

-- This SQL program looks at Covid infection, death and vaccination information

-- Selecting data that we will use

select location, date, total_cases, new_cases, total_deaths,
population
from coviddeaths;

localhost/SQLProject1/coviddeaths/ http://localhost/
phpmyadmin/index.php?route=/table/
sql&db=SQLProject1&table=coviddeaths

Showing rows 0 - 24 (13037 total, Query took 0.0002 seconds.)

location	date	total_cases	new_cases	total_deaths	population
Uganda	3/21/20	1	1		47249588
Uganda	3/22/20	1	0		47249588
Uganda	3/23/20	9	8		47249588
Uganda	3/24/20	9	0		47249588
Uganda	3/25/20	14	5		47249588
Uganda	3/26/20	14	0		47249588
Uganda	3/27/20	23	9		47249588
Uganda	3/28/20	30	7		47249588
Uganda	3/29/20	33	3		47249588
Uganda	3/30/20	33	0		47249588
Uganda	3/31/20	44	11		47249588
Uganda	4/1/20	44	0		47249588
Uganda	4/2/20	45	1		47249588
Uganda	4/3/20	48	3		47249588
Uganda	4/4/20	48	0		47249588
Uganda	4/5/20	52	4		47249588
Uganda	4/6/20	52	0		47249588
Uganda	4/7/20	52	0		47249588
Uganda	4/8/20	53	1		47249588
Uganda	4/9/20	53	0		47249588
Uganda	4/10/20	53	0		47249588
Uganda	4/11/20	53	0		47249588
Uganda	4/12/20	54	1		47249588
Uganda	4/13/20	54	0		47249588
Uganda	4/14/20	55	1		47249588

```
-- Looking at Total Cases vs Total Deaths in United States
-- Shows likelihood of dying if contracted covid
select location, date, total_cases, total_deaths, (total_deaths/
total_cases)*100 as death_percentage
from coviddeaths
where location like '%states%';
```

localhost/SQLProject1/coviddeaths/ http://localhost/
 phpmyadmin/index.php?route=/table/
 sql&db=SQLProject1&table=coviddeaths

Showing rows 0 - 24 (1887 total, Query took 0.0022 seconds.)

location	date	total_cases	total_deaths	death_percentage
United States	1/22/20	1		0
United States	1/23/20	1		0
United States	1/24/20	2		0
United States	1/25/20	2		0
United States	1/26/20	5		0
United States	1/27/20	5		0
United States	1/28/20	5		0
United States	1/29/20	6		0
United States	1/30/20	6		0
United States	1/31/20	8		0
United States	2/1/20	8		0
United States	2/2/20	8		0
United States	2/3/20	11		0
United States	2/4/20	11		0
United States	2/5/20	11		0
United States	2/6/20	12		0
United States	2/7/20	12		0
United States	2/8/20	12		0
United States	2/9/20	12		0
United States	2/10/20	12		0
United States	2/11/20	13		0
United States	2/12/20	13		0
United States	2/13/20	14		0
United States	2/14/20	14		0
United States	2/15/20	14		0

```
-- Looking at Total Cases vs Population in United States
-- Shows what percentage of population got covid
select location, date, total_cases, population, (total_cases/
population)*100 as covid_percentage
from coviddeaths
where location like '%states%';
```

localhost/SQLProject1/coviddeaths/ http://localhost/
 phpmyadmin/index.php?route=/table/
 sql&db=SQLProject1&table=coviddeaths

Showing rows 0 - 24 (1887 total, Query took 0.0021 seconds.)

