

BANGALORE CITY WEATHER ANALYSIS

INPUT

```
import pandas as pd

import matplotlib.pyplot as mp

weather = pd.read_csv("Bangalore_1990_2022_BangaloreCity.csv")

print(weather.isnull().sum())

weather['tavg']=weather['tavg'].fillna(weather['tavg'].mean())

weather['tmin']=weather['tmin'].fillna(weather['tmin'].mean())

weather['tmax']=weather['tmax'].fillna(weather['tmax'].mean())

print(weather.isnull().sum())

weather['time']=pd.to_datetime(weather['time'],format="%d-%m-%Y")

weather['month']=weather['time'].dt.month

weather['Year']=weather['time'].dt.year

print(weather)

yearly=weather.groupby("Year")['tavg'].mean().reset_index()

print(yearly)

mp.figure(figsize=(10,5))

mp.plot(yearly['Year'],yearly["tavg"],marker='o',color='blue')

mp.title('Yearly Average Temperature in Bangalore (1990-2022)')

mp.xlabel('Year')

mp.ylabel('Average Temperature (° C)')

mp.show()
```

OUTPUT

```
PS C:\Users\Vanisree\data science> &
C:/Users/Vanisree/AppData/Local/Python/pythoncore-3.14-64/python.exe
"c:/Users/Vanisree/data science/weather.py"
```

```
time      0
```

```
tavg      70
```

```
tmin     1389
```

```
tmax      629
```

```
prcp     4620
```

```
dtype: int64
```

```
time      0
```

```
tavg      0
```

```
tmin      0
```

```
tmax      0
```

```
prcp     4620
```

```
dtype: int64
```

	time	tavg	tmin	tmax	prcp	month	Year
0	1990-01-01	22.9	19.100000	28.4	NaN	1	1990
1	1990-01-02	21.7	19.385131	26.5	0.0	1	1990
2	1990-01-03	21.0	16.400000	26.5	0.0	1	1990
3	1990-01-04	20.8	19.385131	27.4	0.0	1	1990
4	1990-01-05	20.4	14.200000	26.1	0.0	1	1990
...
11889	2022-07-21	23.7	20.500000	30.8	82.5	7	2022
11890	2022-07-22	23.2	21.100000	27.9	0.0	7	2022
11891	2022-07-23	23.1	20.900000	26.7	0.0	7	2022
11892	2022-07-24	22.8	20.000000	26.7	0.3	7	2022

11893 2022-07-25 24.1 20.200000 28.5 0.5 7 2022

[11894 rows x 7 columns]

	Year	tavg
0	1990	23.708400
1	1991	23.629047
2	1992	23.247721
3	1993	23.639895
4	1994	23.430469
5	1995	23.887951
6	1996	23.637002
7	1997	23.669595
8	1998	24.225042
9	1999	23.550854
10	2000	23.439728
11	2001	23.771507
12	2002	24.054468
13	2003	24.222413
14	2004	23.395628
15	2005	23.687123
16	2006	23.738904
17	2007	23.855949
18	2008	23.539344
19	2009	23.965042
20	2010	24.072055
21	2011	23.507397
22	2012	24.210929

23	2013	23.898356
24	2014	24.130685
25	2015	23.866849
26	2016	24.436339
27	2017	24.306849
28	2018	23.910137
29	2019	24.480548
30	2020	24.120492
31	2021	23.570411
32	2022	23.997087

Figure 1

