```
import numpy as np # linear algebra
import pandas as pd # data processing, CSV file I/O (e.g. pd.read_csv)
import matplotlib.pyplot as plt
import seaborn as sns

global_inflation=pd.read_csv('Global Dataset of
Inflation.csv',encoding='latin')
global_inflation_df=pd.DataFrame(global_inflation)
global_inflation_df_clean = global_inflation_df.drop(columns=['IMF
Country Code', 'Indicator Type', 'Note', 'Unnamed: 59', 'Unnamed: 60',
'Unnamed: 61', 'Unnamed: 62','Unnamed: 63'])
print(global_inflation_df_clean.head())
```

```
  Country Code                Country                          Series
Name  \
0          ABW                  Aruba  Headline Consumer Price
Inflation
1          AFG            Afghanistan  Headline Consumer Price
Inflation
2          AGO                 Angola  Headline Consumer Price
Inflation
3          ALB                Albania  Headline Consumer Price
Inflation
4          ARE  United Arab Emirates  Headline Consumer Price
Inflation

    1970   1971   1972   1973   1974   1975   1976  ...  2013  2014
2015  \
0    NaN    NaN    NaN    NaN    NaN    NaN    NaN  ... -2.37  0.42
0.48
1  25.51  25.51 -12.52 -10.68  10.23  11.85   0.60  ...  7.39  4.67 -
0.66
2   7.97   5.78  15.80  15.67  27.42  29.00  80.70  ...  8.78  7.30
9.16
3    NaN    NaN    NaN    NaN    NaN    NaN    NaN  ...  1.93  1.62
1.91
4  21.98  21.98  21.98  21.98  21.98  21.98  21.98  ...  1.09  2.34
4.07

    2016   2017   2018   2019   2020   2021   2022
0  -0.89  -0.47   3.58   4.26   1.22   0.74   6.04
1   4.38   4.98   0.63   2.30   5.44   5.06    NaN
2  32.38  29.84  19.63  17.08  21.02  23.85  21.35
3   1.29   1.99   2.03   1.41   1.62   2.04   6.73
4   1.62   1.97   3.06  -1.93  -2.08   0.18   5.22

[5 rows x 56 columns]
```

```
melted_df = pd.melt(
    global_inflation_df_clean,
```

```
    id_vars=['Country', 'Series Name'],
    value_vars=[str(year) for year in range(1970, 2022)],
    var_name='Year',
    value_name='Core Inflation'
)
print(melted_df.head())
melted_df.to_excel('output.xlsx', sheet_name='Sheet1', index=False)
```

```
                Country                         Series Name  Year  \
