```
# Find the correlation matrix.

import numpy as np
# x= sales
x=[215,325,185,332,406,522]

# y= temperature
y=[14.2 , 16.4 , 11.9 , 15.2 , 18.5 , 22.1 ]

matrix=np.corrcoef(x,y)

print(matrix)
```

```
[[1.         0.97665315]
 [0.97665315 1.        ]]
```

```
# x=age
x=[43,21,25,42,57,59]
# y= glucose level
y=[99,65,79,75,87,81]

matrix=np.corrcoef(x,y)

print(matrix)
```

```
[[1.        0.5298089]
 [0.5298089 1.       ]]
```

```
import pandas as pd
data={
      'x':[45,37,42,35,39],
      'y':[38,31,26,28,33],
      'z':[10,15,17,21,12]
}

dataframe=pd.DataFrame(data,columns=['x','y','z'])
print("Data Frame is: ")
print(dataframe)

matrix=dataframe.corr()
print(matrix)
```

```
Data Frame is:
    x   y   z
0  45  38  10
1  37  31  15
2  42  26  17
```

```
3  35  28  21
4  39  33  12
          x         y         z
x  1.000000  0.518457 -0.701886
y  0.518457  1.000000 -0.860941
z -0.701886 -0.860941  1.000000
```

```
import pandas as pd

dataframe=pd.read_csv("/content/drive/MyDrive/KRAI/corr - Sheet1.csv")
print("Data Frame is: ")
print(dataframe)

matrix=dataframe.corr()
print(matrix)
```

```
Data Frame is:
         date  AVG Temp C   Ice Creamproduction
0    1/1/2011          1.2                55942
1    2/1/2011          1.8                61802
2    3/1/2011          6.1                74616
3    4/1/2011         11.1                74088
4    5/1/2011         16.0                74980
5    6/1/2011         20.4                75131
6    7/1/2011         22.9                71229
7    8/1/2011         22.2                77396
8    9/1/2011         18.4                69286
9   10/1/2011         12.6                59559
10  11/1/2011          6.3                52314
11  12/1/2011          1.4                50894
                     AVG Temp C   Ice Creamproduction
AVG Temp C              1.000000             0.718032
Ice Creamproduction     0.718032             1.000000
<ipython-input-3-93db14ef3f25>:7: FutureWarning: The default value of numeric_only in DataFrame.corr is deprecated. In a future version, it will default to False. Select only
  matrix=dataframe.corr()
```