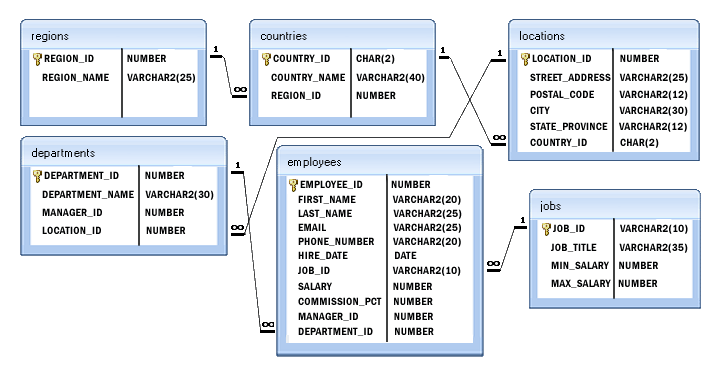
**SQL Lab**

**Database Schema:**



1. **Basic SELECT statements**

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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.

1. Write a query to get all employee details from the employee table order by first name, descending
2. Write a query to get the names (first\_name, last\_name), salary, PF of all the employees (PF is calculated as 15% of salary)
3. Write a query to get the employee ID, names (first\_name, last\_name), salary in ascending order of salary

1. Write a query to get the total salaries payable to employees
2. Write a query to get the maximum and minimum salary from employees table

1. Write a query to get the average salary and number of employees in the employees table
2. Write a query to get the number of employees working with the company.
3. Write a query to get the number of jobs available in the employees table.

1. Write a query get all first name from employees table in upper case
2. Write a query to get the first 3 characters of first name from employees table
3. Write a query to calculate 171\*214+625
4. Write a query to get the names (for example Ellen Abel, Sundar Ande etc.) of all the employees from employees table
5. Write a query to get first name from employees table after removing white spaces from both side
6. Write a query to get the length of the employee names (first\_name, last\_name) from employees table.

SELECT LENGTH(FIRST\_NAME || LAST\_NAME) FROM EMPLOYEES;

1. Write a query to check if the first\_name fields of the employees table contains numbers.

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

1. 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)
2. **Restricting and Sorting Data**
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
4. 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
5. 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
6. Write a query to display the name (first\_name, last\_name) and hire date for all employees who were hired in 1987
7. Write a query to display the first\_name of all employees who have both "b" and "c" in their first name
8. 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
9. Write a query to display the last name of employees whose names have exactly 6 characters
10. Write a query to display the last name of employees having 'e' as the third character
11. Write a query to display the jobs/designations available in the employees table
12. Write a query to display the name (first\_name, last\_name), salary and PF (15% of salary) of all employees
13. Write a query to select all record from employees where last name in 'BLAKE', 'SCOTT', 'KING' and 'FORD'
14. **Aggregate Functions and Group by**
15. Write a query to list the number of jobs available in the employees table
16. Write a query to get the total salaries payable to employees
17. Write a query to get the minimum salary from employees table
18. Write a query to get the maximum salary of an employee working as a Programmer
19. Write a query to get the average salary and number of employees working the department 90
20. Write a query to get the highest, lowest, sum, and average salary of all employees
21. Write a query to get the number of employees with the same job
22. Write a query to get the difference between the highest and lowest salaries
23. Write a query to find the manager ID and the salary of the lowest-paid employee for that manager
24. Write a query to get the department ID and the total salary payable in each department
25. Write a query to get the average salary for each job ID excluding programmer
26. Write a query to get the total salary, maximum, minimum, average salary of employees (job ID wise), for department ID 90 only
27. Write a query to get the job ID and maximum salary of the employees where maximum salary is greater than or equal to $4000
28. Write a query to get the average salary for all departments employing more than 10 employees
29. **Sub-Queries**
30. Write a query to find the name (first\_name, last\_name) and the salariy of the employees who have a higher salary than the employee whose last\_name='Bull'
31. Write a query to find the name (first\_name, last\_name) of all employees who works in the IT department
32. Write a query to find the name (first\_name, last\_name) of the employees who have a manager and worked in a USA based department
33. Write a query to find the name (first\_name, last\_name) of the employees who are managers
34. Write a query to find the name (first\_name, last\_name), and salary of the employees whose salary is greater than the average salary
35. Write a 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
36. Write a 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
37. Write a query to find the name (first\_name, last\_name), and salary of the employees who earns more than the earning of Mr. Bell
38. Write a 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
39. Write a query to find the name (first\_name, last\_name), and salary of the employees whose salary is greater than the average salary of all departments
40. Write a 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
41. Write a query to find the name (first\_name, last\_name) of the employees who are not supervisors
42. Write a query to display the employee ID, first name, last name, and department names of all employees
43. Write a query to display the employee ID, first name, last name, salary of all employees whose salary is above average for their departments
44. Write a query to fetch even numbered records from employees table
45. Write a query to find the 5th maximum salary in the employees table
46. Write a query to find the 4th minimum salary in the employees table
47. Write a query to select last 10 records from a table
48. Write a query to list the department ID and name of all the departments where no employee is working
49. Write a query to get 3 maximum salaries
50. Write a query to get 3 minimum salaries
51. Write a query to get nth max salaries of employees