0                 Aruba  Headline Consumer Price Inflation  1970
1           Afghanistan  Headline Consumer Price Inflation  1970
2                Angola  Headline Consumer Price Inflation  1970
3               Albania  Headline Consumer Price Inflation  1970
4  United Arab Emirates  Headline Consumer Price Inflation  1970

   Core Inflation
0             NaN
1           25.51
2            7.97
3             NaN
4           21.98
```

```
global_inflation.head()
```

{"type":"dataframe","variable_name":"global_inflation"}

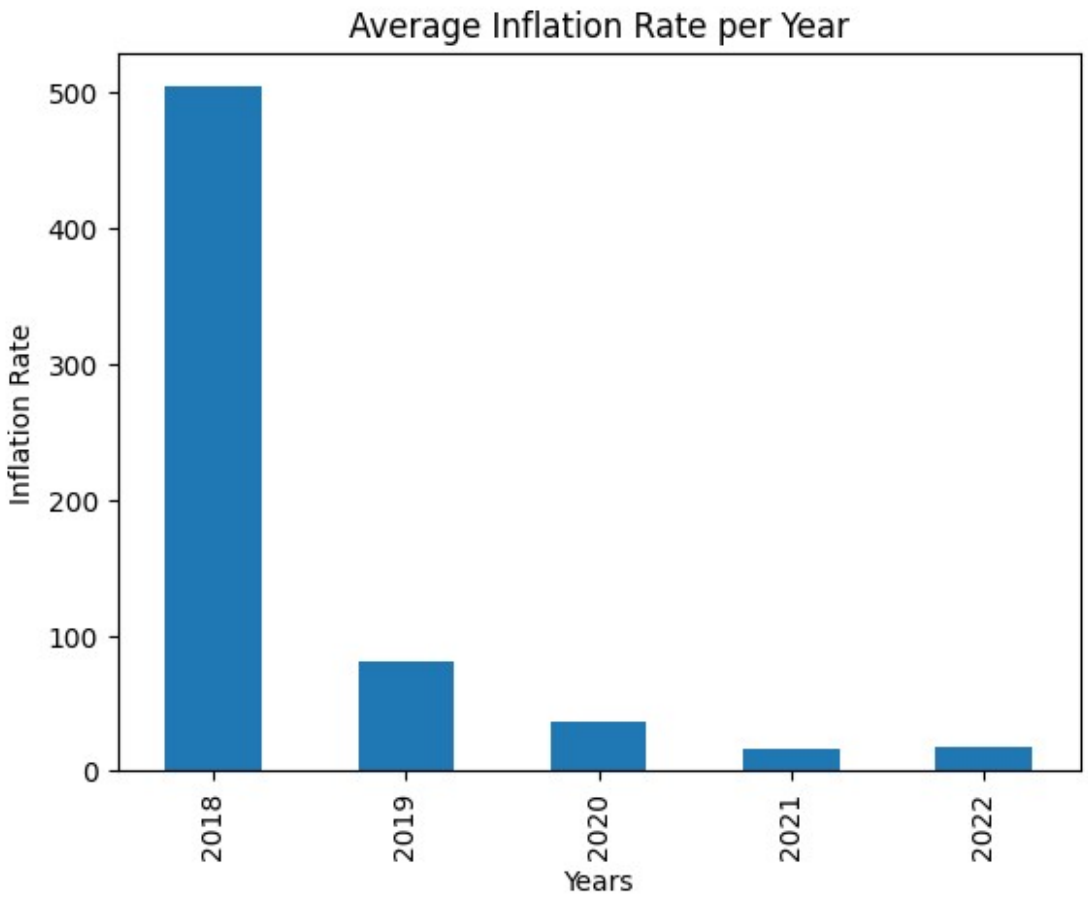
```
global_inflation.describe()
```

{"type":"dataframe"}

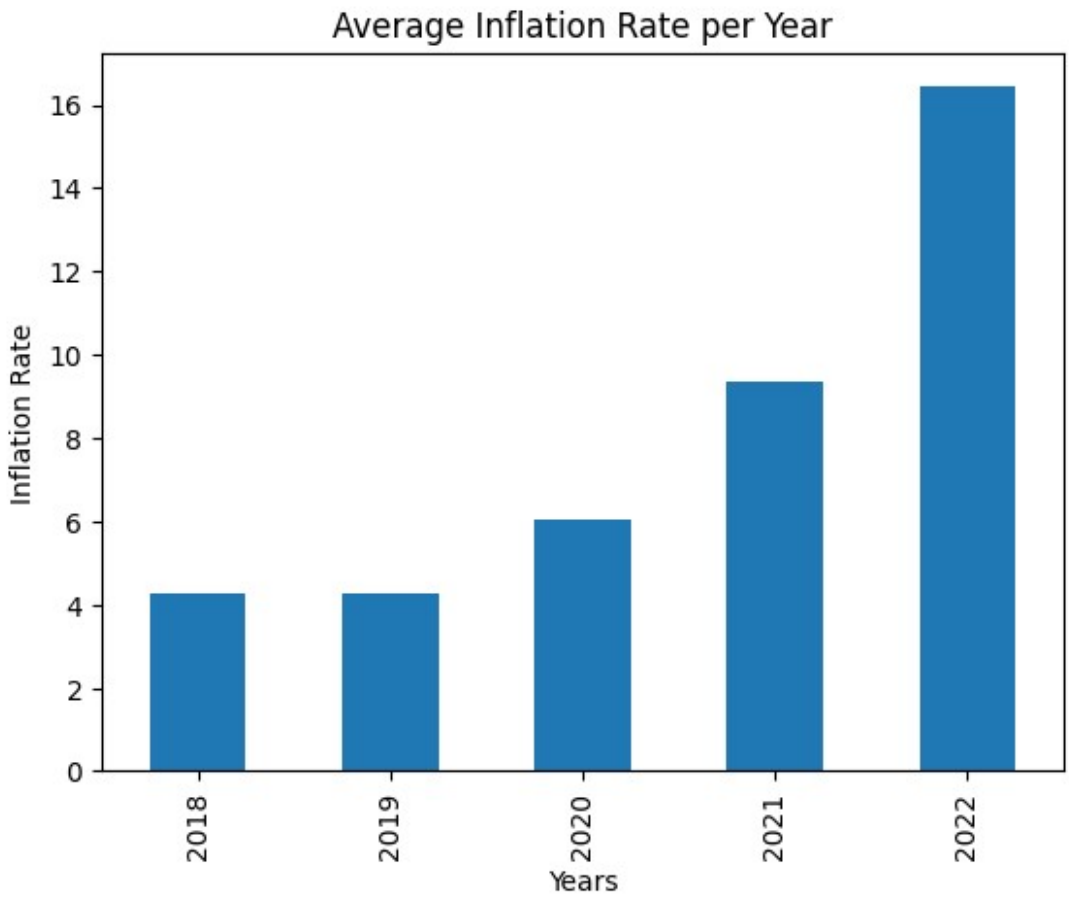
```
missing_values_count = global_inflation.isnull().sum()
```

```
ax = global_inflation[['2018', '2019', '2020', '2021',
'2022']].mean().plot(kind='bar', title = 'Average Inflation Rate per
Year')
ax.set_ylabel('Inflation Rate')
ax.set_xlabel('Years')
```

```
Text(0.5, 0, 'Years')
```

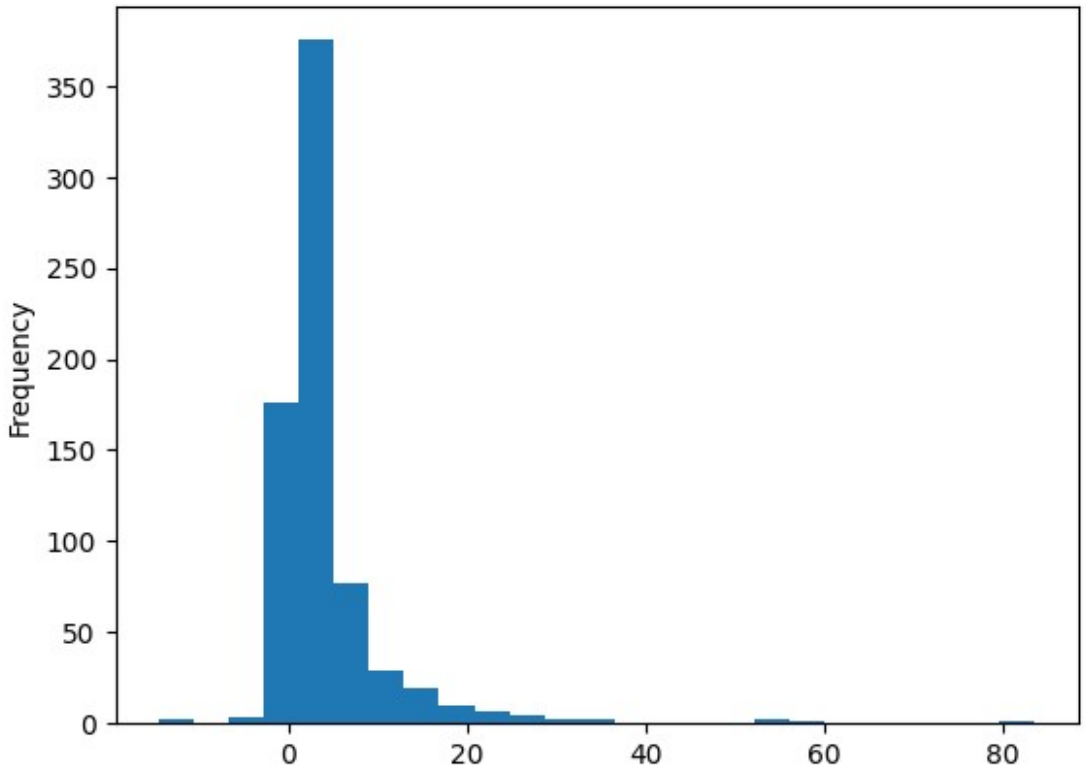



```
df = global_inflation[(global_inflation['2018'] < 1000) &
