

```
In [1]: import pandas as pd
import numpy as np
import calendar
```

```
In [2]: df = pd.read_csv('country_vaccinations.csv')
```

filling the null values

```
In [3]: df_pr = df.fillna(100)
```

```
In [4]: df_pr.isnull().sum()
```

```
Out[4]: country                0
iso_code                    0
total_vaccinations          0
people_vaccinated           0
people_fully_vaccinated     0
daily_vaccinations_raw      0
daily_vaccinations          0
total_vaccinations_per_hundred 0
people_vaccinated_per_hundred 0
people_fully_vaccinated_per_hundred 0
daily_vaccinations_per_million 0
vaccines                   0
source_name                0
source_website             0
year                      0
month                     0
day                      0
dtype: int64
```

```
In [5]: df_pr.head(1)
```

```
Out[5]:
```

	country	iso_code	total_vaccinations	people_vaccinated	people_fully_vaccinated	daily_vaccinations_raw	da
0	Afghanistan	AFG	0.0	0.0	100.0	100.0	

creating the new dataframe with year 2021

```
In [6]: lst = []

for i in df_pr.values:
    if i[14] == 2021:
        lst.append([i[0], i[15], i[2], i[14]])
new_df = pd.DataFrame(lst, columns = ['country', 'month', 'total_vaccinations', 'year'])
new_df['month_name'] = new_df['month'].apply(lambda x: calendar.month_name[x])
```

```
In [14]: new_df
```

Out[14]:

	country	month	total_vaccinations	year	month_name
0	Afghanistan	2	0.0	2021	February
1	Afghanistan	2	100.0	2021	February
2	Afghanistan	2	100.0	2021	February
3	Afghanistan	2	100.0	2021	February
4	Afghanistan	2	100.0	2021	February
...
68625	Zimbabwe	12	7222381.0	2021	December
68626	Zimbabwe	12	7226334.0	2021	December
68627	Zimbabwe	12	7238939.0	2021	December
68628	Zimbabwe	12	100.0	2021	December
68629	Zimbabwe	12	7264791.0	2021	December

68630 rows × 5 columns

In [13]:

```
new_df.groupby('month_name').size()
```

Out[13]:

```
month_name
April      5808
August     6813
December   6655
February   3027
January    1968
July       6774
June       6476
March      4985
May        6413
November   6476
October    6712
September  6523
dtype: int64
```