY IN (SELECT J.MIN_SALARY FROM jobs AS J WHERE J.JOB_ID = E.JOB_ID);

	FIRST_NAME	LAST_NAME	SALARY
Edit Copy Delete	Karen	Colmenares	2500.00
Edit Copy Delete	Martha	Sullivan	2500.00
Edit Copy Delete	Randall	Perkins	2500.00

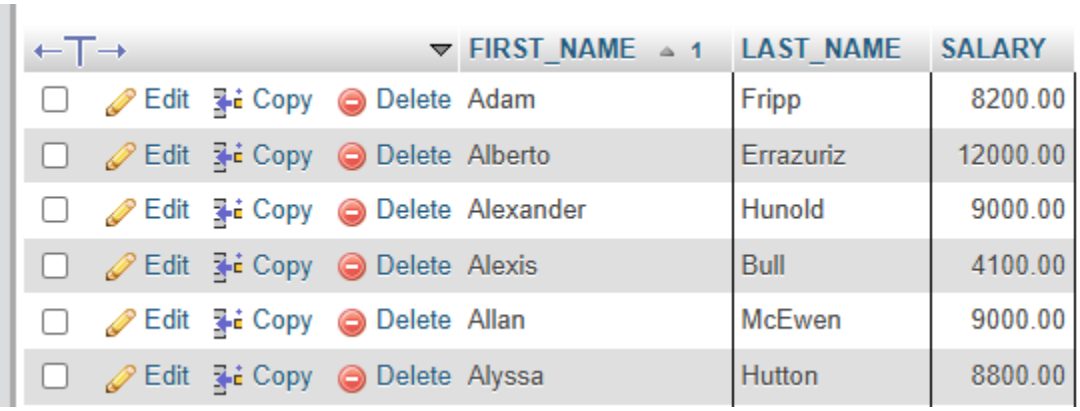
7. Write a MySQL query to find the name (first_name, last_name), and salary of the employees who earns more than the average salary and works in any of the IT departments.

SELECT FIRST_NAME, LAST_NAME, SALARY FROM employees WHERE SALARY > (SELECT AVG(SALARY) FROM employeeS) AND DEPARTMENT_ID IN (SELECT DEPARTMENT_ID FROM departments WHERE DEPARTMENT_NAME = 'IT');

	FIRST_NAME	LAST_NAME	SALARY
Edit Copy Delete	Alexander	Hunold	9000.00

8. Write a MySQL query to find the name (first_name, last_name), and salary of the employees who earns more than the earning of Mr. Bell.

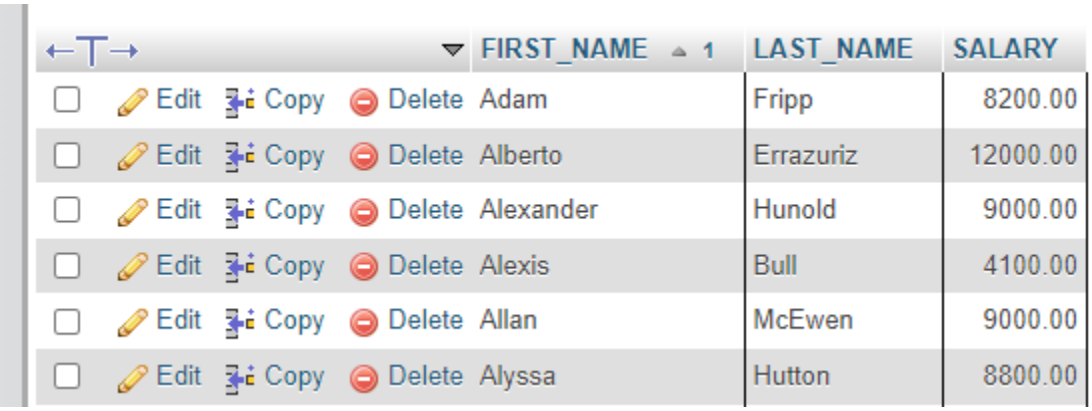
SELECT FIRST_NAME,LAST_NAME, SALARY FROM employees WHERE SALARY > ALL(SELECT SALARY FRO M employees WHERE LAST_NAME = 'Bell') ORDER BY FIRST_NAME;



	FIRST_NAME	LAST_NAME	SALARY
Edit Copy Delete	Adam	Fripp	8200.00
Edit Copy Delete	Alberto	Errazuriz	12000.00
Edit Copy Delete	Alexander	Hunold	9000.00
Edit Copy Delete	Alexis	Bull	4100.00
Edit Copy Delete	Allan	McEwen	9000.00
Edit Copy Delete	Alyssa	Hutton	8800.00

9. Write a MySQL query to find the name (first_name, last_name), and salary of the employees who earn the same salary as the minimum salary for all departments.

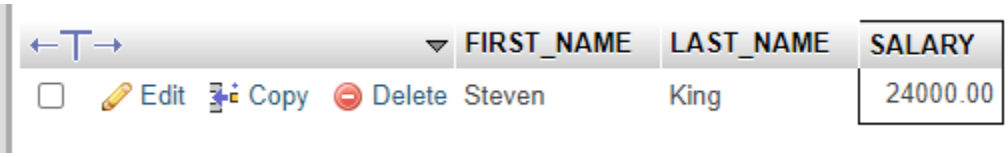
SELECT FIRST_NAME, LAST_NAME, SALARY FROM employees WHERE SALARY > (SELECT SALARY FROM e mployeeS WHERE LAST_NAME = 'Bell') ORDER BY FIRST_NAME;



	FIRST_NAME	LAST_NAME	SALARY
Edit Copy Delete	Adam	Fripp	8200.00
Edit Copy Delete	Alberto	Errazuriz	12000.00
Edit Copy Delete	Alexander	Hunold	9000.00
Edit Copy Delete	Alexis	Bull	4100.00
Edit Copy Delete	Allan	McEwen	9000.00
Edit Copy Delete	Alyssa	Hutton	8800.00

10. Write a MySQL query to find the name (first_name, last_name), and salary of the employees whose salary is greater than the average salary of each department.