location	date	total_cases	population	covid_percentage
United States	1/22/20	1	338289856	0.0000002956044889504461
United States	1/23/20	1	338289856	0.0000002956044889504461
United States	1/24/20	2	338289856	0.0000005912089779008922
United States	1/25/20	2	338289856	0.0000005912089779008922
United States	1/26/20	5	338289856	0.0000014780224447522304
United States	1/27/20	5	338289856	0.0000014780224447522304
United States	1/28/20	5	338289856	0.0000014780224447522304
United States	1/29/20	6	338289856	0.0000017736269337026767
United States	1/30/20	6	338289856	0.0000017736269337026767
United States	1/31/20	8	338289856	0.0000023648359116035687
United States	2/1/20	8	338289856	0.0000023648359116035687
United States	2/2/20	8	338289856	0.0000023648359116035687
United States	2/3/20	11	338289856	0.000003251649378454907
United States	2/4/20	11	338289856	0.000003251649378454907
United States	2/5/20	11	338289856	0.000003251649378454907
United States	2/6/20	12	338289856	0.0000035472538674053535
United States	2/7/20	12	338289856	0.0000035472538674053535
United States	2/8/20	12	338289856	0.0000035472538674053535
United States	2/9/20	12	338289856	0.0000035472538674053535
United States	2/10/20	12	338289856	0.0000035472538674053535
United States	2/11/20	13	338289856	0.0000038428583563558
United States	2/12/20	13	338289856	0.0000038428583563558
United States	2/13/20	14	338289856	0.000004138462845306246
United States	2/14/20	14	338289856	0.000004138462845306246
United States	2/15/20	14	338289856	0.000004138462845306246

```
-- Looking at countries with highest infection rate
-- Shows what percentage of population got covid
select location, max(total_cases) as highest_infection_count,
population, max((total_cases/population))*100 as
covid_percentage
from coviddeaths
-- where location like '%states'
group by location, population
order by covid_percentage desc;
```

localhost/SQLProject1/coviddeaths/
phpmyadmin/index.php?route=/table/
sql&db=SQLProject1&table=coviddeaths

http://localhost/

Showing rows 0 – 12 (13 total, Query took 0.0174 seconds.)

location	highest_infection_count	population	covid_percentage ▾ 1
United Kingdom	9974843	67508936	35.75094710424706
United States	99961181	338289856	29.67101059039737
Uruguay	998047	3422796	29.30317786978833
Ukraine	998678	39701744	14.262355830010891
Vietnam	9980464	98186856	11.737083220181733
United Arab Emirates	999637	9441138	11.085591588641115
Upper middle income	9950978	2525921300	5.634907825513012
Vanuatu	95	326744	3.676578605881057
Vatican	9	808	3.5891089108910887
Venezuela	99835	28301700	1.9437913623563248
Uzbekistan	99844	34627648	0.7197052482455638
Uganda	9945	47249588	0.3593893771094893
United States Virgin Islands		99479	0

– Showing countries with highest death count by population
[select location, max\(total_deaths\) as total_death_count](#)
[from coviddeaths](#)
[-- where location like '%states'](#)
[group by location](#)
[order by total_death_count desc;](#)

localhost/SQLProject1/coviddeaths/ http://localhost/
 phpmyadmin/index.php?route=/table/
 sql&db=SQLProject1&table=coviddeaths

Showing rows 0 – 12 (13 total, Query took 0.0109 seconds.)

location	total_death_count ▼ 1
United States	999965
Ukraine	99856
Upper middle income	997495
Venezuela	997
Uzbekistan	994
United Kingdom	99316
Uganda	99
United Arab Emirates	986
Uruguay	98
Vietnam	97
Vanuatu	7
Vatican	
United States Virgin Islands	

```
-- Showing continents with highest death count by population
select continent, max(total_deaths) as total_death_count
from coviddeaths
where continent != ""
group by continent
order by total_death_count desc;
```

localhost/SQLProject1/coviddeaths/
phpmyadmin/index.php?route=/table/
sql&db=SQLProject1&table=coviddeaths

http://localhost/

Showing rows 0 - 5 (6 total, Query took 0.0099 seconds.)

