

sql quiz solution

quiz 1 - select

(1)

```
select distinct(Continent)
from country
```

(2)

```
select Name, Population
from city
where CountryCode = "KOR" AND Population > 1000000
```

(3)

```
select Name, CountryCode, Population
from city
where Population between 8000000 and 10000000
order by Population DESC
```

(4)

```
select Code, CONCAT(Name, "(", IndepYear, ")") as NameIndep, Continent, Population
from country
where IndepYear between 1940 and 1950
order by IndepYear
```

(5)

```
select CountryCode, Language, Percentage
from countrylanguage
where Percentage > 95 AND Language in ("English", "Korean", "Spanish")
order by Percentage DESC
```

(6)

```
select Code, Name, Continent, GovernmentForm, Population
from country
where GovernmentForm like "%Republic%" AND Code like "A%"
```

quiz 2 - group by & having

(1)

```
select count(distinct(Continent)) as count
from country
```

(2)

```
select Continent, count(Continent) as count
from country
group by Continent
order by count desc
```

(3)

```
select CountryCode, sum(Population) as Population
from city
group by CountryCode
having Population > 50000000
order by Population desc
```

(4)

```
select Language, count(*) as count
from countrylanguage
group by Language
order by count desc
limit 4,6
```

(5)

```
select Language, count(*) as count
from countrylanguage
group by Language
having count >= 15
order by count desc
```

(6)

```
select Continent, sum(SurfaceArea) as SurfaceArea
from country
group by Continent
order by SurfaceArea desc
```

quiz 3 - join & sub query

(1)

```
select Name, Population
from country
where Population > (
    select Population
    from country
    where Name = "Mexico"
)
order by Population desc
```

(2)

```
select country.Name, count(city.Name) as count
from city join country
on city.CountryCode = country.Code
group by country.Name
order by count desc
```

(3)

```
select Language, sum(sub1.count) as count
from (
    select cl.CountryCode ,cl.Language, cl.Percentage, c.Population,
           round(c.Population * cl.Percentage * 0.01) as count
    from country as c right join countrylanguage as cl
    on c.Code = cl.CountryCode
) as sub1
group by Language
having count > 0
order by count desc
```

(4)

```
select city.name, city.countrycode, country.name, ROUND(city.population /
country.population * 100, 2) as percentage
from (select * from city where population > 5000000) as city
join country
where city.countrycode = country.code
having percentage > 10
order by percentage desc
```

```
select city.name, city.countrycode, country.name, ROUND(city.population /
country.population * 100, 2) as percentage
from city
join country
where city.countrycode = country.code and city.population > 5000000
having percentage > 10
order by percentage desc
```

(5)

```
select name, count(language) as language_count
from
(
    select code, name, round(Population / SurfaceArea) as density
    from country
    where SurfaceArea > 10000
    having density > 200
    order by density desc
) as country
join countrylanguage
on countrylanguage.countrycode = country.code
group by name
having language_count > 5
order by language_count desc
```

(6)

```
SELECT city.countrycode, city.name as city_name, city.population, country.name,
city.language_count, languages
FROM
(
    SELECT city.countrycode, city.name, city.population, cl.language_count,
    cl.languages
    from(
        select countrycode, GROUP_CONCAT(LANGUAGE) as languages,
        count(LANGUAGE) as language_count
        from countrylanguage
        group by countrycode
        having language_count <= 3
    ) AS cl
    JOIN
    (
        select *
        from city
        where population > 3000000
    ) AS city
    ON city.countrycode = cl.countrycode
) AS city
JOIN country
ON country.code = city.countrycode
ORDER BY population desc
```

using view

```
create view cl as
(
    SELECT city.countrycode, city.name, city.population, cl.language_count, cl.languages
    from(
        select countrycode, GROUP_CONCAT(LANGUAGE) as languages,
        count(LANGUAGE) as language_count
        from countrylanguage
```

```
        group by countrycode
        having language_count <= 3
    ) AS cl
    JOIN
    (
        select *
        from city
        where population > 3000000
    ) AS city
    ON city.countrycode = cl.countrycode
)
```

```
SELECT city.countrycode, city.name as city_name, city.population, country.name,
city.language_count, languages
FROM cl AS city
JOIN country
ON country.code = city.countrycode
ORDER BY population desc
```

mongodb

```
var showInfo = function(page, block){  
  return db.info.find().skip(block*(page-1)).limit(block);  
}  
showInfo(2, 2)
```