employee

September 21, 2023

[21]:
```
import pandas as pd
import matplotlib.pyplot as plt

# Read the data from CSV file
data = pd.read_csv('gym_dataset.csv')
df = pd.DataFrame(data)
df
```

[21]:

	Date	Hours Spent	Calories Burned
0	2023-01-01	2.688844	733
1	2023-01-02	2.515909	466
2	2023-01-03	1.841143	263
3	2023-01-04	1.517834	761
4	2023-01-05	2.022549	214
5	2023-01-06	1.809868	295
6	2023-01-07	2.567597	608
7	2023-01-08	1.606625	201
8	2023-01-09	1.953194	705
9	2023-01-10	2.166764	541
10	2023-01-11	2.816226	449
11	2023-01-12	2.009374	533
12	2023-01-13	1.563676	264
13	2023-01-14	2.511608	395
14	2023-01-15	2.236738	781
15	2023-01-16	1.501013	427
16	2023-01-17	2.819493	444
17	2023-01-18	2.965571	345
18	2023-01-19	2.620434	756
19	2023-01-20	2.804332	658
20	2023-01-21	1.620295	293
21	2023-01-22	2.459663	282
22	2023-01-23	2.797677	527
23	2023-01-24	2.367968	720
24	2023-01-25	1.944285	701
25	2023-01-26	1.201402	311
26	2023-01-27	1.868344	508
27	2023-01-28	2.221774	764

28	2023-01-29	2.826022	498
29	2023-01-30	2.933213	327
30	2023-01-31	1.954020	760

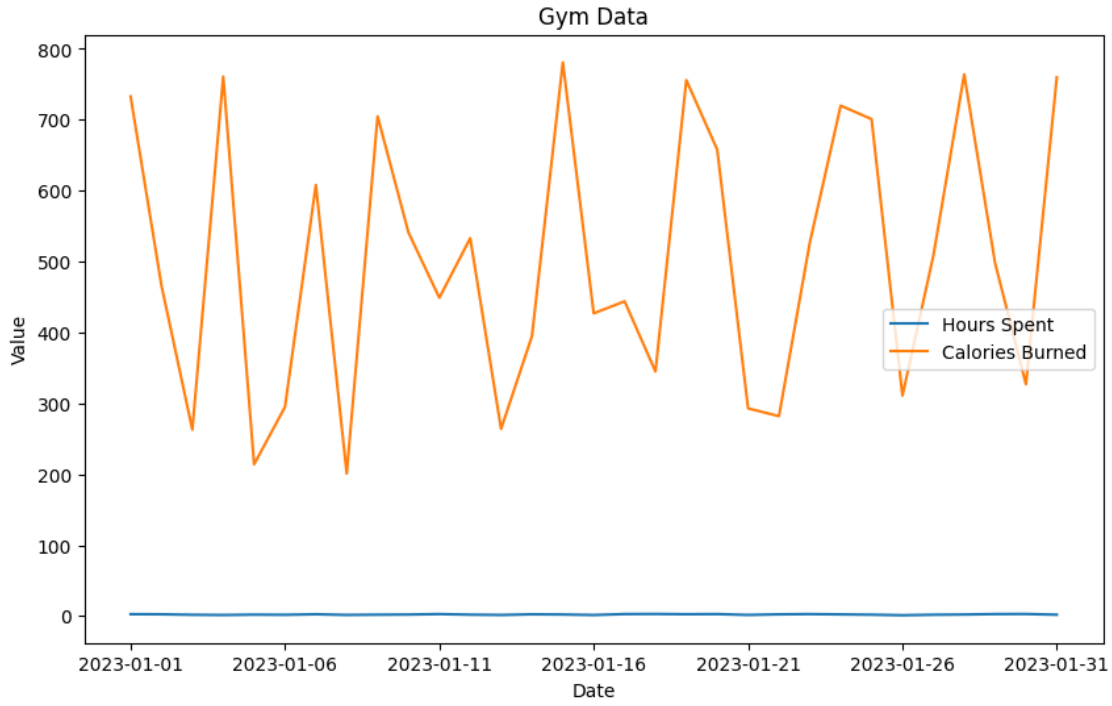
[22]:
```
import pandas as pd
import matplotlib.pyplot as plt


data = pd.read_csv('gym_dataset.csv')
df = pd.DataFrame(data)
df


df.plot(x='Date', y=['Hours Spent', 'Calories Burned'], kind='line',␣
↪figsize=(10, 6))

plt.title('Gym Data')
plt.xlabel('Date')
plt.ylabel('Value')


plt.show()
```



