# **Practice SQL JOIN Methods\_V2**

**Inner JOIN Practice**

1. Employees and departments  (*Employees* & *Departments* tables)
   1. For each employee, display the first name, last name, department number and department name.

**select a.first\_name,a.last\_name,b.department\_id,b.department\_name from**

**tblemployees A**

**inner join**

**tbldepartments B on a.department\_id=b.department\_id;**

* 1. Display the first name, last name, department number and department name, for all employees in departments 50 or 90.

**select a.first\_name,a.last\_name,b.department\_id,b.department\_name from**

**tblemployees A**

**inner join**

**tbldepartments B on a.department\_id=b.department\_id and b.department\_id between 50 and 90;**

1. Departments and locations (*Departments*, Employees & *Locations* tables)
   1. For each department, display the department name, city, and state province.

**select a.department\_name,b.city,b.state\_province from**

**tbldepartments A**

**inner join**

**tbllocations B**

**on a.location\_id=b.location\_id;**

* 1. For each employee, display the full name, department name, city, and state province.

**select a.first\_name||' '||a.last\_name FULL\_NAME,b.department\_name,c.city,c.state\_province from**

**tblemployees A**

**inner join**

**tbldepartments B**

**on b.department\_id = a.department\_id**

**inner join**

**tbllocations C**

**on b.location\_id=c.location\_id;**

* 1. Display the full name, department name, city, and state province, for all employees whose last name contains the letter *a*.

**select a.first\_name||' '||a.last\_name FULL\_NAME,b.department\_name,c.city,c.state\_province from**

**tblemployees A**

**inner join**

**tbldepartments B**

**on b.department\_id = a.department\_id**

**inner join**

**tbllocations C**

**on b.location\_id=c.location\_id and lower(a.last\_name) like '%a%';**

**None Equi JOIN Practice**

1. For each employee, display the first name, salary, and job grade (*Employees* & *Job\_Grades* tables)

**select a.first\_name,a.salary,b.grade\_name JOB\_GRADE from**

**tblemployees A**

**inner join**

**job\_grades B**

**on a.salary between b.min\_salary and b.max\_salary;**

**Outer JOIN Practice**

1. Employees & departments
   1. Display the first name, last name, department number and department name, for all employees including those without any department.

**select a.first\_name,a.last\_name,b.department\_id,b.department\_name from**

**tblemployees A**

**left OUTER join**

**tbldepartments B on a.department\_id=b.department\_id;**

* 1. Modify your query to display all departments including departments without any employees.

**select a.first\_name,a.last\_name,b.department\_id,b.department\_name from**

**tblemployees A**

**RIGHT OUTER join**

**tbldepartments B on a.department\_id=b.department\_id;**

**Self JOIN Practice**

1. Employees and managers (*Employees* table)
   1. For each employee, display the last name, and the manager’s last name.

**select a.last\_name,b.last\_name MANAGER\_LAST\_NAME from**

**tblemployees A**

**inner join**

**tblemployees B**

**on a.manager\_id=b.employee\_id;**

* 1. Modify your query to display all employees including those without any manager.

**select a.last\_name,b.last\_name MANAGER\_LAST\_NAME from**

**tblemployees A**

**left OUTER join**

**tblemployees B**

**on a.manager\_id=b.employee\_id;**

1. Display the first name, last name, and department number for all employees who work in the same department as employee whose last name is “King”.

**select a.first\_name,a.last\_name,b.department\_id from**

**tblemployees A**

**inner join**

**(select department\_id from tblemployees where last\_name = 'King') B**

**on a.department\_id=b.department\_id;**

1. Display the last name and salary for all employees who earn less than employee number 103.

**select a.first\_name,a.last\_name,a.salary from**

**tblemployees A**

**inner join**

**(select salary from tblemployees where employee\_id = 103) B**

**on a.salary<b.salary;**