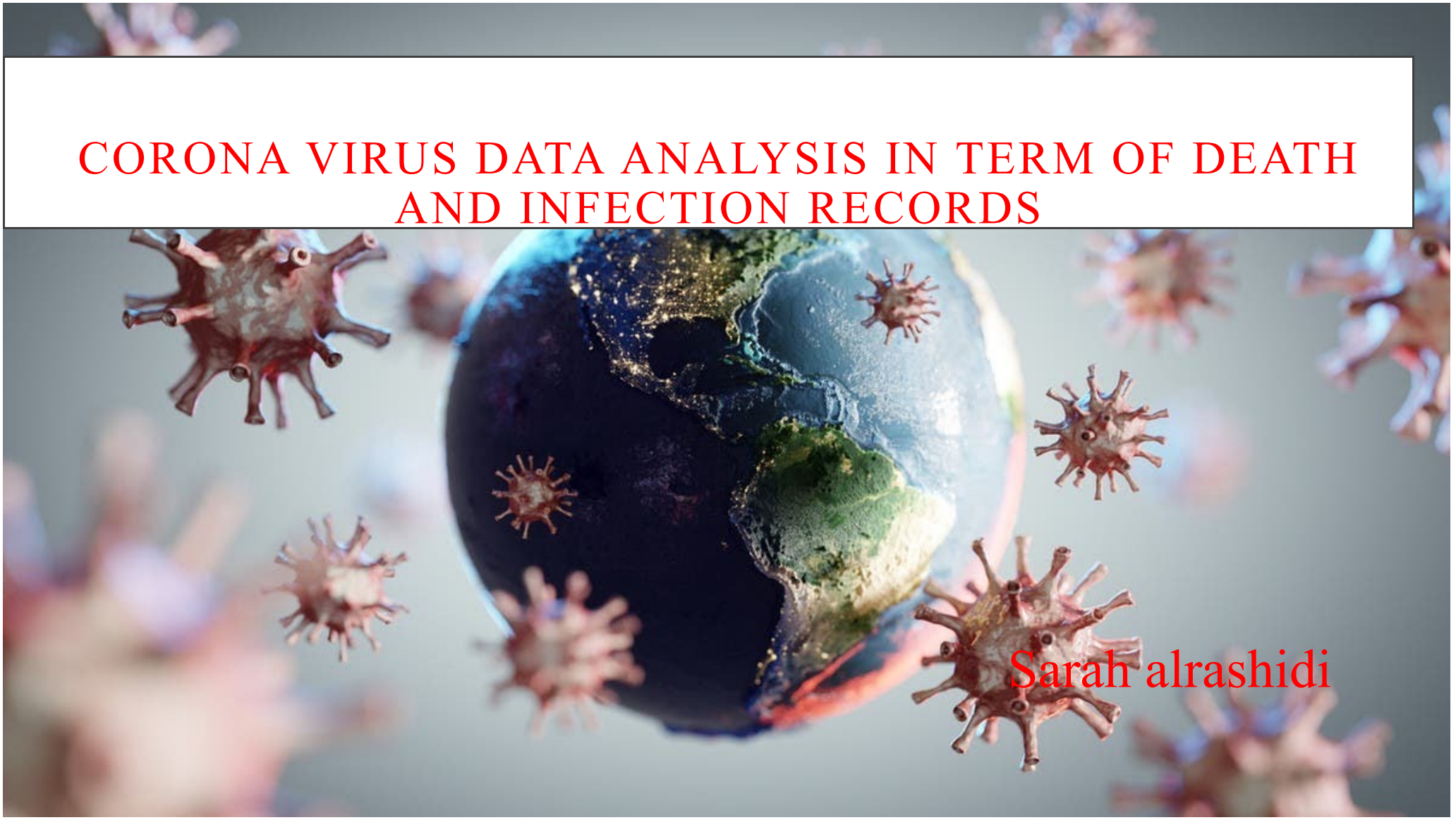
CORONA VIRUS DATA ANALYSIS IN TERM OF DEATH AND INFECTION RECORDS

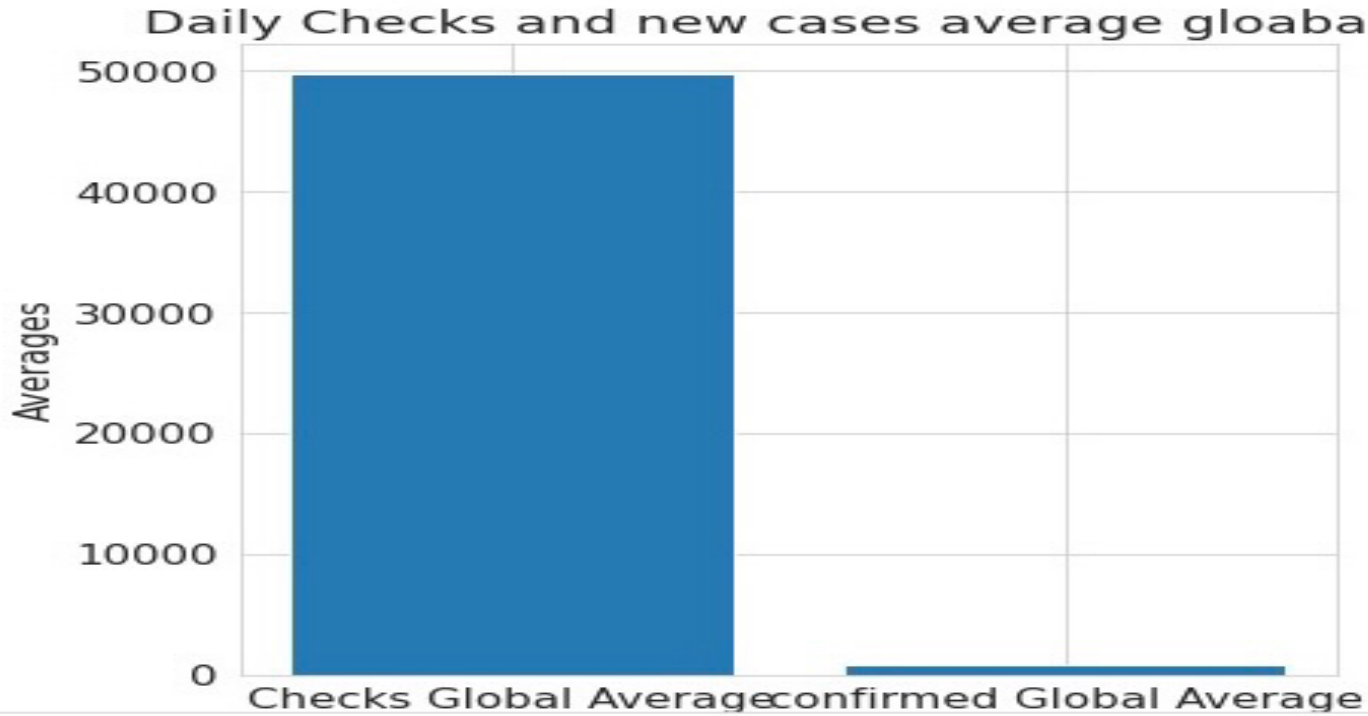


Sarah alrashidi

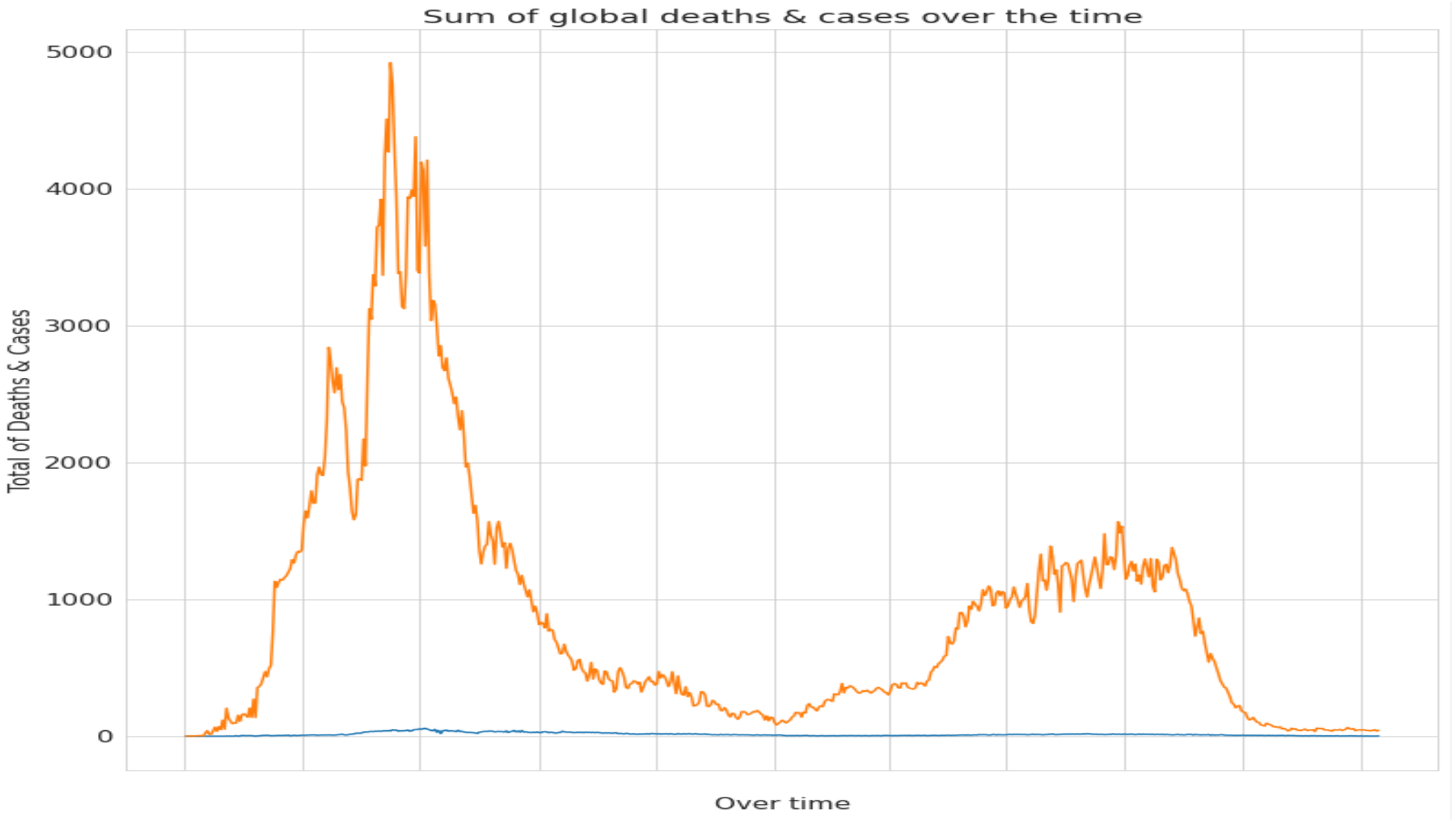
IN LIGHT OF THE EMERGENCY THAT THE WHOLE WORLD IS EXPERIENCING DUE TO
THE SPREAD OF THE CORONA VIRUS, THERE IS INCREASI
WHAT IS THE DAILY INFECTION AND DEATH RATE SINCE THE OUTBREAK OF
THE ECHNICAL COMMUNITIES ABOUT THE ROLE OF DATA ANALYSIS AND TH
ROLE OF MACHINE LEARNING ALGORITHMS
AND ARTIFICIAL INTELLIGENCE IN HELPING TO PREDICT THE FUTURE OF
HUMANITY AND HOW EPIDEMICS WILL SPREAD AND SPREAD IN THE WORLD
DATA ANALYSIS USING PYTHON IS ONE OF THE IMPORTANT TOOLS THAT
