



# SQL Data Analyst Project

# 1. List of employees by Department

Question- Write a query to list all a employees along with their respective department name, include employee number, first name, last name, department number and and department name.

## Query

```
select e.emp_no, first_name, last_name, t.title from employees as e
join titles as t
on e.emp_no = t.emp_no
where title = 'engineer'
```

## Output

emp_no	first_name	last_name	dept_no	dept_name
10011	Mary	Sluis	d009	Customer Service
10038	Huan	Lortz	d009	Customer Service
10049	Basil	Tramer	d009	Customer Service
10060	Breannnda	Billingsley	d009	Customer Service
10088	Jungsoon	Syrzycki	d009	Customer Service

## 2. Current and past salary of an employees

**Question:** Write a query to retrieve all the salary record of a given employee (by employee no). Include employee number, salary, from date and to date and find the highest salary.

**Query**

```
select * from salaries where  
emp_no = '10001' order by salary desc limit 1
```

**Output**

	emp_no	salary	from_date	to_date
▶	10001	88958	2002-06-22	9999-01-01
*	NULL	NULL	NULL	NULL

### 3. employees with specific titles

**Question:** Write a query to find all employees who have held a specific titles (eg. engineer) include employee number, first name, last name and titles.

Query

```
select e.emp_no, first_name, last_name, t.title from employees as e
join titles as t
on e.emp_no = t.emp_no
where title = 'engineer'
```

Output

emp_no	first_name	last_name	title
10004	Chirstian	Koblick	Engineer
10009	Sumant	Peac	Engineer
10010	Duangkaew	Piveteau	Engineer
10012	Patricio	Bridgland	Engineer
10014	Berni	Genin	Engineer
10018	Kazuhide	Peha	Engineer

## 4. Department with their managers

**Question:** Write a query to list all the department along with their current manager include department number, department name, managers employee number, first name and last name.

### Query

```
select d.dept_no, d.dept_name, e.emp_no, e.first_name, e.last_name from departments as d
join dept_manager as dm
on d.dept_no = dm.dept_no
join employees as e
on e.emp_no = dm.emp_no
```

### Output

dept_no	dept_name	emp_no	first_name	last_name
d009	Customer Service	111692	Tonny	Butterworth
d009	Customer Service	111784	Marjo	Giarratana
d009	Customer Service	111877	Xiaobin	Spinelli
d009	Customer Service	111939	Yuchang	Weedman
d005	Development	110511	DeForest	Hagimont
d005	Development	110567	Leon	DasSarma
d002	Finance	110085	Ebru	Alpin

## 5. Employees count by department.

**Question:** Write a query to list all the department count the number of employees in each department, department number, department name and employees count.

### Query

```
select d.dept_no,dept_name, count(de.emp_no) as emp_count from departments as d
join dept_emp as de
on d.dept_no = de.dept_no
group by dept_name,dept_name
```

### Output

dept_no	dept_name	emp_count
d009	Customer Service	23580
d005	Development	85707
d002	Finance	17346
d003	Human Resources	17786
d001	Marketing	20211
d004	Production	73485
d006	Quality Management	20117

Result 13 x

## 6. Employees birth date in a given year

**Question:** Write a query to find all employees to born in a specific year (e.g.1953) include employee number, first name, last name and birth date.

### Query

```
select emp_no, first_name, last_name, birth_date from employees
where year(birth_date) = 1953
```

### Output

emp_no	first_name	last_name	birth_date
10067	Claudi	Stavenow	1953-01-07
10100	Hironobu	Haraldson	1953-04-21
10103	Akemi	Birch	1953-11-26
10134	Diederik	Siprelle	1953-04-15
10149	Xiadong	Perry	1953-05-20
10160	Debatosh	Khasidashvili	1953-10-18
10161	Hairong	Mellouli	1953-04-06



## 7. Employees birth date in a given month

**Question:** Write a query to find all employees to born in a specific month (9) include employee number, first name, last name and birth date.

### Query

```
select emp_no, first_name, last_name, birth_date from employees
where month(birth_date) = 9
```

### Output

emp_no	first_name	last_name	birth_date
10053	Sanjiv	Zschoche	1954-09-13
10056	Brendon	Bernini	1961-09-01
10059	Alejandro	McAlpine	1953-09-19
10069	Margareta	Bierman	1960-09-06
10082	Parviz	Lortz	1963-09-09
10096	Jayson	Mandell	1954-09-16
10098	Sreekrishna	Servieres	1961-09-23