(global_inflation['2020'] < 1000)]

ax = df[['2018', '2019', '2020', '2021',
'2022']].mean().plot(kind='bar', title = 'Average Inflation Rate per
Year')
ax.set_ylabel('Inflation Rate')
ax.set_xlabel('Years')

Text(0.5, 0, 'Years')
```




```
df['2018'].plot(kind='hist', bins=25)
```

```
<Axes: ylabel='Frequency'>
```

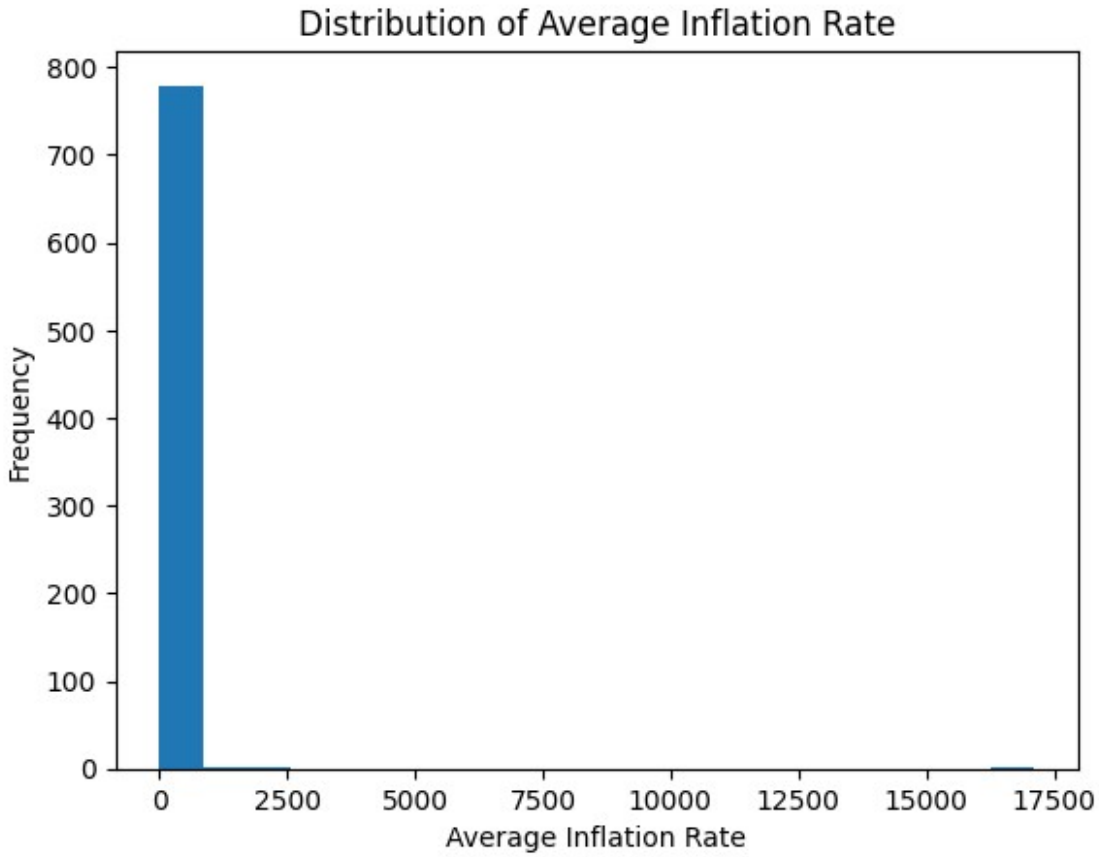



```
print("Column names:")
print(global_inflation.columns)
```

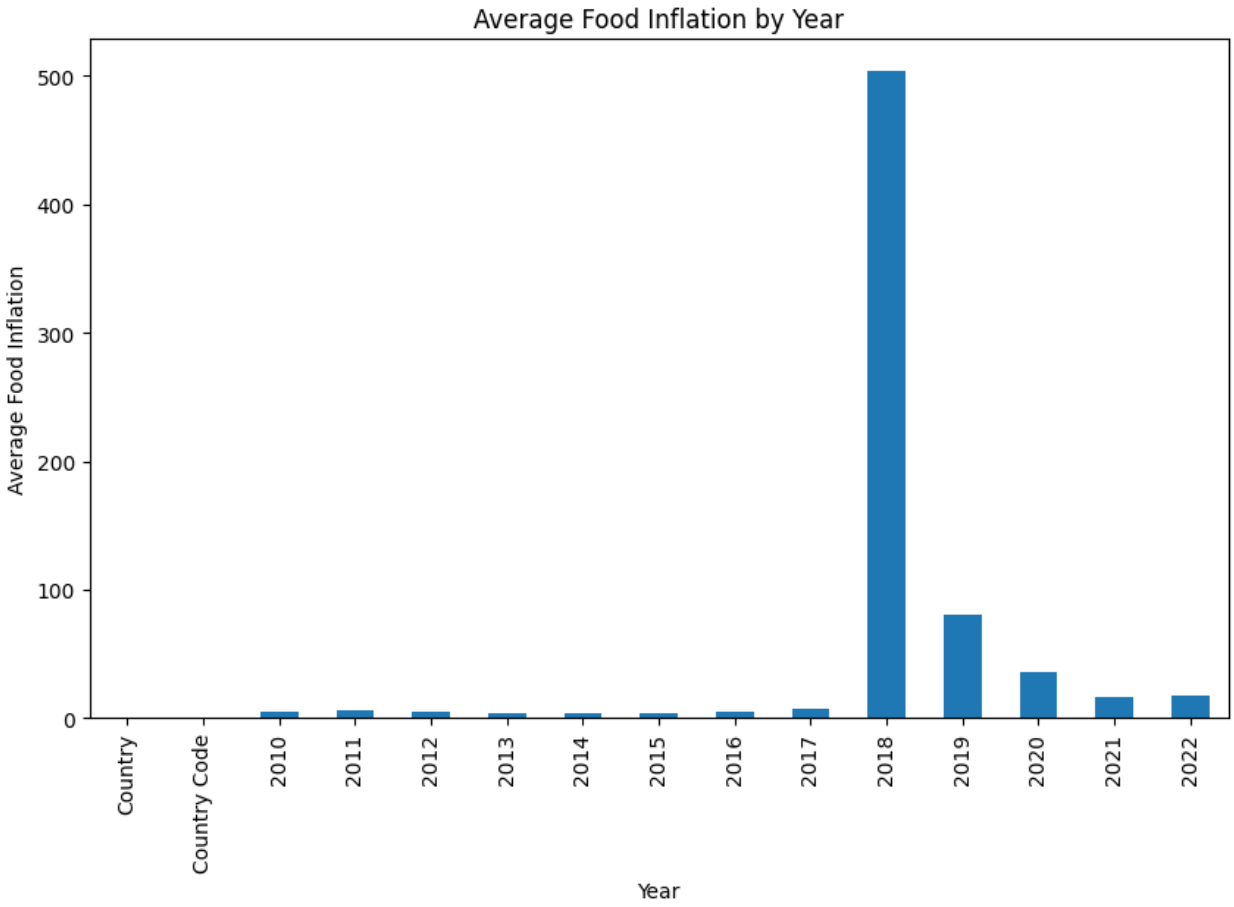
```
Column names:
Index(['Country Code', 'IMF Country Code', 'Country', 'Indicator
Type',
       'Series Name', '1970', '1971', '1972', '1973', '1974', '1975',
'1976',
       '1977', '1978', '1979', '1980', '1981', '1982', '1983', '1984',
'1985',
       '1986', '1987', '1988', '1989', '1990', '1991', '1992', '1993',
'1994',
       '1995', '1996', '1997', '1998', '1999', '2000', '2001', '2002',
'2003',
       '2004', '2005', '2006', '2007', '2008', '2009', '2010', '2011',
'2012',
       '2013', '2014', '2015', '2016', '2017', '2018', '2019', '2020',
'2021',
       '2022', 'Note', 'Unnamed: 59', 'Unnamed: 60', 'Unnamed: 61',
       'Unnamed: 62', 'Unnamed: 63'],
      dtype='object')
```

```
numeric_columns = global_inflation.select_dtypes(include=[np.number])
average_inflation_rate = numeric_columns.mean(axis=1)

plt.hist(average_inflation_rate, bins=20)
```

```
plt.title('Distribution of Average Inflation Rate')
plt.xlabel('Average Inflation Rate')
plt.ylabel('Frequency')
plt.show()
```




```
food_prices = global_inflation[['Country', 'Country Code', '2010',
'2011', '2012', '2013', '2014', '2015', '2016', '2017', '2018',
'2019', '2020', '2021', '2022']]
food_prices_numeric = food_prices.apply(pd.to_numeric,
errors='coerce')
food_prices_mean = food_prices_numeric.mean(axis=0)
food_prices_mean.plot(kind='bar', figsize=(10, 6))
plt.title('Average Food Inflation by Year')
plt.xlabel('Year')
plt.ylabel('Average Food Inflation')
plt.show()
```


Average Food Inflation by Year
Average Food Inflation
500
400
300
200
100
0
Country
Country Code
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Year