

Aggregation in SQL

Assignment Questions



- ◇ Question 1: Count how many cities are there in each country.

```
SELECT CountryCode, COUNT(*) AS CityCount
FROM city
GROUP BY CountryCode;
```

- ◇ **Question 2: Display all continents having more than 30 countries.**

```
SELECT Continent, COUNT(*) AS CountryCount
FROM country
GROUP BY Continent
HAVING COUNT(*) > 30;
```

- ◇ **Question 3: List regions whose total population exceeds 200 million.**

```
SELECT Region, SUM(Population) AS TotalPopulation
FROM country
GROUP BY Region
HAVING SUM(Population) > 200000000;
```

- ◇ **Question 4: Find the top 5 continents by average GNP per country.**

```
SELECT Continent, AVG(GNP) AS AvgGNP
FROM country
GROUP BY Continent
ORDER BY AvgGNP DESC
LIMIT 5;
```

◇ **Question 5: Find the total number of official languages spoken in each continent.**

```
SELECT c.Continent, COUNT(cl.Language) AS TotalOfficialLanguages
FROM country c
JOIN countrylanguage cl ON c.Code = cl.CountryCode
WHERE cl.IsOfficial = 'T'
GROUP BY c.Continent;
```

◇ **Question 6: Find the maximum and minimum GNP for each continent.**

```
SELECT Continent,
       MAX(GNP) AS MaxGNP,
       MIN(GNP) AS MinGNP
FROM country
GROUP BY Continent;
```

◇ **Question 7: Find the country with the highest average city population.**

```
SELECT c.Name AS CountryName,
       AVG(ci.Population) AS AvgCityPopulation
FROM country c
JOIN city ci ON c.Code = ci.CountryCode
GROUP BY c.Code
ORDER BY AvgCityPopulation DESC
LIMIT 1;
```

◇ **Question 8: List continents where the average city population is greater than 200,000.**

```
SELECT c.Continent, AVG(ci.Population) AS AvgCityPopulation
FROM country c
JOIN city ci ON c.Code = ci.CountryCode
GROUP BY c.Continent
HAVING AVG(ci.Population) > 200000;
```

◇ **Question 9: Find the total population and average life expectancy for each continent, ordered by average life expectancy descending.**

```
SELECT Continent,
       SUM(Population) AS TotalPopulation,
       AVG(LifeExpectancy) AS AvgLifeExpectancy
FROM country
GROUP BY Continent
ORDER BY AvgLifeExpectancy DESC;
```

◇ **Question 10: Find the top 3 continents with the highest average life expectancy, but only include those where total population is over 200 million.**

```
SELECT Continent,
       AVG(LifeExpectancy) AS AvgLifeExpectancy,
       SUM(Population) AS TotalPopulation
FROM country
GROUP BY Continent
HAVING SUM(Population) > 200000000
ORDER BY AvgLifeExpectancy DESC
LIMIT 3;
```