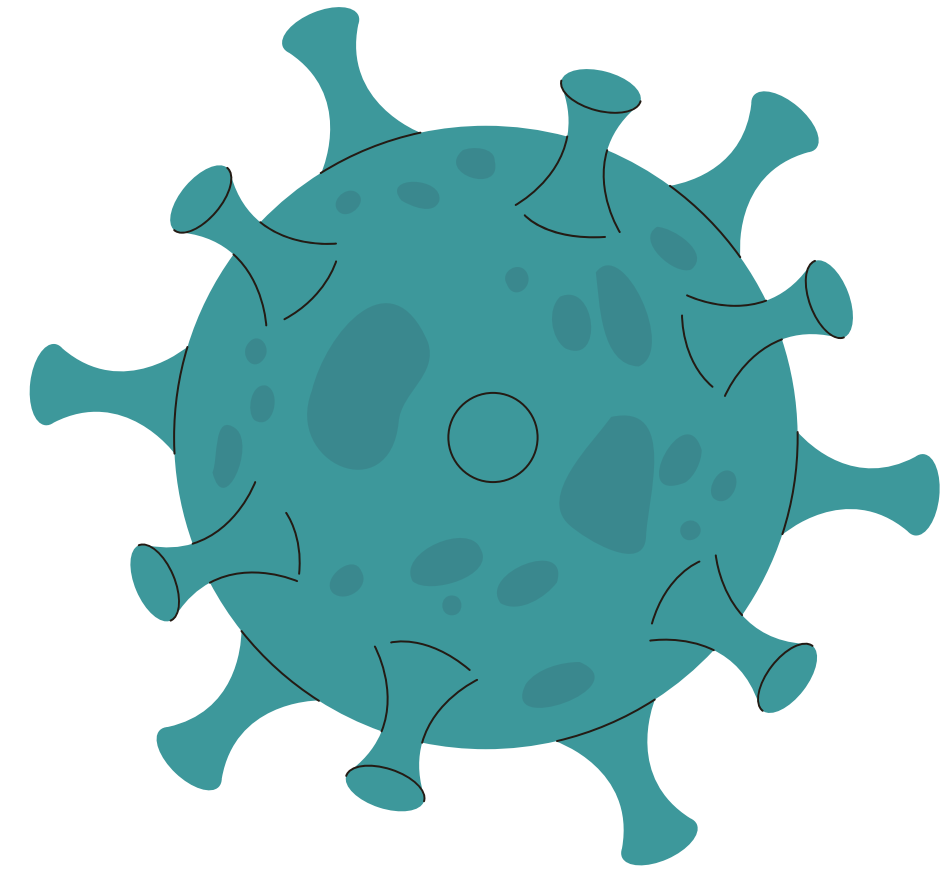


Covid-19 Data Analysis



■ T5 Data Science Bootcamp

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Introduction

This is the Data Science BootCamp project, which is an analysis of a data set using python and its libraries, Mathplotlib, Numby, and pandas. Here, I used a data set on Covid-19 that includes cases and deaths from the beginning of the Corona Virus outbreak.

Data Description

The dataset contains 61900 rows × 12 columns

dateRep	day	month	year	cases	deaths	countriesAndTerritories	geold	countryterritoryCode	popData2019	continentExp	Cumulative_number_for_14_days_of_19_cases_per
12/14/2020	14	12	2020	746	6	Afghanistan	AF	AFG	38041757.0	Asia	
12/13/2020	13	12	2020	298	9	Afghanistan	AF	AFG	38041757.0	Asia	
12/12/2020	12	12	2020	113	11	Afghanistan	AF	AFG	38041757.0	Asia	
12/11/2020	11	12	2020	63	10	Afghanistan	AF	AFG	38041757.0	Asia	
12/10/2020	10	12	2020	202	16	Afghanistan	AF	AFG	38041757.0	Asia	
...	
3/25/2020	25	3	2020	0	0	Zimbabwe	ZW	ZWE	14645473.0	Africa	
3/24/2020	24	3	2020	0	1	Zimbabwe	ZW	ZWE	14645473.0	Africa	
3/23/2020	23	3	2020	0	0	Zimbabwe	ZW	ZWE	14645473.0	Africa	
3/22/2020	22	3	2020	1	0	Zimbabwe	ZW	ZWE	14645473.0	Africa	
3/21/2020	21	3	2020	1	0	Zimbabwe	ZW	ZWE	14645473.0	Africa	

