Untitled5

March 29, 2020

[0]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
```

[2]:
```
tempGlobal = pd.read_csv('/content/global.csv')
tempGlobal
```

[2]:
```
     year  avg_temp
0    1750      8.72
1    1751      7.98
2    1752      5.78
3    1753      8.39
4    1754      8.47
..    ...       ...
261  2011      9.52
262  2012      9.51
263  2013      9.61
264  2014      9.57
265  2015      9.83

[266 rows x 2 columns]
```

[0]:
```
tempIndore = pd.read_csv('/content/indore.csv')
tempIndore = tempIndore.fillna(tempIndore['avg_temp'].mean())
```

[0]:
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tempIndore['SMA'] = tempIndore.iloc[:,3].rolling(window=50).mean()
```

[0]:
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tempGlobal['SMA'] = tempGlobal.iloc[:,1].rolling(window=50).mean()
```
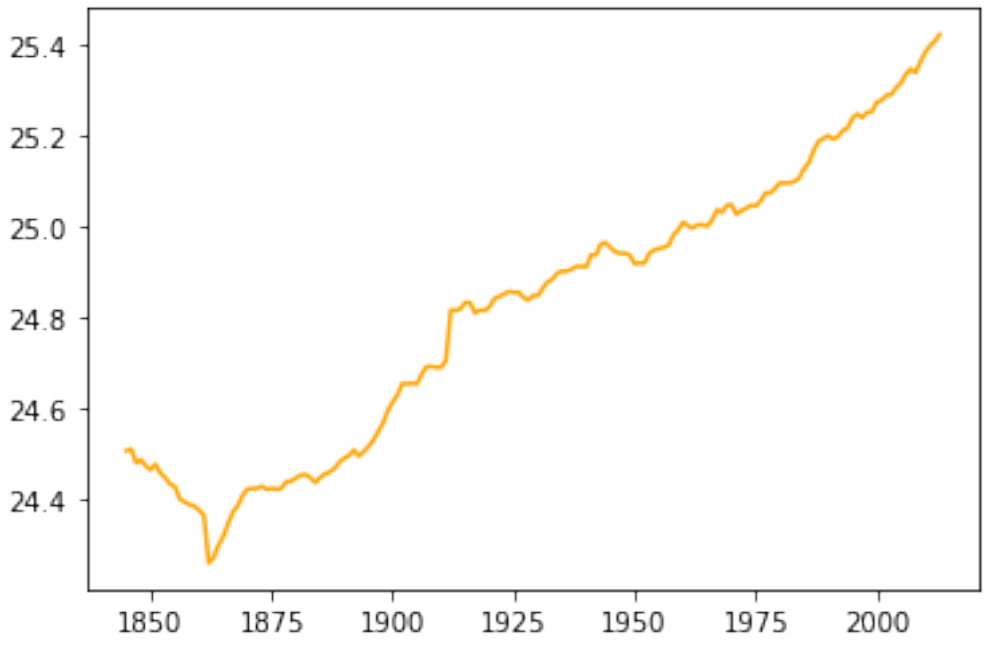
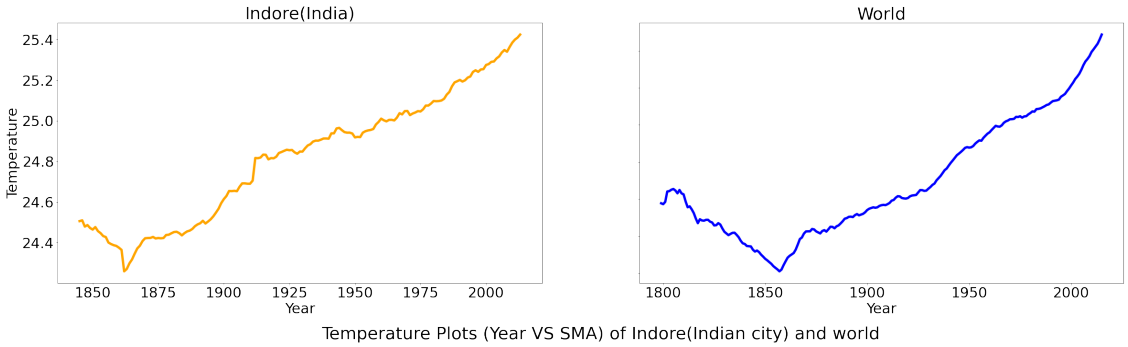

[6]:
```
plt.plot(tempIndore.year, tempIndore.SMA, color='orange')
```

[6]:
```
[<matplotlib.lines.Line2D at 0x7fab7750e940>]
```



[7]:
```
plt.rcParams["figure.figsize"] = (40,10)
plt.rcParams.update({'font.size': 30})
fig, axs = plt.subplots(1, 2)
fig.suptitle('Temperature Plots (Year VS SMA) of Indore(Indian city) and␣
 ↪world', x=0.52, y=0)
axs[0].set_title('Indore(India)')
axs[1].set_title('World')
for ax in axs.flat:
    ax.set(xlabel='Year', ylabel='Temperature')
for ax in axs.flat:
    ax.label_outer()
axs[0].plot(tempIndore.year, tempIndore.SMA, color='orange', linewidth=5)
axs[1].plot(tempGlobal.year, tempGlobal.SMA, color='blue', linewidth=5)
```

[7]:
```
[<matplotlib.lines.Line2D at 0x7fab7701d6d8>]
```



[0]:
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fig.savefig('figure.png')
```

[9]:
```
!cp drive/My\ Drive/Colab\ Notebooks/Untitled5.ipynb ./

!jupyter nbconvert --to PDF "Untitled5.ipynb"
```

```
[NbConvertApp] Converting notebook Untitled5.ipynb to PDF
[NbConvertApp] Support files will be in Untitled5_files/
[NbConvertApp] Making directory ./Untitled5_files
[NbConvertApp] Making directory ./Untitled5_files
[NbConvertApp] Writing 50110 bytes to ./notebook.tex
[NbConvertApp] Building PDF
[NbConvertApp] Running xelatex 3 times: [u'xelatex', u'./notebook.tex',
'-quiet']
[NbConvertApp] Running bibtex 1 time: [u'bibtex', u'./notebook']
[NbConvertApp] WARNING | bibtex had problems, most likely because there were no
citations
[NbConvertApp] PDF successfully created
[NbConvertApp] Writing 117982 bytes to Untitled5.pdf
```

[0]:
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```