SELECT SALARY FROM employees WHERE SALARY > ALL(SELECT AVG(SALARY) FROM employees GROUP BY DEPARTMENT_ID);



	FIRST_NAME	LAST_NAME	SALARY
Edit Copy Delete	Steven	King	24000.00

11. Write a MySQL query to find the name (first_name, last_name) and salary of the employees who earn a salary that is higher than the salary of all the Shipping Clerk (JOB_ID = 'SH_CLERK'). Sort the results of the salary of the lowest to highest.

SELECT FIRST_NAME, LAST_NAME, SALARY,JOB_ID FROM employees WHERE SALARY > ALL(SELECT SALARY FROM employees WHERE JOB_ID = 'SH_CLERK') ORDER BY SALARY;

	FIRST_NAME	LAST_NAME	SALARY ▲ 1	JOB_ID
Edit Copy Delete	Jennifer	Whalen	4400.00	AD_ASST
Edit Copy Delete	David	Austin	4800.00	IT_PROG
Edit Copy Delete	Valli	Pataballa	4800.00	IT_PROG
Edit Copy Delete	Kevin	Mourgos	5800.00	ST_MAN
Edit Copy Delete	Pat	Fay	6000.00	MK_REP

12. Write a MySQL query to find the name (first_name, last_name) of the employees who are not supervisors.

SELECT FIRST_NAME,LAST_NAME FROM employees WHERE EMPLOYEE_ID NOT IN (SELECT MANAGER_ID FROM employees);

	FIRST_NAME	LAST_NAME
Edit Copy Delete	Bruce	Ernst
Edit Copy Delete	David	Austin
Edit Copy Delete	Valli	Pataballa
Edit Copy Delete	Diana	Lorentz
Edit Copy Delete	Daniel	Faviet
Edit Copy Delete	John	Chen
Edit Copy Delete	Ismael	Sciarra

13. Write a MySQL query to display the employee ID, first name, last name, and department names of all employees.

SELECT FIRST_NAME, LAST_NAME, (SELECT D.DEPARTMENT_NAME FROM departments AS D WHERE D.DEPARTMENT_ID = E.DEPARTMENT_ID) AS JOBS FROM employees AS E;

FIRST_NAME	LAST_NAME	JOBS
Steven	King	Executive
Neena	Kochhar	Executive
Lex	De Haan	Executive
Alexander	Hunold	IT
Bruce	Ernst	IT

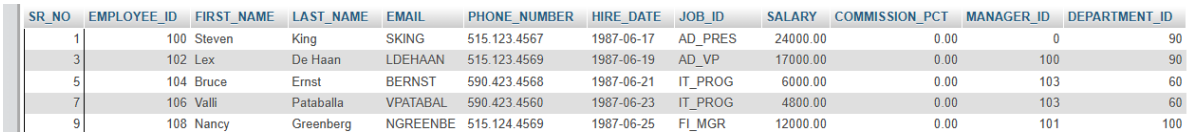
14. Write a MySQL query to display the employee ID, first name, last name, salary of all employees whose salary is above average for their departments.

SELECT EMPLOYEE_ID, FIRST_NAME, LAST_NAME, SALARY FROM employees AS E WHERE SALARY > (SELECT AVG(SALARY) FROM employees WHERE DEPARTMENT_ID = E.DEPARTMENT_ID);

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	SALARY
Edit Copy Delete	100	Steven	King	24000.00
Edit Copy Delete	103	Alexander	Hunold	9000.00
Edit Copy Delete	104	Bruce	Ernst	6000.00
Edit Copy Delete	108	Nancy	Greenberg	12000.00
Edit Copy Delete	109	Daniel	Faviet	9000.00

15. Write a MySQL query to fetch even numbered records from employees table.

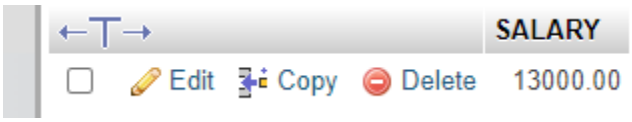
SELECT * FROM (SELECT ROW_NUMBER() OVER(ORDER BY E.EMPLOYEE_ID) AS SR_NO, E.* FROM employees AS E) AS RECORDS WHERE MOD(SR_NO, 2);



SR_NO	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
1	100	Steven	King	SKING	515.123.4567	1987-06-17	AD_PRES	24000.00	0.00	0	90
3	102	Lex	De Haan	LDEHAAN	515.123.4569	1987-06-19	AD_VP	17000.00	0.00	100	90
5	104	Bruce	Ernst	BERNST	590.423.4568	1987-06-21	IT_PROG	6000.00	0.00	103	60
7	106	Valli	Pataballa	VPATABAL	590.423.4560	1987-06-23	IT_PROG	4800.00	0.00	103	60
9	108	Nancy	Greenberg	NGREENBE	515.124.4569	1987-06-25	FI_MGR	12000.00	0.00	101	100

16. Write a MySQL query to find the 5th maximum salary in the employees table.

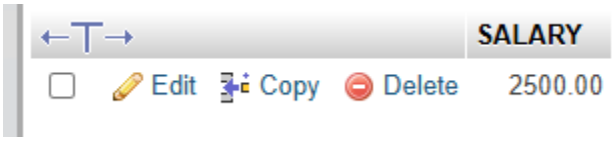
SELECT DISTINCT SALARY FROM employees ORDER BY SALARY DESC LIMIT 1 OFFSET 4;