... x 12 columns

Libraries

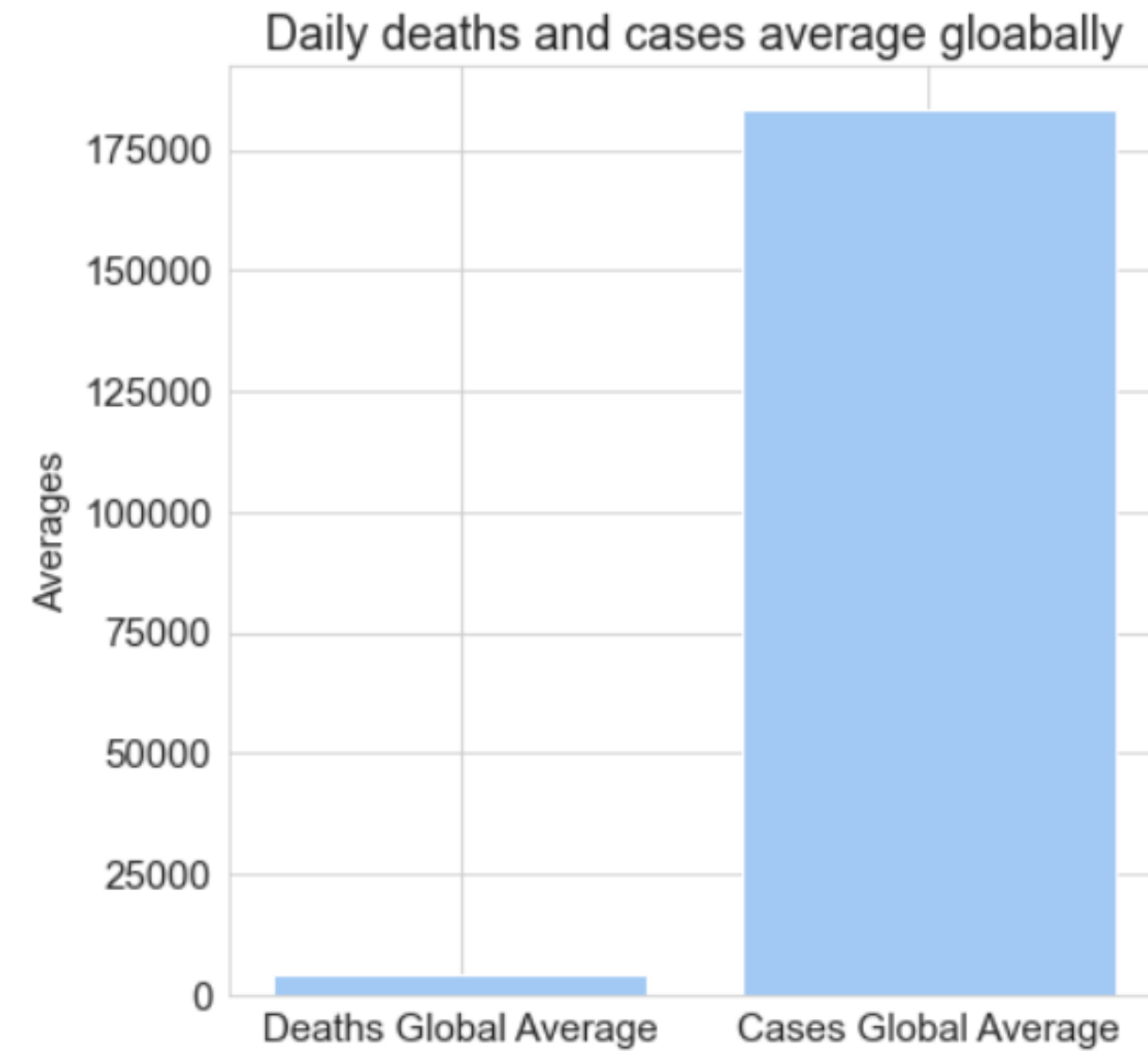


Data Pre-processing

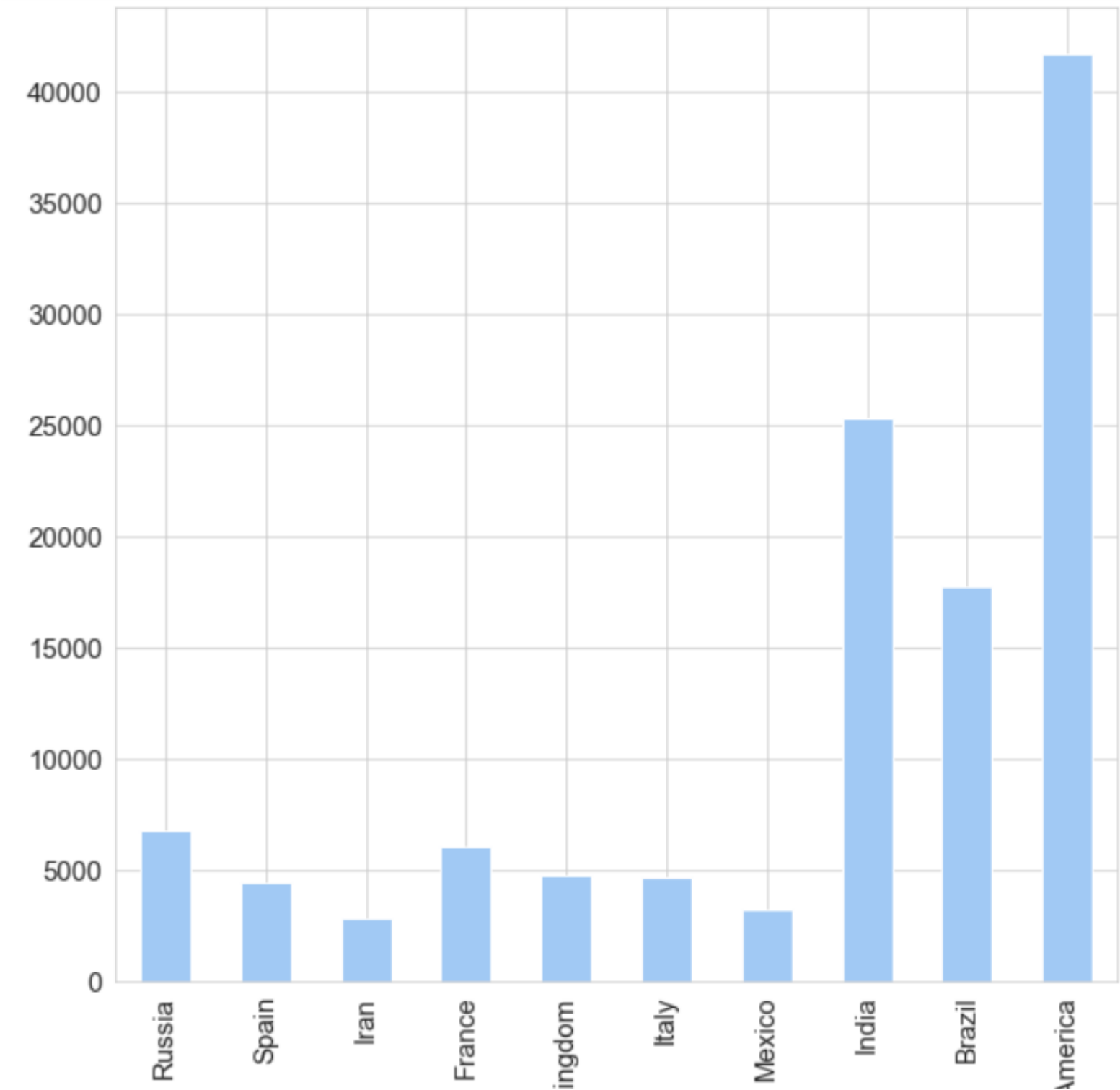
