#1

select e.employee\_id, e.job\_title, a.address\_id, a.address\_text

from employees as e

join addresses as a

on e.address\_id = a.address\_id

order by a.address\_id

limit 5;

#2

select e.first\_name, e.last\_name,t.name as town,a.address\_text

from employees as e

join addresses as a

on e.address\_id = a.address\_id

join towns as t

on a.town\_id = t.town\_id

order by e.first\_name, e.last\_name

limit 5;

#3

select e.employee\_id, e.first\_name, e.last\_name,d.name

from employees as e

join departments as d

on e.department\_id = d.department\_id

where d.name = 'sales'

order by employee\_id desc;

#4

select e.employee\_id, e.first\_name, e.salary, d.name

from employees as e

join departments as d

on e.department\_id = d.department\_id

where e.salary > 15000

order by e.department\_id desc

limit 5;

#5

select e.employee\_id,e.first\_name from employees as e

where e.employee\_id not in(

select employee\_id from employees\_projects)

order by e.employee\_id desc

limit 3;

#6

select e.first\_name, e.last\_name, e.hire\_date,d.name

from employees as e

join departments as d

on e.department\_id = d.department\_id

where e.hire\_date > '1999-01-01' and d.name in ('sales','finance')

order by e.hire\_date;

#7

select ep.employee\_id, e.first\_name,p.name from employees as e

join employees\_projects as ep

on ep.employee\_id = e.employee\_id

join projects as p

on ep.project\_id = p.project\_id

where p.start\_date > 2020-8-13 and p.end\_date is null

order by e.first\_name, p.name

limit 5;

#8

SELECT

e.employee\_id,

e.first\_name,

IF(YEAR(p.start\_date) < 2005,

p.name,

NULL) AS project

FROM

employees AS e

JOIN

employees\_projects AS ep ON e.employee\_id = ep.employee\_id

JOIN

projects AS p ON ep.project\_id = p.project\_id

WHERE

e.employee\_id = 24

ORDER BY project;

#9

select e.employee\_id,e.first\_name,e.manager\_id ,m.first\_name

from employees as e

inner join employees as m

on e.manager\_id = m.employee\_id

where e.manager\_id in (3,7)

order by e.first\_name;

#10

select e.employee\_id, concat(e.first\_name,' ',e.last\_name) as employee\_name,

concat(m.first\_name,' ',m.last\_name) as manager\_name,

d.name as department\_name

from employees as e

inner join employees as m

on e.manager\_id = m.employee\_id

join departments as d

on e.department\_id = d.department\_id

order by employee\_id

limit 5;

#11

SELECT

AVG(salary) AS average\_salary

FROM

employees

GROUP BY department\_id

ORDER BY average\_salary

LIMIT 1;

#12

select c.country\_code , m.mountain\_range , p.peak\_name, p.elevation

from countries as c

join mountains\_countries as mc

on c.country\_code = mc.country\_code

join mountains as m

on mc.mountain\_id = m.id

join peaks as p

on m.id = p.mountain\_id

where c.country\_code = 'BG' and

p.elevation > 2835

order by p.elevation desc;

#13

select c.country\_code,count(m.mountain\_range)

from countries as c

join mountains\_countries as mc

on c.country\_code = mc.country\_code

join mountains as m

on mc.mountain\_id = m.id

where c.country\_code in ('BG','us','RU')

group by c.country\_code;

#14

select c.country\_name,r.river\_name

from countries as c

left JOIN countries\_rivers as cr

on c.country\_code = cr.country\_code

left join rivers as r

on cr.river\_id = r.id

where c.continent\_code = 'AF'

order by c.country\_name

limit 5;

#15

SELECT d1.continent\_code, d1.currency\_code, d1.currency\_usage FROM

(SELECT `c`.`continent\_code`, `c`.`currency\_code`,

COUNT(`c`.`currency\_code`) AS `currency\_usage` FROM countries as c

GROUP BY c.currency\_code, c.continent\_code HAVING currency\_usage > 1) as d1

LEFT JOIN

(SELECT `c`.`continent\_code`,`c`.`currency\_code`,

COUNT(`c`.`currency\_code`) AS `currency\_usage` FROM countries as c

GROUP BY c.currency\_code, c.continent\_code HAVING currency\_usage > 1) as d2

ON d1.continent\_code = d2.continent\_code AND d2.currency\_usage > d1.currency\_usage

WHERE d2.currency\_usage IS NULL

ORDER BY d1.continent\_code, d1.currency\_code;

#16

select count(\*) from countries as c

left join mountains\_countries as mc

on c.country\_code = mc.country\_code

where mc.mountain\_id is null;

#17

select c.country\_name, MAX(p.elevation) as 'highest\_peak\_elevation',

max(r.length) as 'longest\_river\_length'

from countries as c

join countries\_rivers as cr

on c.country\_code = cr.country\_code

join rivers as r

on cr.river\_id = r.id

join mountains\_countries as mc

on mc.country\_code = c.country\_code

join mountains as m

on mc.mountain\_id = m.id

join peaks as p

on p.mountain\_id = m.id

group by c.country\_name

order by highest\_peak\_elevation desc,

longest\_river\_length desc, c.country\_name

limit 5;