	SALARY
Edit Copy Delete	13000.00

17. Write a MySQL query to find the 4th minimum salary in the employees table.

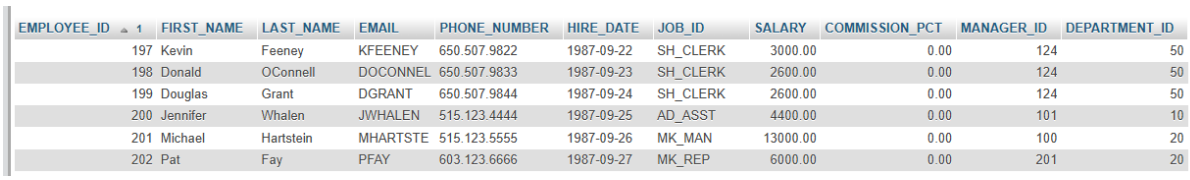
SELECT DISTINCT SALARY FROM employees ORDER BY SALARY LIMIT 1 OFFSET 3;



	SALARY
Edit Copy Delete	2500.00

18. Write a MySQL query to select last 10 records from a table.

SELECT * FROM (SELECT * FROM employees ORDER BY EMPLOYEE_ID DESC LIMIT 10) SUB ORDER BY EMPLOYEE_ID;



EMPLOYEE_ID ▲ 1	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
197	Kevin	Feeney	KFEENEY	650.507.9822	1987-09-22	SH_CLERK	3000.00	0.00	124	50
198	Donald	OConnell	DOCONNEL	650.507.9833	1987-09-23	SH_CLERK	2600.00	0.00	124	50
199	Douglas	Grant	DGRANT	650.507.9844	1987-09-24	SH_CLERK	2600.00	0.00	124	50
200	Jennifer	Whalen	JWHALEN	515.123.4444	1987-09-25	AD_ASST	4400.00	0.00	101	10
201	Michael	Hartstein	MHARTSTE	515.123.5555	1987-09-26	MK_MAN	13000.00	0.00	100	20
202	Pat	Fay	PFAY	603.123.6666	1987-09-27	MK_REP	6000.00	0.00	201	20

19. Write a MySQL query to list the department ID and name of all the departments where no employee is working.

SELECT DEPARTMENT_ID, DEPARTMENT_NAME FROM departments WHERE DEPARTMENT_ID NOT IN (SELECT DEPARTMENT_ID FROM employees);

	DEPARTMENT_ID	DEPARTMENT_NAME
Edit Copy Delete	120	Treasury
Edit Copy Delete	130	Corporate Tax
Edit Copy Delete	140	Control And Credit
Edit Copy Delete	150	Shareholder Services
Edit Copy Delete	160	Benefits
Edit Copy Delete	170	Manufacturing

20. Write a MySQL query to get 3 maximum salaries.

SELECT DISTINCT SALARY FROM employees ORDER BY SALARY DESC LIMIT 3;

	SALARY 1
Edit Copy Delete	24000.00
Edit Copy Delete	17000.00
Edit Copy Delete	14000.00

21. Write a MySQL query to get 3 minimum salaries.

SELECT DISTINCT SALARY FROM employees ORDER BY SALARY LIMIT 3;

	SALARY 1
Edit Copy Delete	2100.00
Edit Copy Delete	2200.00
Edit Copy Delete	2400.00

22 . Write a MySQL query to get nth maximum salaries of employees.

SELECT DISTINCT salary FROM employees ORDER BY salary DESC LIMIT 1 OFFSET n-1;

NOTE : OUTPUT SHOULD DEPEND UPON **Nth** VALUE.

Joins

1. Write a MySQL query to find the addresses (location_id, street_address, city, state_province, country_name) of all the departments.
Hint : Use NATURAL JOIN.

SELECT LOCATION_ID, STREET_ADDRESS,CITY,STATE_PROVINCE,COUNTRY_NAME FROM locations NATURAL JOIN countries;

LOCATION_ID	STREET_ADDRESS	CITY	STATE_PROVINCE	COUNTRY_NAME
1000	1297 Via Cola di Rie	Roma		Italy
1100	93091 Calle della Testa	Venice		Italy
1200	2017 Shinjuku-ku	Tokyo	Tokyo Prefecture	Japan
1300	9450 Kamiya-cho	Hiroshima		Japan

2. Write a MySQL query to find the name (first_name, last name), department ID and name of all the employees.

SELECT FIRST_NAME, LAST_NAME, DEPARTMENT_ID, DEPARTMENT_NAME FROM employees NATURAL JOIN departments;

FIRST_NAME	LAST_NAME	DEPARTMENT_ID	DEPARTMENT_NAME
Neena	Kochhar	90	Executive
Lex	De Haan	90	Executive
Bruce	Ernst	60	IT
David	Austin	60	IT
Valli	Pataballa	60	IT
Diana	Lorentz	60	IT

3. Write a MySQL query to find the name (first_name, last_name), job, department ID and name of the employees who works in London.