MANY SCIENTISTS AND RESEARCHERS RELY ON. THERE IS NO DOUBT THAT
MACHINE EDUCATION
AND ARTIFICIAL INTELLIGENCE AND ALL RELATED FIELDS HAVE A MAJOR
AND ESSENTIAL ROLE IN KNOWING THE CAUSES OF THE SPREAD OF THE
EPIDEMIC, HOW IT WILL SPREAD, AND PREDICTING ITS FUTURE. IN THIS
ARTICLE FROM PYTHON, WE PRESENT TO YOU AN EXPLANATION IN THE
FIELD OF DATA ANALYSIS USING PYTHON,
AND ITS AIM IS TO PROVIDE A SIMPLIFIED ANALYSIS OF SIMPLE
STRUCTURAL DATA RELATED TO THE NUMBER OF CASES OF CORONAVIRUS
INFECTION AND THE NUMBER OF DEATHS ACROSS THE KINGDOM OF SAUDI
ARABIA

```
x = ['Checks Global Average','confirmed Global Average']
y = [corona_gloabl_checks_avg,corona_gloabl_cases_new_avg]
fig = plt.figure(figsize=(5,5))
ax = fig.add_axes([.1,.1,1,1])

ax.set_ylabel('Averages')
ax.set_title('Daily Checks and new cases average gloabally')

ax.bar(x,y)
```

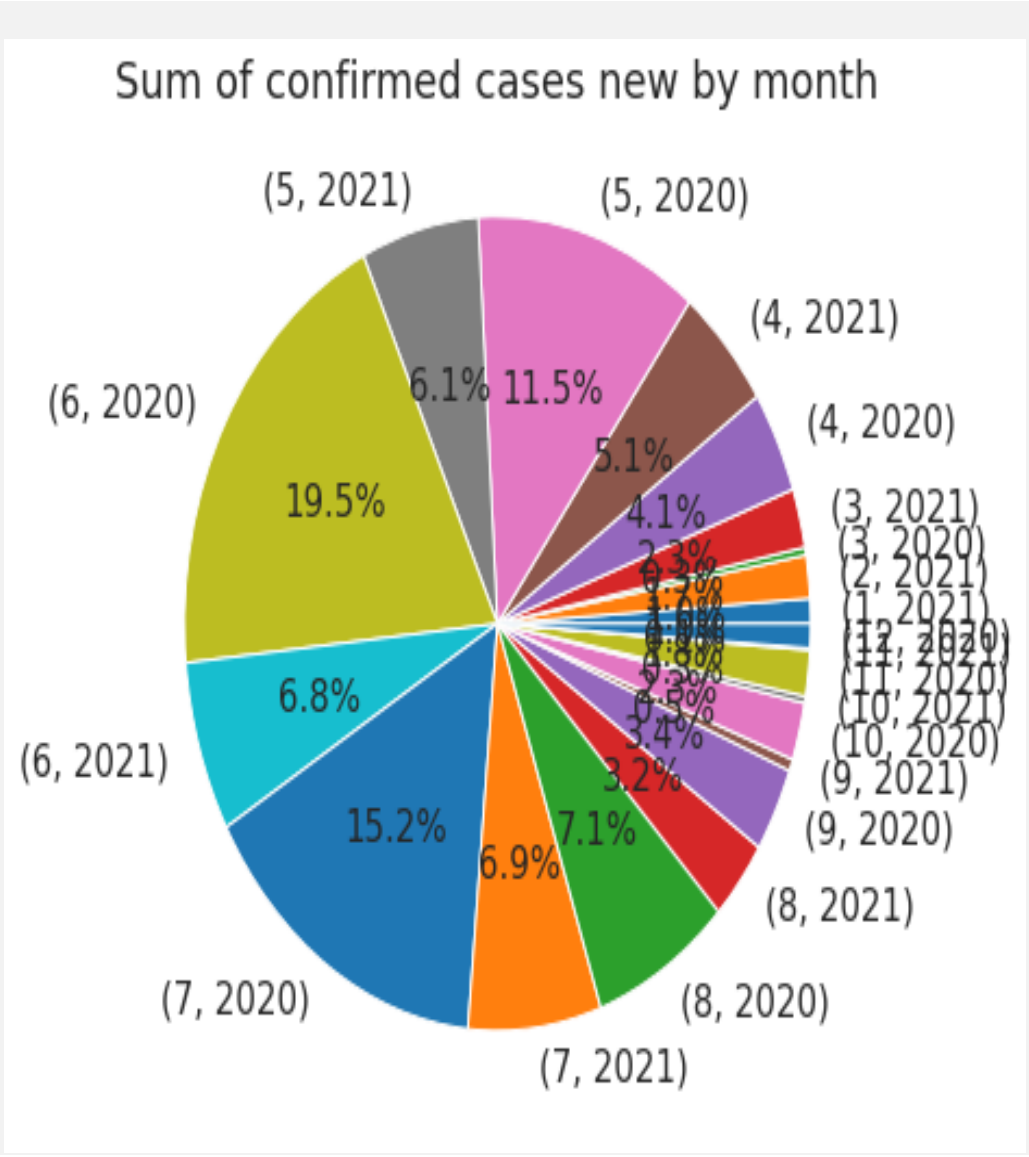
```
<BarContainer object of 2 artists>
```



```
corona
def time_series():
    x = corona.index
    y = corona[['deaths new','confirmed cases new']]
    max_deaths_v = corona['deaths new'].idxmax()
    print(max_deaths_v)
    max_deaths_i = corona['confirmed cases new'].max()

    max_cases_v =  y['confirmed cases new'].max()
    max_cases_i = corona['confirmed cases new'].max()

    fig = plt.figure()
    ax = fig.add_axes([.1,.1,1,1])

    ax.set_xlabel('Over time')