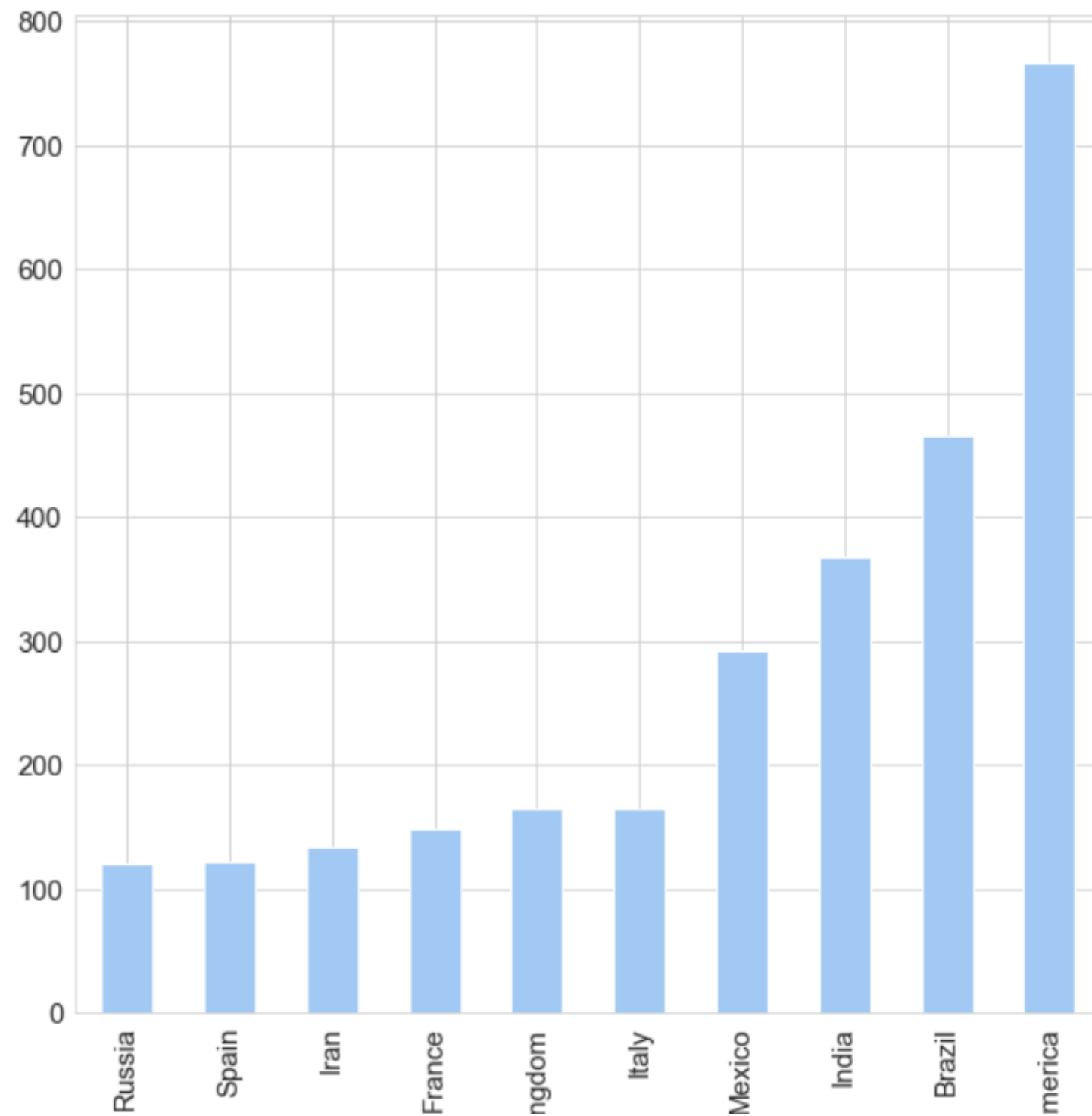
- Check if there are any missing values
- Check if there are any duplicate values
- Columns format
- Show the unique values