SELECT E.FIRST_NAME, E.LAST_NAME, E.JOB_ID, E.DEPARTMENT_ID, D.DEPARTMENT_NAME FROM employees AS E INNER JOIN departments AS D ON D.DEPARTMENT_ID = E.DEPARTMENT_ID INNER JOIN locations AS L ON D.LOCATION_ID = L.LOCATION_ID WHERE CITY= 'London';

FIRST_NAME	LAST_NAME	JOB_ID	DEPARTMENT_ID	DEPARTMENT_NAME
Susan	Mavris	HR_REP	40	Human Resources

4. Write a MySQL query to find the employee id, name (last_name) along with their manager_id and name (last_name).

SELECT E.EMPLOYEE_ID, E.LAST_NAME AS EMPLOYEE_NAME, E.MANAGER_ID, M.LAST_NAME AS MANAGER_NAME FROM employees AS E LEFT JOIN employees AS M ON E.MANAGER_ID = M.EMPLOYEE_ID ORDER BY E.EMPLOYEE_ID;

EMPLOYEE_ID ▲ 1	EMPLOYEE_NAME	MANAGER_ID	MANAGER_NAME
100	King	0	*NULL*
101	Kochhar	100	King
102	De Haan	100	King
103	Hunold	102	De Haan
104	Ernst	103	Hunold
105	Austin	103	Hunold

5. Write a MySQL query to find the name (first_name, last_name) and hire date of the employees who was hired after 'Jones'.

SELECT E.FIRST_NAME, E.LAST_NAME, E.HIRE_DATE FROM employees AS E INNER JOIN employees AS J ON E.HIRE_DATE > J.HIRE_DATE WHERE J.LAST_NAME= 'Jones';

FIRST_NAME	LAST_NAME	HIRE_DATE
Alana	Walsh	1987-09-21
Kevin	Feeney	1987-09-22
Donald	OConnell	1987-09-23
Douglas	Grant	1987-09-24
Jennifer	Whalen	1987-09-25
Michael	Hartstein	1987-09-26
Pat	Fay	1987-09-27

6. Write a MySQL query to get the department name and number of employees in the department.

SELECT COUNT(E.EMPLOYEE_ID) AS EMPLOYEE_COUNT, E.DEPARTMENT_ID, D.DEPARTMENT_NAME FRO M employees AS E LEFT JOIN departments AS D ON E.DEPARTMENT_ID = D.DEPARTMENT_ID GROUP BY D.DEPARTMENT_ID,. D.DEPARTMENT_NAME;

EMPLOYEE_COUNT	DEPARTMENT_ID	DEPARTMENT_NAME
1	0	*NULL*
1	10	Administration
2	20	Marketing
6	30	Purchasing
1	40	Human Resources
45	50	Shipping
5	60	IT

7. Write a MySQL query to find the employee ID, job title, number of days between ending date and starting date for all jobs in department 90.

SELECT EMPLOYEE_ID, JOB_TITLE, END_DATE - START_DATE AS DAYS FROM job_history NATURAL JOIN jo bs WHERE DEPARTMENT_ID = 90;

EMPLOYEE_ID	JOB_TITLE	DAYS
200	Administration Assistant	59700
200	Public Accountant	40530

8. Write a MySQL query to display the department ID and name and first name of manager.

SELECT D.DEPARTMENT_ID, D.DEPARTMENT_NAME, D.MANAGER_ID, E.FIRST_NAME FROM employees A S E JOIN departments AS D ON E.DEPARTMENT_ID = D.DEPARTMENT_ID ORDER BY DEPARTMENT_ID;

DEPARTMENT_ID ▲ 1	DEPARTMENT_NAME	MANAGER_ID	FIRST_NAME
10	Administration	200	Jennifer
20	Marketing	201	Pat
20	Marketing	201	Michael
30	Purchasing	114	Karen
30	Purchasing	114	Guy
30	Purchasing	114	Sigal
30	Purchasing	114	Alexander
30	Purchasing	114	Den

9. Write a MySQL query to display the department name, manager name, and city.

SELECT D.DEPARTMENT_NAME, E.FIRST_NAME, L.CITY FROM employees AS E JOIN departments AS D ON E.DEPARTMENT_ID = D.DEPARTMENT_ID JOIN locations AS L ON D.LOCATION_ID = L.LOCATION_ID ORDER BY DEPARTMENT_NAME;

DEPARTMENT_NAME ▲ 1	MANAGER_NAME	CITY
Accounting	Shelley	Seattle
Accounting	William	Seattle
Administration	Jennifer	Seattle
Executive	Steven	Seattle
Executive	Neena	Seattle
Executive	Lex	Seattle
Finance	Nancy	Seattle

10. Write a MySQL query to display the job title and average salary of employees.

SELECT J.JOB_TITLE, AVG(E.SALARY) AS AVG_SALARY FROM employees AS E NATURAL JOIN jobs AS J GROUP BY J.JOB_TITLE;

JOB_TITLE	AVG_SALARY
Accountant	7920.000000
Accounting Manager	12000.000000
Administration Assistant	4400.000000
Administration Vice President	17000.000000
Finance Manager	12000.000000
Human Resources Representative	6500.000000

11. Write a MySQL query to display job title, employee name, and the difference between salary of the employee and minimum salary for the job.

SELECT J.JOB_TITLE, E.FIRST_NAME, E.SALARY - J.MIN_SALARY FROM employees AS E JOIN jobs AS J ON E.JOB_ID = J.JOB_ID;

JOB_TITLE	FIRST_NAME	E.SALARY - J.MIN_SALARY
President	Steven	4000.00
Administration Vice President	Neena	2000.00
Administration Vice President	Lex	2000.00
Programmer	Alexander	5000.00
Programmer	Bruce	2000.00
Programmer	David	800.00

12. Write a MySQL query to display the job history that were done by any employee who is currently drawing more than 10000 of salary.

SELECT JH.* FROM employees AS E JOIN job_history AS JH ON E.EMPLOYEE_ID = JH.EMPLOYEE_ID WHER E E.SALARY > 10000;

EMPLOYEE_ID	START_DATE	END_DATE	JOB_ID	DEPARTMENT_ID
102	1993-01-13	1998-07-24	IT_PROG	60
101	1989-09-21	1993-10-27	AC_ACCOUNT	110
101	1993-10-28	1997-03-15	AC_MGR	110
201	1996-02-17	1999-12-19	MK_REP	20
114	1998-03-24	1999-12-31	ST_CLERK	50

13. Write a MySQL query to display department name, name (first_name, last_name), hire date, salary of the manager for all managers whose experience is more than 15 years.

