

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;
```