Data work & Result

What is the daily rate of infections and deaths worldwide since the outbreak of the virus ?



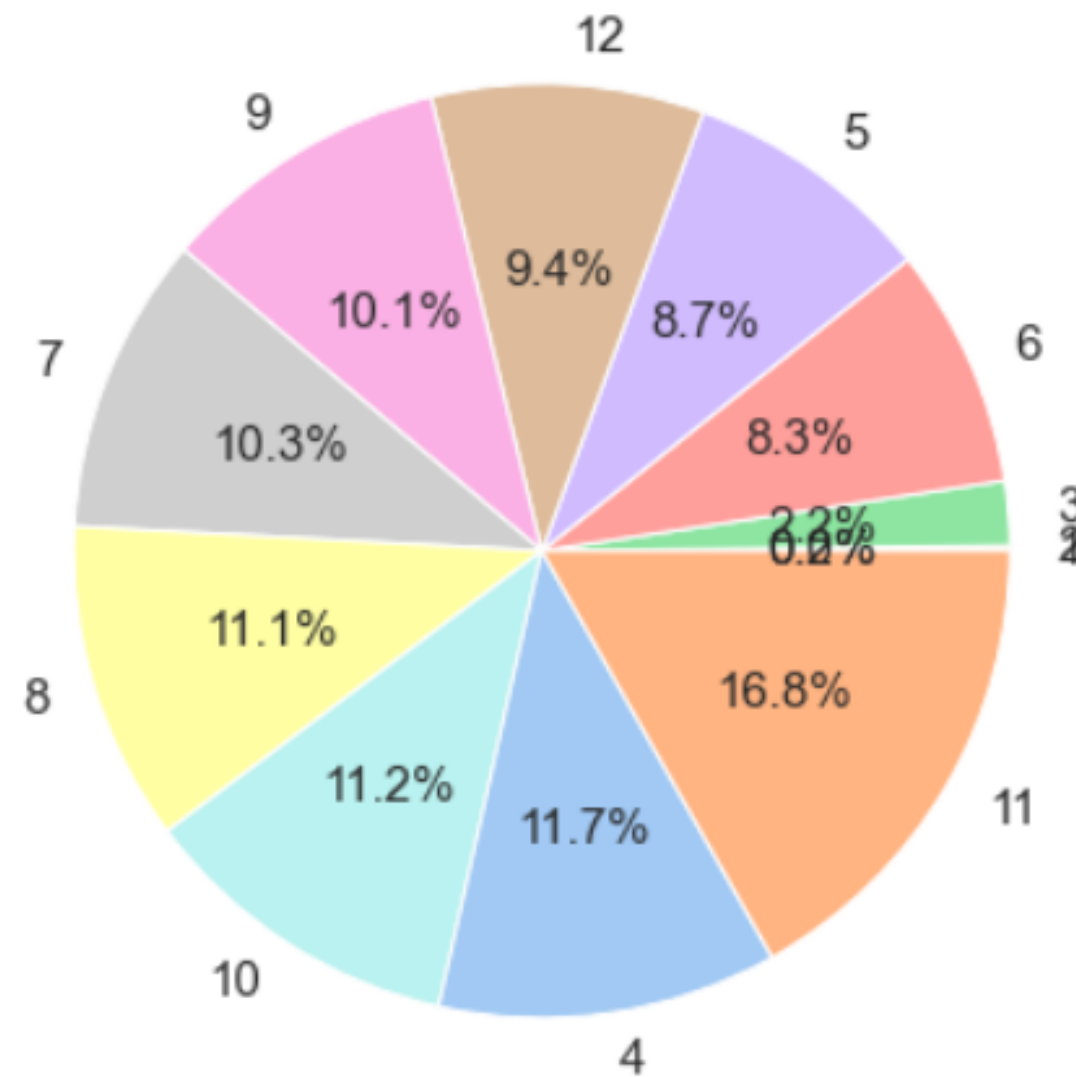
What is the average daily number of cases and deaths by country?