SELECT D.DEPARTMENT_NAME, E.FIRST_NAME, E.LAST_NAME, E.HIRE_DATE, (DATEDIFF(NOW() , E.HIRE _DATE)) / 365 AS DAYS FROM employees AS E JOIN departments AS D ON E.DEPARTMENT_ID = D.DEPART MENT_ID WHERE DATEDIFF(NOW() , E.HIRE_DATE) > 15;

DEPARTMENT_NAME	FIRST_NAME	LAST_NAME	HIRE_DATE	DAYS
Executive	Steven	King	1987-06-17	37.3836
Executive	Neena	Kochhar	1987-06-18	37.3808
Executive	Lex	De Haan	1987-06-19	37.3781
IT	Alexander	Hunold	1987-06-20	37.3753
IT	Bruce	Ernst	1987-06-21	37.3726
IT	David	Austin	1987-06-22	37.3699

Date and time functions

1. Write a query to display the first day of the month (in datetime format) three months before the current month.
   Sample current date : 2014-09-03
   Expected result : 2014-06-01

SELECT DATE_FORMAT(NOW(), '%d-%m-%Y') AS CURR_DATE, DATE_FORMAT(SUBDATE(NOW(), INTERVAL 3 MONTH), '01-%m-%Y') AS DATE_3_MONTHS_AGO;

CURR_DATE	DATE_3_MONTHS_AGO
25-10-2024	01-07-2024

2. Write a query to display the last day of the month (in datetime format) three months before the current month.

SELECT DATE_FORMAT(NOW(), '%d-%m-%Y') AS CURR_DATE, LAST_DAY(SUBDATE(NOW(), INTERVAL 3 MONTH)) AS LAST_DAY_3_MONTHS__AGO;

CURR_DATE	LAST_DAY_3_MONTHS__AGO
25-10-2024	2024-07-31

3. Write a query to get the distinct Mondays from hire_date in employees tables.

SELECT HIRE_DATE,DAYNAME(HIRE_DATE) AS DAY_NAME FROM employees WHERE DAYNAME(HIRE_DATE) = 'Monday';

	HIRE_DATE	DAY_NAME
Edit Copy Delete	1987-06-22	Monday
Edit Copy Delete	1987-06-29	Monday
Edit Copy Delete	1987-07-06	Monday
Edit Copy Delete	1987-07-13	Monday
Edit Copy Delete	1987-07-20	Monday

4. Write a query to get the first day of the current year.

SELECT DATE_FORMAT(NOW(), '01-01-%Y') AS FIRST_DAY_OF_YEAR;

FIRST_DAY_OF_YEAR
01-01-2024

5. Write a query to get the last day of the current year.

SELECT DATE_FORMAT(NOW(), '31-12-%Y') AS LAST_DAY_OF_YEAR;

LAST_DAY_OF_YEAR
31-12-2024

6. Write a query to calculate the age in year.

SELECT DATEDIFF(NOW(), '2004-01-01') / 365 AS AGE;

AGE
20.8301

7. Write a query to get the current date in the following format.
Sample date : 2014-09-04
Output : September 4, 2014

SELECT DATE_FORMAT(NOW(), '%Y-%m-%d') AS CURR_DATE, DATE_FORMAT(NOW(), '%M %e, %Y') AS SAMPLE_FORMAT;

CURR_DATE	SAMPLE_FORMAT
2024-10-25	October 25, 2024

8. Write a query to get the current date in Thursday September 2014 format.
Thursday September 2014

SELECT DATE_FORMAT(NOW(), '%W %M, %Y') AS SAMPLE_FORMAT;

SAMPLE_FORMAT
Friday October, 2024

9. Write a query to extract the year from the current date.

SELECT YEAR(NOW()) AS CURR_YEAR;

CURR_YEAR
2024

10. Write a query to get the DATE value from a given day (number in N).
Sample days: 730677
Output : 2000-07-11

```
SELECT FROM_DAYS(730677) AS DAYS_TO_YEAR;
```

DAYS_TO_YEAR
2000-07-11

11. Write a query to get the first name and hire date from employees table where hire date between '1987-06-01' and '1987-07-30'

```
SELECT FIRST_NAME,HIRE_DATE FROM employees WHERE HIRE_DATE BETWEEN '1987-06-01' AND '1987-07-30';
```

	FIRST_NAME	HIRE_DATE
Edit Copy Delete	Steven	1987-06-17
Edit Copy Delete	Neena	1987-06-18
Edit Copy Delete	Lex	1987-06-19
Edit Copy Delete	Alexander	1987-06-20

12. Write a query to display the current date in the following format.
Sample output: Thursday 4th September 2014 00:00:00

```
SELECT DATE_FORMAT(NOW(), '%W %D, %Y %T') AS SAMPLE_FORMAT;
```

SAMPLE_FORMAT
Friday 25th, 2024 22:46:35

13. Write a query to display the current date in the following format.
Sample output: 05/09/2014

```
SELECT DATE_FORMAT(NOW(), '%d/%m/%Y') AS SAMPLE_FORMAT;
```

SAMPLE_FORMAT
25/10/2024

14. Write a query to display the current date in the following format.
Sample output: 12:00 AM Sep 5, 2014

SELECT DATE_FORMAT(NOW(), '%h:%i %p %a %e, %Y') AS SAMPLE_FORMAT;

SAMPLE_FORMAT
22:52 PM Fri 25, 2024

15. Write a query to get the firstname, lastname who joined in the month of June.

SELECT FIRST_NAME, LAST_NAME, HIRE_DATE FROM employees WHERE MONTH(HIRE_DATE) = 6;

