

GRAFIČKI PRIKAZ PODATAKA KALORIMETRA

Grafički prikaz podataka dane temperature ('supply_temperature'), povratne temperature ('return_temperature') i maseni protok ('mass_volume_flow') za godinu 2022.

```
In [102]: import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
kal = pd.read_csv('/Users/mateotoic/Desktop/ProjektR/Godina/2022/ca
```

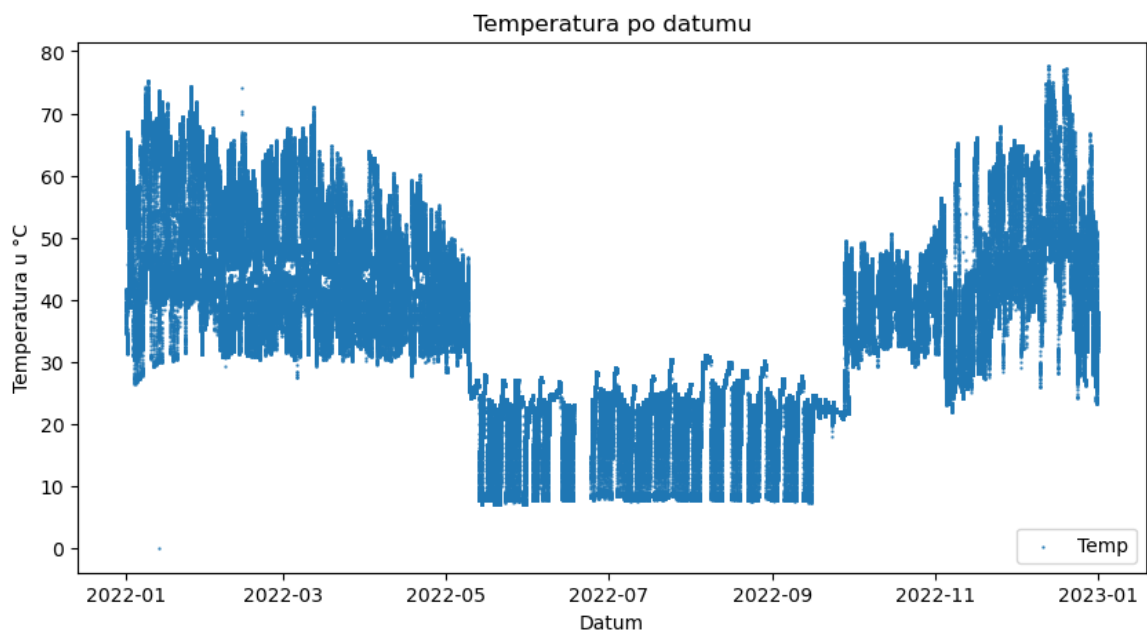
Sortiramo vrijednosti po datumu:

```
In [95]: kalcopy = kal.copy()
kalcopy['timestamp'] = pd.to_datetime(kalcopy['timestamp'])

kal_sort = kalcopy.sort_values(by='timestamp')
```

Temperatura:

```
In [26]: plt.figure(figsize=(10,5))
plt.scatter(kal_sort.timestamp, kal_sort.supply_temperature, label=
plt.title("Temperatura po datumu")
plt.xlabel("Datum")
plt.ylabel("Temperatura u °C")
plt.legend()
plt.show()
```