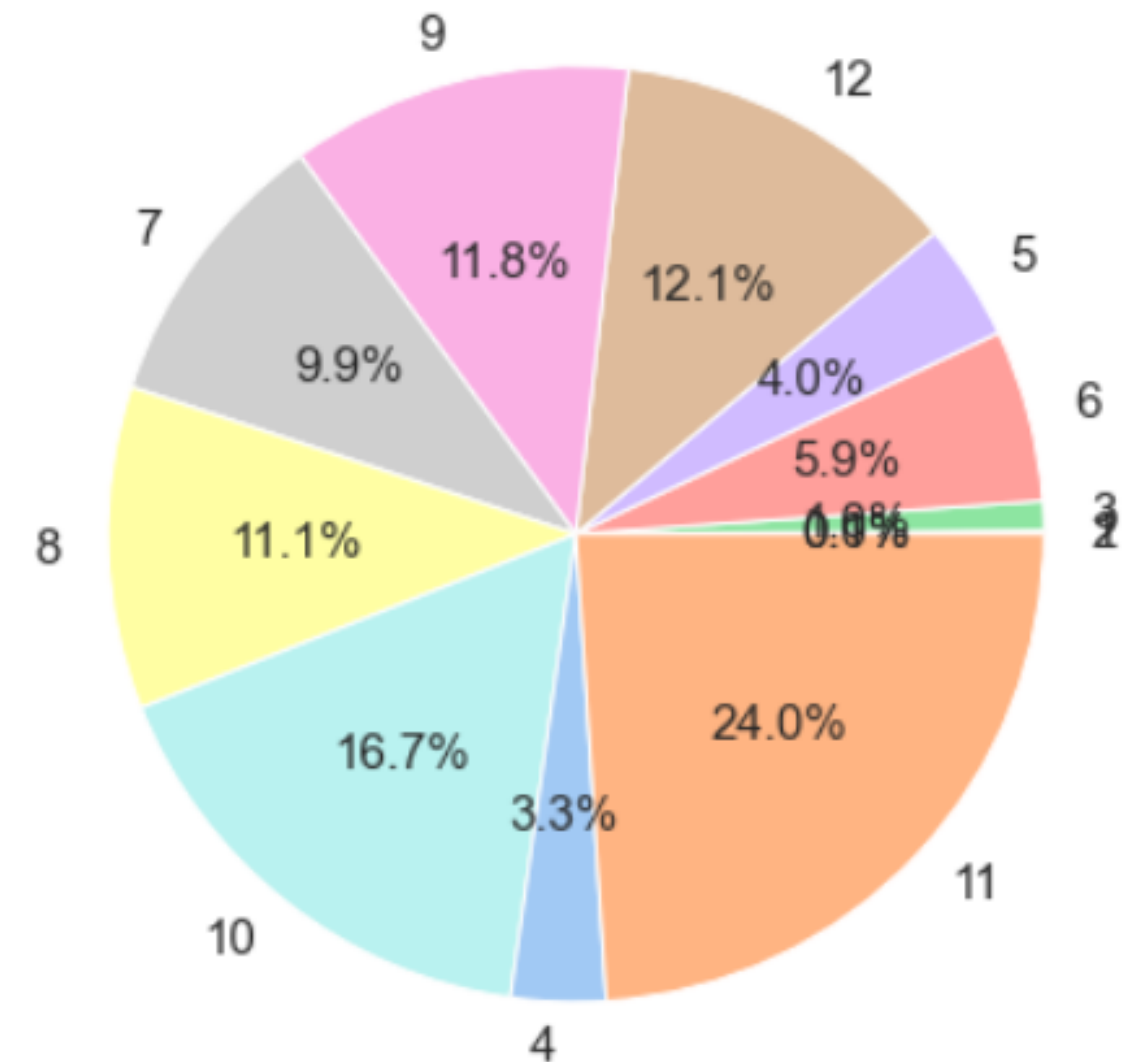
What is the total monthly cases and deaths in the world?