	FIRST_NAME	LAST_NAME	HIRE_DATE
Edit Copy Delete	Steven	King	1987-06-17
Edit Copy Delete	Neena	Kochhar	1987-06-18
Edit Copy Delete	Lex	De Haan	1987-06-19

16. Write a query to get the years in which more than 10 employees joined.

SELECT YEAR(HIRE_DATE) AS HIRE_YEAR, COUNT(*) AS EMPLOYEE_COUNT FROM employees GROUP BY HIRE_YEAR HAVING EMPLOYEE_COUNT > 10;

HIRE_YEAR	EMPLOYEE_COUNT
1987	107

17. Write a query to get first name of employees who joined in 1987.

SELECT FIRST_NAME,YEAR(HIRE_DATE) AS HIRE_YEAR FROM employees WHERE YEAR(HIRE_DATE) = 1987;

	FIRST_NAME	HIRE_YEAR
Edit Copy Delete	Steven	1987
Edit Copy Delete	Neena	1987
Edit Copy Delete	Lex	1987
Edit Copy Delete	Alexander	1987
Edit Copy Delete	Bruce	1987

18. Write a query to get department name, manager name, and salary of the manager for all managers whose experience is more than 5 years.

SELECT D.DEPARTMENT_NAME, E.FIRST_NAME, E.SALARY, E.HIRE_DATE, (DATEDIFF(JH.END_DATE, JH .START_DATE))/365 AS EXP FROM employees AS E JOIN departments AS D ON E.DEPARTMENT_ID = D .DEPARTMENT_ID JOIN job_history AS JH ON E.EMPLOYEE_ID = JH.EMPLOYEE_ID HAVING EXP > 5;

DEPARTMENT_NAME	FIRST_NAME	SALARY	HIRE_DATE	EXP
Executive	Lex	17000.00	1987-06-19	5.5288
Administration	Jennifer	4400.00	1987-09-25	5.7534

19. Write a query to get employee ID, last name, and date of first salary of the employees.

SELECT EMPLOYEE_ID, LAST_NAME,HIRE_DATE, LAST_DAY(HIRE_DATE) AS FIRST_SALARY_DATE FRO M employees;

	EMPLOYEE_ID	LAST_NAME	HIRE_DATE	FIRST_SALARY_DATE
Edit Copy Delete	100	King	1987-06-17	1987-06-30
Edit Copy Delete	101	Kochhar	1987-06-18	1987-06-30
Edit Copy Delete	102	De Haan	1987-06-19	1987-06-30
Edit Copy Delete	103	Hunold	1987-06-20	1987-06-30
Edit Copy Delete	104	Ernst	1987-06-21	1987-06-30
Edit Copy Delete	105	Austin	1987-06-22	1987-06-30

20. Write a query to get first name, hire date and experience of the employees.

SELECT FIRST_NAME, HIRE_DATE, (DATEDIFF(NOW(), HIRE_DATE)) / 365 AS EXP FROM employees;

	FIRST_NAME	HIRE_DATE	EXP
Edit Copy Delete	Steven	1987-06-17	37.3836
Edit Copy Delete	Neena	1987-06-18	37.3808
Edit Copy Delete	Lex	1987-06-19	37.3781
Edit Copy Delete	Alexander	1987-06-20	37.3753
Edit Copy Delete	Bruce	1987-06-21	37.3726

21. Write a query to get the department ID, year, and number of employees joined.

SELECT DEPARTMENT_ID, YEAR(HIRE_DATE) AS HIRE_DATE,COUNT(*) AS EMPLOYEES FROM employees GROUP BY DEPARTMENT_ID;

DEPARTMENT_ID	HIRE_DATE	EMPLOYEES
0	1987	1
10	1987	1
20	1987	2
30	1987	6
40	1987	1
50	1987	45
60	1987	5
70	1987	1
80	1987	34
90	1987	3
100	1987	6
110	1987	2

String functions

1. Write a MySQL query to get the job_id and related employee's id.

SELECT JOB_ID, GROUP_CONCAT(EMPLOYEE_ID, '') AS EMPLOYEE_ID FROM employees GROUP BY JOB_ID;

	JOB_ID	EMPLOYEE_ID
Edit Copy Delete	AC_ACCOUNT	206
Edit Copy Delete	AC_MGR	205
Edit Copy Delete	AD_ASST	200
Edit Copy Delete	AD_PRES	100
Edit Copy Delete	AD_VP	101,102
Edit Copy Delete	FI_ACCOUNT	109,110,111,112,113

2. Write a MySQL query to update the portion of the phone_number in the employees table, within the phone number the substring '124' will be replaced by '999'.

SELECT REPLACE(PHONE_NUMBER, 124, 999) AS PHONE_NUMBER FROM employees;

PHONE_NUMBER
515.123.4567
515.123.4568
515.123.4569
590.423.4567
590.423.4568
590.423.4569
590.423.4560
590.423.5567
515.999.4569
515.999.4169
515.999.4269
515.999.4369
515.999.4469
515.999.4567

3. Write a MySQL query to get the details of the employees where the length of the first name greater than or equal to 8.

