

week6-proj6

August 30, 2023

```
[2]: import pandas as pd
df = pd.read_csv('country_vaccinations.csv')
```

```
[3]: df
```

```
[3]:
```

	country	iso_code	date	total_vaccinations	\
0	Afghanistan	AFG	2021-02-22	0.0	
1	Afghanistan	AFG	2021-02-23	NaN	
2	Afghanistan	AFG	2021-02-24	NaN	
3	Afghanistan	AFG	2021-02-25	NaN	
4	Afghanistan	AFG	2021-02-26	NaN	
...	
86507	Zimbabwe	ZWE	2022-03-25	8691642.0	
86508	Zimbabwe	ZWE	2022-03-26	8791728.0	
86509	Zimbabwe	ZWE	2022-03-27	8845039.0	
86510	Zimbabwe	ZWE	2022-03-28	8934360.0	
86511	Zimbabwe	ZWE	2022-03-29	9039729.0	

	people_vaccinated	people_fully_vaccinated	daily_vaccinations_raw	\
0	0.0	NaN	NaN	
1	NaN	NaN	NaN	
2	NaN	NaN	NaN	
3	NaN	NaN	NaN	
4	NaN	NaN	NaN	
...	
86507	4814582.0	3473523.0	139213.0	
86508	4886242.0	3487962.0	100086.0	
86509	4918147.0	3493763.0	53311.0	
86510	4975433.0	3501493.0	89321.0	
86511	5053114.0	3510256.0	105369.0	

	daily_vaccinations	total_vaccinations_per_hundred	\
0	NaN	0.00	
1	1367.0	NaN	
2	1367.0	NaN	
3	1367.0	NaN	
4	1367.0	NaN	

...
86507	69579.0	57.59
86508	83429.0	58.25
86509	90629.0	58.61
86510	100614.0	59.20
86511	103751.0	59.90

	people_vaccinated_per_hundred	people_fully_vaccinated_per_hundred	\
0	0.00	NaN	
1	NaN	NaN	
2	NaN	NaN	
3	NaN	NaN	
4	NaN	NaN	
...	
86507	31.90	23.02	
86508	32.38	23.11	
86509	32.59	23.15	
86510	32.97	23.20	
86511	33.48	23.26	

	daily_vaccinations_per_million	\
0	NaN	
1	34.0	
2	34.0	
3	34.0	
4	34.0	
...	...	
86507	4610.0	
86508	5528.0	
86509	6005.0	
86510	6667.0	
86511	6874.0	

	vaccines	\
0	Johnson&Johnson, Oxford/AstraZeneca, Pfizer/Bi...	
1	Johnson&Johnson, Oxford/AstraZeneca, Pfizer/Bi...	
2	Johnson&Johnson, Oxford/AstraZeneca, Pfizer/Bi...	
3	Johnson&Johnson, Oxford/AstraZeneca, Pfizer/Bi...	
4	Johnson&Johnson, Oxford/AstraZeneca, Pfizer/Bi...	
...	...	
86507	Oxford/AstraZeneca, Sinopharm/Beijing, Sinovac...	
86508	Oxford/AstraZeneca, Sinopharm/Beijing, Sinovac...	
86509	Oxford/AstraZeneca, Sinopharm/Beijing, Sinovac...	
86510	Oxford/AstraZeneca, Sinopharm/Beijing, Sinovac...	
86511	Oxford/AstraZeneca, Sinopharm/Beijing, Sinovac...	

source_name \

```

0      World Health Organization
1      World Health Organization
2      World Health Organization
3      World Health Organization
4      World Health Organization
...
86507      Ministry of Health
86508      Ministry of Health
86509      Ministry of Health
86510      Ministry of Health
86511      Ministry of Health

```

```

                                source_website
0      https://covid19.who.int/
1      https://covid19.who.int/
2      https://covid19.who.int/
3      https://covid19.who.int/
4      https://covid19.who.int/
...
86507  https://www.arcgis.com/home/webmap/viewer.html...
86508  https://www.arcgis.com/home/webmap/viewer.html...
86509  https://www.arcgis.com/home/webmap/viewer.html...
86510  https://www.arcgis.com/home/webmap/viewer.html...
86511  https://www.arcgis.com/home/webmap/viewer.html...

