

## MySQL Workbench

- We can join employees and departments table based on the column 'department\_id'

```
4 • SELECT * FROM employees;
```

```
5
```

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

employee_id	first_name	last_name	email	job_title	salary	hire_date	department_id
1001	Liam	Brown	john.doe@example.com	Software Engineer	85000	2018-05-12	1
1002	Emma	Taylor	jane.smith@example.com	Marketing Manager	78000	2020-03-10	2
1003	Michael	Johnson	michael.johnson@example.com	Data Scientist	95000	2016-09-01	3
1004	Emily	Brown	emily.brown@example.com	HR Manager	70000	2019-07-15	4
1005	Robert	Williams	robert.williams@example.com	Sales Executive	72000	2017-11-20	3

```
4 • SELECT * FROM departments;
```

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	Department_ID	Department_Name	Department_Budget	Head_of_Department	Number_of_Employees	Department_Goals
1	Engineering	1200000	Alice Green	2	Develop new products	
2	Marketing	800000	Bob White	2	Increase brand awareness	
3	Sales	600000	Carol Black	3	Boost sales	
4	Human Resources	400000	Diana Silver	2	Enhance employee engagement	
5	IT	450000	Ethan Gold	2	Improve IT infrastructure	

```
5 -- join
6 • SELECT * FROM employees e
7 join departments d
8 on e.department_id = d.Department_ID
```

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	employee_id	first_name	last_name	email	job_title	salary	hire_date	department_id
▶	1001	Liam	Brown	john.doe@example.com	Software Engineer	85000	2018-05-12	1
	1002	Emma	Taylor	jane.smith@example.com	Marketing Manager	78000	2020-03-10	2
	1003	Michael	Johnson	michael.johnson@example.com	Data Scientist	95000	2016-09-01	3
	1004	Emily	Brown	emily.brown@example.com	HR Manager	70000	2019-07-15	4
	1005	Robert	Williams	robert.williams@example.com	Sales Executive	72000	2017-11-20	3
	1006	Linda	Miller	linda.miller@example.com	Operations Manager	80000	2015-01-05	2
	1007	William	Jones	william.jones@example.com	Business Analyst	75000	2021-06-22	1
	1008	Sophia	Davis	sophia.davis@example.com	Product Manager	90000	2018-12-08	4
	1009	David	Martinez	david.martinez@example.com	IT Specialist	68000	2019-10-29	5
	1010	Olivia	Wilson	olivia.wilson@example.com	Finance Analyst	83000	2016-04-18	5

- Next project\_assignments table is joined with employees table which have employee id in common.

We are using *inner join* here.

```
6 • SELECT * FROM employees e
7   join departments d
8   on e.department_id = d.i»Department_ID
9   join project_assignments pa
10  on e.i»employee_id = pa.employee_id
```

i»employee_id	first_name	last_name	email	job_title	salary	hire_date	department_id	i»Department_ID	Department_Name	Department_Budget	Head_of_Department	Number_of
1001	Liam	Brown	john.doe@example.com	Software Engineer	85000	2018-05-12	1	1	Engineering	1200000	Alice Green	2
1002	Emma	Taylor	jane.smith@example.com	Marketing Manager	78000	2020-03-10	2	2	Marketing	800000	Bob White	2
1003	Michael	Johnson	michael.johnson@example.com	Data Scientist	95000	2016-09-01	3	3	Sales	600000	Carol Black	3
1004	Emily	Brown	emily.brown@example.com	HR Manager	70000	2019-07-15	4	4	Human Resources	400000	Diana Silver	2
1005	Robert	Williams	robert.williams@example.com	Sales Executive	72000	2017-11-20	3	3	Sales	600000	Carol Black	3
1006	Linda	Miller	linda.miller@example.com	Operations Manager	80000	2015-01-05	2	2	Marketing	800000	Bob White	2
1007	William	Jones	william.jones@example.com	Business Analyst	75000	2021-06-22	1	1	Engineering	1200000	Alice Green	2
1008	Sophia	Davis	sophia.davis@example.com	Product Manager	90000	2018-12-08	4	4	Human Resources	400000	Diana Silver	2
1009	David	Martinez	david.martinez@example.com	IT Specialist	68000	2019-10-29	5	5	IT	450000	Ethan Gold	2

- Retrieving all the columns which are required

```
6 • SELECT e.i»employee_id,e.first_name,e.last_name,e.job_title,e.salary,d.Department_Name,pa.project_id
7   FROM employees e
8   join departments d
9   on e.department_id = d.i»Department_ID
10  join project_assignments pa
11  on e.i»employee_id = pa.employee_id
```

i»employee_id	first_name	last_name	job_title	salary	Department_Name	project_id
1001	Liam	Brown	Software Engineer	85000	Engineering	201
1002	Emma	Taylor	Marketing Manager	78000	Marketing	202
1003	Michael	Johnson	Data Scientist	95000	Sales	203
1004	Emily	Brown	HR Manager	70000	Human Resources	204
1005	Robert	Williams	Sales Executive	72000	Sales	205
1006	Linda	Miller	Operations Manager	80000	Marketing	206
1007	William	Jones	Business Analyst	75000	Engineering	207
1008	Sophia	Davis	Product Manager	90000	Human Resources	208
1009	David	Martinez	IT Specialist	68000	IT	209
1010	Olivia	Wilson	Finance Analyst	83000	IT	210

Final table:

10

SELECT e.i»;employee\_id,e.first\_name,e.last\_name,e.job\_title,e.salary,d.Department\_Name,d.Department\_Budget,d.Department\_Goals,

11

pa.project\_id,ps.project\_budget,ps.project\_name,ps.status

12

FROM employees e

13

join departments d

14

on e.department\_id = d.i»;Department\_ID

15

join project\_assignments pa

16

on e.i»;employee\_id = pa.employee\_id

17

join project\_status ps

18

on pa.project\_id = ps.project\_id

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

i»;employee_id	first_name	last_name	job_title	salary	Department_Name	Department_Budget	Department_Goals	project_id	project_budget	project_name	status
1001	Liam	Brown	Software Engineer	85000	Engineering	1200000	Develop new products	201	60000	Website Overhaul	upcoming
1002	Emma	Taylor	Marketing Manager	78000	Marketing	800000	Increase brand awareness	202	45000	Social Media Strategy	upcoming
1003	Michael	Johnson	Data Scientist	95000	Sales	600000	Boost sales	203	80000	Product Launch	upcoming
1004	Emily	Brown	HR Manager	70000	Human Resources	400000	Enhance employee engagement	204	50000	CRM Integration	completed
1005	Robert	Williams	Sales Executive	72000	Sales	600000	Boost sales	205	70000	Brand Repositioning	completed
1006	Linda	Miller	Operations Manager	80000	Marketing	800000	Increase brand awareness	206	70000	Mobile App Development	upcoming