EXPERIMENT 2

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# AIM:

To implement programs for visualizing time series data.

# STEPS TO IMPLEMENT:

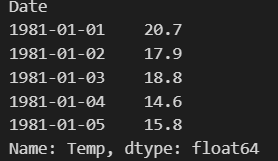
from pandas import read\_csv

from matplotlib import pyplot

series = read\_csv('C:/Users/exam/Downloads/daily-min-temperatures.csv', header=0,

index\_col=0, parse\_dates=True, squeeze=True)

print(series.head())

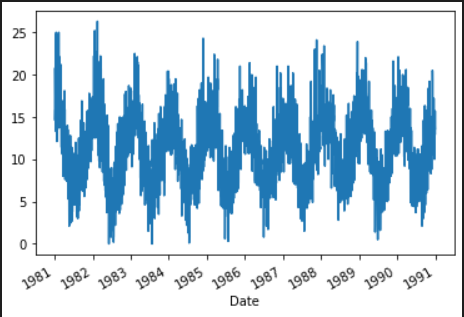


from matplotlib import pyplot

series = read\_csv('C:/Users/exam/Downloads/daily-min-temperatures.csv', header=0,

index\_col=0, parse\_dates=True, squeeze=True) series.plot()

pyplot.show()

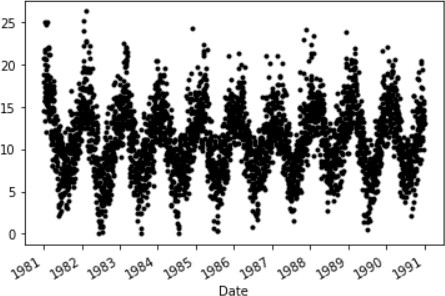


from pandas import read\_csv from matplotlib import pyplot

series = read\_csv('C:/Users/exam/Downloads/daily-min-temperatures.csv', header=0, index\_col=0, parse\_dates=True, squeeze=True)

series.plot(style='k.')

pyplot.show()



from pandas import read\_csv from pandas import DataFrame from pandas import Grouper from matplotlib import pyplot

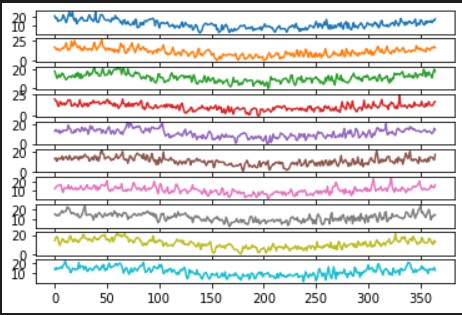
series = read\_csv('C:/Users/exam/Downloads/daily-min-temperatures.csv', header=0, index\_col=0, parse\_dates=True, squeeze=True)

groups = series.groupby(Grouper(freq='A'))

years = DataFrame()

for name, group in groups:

years[name.year] = group.values years.plot(subplots=True, legend=False) pyplot.show()

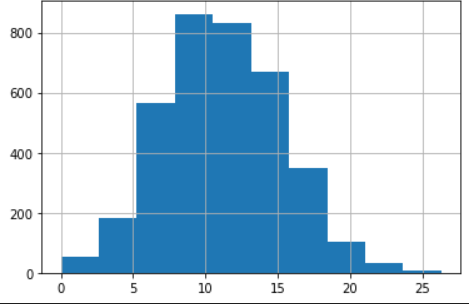


from pandas import read\_csv from matplotlib import pyplot

series = read\_csv('C:/Users/exam/Downloads/daily-min-temperatures.csv', header=0, index\_col=0, parse\_dates=True, squeeze=True)

series.hist()

pyplot.show()



from pandas import read\_csv

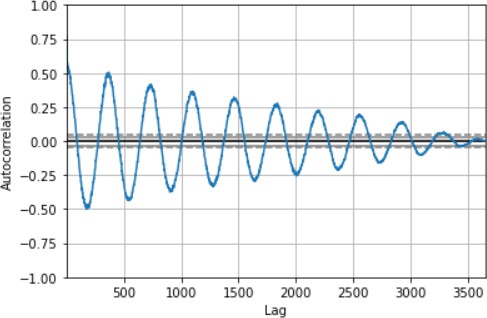
from matplotlib import pyplot

from pandas.plotting import autocorrelation\_plot

series = read\_csv('C:/Users/exam/Downloads/daily-min-temperatures.csv', header=0,

index\_col=0, parse\_dates=True, squeeze=True)

autocorrelation\_plot(series) pyplot.show()



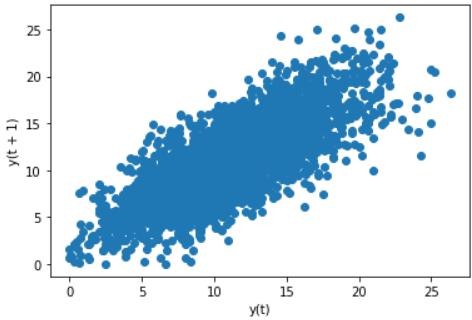
from pandas import read\_csv from matplotlib import pyplot

from pandas.plotting import lag\_plot

series = read\_csv('C:/Users/exam/Downloads/daily-min-temperatures.csv', header=0, index\_col=0, parse\_dates=True, squeeze=True)

lag\_plot(series)

pyplot.show()



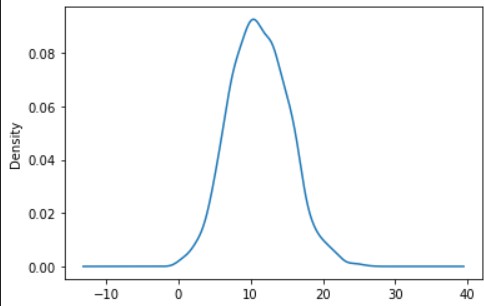
from pandas import read\_csv

from matplotlib import pyplot

series = read\_csv('C:/Users/exam/Downloads/daily-min-temperatures.csv', header=0,

index\_col=0, parse\_dates=True, squeeze=True)

series.plot(kind='kde') pyplot.show()



# RESULT:

The program to implement programs for visualizing time series data. was executed

successfully.