continent	total_death_count ▾ 1
North America	999965
Europe	99856
South America	997
Asia	994
Africa	99
Oceania	7

```
-- Global numbers
select date, sum(total_cases), sum(total_deaths),
(sum(total_deaths)/sum(total_cases))*100 as death_percentage
from coviddeaths
where continent != ""
group by date
order by 1, 2;
```

localhost/SQLProject1/coviddeaths/ http://localhost/
 phpmyadmin/index.php?route=/table/
 sql&db=SQLProject1&table=coviddeaths

Showing rows 0 - 24 (1069 total, Query took 0.0178 seconds.)

date	sum(total_cases)	sum(total_deaths)	death_percentage
1/1/21	24491292	470812	1.9223648960618331
1/1/22	75761026	1156934	1.5270833317384058
1/10/21	27323459	507936	1.8589740047188021
1/10/22	84384371	1177229	1.3950794276821712
1/11/21	27582484	511136	1.8531180875515054
1/11/22	85318049	1180492	1.38363689024347
1/12/21	27860375	517044	1.8558400595828306
1/12/22	86353908	1183997	1.371098341027021
1/13/21	28148025	522566	1.8564925958393173
1/13/22	87364612	1187226	1.3589323787072962
1/14/21	28445612	527875	1.8557343747780852
1/14/22	88383557	1190603	1.3470865400902567
1/15/21	28759313	533218	1.8540707144151878
1/15/22	88921728	1192176	1.3407026907979116
1/16/21	29030386	538366	1.8544913595017303
1/16/22	89519939	1193468	1.333186788699666
1/17/21	29256175	541862	1.8521286531817642
1/17/22	90286903	1194854	1.3233968164795729
1/18/21	29443029	544944	1.8508421806737345
1/18/22	91575538	1198418	1.3086660763052247
1/19/21	29642858	549049	1.8522134404179245
1/19/22	92643574	1202469	1.2979518687394336
1/2/21	24829755	474249	1.9100027366359433
1/2/22	76216982	1157864	1.5191679985439466
1/20/21	29879268	555066	1.8576961122340747

```
-- Looking at total population vs vaccinations
select d.continent, d.location, d.date, d.population,
v.new_vaccinations
from coviddeaths as d
join covidvaccinations as v
on d.location = v.location
and d.date = v.date
where d.continent != ""
group by date
order by 2, 3;
```

localhost/SQLProject1/coviddeaths/ http://localhost/
 phpmyadmin/index.php?route=/table/
 sql&db=SQLProject1&table=coviddeaths

Showing rows 0 – 24 (11968 total, Query took 11.3613 seconds.)

continent	location	date	population	new_vaccinations
Africa	Uganda	1/1/21	47249588	
Africa	Uganda	1/1/22	47249588	
Africa	Uganda	1/10/21	47249588	
Africa	Uganda	1/10/22	47249588	
Africa	Uganda	1/11/21	47249588	
Africa	Uganda	1/11/22	47249588	
Africa	Uganda	1/12/21	47249588	
Africa	Uganda	1/12/22	47249588	
Africa	Uganda	1/13/21	47249588	
Africa	Uganda	1/13/22	47249588	
Africa	Uganda	1/14/21	47249588	
Africa	Uganda	1/14/22	47249588	
Africa	Uganda	1/15/21	47249588	
Africa	Uganda	1/15/22	47249588	
Africa	Uganda	1/16/21	47249588	
Africa	Uganda	1/16/22	47249588	
Africa	Uganda	1/17/21	47249588	
Africa	Uganda	1/17/22	47249588	
Africa	Uganda	1/18/21	47249588	
Africa	Uganda	1/18/22	47249588	
Africa	Uganda	1/19/21	47249588	
Africa	Uganda	1/19/22	47249588	
Africa	Uganda	1/2/21	47249588	
Africa	Uganda	1/2/22	47249588	
Africa	Uganda	1/20/21	47249588	


```
-- Looking at total population vs vaccinations
select d.continent, d.location, d.date, d.population,
v.new_vaccinations,
sum(v.new_vaccinations) over (partition by d.location order by
d.location, d.date) as rolling_vaccinated
from coviddeaths as d
join covidvaccinations as v
on d.location = v.location
and d.date = v.date
where d.continent != ""
order by 2, 3;
```

localhost/SQLProject1/covidvaccinations/ http://
localhost/phpmyadmin/index.php?route=/table/
sql&db=SQLProject1&table=covidvaccinations
Showing rows 0 - 24 (11968 total, Query took 11.4851
seconds.)