	deaths	cases
	sum	sum
month		
1	213	9799
2	2708	75422
3	35814	723738
6	134069	4249525
5	140142	2891996
12	151585	8642865
9	162169	8456248
7	166195	7067524
8	178618	7963836
10	181054	11949041
4	189180	2339594
11	271086	17134026

Sum of deaths by month



Sum of cases by month

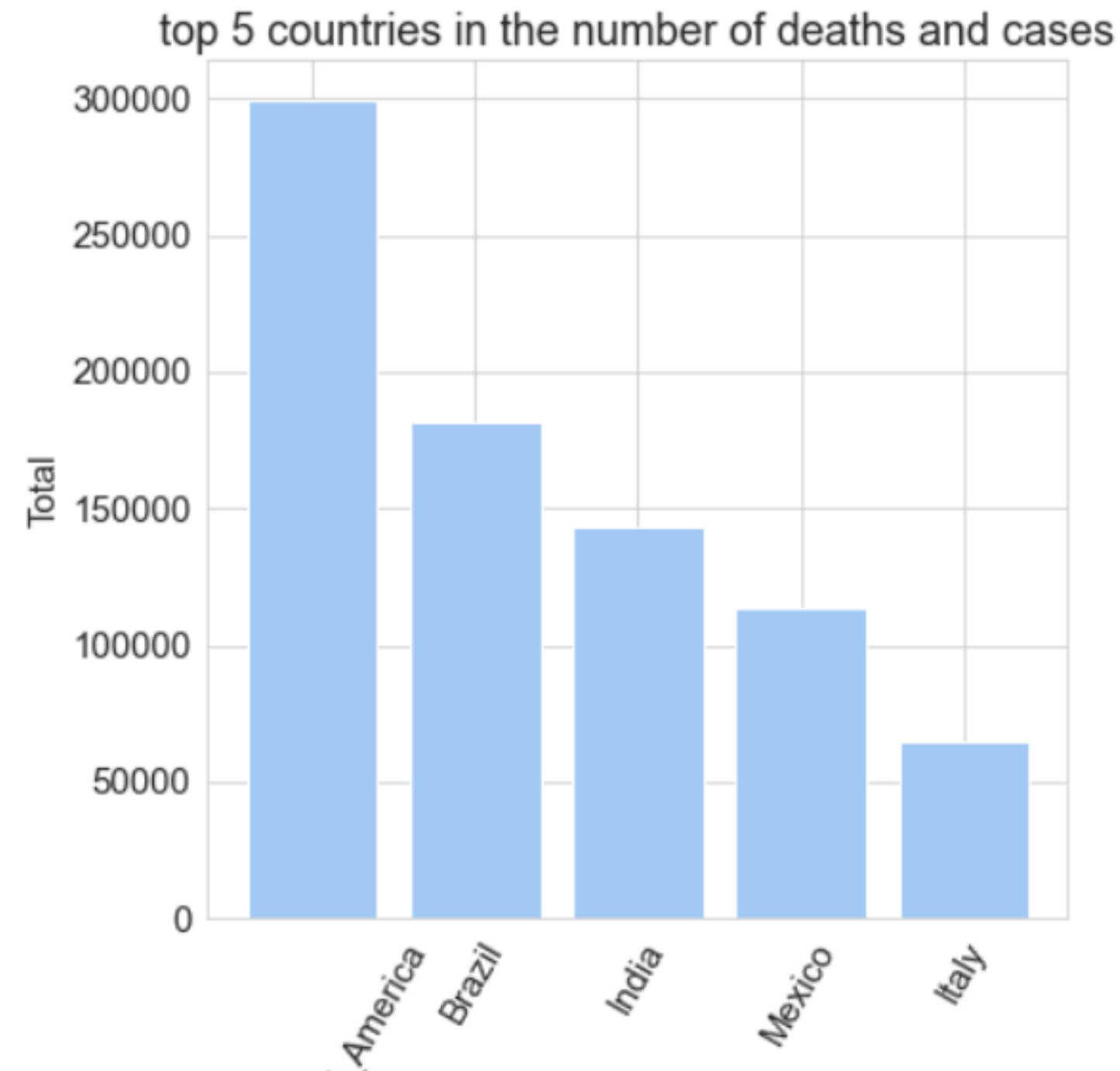


what is the total number of cases and deaths per month according to each country?