SELECT FIRST_NAME FROM employees WHERE LENGTH(FIRST_NAME) >= 8;

	FIRST_NAME
Edit Copy Delete	Elizabeth
Edit Copy Delete	Harrison
Edit Copy Delete	Jennifer
Edit Copy Delete	Kimberely
Edit Copy Delete	Danielle
Edit Copy Delete	Alexander

4. Write a MySQL query to display leading zeros before maximum and minimum salary.

SELECT LPAD(MIN_SALARY,6,0) MIN_SALARY,LPAD(MAX_SALARY,6,0) MAX_SALARY FROM jobs;

MIN_SALARY	MAX_SALARY
020000	040000
015000	030000
003000	006000
008200	016000
004200	009000

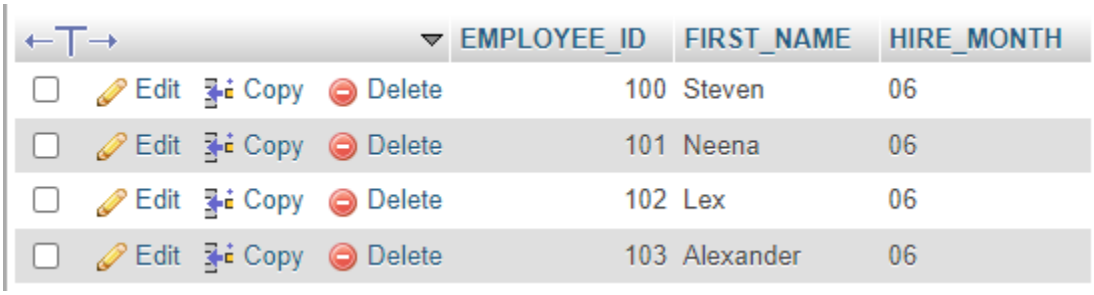
5. Write a MySQL query to append '@example.com' to email field.

SELECT CONCAT(EMAIL, '@example.com') FROM employees;

EMAIL
ABANDA@gmail.com
ABULL@gmail.com
ACABRIO@gmail.com
AERRAZUR@gmail.com
AFRIPP@gmail.com

6. Write a MySQL query to get the employee id, first name and hire month.

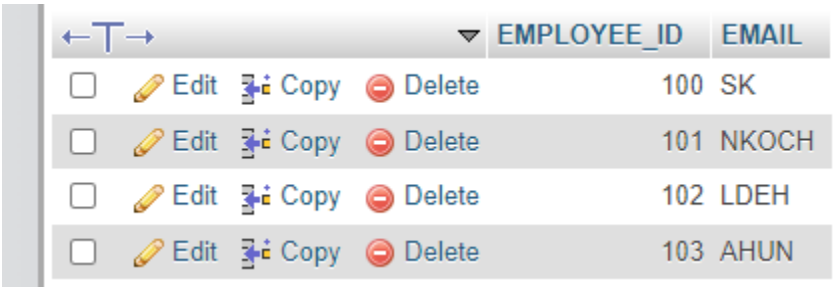
```
SELECT EMPLOYEE_ID, FIRST_NAME, LPAD(MONTH(HIRE_DATE),2,0) HIRE_MONTH FROM employees;
```



	EMPLOYEE_ID	FIRST_NAME	HIRE_MONTH
Edit Copy Delete	100	Steven	06
Edit Copy Delete	101	Neena	06
Edit Copy Delete	102	Lex	06
Edit Copy Delete	103	Alexander	06

7. Write a MySQL query to get the employee id, email id (discard the last three characters).

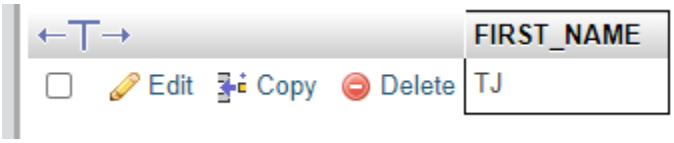
```
SELECT EMPLOYEE_ID, REVERSE(SUBSTR(REVERSE(EMAIL),4)) FROM employees;
```



	EMPLOYEE_ID	EMAIL
Edit Copy Delete	100	SK
Edit Copy Delete	101	NKOCH
Edit Copy Delete	102	LDEH
Edit Copy Delete	103	AHUN

8. Write a MySQL query to find all employees where first names are in upper case.

```
SELECT * FROM employees WHERE BINARY FIRST_NAME = UPPER(FIRST_NAME);
```



	FIRST_NAME
Edit Copy Delete	TJ

9. Write a MySQL query to extract the last 4 character of phone numbers.

SELECT REVERSE(SUBSTR(REVERSE(PHONE_NUMBER),1,4)) AS PHONE_NUMBER FROM employees;

OR

SELECT RIGHT(PHONE_NUMBER,4) AS PHONE_NUMBER FROM employees;

PHONE_NUMBER
4567
4568
4569
4567
4568

10. Write a MySQL query to get the last word of the street address.

SELECT SUBSTRING_INDEX(TRIM(STREET_ADDRESS), ' ', -1) AS last_word FROM locations;

	STREET_ADDRESS	last_word
Edit Copy Delete	1297 Via Cola di Rie	Rie
Edit Copy Delete	93091 Calle della Testa	Testa
Edit Copy Delete	2017 Shinjuku-ku	Shinjuku-ku
Edit Copy Delete	9450 Kamiya-cho	Kamiya-cho
Edit Copy Delete	2014 Jabberwocky Rd	Rd

11. Write a MySQL query to get the locations that have minimum street length.

SELECT STREET_ADDRESS FROM locations WHERE LENGTH(TRIM(STREET_ADDRESS)) = (SELECT MIN(LENGTH(TRIM(STREET_ADDRESS))) FROM locations);

	STREET_ADDRESS
Edit Copy Delete	2007 Zagora St
Edit Copy Delete	8204 Arthur St

12. Write a MySQL query to display the first word from those job titles which contains more than one words.

SELECT JOB_TITLE, SUBSTRING_INDEX(JOB_TITLE, '
', 1) AS FIRST_WORD FROM jobs WHERE JOB_TITLE LIKE '% %';

	JOB_TITLE	FIRST_WORD
Edit Copy Delete	Administration Vice President	Administration
Edit Copy Delete	Administration Assistant	Administration
Edit Copy Delete	Finance Manager	Finance
Edit Copy Delete	Accounting Manager	Accounting
Edit Copy Delete	Public Accountant	Public
Edit Copy Delete	Sales Manager	Sales
Edit Copy Delete	Sales Representative	Sales
Edit Copy Delete	Purchasing Manager	Purchasing
Edit Copy Delete	Purchasing Clerk	Purchasing

13. Write a MySQL query to display the first name and last name for employees where first occurrence of last name contain character 'c' after 2nd position.

