```sql
USE covid;

SELECT * FROM covid19 ;
/* Calculate the total number of cases and deaths.*/

SELECT SUM(New_cases) AS total_cases, SUM(New_deaths) AS total_deaths
FROM covid19;

/*Determine the average number of new cases and deaths per day.*/
SELECT AVG(New_cases) AS avg_cases, AVG(New_deaths) AS avg_deaths FROM
covid19;
WITH CountryAggregates AS (
   SELECT
       Country,
       SUM(New_cases) AS TotalCases,
       SUM(New_deaths) AS TotalDeaths
   FROM covid19
   GROUP BY Country
),
MaxCases AS (
   SELECT Country, TotalCases
   FROM CountryAggregates
   ORDER BY TotalCases DESC
   LIMIT 1
),
MinCases AS (
   SELECT Country, TotalCases
   FROM CountryAggregates
   ORDER BY TotalCases
   LIMIT 1
),
MaxDeaths AS (
   SELECT Country, TotalDeaths
   FROM CountryAggregates
   ORDER BY TotalDeaths DESC
   LIMIT 1
),
MinDeaths AS (
   SELECT Country, TotalDeaths
   FROM CountryAggregates
   ORDER BY TotalDeaths
   LIMIT 1
)
SELECT 'Highest Cases' AS Type, Country, TotalCases AS Value FROM
MaxCases
UNION ALL
SELECT 'Lowest Cases', Country, TotalCases FROM MinCases
UNION ALL
```

```sql
SELECT 'Highest Deaths', Country, TotalDeaths FROM MaxDeaths
UNION ALL
SELECT 'Lowest Deaths', Country, TotalDeaths FROM MinDeaths;
/*Top 10 country with sum of new_cases*/
SELECT Country, SUM(New_cases) AS TotalCases
FROM covid19
GROUP BY Country
ORDER BY TotalCases desc
LIMIT 10;

/*Top 10 country with sum of new_deaths*/
SELECT Country, SUM(New_deaths) AS TotalDeaths
FROM covid19
GROUP BY Country
ORDER BY TotalDeaths DESC
LIMIT 10;

/*Top 10 country with sum of new_cases and new_deaths*/
SELECT Country, SUM(New_cases) AS TotalCases, SUM(New_deaths) AS
TotalDeaths
FROM covid19
GROUP BY Country
ORDER BY TotalCases DESC, TotalDeaths DESC
LIMIT 10;

/*number of case per years*/
SELECT YEAR(Date_reported), SUM(New_cases) AS TotalCases
FROM covid19
GROUP BY year(Date_reported)
ORDER BY year(Date_reported);

/*number of death per years*/
SELECT YEAR(Date_reported), SUM(New_deaths) AS TotalDeaths
FROM covid19
GROUP BY year(Date_reported)
ORDER BY year(Date_reported);

/*in 2020 monthwise cases and deaths*/
SELECT MONTH(Date_reported) AS Month_Year_2020, SUM(New_cases) AS
TotalCases, SUM(New_deaths) AS TotalDeaths
FROM covid19
WHERE YEAR(Date_reported) = 2020
GROUP BY MONTH(Date_reported)
ORDER BY MONTH(Date_reported);

SELECT MONTH(Date_reported) AS Month_Year_2021, SUM(New_cases) AS
TotalCases, SUM(New_deaths) AS TotalDeaths
FROM covid19
```

```sql
WHERE YEAR(Date_reported) = 2021

GROUP BY MONTH(Date_reported)
ORDER BY MONTH(Date_reported);

SELECT MONTH(Date_reported) AS Month_Year_2022, SUM(New_cases) AS
TotalCases, SUM(New_deaths) AS TotalDeaths
FROM covid19
WHERE YEAR(Date_reported) = 2022
GROUP BY MONTH(Date_reported)
ORDER BY MONTH(Date_reported);

SELECT MONTH(Date_reported) AS Month_Year_2023, SUM(New_cases) AS
TotalCases, SUM(New_deaths) AS TotalDeaths
FROM covid19
WHERE YEAR(Date_reported) = 2023
GROUP BY MONTH(Date_reported)
ORDER BY MONTH(Date_reported);

SELECT MONTH(Date_reported) AS Month_Year_2024, SUM(New_cases) AS
TotalCases, SUM(New_deaths) AS TotalDeaths
FROM covid19
WHERE YEAR(Date_reported) = 2024
GROUP BY MONTH(Date_reported)
ORDER BY MONTH(Date_reported);

/*distribute by WHO_region*/
SELECT WHO_region, SUM(New_cases) AS TotalCases, SUM(New_deaths) AS
TotalDeaths
FROM covid19
GROUP BY WHO_region
ORDER BY WHO_region;

/*most affect who_region with number of country come under that*/
SELECT WHO_region, COUNT(DISTINCT Country) AS CountryCount
FROM covid19
GROUP BY WHO_region
ORDER BY CountryCount DESC
LIMIT 1;
```