**E. JOINS**

1. Write a query to find the addresses (location\_id, street\_address, city, state\_province, country\_name) of all the departments. (Hint : Use NATURAL JOIN)
2. Write a query to find the name (first\_name, last name), department ID and name of all the employees
3. Write a query to find the name (first\_name, last\_name), job, department ID and name of the employees who works in London
4. Write a query to find the employee id, name (last\_name) along with their manager\_id and name (last\_name)
5. Write a query to find the name (first\_name, last\_name) and hire date of the employees who was hired after 'Jones'
6. Write a query to get the department name and number of employees in the department
7. Write a query to find the employee ID, job title, number of days between ending date and starting date for all jobs in department 90
8. Write a query to display the department ID and name and first name of manager
9. Write a query to display the department name, manager name, and city
10. Write a query to display the job title and average salary of employees
11. Write a query to display job title, employee name, and the difference between salary of the employee and minimum salary for the job
12. Write a query to display the job history that were done by any employee who is currently drawing more than 10000 of salary
13. Write a 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

**F. Date & Time**

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)
2. Write a query to display the last day of the month (in datetime format) three months before the current month
3. Write a query to get the distinct Mondays from hire\_date in employees tables
4. Write a query to get the first day of the current year
5. Write a query to get the last day of the current year
6. Write a query to calculate the age in year
7. Write a query to get the current date in the following format. (Sample date : 2014-09-04 & Output : September 4, 2014)
8. Write a query to get the current date in Thursday September 2014 format. (Thursday September 2014)
9. Write a query to extract the year from the current date
10. Write a query to get the DATE value from a given day (number in N). (Sample days: 730677 & Output : 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'
12. Write a query to display the current date in the following format. (Sample output: Thursday 4th September 2014 00:00:00)
13. Write a query to display the current date in the following format. (Sample output: 05/09/2014)
14. Write a query to display the current date in the following format. (Sample output: 12:00 AM Sep 5, 2014)
15. Write a query to get the firstname, lastname who joined in the month of June
16. Write a query to get the years in which more than 10 employees joined
17. Write a query to get first name of employees who joined in 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
19. Write a query to get employee ID, last name, and date of first salary of the employees
20. Write a query to get first name, hire date and experience of the employees
21. Write a query to get the department ID, year, and number of employees joined

**G. Strings**

1. Write a query to get the job\_id and related employee's id. Partial output of the query:

|  |  |
| --- | --- |
| job\_id | Employees ID |
| AC\_ACCOUNT | 206 |
| AC\_MGR | 205 |
| AD\_ASST | 200 |
| AD\_PRES | 100 |
| AD\_VP | 101 ,102 |
| FI\_ACCOUNT | 110 ,113 ,111 ,109 ,112 |

1. Write a 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'
2. Write a query to get the details of the employees where the length of the first name greater than or equal to 8
3. Write a query to display leading zeros before maximum and minimum salary
4. Write a query to append '@example.com' to email field.
5. Write a query to get the employee id, first name and hire month
6. Write a query to get the employee id, email id (discard the last three characters)
7. Write a query to find all employees where first names are in upper case
8. Write a query to extract the last 4 character of phone numbers
9. Write a query to get the last word of the street address
10. Write a query to get the locations that have minimum street length
11. Write a query to display the first word from those job titles which contains more than one words
12. Write a query to display the length of first name for employees where last name contain character 'c' after 2nd position
13. Write a 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
14. Write a 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
15. Write a 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
16. Write a 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