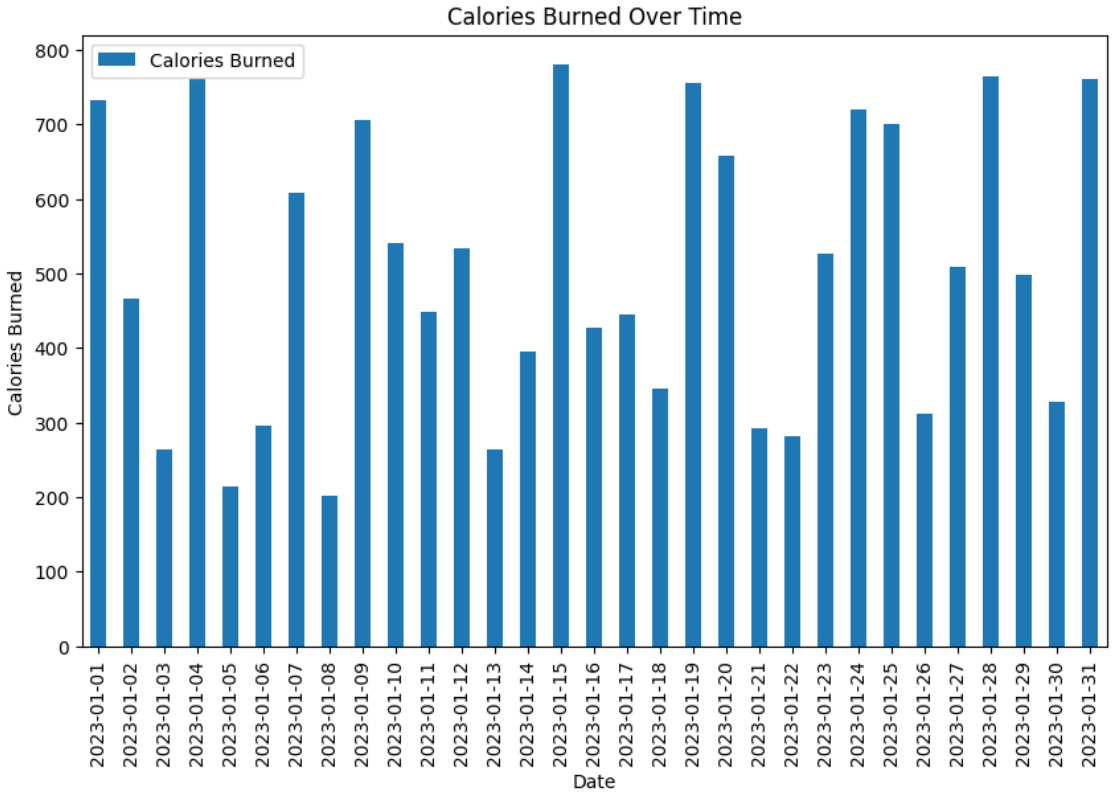
[23]:
```
import pandas as pd
import matplotlib.pyplot as plt


data = pd.read_csv('gym_dataset.csv')
df = pd.DataFrame(data)


df.plot(x='Date', y='Calories Burned', kind='bar', figsize=(10, 6))

plt.title('Calories Burned Over Time')
plt.xlabel('Date')
plt.ylabel('Calories Burned')

plt.show()
```



[24]:
```
import pandas as pd
import matplotlib.pyplot as plt


data = pd.read_csv('gym_dataset.csv')
```

```
df = pd.DataFrame(data)


plt.figure(figsize=(10, 6))
plt.scatter(df['Date'], df['Calories Burned'], color='blue', alpha=0.5)


plt.title('Scatter Plot of Calories Burned')
plt.xlabel('Date')
plt.ylabel('Calories Burned')


plt.show()
```

[26]:
```
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt

data = pd.read_csv('gym_dataset.csv')
df = pd.DataFrame(data)


df['Date'] = pd.to_datetime(df['Date'])
```

```
corr_matrix = df.corr()


plt.figure(figsize=(10, 6))
sns.heatmap(corr_matrix, annot=True, cmap='coolwarm', fmt=".2f")


plt.title('Correlation Heatmap')


plt.show()
```