continent	location	date	population	new_vaccinations	rolling_vaccinated
Africa	Uganda	1/1/21	47249588		0
Africa	Uganda	1/1/22	47249588		0
Africa	Uganda	1/10/21	47249588		0
Africa	Uganda	1/10/22	47249588		0
Africa	Uganda	1/11/21	47249588		0
Africa	Uganda	1/11/22	47249588		0
Africa	Uganda	1/12/21	47249588		0
Africa	Uganda	1/12/22	47249588		0
Africa	Uganda	1/13/21	47249588		0
Africa	Uganda	1/13/22	47249588		0
Africa	Uganda	1/14/21	47249588		0
Africa	Uganda	1/14/22	47249588		0
Africa	Uganda	1/15/21	47249588		0
Africa	Uganda	1/15/22	47249588		0
Africa	Uganda	1/16/21	47249588		0
Africa	Uganda	1/16/22	47249588		0
Africa	Uganda	1/17/21	47249588		0
Africa	Uganda	1/17/22	47249588		0
Africa	Uganda	1/18/21	47249588		0
Africa	Uganda	1/18/22	47249588		0
Africa	Uganda	1/19/21	47249588		0
Africa	Uganda	1/19/22	47249588		0
Africa	Uganda	1/2/21	47249588		0
Africa	Uganda	1/2/22	47249588		0
Africa	Uganda	1/20/21	47249588		0

```

-- Use temp table;
drop table if exists percent_population_vaccinated;
create table percent_population_vaccinated (
  continent varchar(100) null,
  location varchar(100) null,
  date varchar(100) null,
  population varchar(100) null,
  new_vaccinations varchar(100) null,
  rolling_vaccinated varchar(100) null
);
insert into percent_population_vaccinated
  select d.continent, d.location, d.date, d.population,
  v.new_vaccinations,
  sum(v.new_vaccinations) over (partition by d.location order
by d.location, d.date) as rolling_vaccinated
  from coviddeaths as d
  join covidvaccinations as v
  on d.location = v.location
  and d.date = v.date
  where d.continent != "" and v.new_vaccinations != "";
select *, (rolling_vaccinated/population)*100
from percent_population_vaccinated;

```

localhost/SQLProject1/percent_population_vaccinated/
[http://localhost/phpmyadmin/index.php?route=/table/
sql&db=SQLProject1&table=covidvaccinations](http://localhost/phpmyadmin/index.php?route=/table/sql&db=SQLProject1&table=covidvaccinations)

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0136 seconds.)

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0003 seconds.)

3067 rows inserted. (Query took 0.0003 seconds.)

Showing rows 0 – 24 (3067 total, Query took 0.0003 seconds.)