```

[86512 rows x 15 columns]

```
[4]: df.head()
```

```

[4]:      country iso_code      date  total_vaccinations  people_vaccinated \
0  Afghanistan    AFG  2021-02-22             0.0             0.0
1  Afghanistan    AFG  2021-02-23             NaN             NaN
2  Afghanistan    AFG  2021-02-24             NaN             NaN
3  Afghanistan    AFG  2021-02-25             NaN             NaN
4  Afghanistan    AFG  2021-02-26             NaN             NaN

      people_fully_vaccinated  daily_vaccinations_raw  daily_vaccinations \
0                      NaN                      NaN                      NaN
1                      NaN                      NaN                    1367.0
2                      NaN                      NaN                    1367.0
3                      NaN                      NaN                    1367.0
4                      NaN                      NaN                    1367.0

      total_vaccinations_per_hundred  people_vaccinated_per_hundred \
0                      0.0                      0.0
1                      NaN                      NaN
2                      NaN                      NaN

```

3	NaN	NaN
4	NaN	NaN

	people_fully_vaccinated_per_hundred	daily_vaccinations_per_million	\
0	NaN	NaN	
1	NaN	34.0	
2	NaN	34.0	
3	NaN	34.0	
4	NaN	34.0	

	vaccines	\
0	Johnson&Johnson, Oxford/AstraZeneca, Pfizer/Bi...	
1	Johnson&Johnson, Oxford/AstraZeneca, Pfizer/Bi...	
2	Johnson&Johnson, Oxford/AstraZeneca, Pfizer/Bi...	
3	Johnson&Johnson, Oxford/AstraZeneca, Pfizer/Bi...	
4	Johnson&Johnson, Oxford/AstraZeneca, Pfizer/Bi...	

	source_name	source_website
0	World Health Organization	https://covid19.who.int/
1	World Health Organization	https://covid19.who.int/
2	World Health Organization	https://covid19.who.int/
3	World Health Organization	https://covid19.who.int/
4	World Health Organization	https://covid19.who.int/

```
[5]: df['date_column'] = pd.to_datetime(df['date'])
```

```
[6]: monthmap= {
      1: 'Jan', 2: 'Feb', 3: 'Mar', 4: 'Apr',
      5: 'May', 6: 'Jun', 7: 'Jul', 8: 'Aug',
      9: 'Sep', 10: 'Oct', 11: 'Nov', 12: 'Dec'
    }
```

```
[7]: df['month'] = df['date_column'].dt.month.map(monthmap)
```

```
[8]: df.head()
```

	country	iso_code	date	total_vaccinations	people_vaccinated	\
0	Afghanistan	AFG	2021-02-22	0.0	0.0	
1	Afghanistan	AFG	2021-02-23	NaN	NaN	
2	Afghanistan	AFG	2021-02-24	NaN	NaN	
3	Afghanistan	AFG	2021-02-25	NaN	NaN	
4	Afghanistan	AFG	2021-02-26	NaN	NaN	

	people_fully_vaccinated	daily_vaccinations_raw	daily_vaccinations	\
0	NaN	NaN	NaN	
1	NaN	NaN	1367.0	
2	NaN	NaN	1367.0	

3	NaN	NaN	1367.0
4	NaN	NaN	1367.0

	total_vaccinations_per_hundred	people_vaccinated_per_hundred	\
0	0.0	0.0	
1	NaN	NaN	
2	NaN	NaN	
3	NaN	NaN	
4	NaN	NaN	

	people_fully_vaccinated_per_hundred	daily_vaccinations_per_million	\
0	NaN	NaN	
1	NaN	34.0	
2	NaN	34.0	
3	NaN	34.0	
4	NaN	34.0	

	vaccines	\
0	Johnson&Johnson, Oxford/AstraZeneca, Pfizer/Bi...	
1	Johnson&Johnson, Oxford/AstraZeneca, Pfizer/Bi...	
2	Johnson&Johnson, Oxford/AstraZeneca, Pfizer/Bi...	
3	Johnson&Johnson, Oxford/AstraZeneca, Pfizer/Bi...	
4	Johnson&Johnson, Oxford/AstraZeneca, Pfizer/Bi...	

	source_name	source_website	date_column	month
0	World Health Organization	https://covid19.who.int/	2021-02-22	Feb
1	World Health Organization	https://covid19.who.int/	2021-02-23	Feb
2	World Health Organization	https://covid19.who.int/	2021-02-24	Feb
3	World Health Organization	https://covid19.who.int/	2021-02-25	Feb
4	World Health Organization	https://covid19.who.int/	2021-02-26	Feb

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