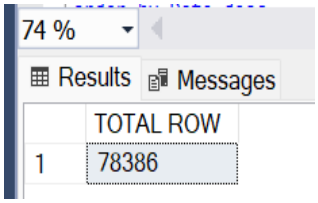
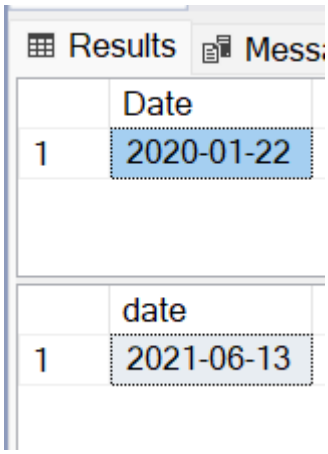
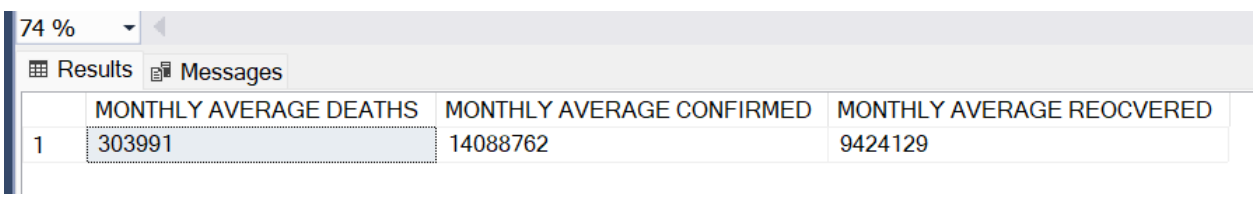
```
P-- Q1. Write a code to check NULL values


select count(GETANSINULL(Latitude)) as "total null" from [covide 19 data]
select count(GETANSINULL(Longitude)) as "total null" from [covide 19 data]

-- If NULL values are present, update them with zeros for all columns.

update [covide 19 data] set Latitude = 0 where Latitude is null
update [covide 19 data] set Longitude = 0 where Longitude is null

check total number of rows
select count(*) from [covide 19 data]
```




```
-- Check what is start_date and end_date


SELECT top 1 Date,DATEDIFF_BIG(day,date,GETDATE()) as "start day" from [covide 19
data]

SELECT top 1 date,DATEDIFF_BIG(day,date,GETDATE()) as "last day" from [covide 19 data]
order by Date desc
```




```
--  Find monthly average for confirmed, deaths, recovered

select sum(Deaths)/12 AS 'MONTHLY AVERAGE DEATHS',sum(Confirmed)/12 AS 'MONTHLY
AVERAGE CONFIRMED',sum(Recovered)/12 AS 'MONTHLY AVERAGE REOCVERED' from [covide 19
data]
```



```
-- Find minimum values for confirmed, deaths, recovered per year


SELECT YEAR(DATE) AS 'YEAR', MIN(Deaths) AS 'MINIMUM DETH VALUE IN
YEAR',MIN(Confirmed) AS 'MINIMUM CONFRIRMED VALUE IN YEAR ' FROM [covide 19 data]
GROUP BY YEAR(DATE)
```

Results Messages

	YEAR	MINIMUM DETH VALUE IN YEAR	MINIMUM CONFRIRMED VALUE IN YEAR
1	2021	0	0
2	2020	0	0

```
-- Find maximum values of confirmed, deaths, recovered per year

SELECT YEAR(DATE) AS 'YEAR', MAX(Deaths) AS 'MAXIMUM DETH VALUE IN
YEAR',MAX(Confirmed) AS 'MAXIMUM CONFRIRMED VALUE IN YEAR ' FROM [covide 19 data]
GROUP BY YEAR(DATE)
```

Results Messages

	YEAR	MAXIMUM DETH VALUE IN YEAR	MAXIMUM CONFRIRMED VALUE IN YEAR
1	2021	7374	414188
2			823225

Click to select all grid cells

```
-- The total number of case of confirmed, deaths, recovered each month

SELECT DISTINCT MONTH(DATE) AS 'MONYH' ,SUM(Deaths) AS 'DEATH',SUM(Confirmed) AS
'CONFIRMED',SUM(Recovered) AS 'RECOVERED' FROM [covide 19 data]
GROUP BY  MONTH(DATE)
ORDER BY  MONTH(DATE)
```