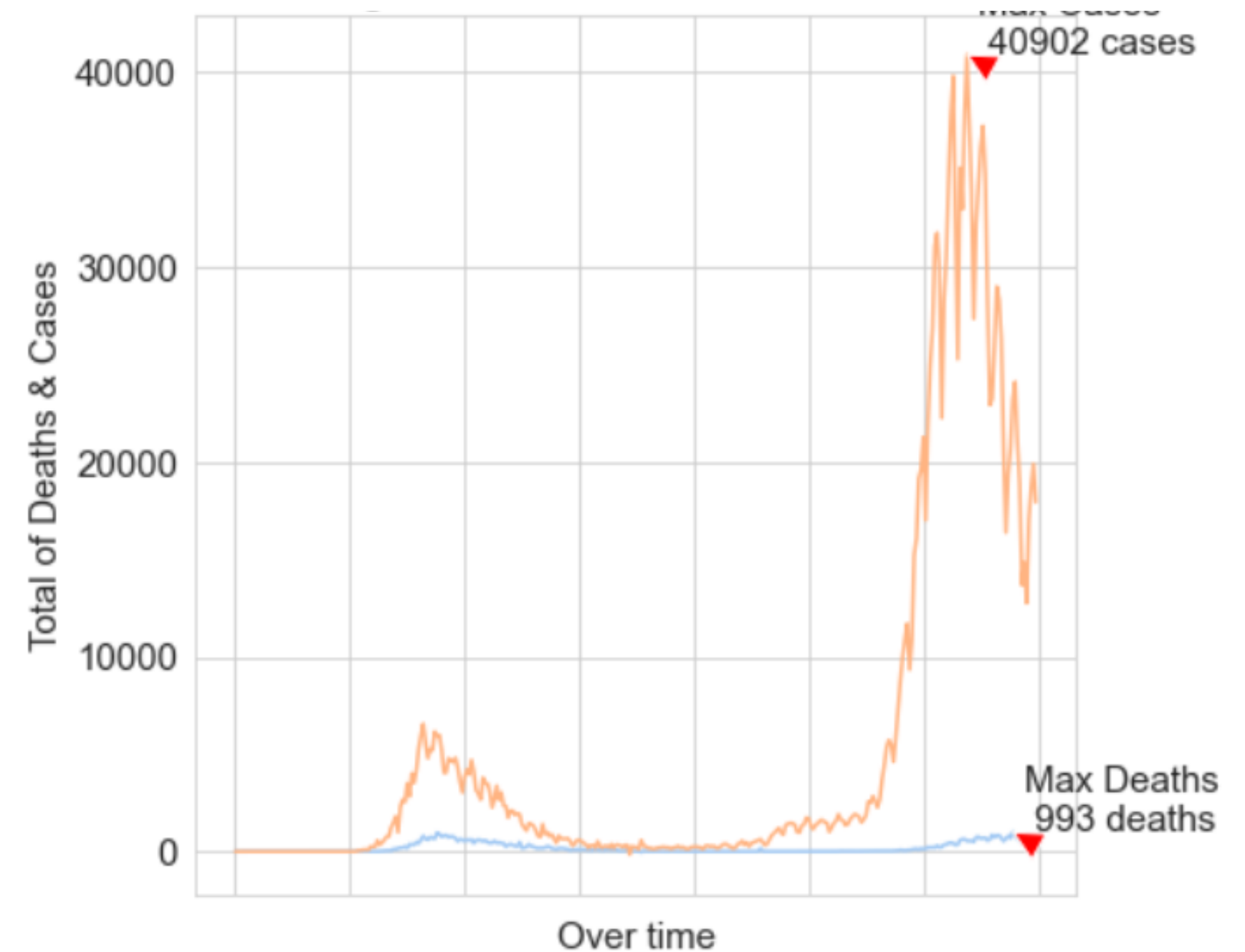
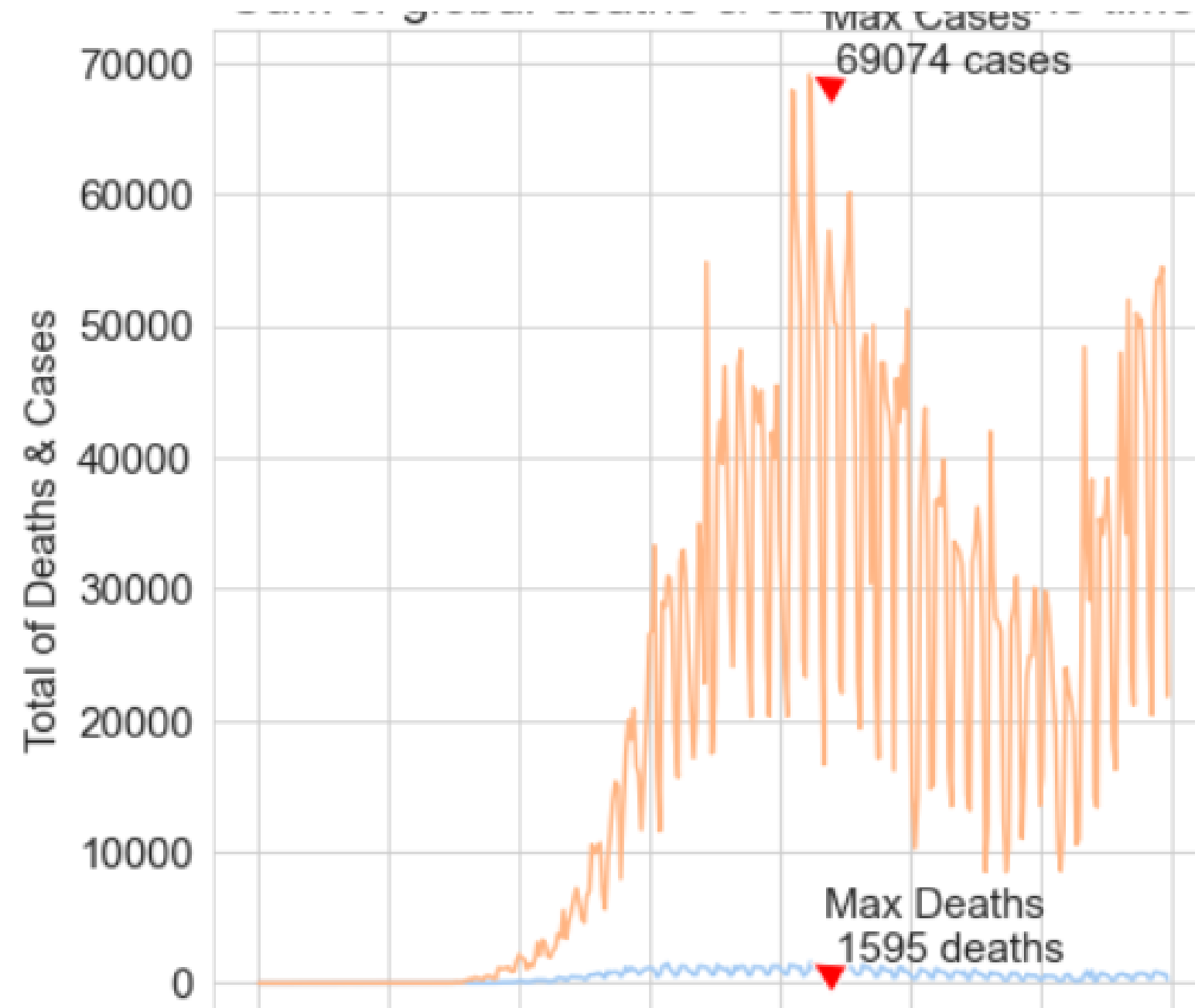
Countries	month		
Iran	2	34	388
	3	2723	41107
	4	3200	52162
	5	1777	55293
	6	2936	76255
	7	5899	76325
	8	4893	72040
	9	4524	80067
	10	8492	151315
	11	13397	343797
	12	4321	159520

Italy	1	0	3
	2	21	885
	3	11570	100851
	4	16091	101852
	5	5658	29073
	6	1404	7772
	7	388	6722
	8	345	21060
	9	398	44793
	10	2446	334663
	11	16583	937504
	12	9616	258534

Who are the top 5 countries in the number of deaths and cases since the beginning of the virus outbreak?



What is the time series for the number of deaths and cases?



Conclusion

The above results have shown us the records of cases and deaths by country and chronology since the onset of the virus outbreak. The data set will be used to predict Corona's future impacts on working life, business and so forth.

THANK
YOU