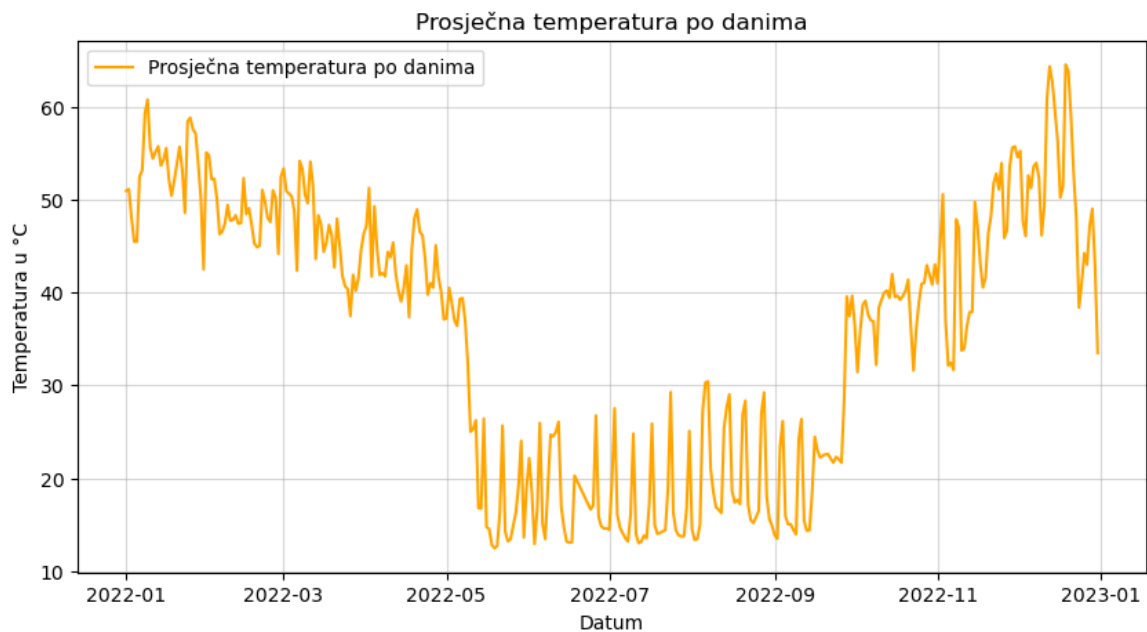


Možemo prikazati i prosječnu temperaturu po danu što nam kasnije može pomoći pri određivanju poželjnih podataka

```
In [31]: dnevni_prosjek = kal_sort.groupby(kal_sort['timestamp'].dt.date)['s'
plt.figure(figsize=(10, 5))
plt.plot(dnevni_prosjek.index, dnevni_prosjek, label="Prosječna tem

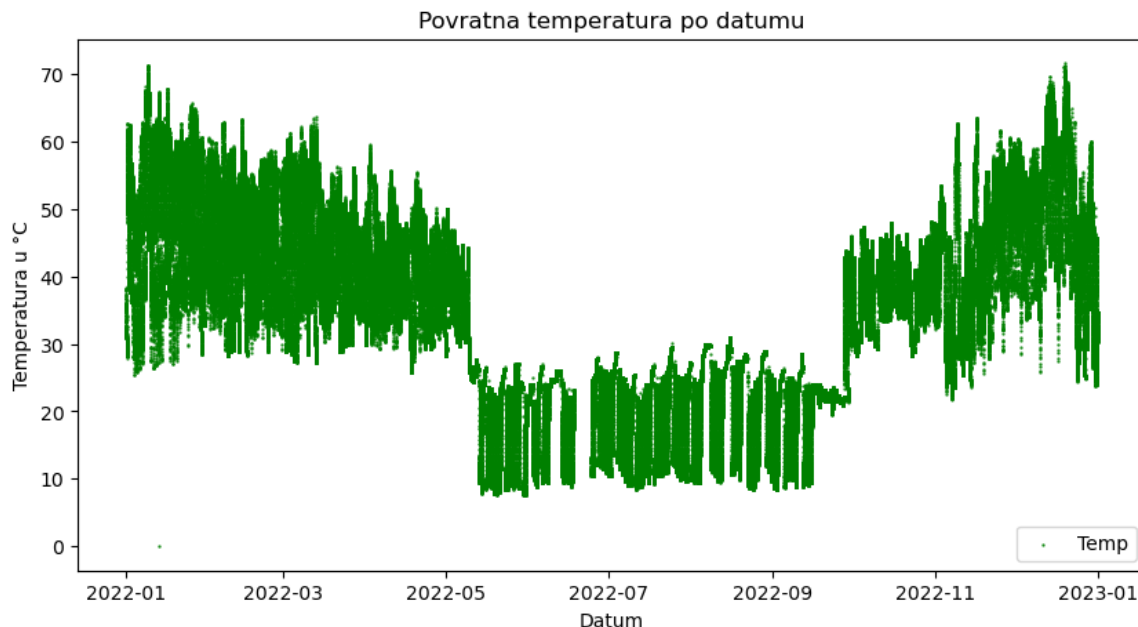
plt.title("Prosječna temperatura po danima")
plt.xlabel("Datum")
plt.ylabel("Temperatura u °C")
plt.legend()
plt.grid(alpha=0.5)

plt.show()
```



Povratna temperatura:

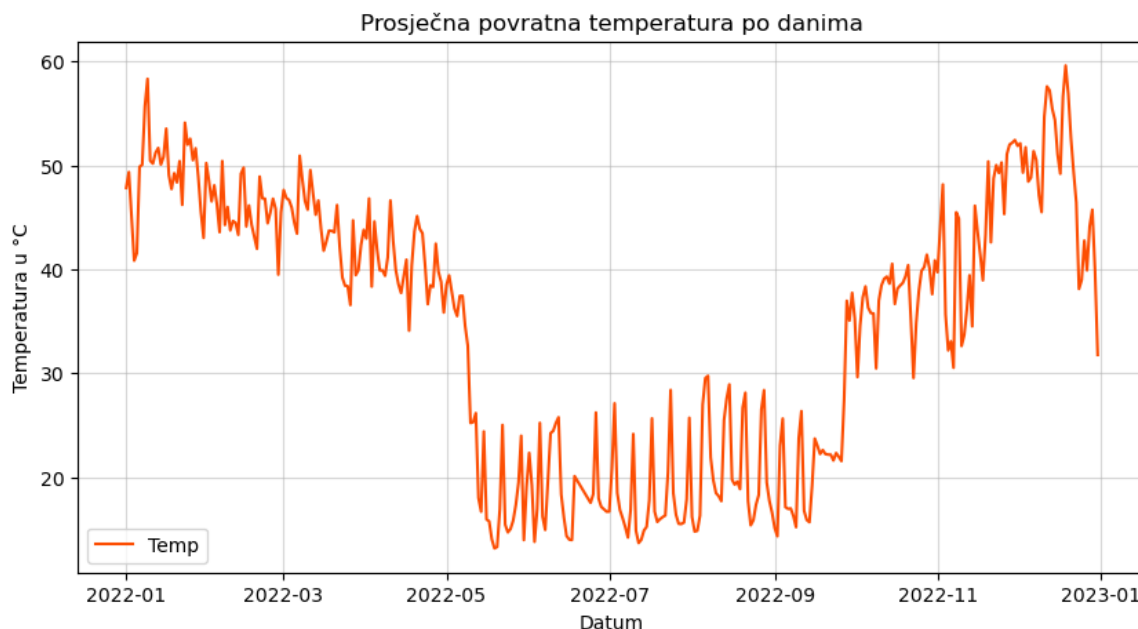
```
In [46]: plt.figure(figsize=(10,5))
plt.scatter(kal_sort.timestamp, kal_sort.return_temperature, label=
plt.title("Povratna temperatura po datumu")
plt.xlabel("Datum")
plt.ylabel("Temperatura u °C")
plt.legend()
plt.show()
```



```
In [54]: dnevni_prosjek = kal_sort.groupby(kal_sort['timestamp'].dt.date)['r'
plt.figure(figsize=(10, 5))
plt.plot(dnevni_prosjek.index, dnevni_prosjek, label="Temp", color=

plt.title("Prosječna povratna temperatura po danima")
plt.xlabel("Datum")
plt.ylabel("Temperatura u °C")
plt.legend()
plt.grid(alpha=0.5)

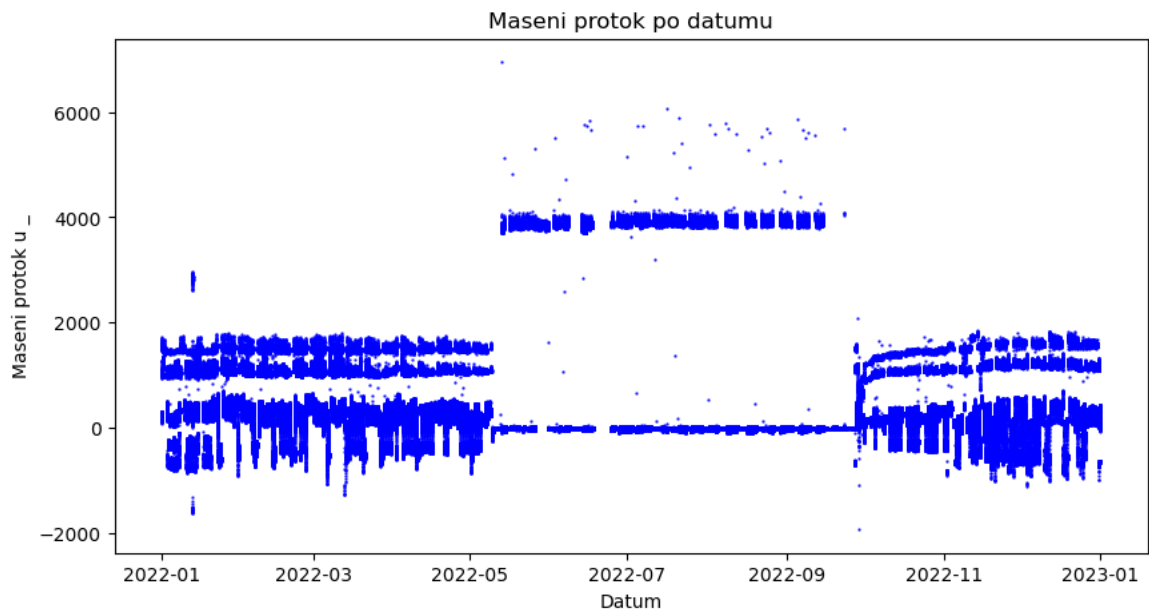
plt.show()
```



Maseni protok

```
In [68]: plt.figure(figsize=(10,5))
plt.scatter(kal_sort.timestamp, kal_sort.mass_volume_flow, color='b'
plt.title("Maseni protok po datumu")
```

```
plt.xlabel("Datum")  
plt.ylabel("Maseni protok u _")  
  
plt.show()
```



In []: