







17.13

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--Global cases and mortality
□ SELECT SUM(new_cases) AS 'Total Cases', SUM(CAST(new_deaths AS int)) 'Total Deaths',
     SUM(CAST(new_deaths AS int))/SUM(new_cases)*100 AS 'Mortality Rate'
 FROM Portfolio_Project_Covid..CovidDeaths
 WHERE continent IS NOT NULL
                                                                  SQL queries used to generate the Covid demo.
 ORDER BY 1, 2
                                                                  Data sourced from ourworldindata.org
 --Death Rate by continent
SUM(CAST(new deaths AS int)/population*100) AS 'Death Rate'
 FROM Portfolio Project Covid..CovidDeaths
 WHERE continent IS NULL
     AND location NOT IN ('World', 'European Union', 'International')
 GROUP BY location
 ORDER BY [Total Death Count] DESC
 --Max. Infection Rate by country
∃SELECT location, population, MAX(total_cases) AS 'Max Infection Count',
     MAX(total_cases/population)*100 AS 'Max Infection Rate'
 FROM Portfolio Project Covid. CovidDeaths
 GROUP BY location, population
 ORDER BY 4 DESC
 --Highest Infection Rates across time and space
\dot{oxdot} <code>SELECT location, population, date, MAX(total_cases)</code> AS <code>'Max Infection Count',</code>
     MAX(total_cases/population*100) AS 'Infection Rate'
 FROM Portfolio_Project_Covid..CovidDeaths
 GROUP BY location, population, date
 ORDER BY 5 DESC
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AS 'Total Vacc. (by location and date)'
 From Portfolio_Project_Covid..CovidDeaths AS deaths
                                                                       Other queries on the
 JOIN Portfolio_Project_Covid..CovidVaccinations AS vacc
                                                                       same Covid data
     ON deaths.location = vacc.location
     AND deaths.date = vacc.date
 WHERE deaths.continent IS NOT NULL
     --AND deaths.location = 'Germany'
 ORDER BY 2, 3
 --CTE (common table expresssion): running vacc. stat
 WITH CTE_VaccRate (continent, location, date, population, new_vaccinations, [Total Vacc. (by location and date)]
 SELECT deaths.continent, deaths.location, deaths.date, deaths.population,
     vacc.new_vaccinations,
     SUM(CONVERT(bigint, vacc.new_vaccinations)) OVER
         (PARTITION BY deaths.location ORDER BY deaths.location, deaths.date)
         AS 'Total Vacc. (by location and date)'
 From Portfolio_Project_Covid..CovidDeaths AS deaths
 JOIN Portfolio_Project_Covid..CovidVaccinations AS vacc
     ON deaths.location = vacc.location
     AND deaths.date = vacc.date
 WHERE deaths.continent IS NOT NULL
 SELECT *, ([Total Vacc. (by location and date)]/population)*100 AS 'Running Vacc. Rate (%)'
 FROM CTE_VaccRate
WHERE location = 'Israel'
DROP TABLE IF EXISTS #PercentPopVacc
CREATE TABLE #PercentPopVacc (
    continent nvarchar(255),
    location nvarchar(255),
    date datetime.
    population numeric,
    new_vaccinations numeric,
    total_vacc numeric
INSERT INTO #PercentPopVacc
SELECT deaths.continent, deaths.location, deaths.date, deaths.population,
    vacc.new_vaccinations,
    SUM(CONVERT(bigint, vacc.new_vaccinations)) OVER
        (PARTITION BY deaths.location ORDER BY deaths.location, deaths.date)
        AS 'Total Vacc. (by location and date)'
From Portfolio_Project_Covid..CovidDeaths AS deaths
JOIN Portfolio_Project_Covid..CovidVaccinations AS vacc
    ON deaths.location = vacc.location
    AND deaths.date = vacc.date
--WHERE deaths.continent IS NOT NULL
|SELECT *, (total_vacc/population)*100 AS 'Running Vacc. Rate (%)'
FROM #PercentPopVacc
 --Finding countries with highest vacc. rate
WITH CTE_VaccMAX (continent, location, population, [Total Vacc. (by location and date)])
 AS
 SELECT deaths.continent, deaths.location, deaths.population,
     SUM(CONVERT(bigint, vacc.new_vaccinations)) OVER
          [PARTITION BY deaths.location ORDER BY deaths.location, deaths.date)
         AS 'Total Vacc. (by location and date)'
 From Portfolio_Project_Covid..CovidDeaths AS deaths
 JOIN Portfolio_Project_Covid..CovidVaccinations AS vacc
     ON deaths.location = vacc.location
     AND deaths.date = vacc.date
 WHERE deaths.continent IS NOT NULL
 SELECT continent, location, population,
    MAX([Total Vacc. (by location and date)]/population*100) AS 'Max. vacc. rate'
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--Global vaccination counts

FROM CTE\_VaccMAX

Double vax?

GROUP BY continent, location, population

Gibraltar (182.12%) and Israel (121.28%) have vax rates exceeding 100%.

ORDER BY [Max. vacc. rate] DESC

vacc.new\_vaccinations,

SELECT deaths.continent, deaths.location, deaths.date, deaths.population,

(PARTITION BY deaths.location ORDER BY deaths.location, deaths.date)

SUM(CONVERT(bigint, vacc.new\_vaccinations)) OVER