continent	location	date	population	new_vaccinations	rolling_vaccinated	(rolling_vaccinated/population)*100
Africa	Uganda	3/13/21	47249588	200	200	0.0004232841141387307
Africa	Uganda	3/16/21	47249588	1843	2043	0.004323847225927134
Africa	Uganda	3/17/21	47249588	3236	5279	0.011172584192691798
Africa	Uganda	3/18/21	47249588	5107	10386	0.021981144047224285
Africa	Uganda	3/19/21	47249588	4516	14902	0.031538899344476824
Africa	Uganda	3/20/21	47249588	1465	16367	0.03463945548054303
Africa	Uganda	3/21/21	47249588	4519	20886	0.04420356003950764
Africa	Uganda	3/22/21	47249588	2333	23219	0.04914116923093594
Africa	Uganda	3/23/21	47249588	6666	29885	0.06324922875517984
Africa	Uganda	3/24/21	47249588	13918	43803	0.0927055702580941
Africa	Uganda	3/25/21	47249588	220	44023	0.09317118278364671
Africa	Uganda	3/28/21	47249588	9562	53585	0.11340839628061943
Africa	Uganda	3/29/21	47249588	11135	64720	0.13697473933529325
Africa	Uganda	3/30/21	47249588	9360	74080	0.15678443587698584
Africa	Uganda	4/11/21	47249588	8440	82520	0.17464702549364028
Africa	Uganda	4/12/21	47249588	7890	90410	0.1913455837964132
Africa	Uganda	4/13/21	47249588	9409	99819	0.21125898494606976
Africa	Uganda	4/14/21	47249588	14185	114004	0.24128041074135925
Africa	Uganda	4/17/21	47249588	4823	118827	0.25148790715381475
Africa	Uganda	4/18/21	47249588	7103	125930	0.2665208424674518
Africa	Uganda	4/19/21	47249588	6322	132252	0.27990085331537706
Africa	Uganda	4/20/21	47249588	7623	139875	0.2960343273257748
Africa	Uganda	4/21/21	47249588	14755	154630	0.32726211284635964
Africa	Uganda	4/27/21	47249588	17320	171950	0.3639185171307737
Africa	Uganda	4/28/21	47249588	8727	180677	0.3823885194512172

```

-- Or use view
create view if not exists pop_vs_vac1 as (
    select d.continent, d.location, d.date, d.population,
    v.new_vaccinations,
    sum(v.new_vaccinations) over (partition by d.location order
by d.location, d.date) as rolling_vaccinated
    from coviddeaths as d
    join covidvaccinations as v
    on d.location = v.location
    and d.date = v.date
    where d.continent != ""
);
select *, (rolling_vaccinated/population)*100
from pop_vs_vac1;

```

localhost/SQLProject1/pop_vs_vac1/ [http://localhost/
phpmyadmin/index.php?route=/table/
sql&db=SQLProject1&table=covidvaccinations](http://localhost/phpmyadmin/index.php?route=/table/sql&db=SQLProject1&table=covidvaccinations)

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0353 seconds.)

Showing rows 0 - ... This view has at least this number of rows. Please refer to documentation. (Query took 10.4387 seconds.)

continent	location	date	population	new_vaccinations	rolling_vaccinated	(rolling_vaccinated/population)*100
Africa	Uganda	1/1/21	47249588		0	0
Africa	Uganda	1/1/22	47249588		0	0
Africa	Uganda	1/10/21	47249588		0	0
Africa	Uganda	1/10/22	47249588		0	0
Africa	Uganda	1/11/21	47249588		0	0
Africa	Uganda	1/11/22	47249588		0	0
Africa	Uganda	1/12/21	47249588		0	0
Africa	Uganda	1/12/22	47249588		0	0
Africa	Uganda	1/13/21	47249588		0	0
Africa	Uganda	1/13/22	47249588		0	0
Africa	Uganda	1/14/21	47249588		0	0
Africa	Uganda	1/14/22	47249588		0	0
Africa	Uganda	1/15/21	47249588		0	0
Africa	Uganda	1/15/22	47249588		0	0
Africa	Uganda	1/16/21	47249588		0	0
Africa	Uganda	1/16/22	47249588		0	0
Africa	Uganda	1/17/21	47249588		0	0
Africa	Uganda	1/17/22	47249588		0	0
Africa	Uganda	1/18/21	47249588		0	0
Africa	Uganda	1/18/22	47249588		0	0
Africa	Uganda	1/19/21	47249588		0	0
Africa	Uganda	1/19/22	47249588		0	0
Africa	Uganda	1/2/21	47249588		0	0
Africa	Uganda	1/2/22	47249588		0	0
Africa	Uganda	1/20/21	47249588		0	0