

S02-L02 How to write a beautiful query?

Not nice, very messy and hardly maintainable:

```
select
    e.id, concat(e.first_name, ' ', e.last_name) AS employee_full_name,
    e.first_name, d.id AS department_id, d.name AS last_department_name
from employee e
inner join ( select der.employee_id, max(der.id) AS max_id
            from department_employee_rel der
            where der.deleted_flag = 0
            group by der.employee_id
        ) derm ON derm.employee_id = e.id
inner join department_employee_rel der ON der.id = derm.max_id
        and der.deleted_flag = 0
inner join department d ON d.id = der.department_id
        and d.deleted_flag = 0
where e.id IN (10010, 10040, 10050, 91050, 205357)
        and e.deleted_flag = 0
limit 100;
```

Much better:

```
SELECT /* Select last department of employees */
    `employee`.`id` AS employee_id, /* NOTE: added alias */
    CONCAT(`employee`.`first_name`, ' ', `employee`.`last_name`) AS
employee_full_name,
    `employee`.`first_name` AS first_name,
    `department`.`id` AS department_id,
    `department`.`name` AS last_department_name

FROM `sample_staff`.`employee`

INNER JOIN (
    SELECT /* Select the last department ID per employee */
        `department_employee_rel`.`employee_id`,
        MAX(`department_employee_rel`.`id`) AS max_id
    FROM `sample_staff`.`department_employee_rel`
    WHERE 1=1
        AND `department_employee_rel`.`deleted_flag` = 0
```

```
GROUP BY
    `department_employee_rel`.`employee_id`
) `department_employee_rel_max` ON 1=1
    AND `department_employee_rel_max`.`employee_id` = `employee`.`id`

INNER JOIN `sample_staff`.`department_employee_rel` ON 1=1
    AND `department_employee_rel`.`id` =
`department_employee_rel_max`.`max_id`
    AND `department_employee_rel`.`deleted_flag` = 0 /* Make sure to
exclude deleted entities */

INNER JOIN `sample_staff`.`department` ON 1=1
    AND `department`.`id` = `department_employee_rel`.`department_id`
    AND `department`.`deleted_flag` = 0 /* Make sure to exclude deleted
entities */

WHERE 1=1
    AND `employee`.`id` IN (10010, 10040, 10050, 91050, 205357) /* A list
of employee_id's */
    AND `employee`.`deleted_flag` = 0 /* Make sure to exclude deleted
entities */

LIMIT 100
;
```

Simple rules to start with:

- Use inline comments
- Use tabs instead of spaces
- Use 1=1
- Split column names to new lines
- Add empty lines for complex queries
- Do not shorten table name aliases
- Use the backtick (`) before and after table & column names