    ax.set_ylabel('Total of Deaths & Cases')
    ax.set_title('Sum of global deaths & cases over the time')
    ax.set_xticklabels(' ')
    # ax.annotate('Max Deaths \n {} deaths'.format(max_deaths_v),xy=(max_deaths_i,max_deaths_v),xytext=( int(max_deaths_i)+5  ,int(max_deaths_v) + 50),
              #  arrowprops=dict(facecolor='red',shrink=0.05))

    # ax.annotate('Max Cases \n {} cases'.format(max_cases_v) ,xy=(max_cases_i,max_cases_v),xytext=( int(max_cases_i)+5  ,int(max_cases_v) + 50),
    #            arrowprops=dict(facecolor='red',shrink=0.05))

    ax.plot(x,y)
time_series()
```


Sum of global deaths & cases over the time
Total of Deaths & Cases
5000
4000
3000
2000
1000
0
Over time

```
x = sum_by_month.index.tolist()
y = sum_by_month['confirmed cases new']['sum']

fig = plt.figure(figsize=(5,5))
ax = fig.add_axes([.1,.1,1,1])

ax.set_title('Sum of confirmed cases new by month')
ax.set_yticklabels(x)

ax.pie(y,labels=x,autopct='%1.1f%%')
```



```
[ ] d2 = date(2020,3,2)
    d1 = date(2021,11,10)
    corona_days = (d1-d2).days

    corona_gloabl_checks_avg = int(corona['daily checks'].sum()/corona_days)
    # corona_gloabl_checks_avg
    corona_gloabl_cases_new_avg = int(corona['confirmed cases new'].sum() / corona_days)
    corona_gloabl_cases_new_avg
    # print(corona_gloabl_deaths_avg,corona_gloabl_cases_avg)
```

```
888
```

THANK YOU, DO YOU HAVE A QUESTION?