Results | Messages

	MONYH	DEATH	CONFIRMED	RECOVERED
1	1	402083	18678589	9164490
2	2	300890	10560976	6751190
3	3	323966	14694026	8021083
4	4	554220	24047819	14998494
5	5	511110	21865416	20651389
6	6	270414	8991916	8079855
7	7	167613	6838092	4693120
8	8	179200	7694938	6202833
9	9	160671	8244794	6647749
10	10	175484	11515841	6782150
11	11	262247	16595938	9172292
12	12	339996	19336799	11924903

```sql
-- Check how corona virus spread out with respect to confirmed case
--      (Eg.: total confirmed cases, their average, variance & STDEV )

SELECT
    COUNT(confirmed) AS total_confirmed_cases,
    AVG(confirmed) AS average_confirmed_cases,
    VAR(confirmed) AS variance_confirmed_cases,
    STDEV(confirmed) AS stdev_confirmed_cases
FROM
    [covide 19 data]
```

Results | Messages

	total_confirmed_cases	average_confirmed_cases	variance_confirmed_cases	stdev_confirmed_cases
1	78386	2156	157290931.698175	12541.5681514783

```sql
-- Check how corona virus spread out with respect to death case per month
--      (Eg.: total confirmed cases, their average, variance & STDEV )

SELECT  distinct MONTH( DATE) as month,
           SUM(Deaths) AS total_deaths_cases,
                 AVG(Deaths) AS average_deaths_cases,
                 VAR(DEATHS) AS variance_deaths_cases,
                 STDEV(Deaths) AS stdev_deaths_cases
FROM [covide 19 data]
group by month(Date)
order by month(Date)
```

	month	total_deaths_cases	average_deaths_cases	variance_deaths_cases	stdev_deaths_cases
1	1	402083	63	79012.0445469252	281.090811921922
2	2	300890	34	34852.61830584	186.688559654415
3	3	323966	33	29785.0524295189	172.583465110418
4	4	554220	59	67905.9247205874	260.587652663336
5	5	511110	53	76775.7794144718	277.084426510174
6	6	270414	40	46250.1874702783	215.058567535168
7	7	167613	35	21144.5840570796	145.41177413497
8	8	179200	37	23277.8724251087	152.570876726552
9	9	160671	34	20107.1214145132	141.799581855918
10	10	175484	36	17583.7542527085	132.60374901453
11	11	262247	56	27779.8065421012	166.672752848512
12	12	339996	71	65359.059829717	255.654180153028

```sql
-- Check how corona virus spread out with respect to recovered case
--      (Eg.: total confirmed cases, their average, variance & STDEV )

SELECT
    COUNT(Recovered) AS total_recovered_cases,
    AVG(recovered) AS average_recovered_cases,
    VAR(recovered) AS variance_recovered_cases,
    STDEV(recovered) AS stdev_recovered_cases
FROM
    [covide 19 data]
```

Results Messages

	total_recovered_cases	average_recovered_cases	variance_recovered_cases	stdev_recovered_cases
1	78386	1442	107030888.69603	10345.5733865277

```sql
-- Find Country having highest number of the Confirmed case

select distinct TOP 1 Province ,sum(Confirmed) AS 'highest Confirmed case Country'
from [covide 19 data]
GROUP BY Province
ORDER BY Sum(Confirmed) DESC
```

Results Messages

	Province	highest Confirmed case Country
1	US	33461982

Click to

```sql
-- Find Country having lowest number of the death case

select distinct TOP 1 Province ,sum(DEATHS) AS 'lowest deaths case Country' from
[covide 19 data]
GROUP BY Province
ORDER BY Sum(DEATHS)
```

Results Messages

	Province	lowest deaths case Country
1	Tibet	0

```
-- Find top 5 countries having highest recovered case

select distinct TOP 5 Province ,sum(recovered) AS 'highest recovered case Country'
from [covide 19 data]
GROUP BY Province
ORDER BY Sum(recovered) DESC
```

Results Messages

	Province	highest recovered case Country
1	India	28089649
2	Brazil	15400169
3	US	6303715
4	Turkey	5202251
5	Russia	4745756