SELECT FIRST_NAME, LAST_NAME FROM employees WHERE LOCATE('c', LAST_NAME) > 2;

	FIRST_NAME	LAST_NAME
Edit Copy Delete	Neena	Kochhar
Edit Copy Delete	Nandita	Sarchand
Edit Copy Delete	Peter	Tucker

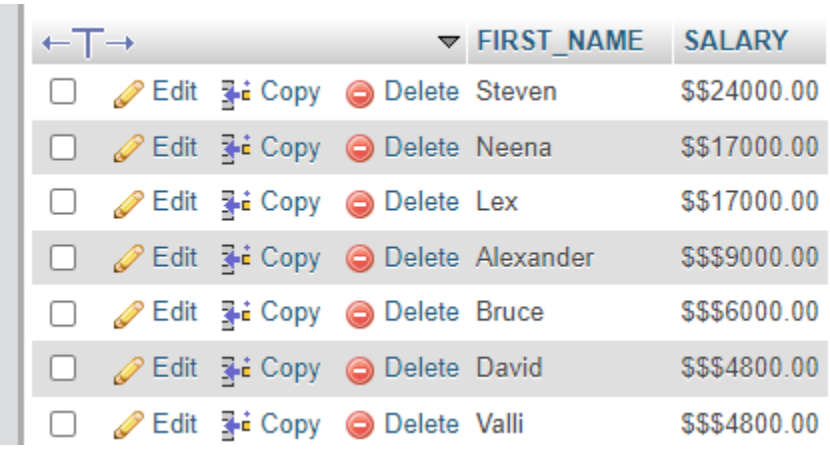
14. Write a MySQL query that displays the first name and the length of the first name for all employees whose name starts with the letters 'A', 'J' or 'M'. Give each column an appropriate label. Sort the results by the employees' first names.

SELECT FIRST_NAME, LENGTH(FIRST_NAME) LENGTH FROM employees WHERE FIRST_NAME LIKE 'A%' OR FIRST_NAME LIKE 'J%' OR FIRST_NAME LIKE 'M%' ORDER BY FIRST_NAME;

	FIRST_NAME	LENGTH
Edit Copy Delete	Adam	4
Edit Copy Delete	Alana	5
Edit Copy Delete	Alberto	7
Edit Copy Delete	Alexander	9
Edit Copy Delete	Alexander	9
Edit Copy Delete	Alexis	6

15. Write a MySQL query to display the first name and salary for all employees. Format the salary to be 10 characters long, left-padded with the $ symbol. Label the column SALARY.

SELECT FIRST_NAME, LPAD(SALARY,10,'$') SALARY FROM employees;



	FIRST_NAME	SALARY
Edit Copy Delete	Steven	$$24000.00
Edit Copy Delete	Neena	$$17000.00
Edit Copy Delete	Lex	$$17000.00
Edit Copy Delete	Alexander	$$$9000.00
Edit Copy Delete	Bruce	$$$6000.00
Edit Copy Delete	David	$$$4800.00
Edit Copy Delete	Valli	$$$4800.00

16. Write a MySQL query to display the first eight characters of the employees' first names and indicates the amounts of their salaries with '$' sign. Each '$' sign signifies a thousand dollars. Sort the data in descending order of salary.

SELECT LPAD("", FLOOR(SALARY / 1000), '$') AS SALARY FROM employees;

OR

SELECT LEFT(FIRST_NAME, 8) FIRST_NAME, REPEAT('$', FLOOR(SALARY/1000)) 'SALARY($)', SALARY FRO M employees;

	FIRST_NAME	SALARY($)	SALARY
Edit Copy Delete	Steven	$$$$$$$$$$$$$$$$$$$$$	24000.00
Edit Copy Delete	Neena	$$$$$$$$$$$$$$$$	17000.00
Edit Copy Delete	Lex	$$$$$$$$$$$$$$$$	17000.00
Edit Copy Delete	Alexande	$$$$$$$$$	9000.00
Edit Copy Delete	Bruce	$$$$$$	6000.00
Edit Copy Delete	David	$$$$	4800.00
Edit Copy Delete	Valli	$$$$	4800.00
Edit Copy Delete	Diana	$$$$	4200.00
Edit Copy Delete	Nancy	$$$$$$$$$$$$	12000.00
Edit Copy Delete	Daniel	$$$$$$$$$	9000.00

17. Write a MySQL query to display the employees with their code, first name, last name and hire date who hired either on seventh day of any month or seventh month in any year.

SELECT EMPLOYEE_ID, FIRST_NAME, LAST_NAME,HIRE_DATE FROM employees WHERE DAY(hire_date) = 7 OR MONTH(hire_date) = 7;

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	HIRE_DATE
Edit Copy Delete	114	Den	Raphaely	1987-07-01
Edit Copy Delete	115	Alexander	Khoo	1987-07-02
Edit Copy Delete	116	Shelli	Baida	1987-07-03
Edit Copy Delete	117	Sigal	Tobias	1987-07-04
Edit Copy Delete	118	Guy	Himuro	1987-07-05
Edit Copy Delete	119	Karen	Colmenares	1987-07-06
Edit Copy Delete	120	Matthew	Weiss	1987-07-07
Edit Copy Delete	121	Adam	Fripp	1987-07-08