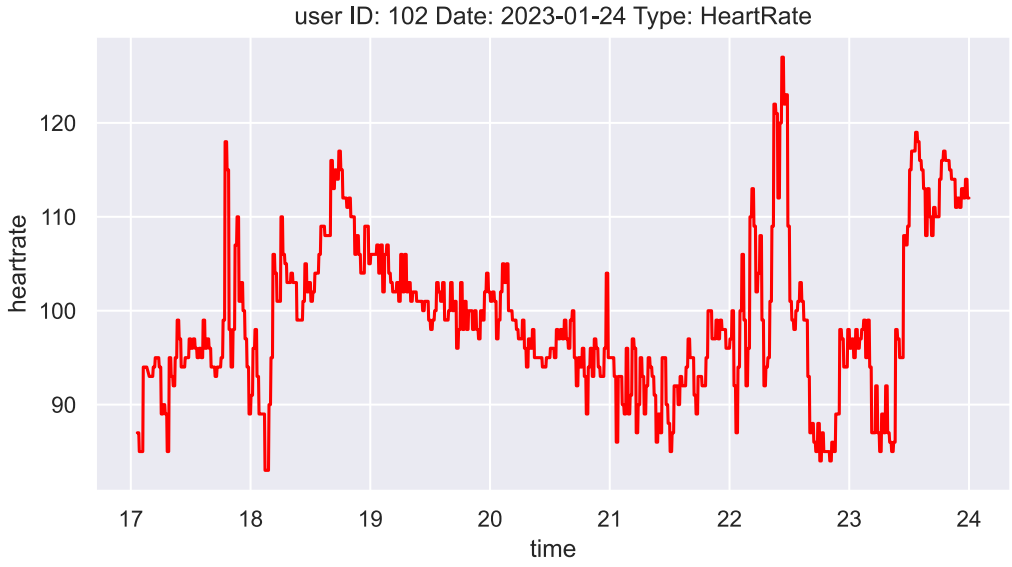
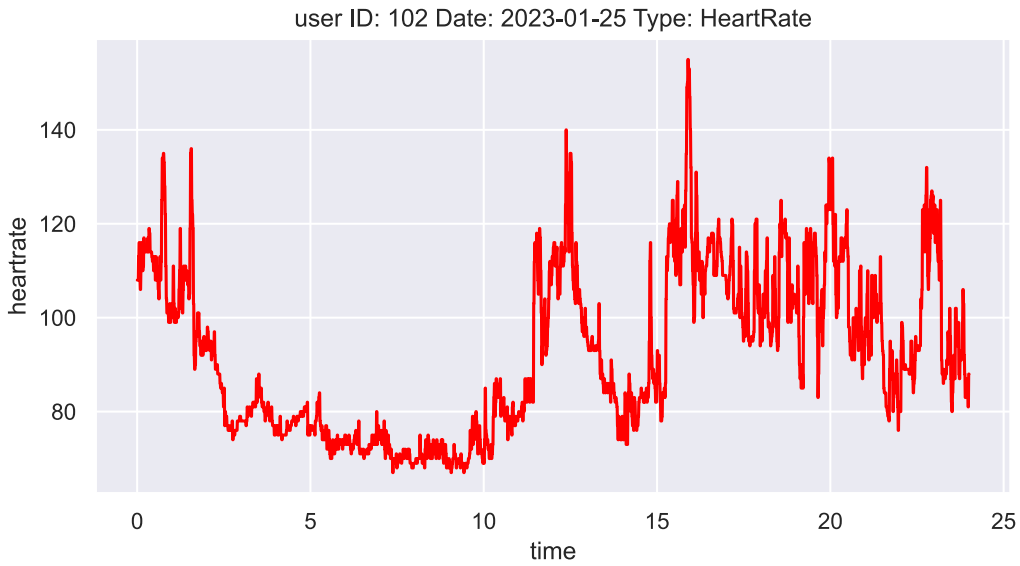
In [1]:
```
import pandas as pd
import matplotlib.pyplot as plt
from astropy.stats.circstats import circmean
from functools import reduce
import datetime
import pickle
import time
import plotly.express as px
import numpy as np
import sqlite3

pd.set_option("display.precision", 2)
plt.rcParams.update({'font.size': 20, 'figure.figsize': (8, 4)})

%matplotlib inline
import matplotlib_inline
matplotlib_inline.backend_inline.set_matplotlib_formats('svg')

import seaborn as sns
sns.set()

import warnings
warnings.filterwarnings('ignore')
```

In [2]:
```
connector = sqlite3.connect("../Extras/graphs_data.db")
cursor = connector.cursor()
```

Heart Rate graphs printer

In [4]:
```
cursor.execute("SELECT * FROM heartrate_graphs_data WHERE id=102")
rows = cursor.fetchall()
for row in rows:
        #getting heartrate samples from dataframe
        heartrate_samples_dict = pickle.loads(row[3])
        heartrate_dict_keys = list(heartrate_samples_dict.keys())
        heartrate_dict_values = list(heartrate_samples_dict.values())
        heartrate_samples_df = pd.DataFrame({'time':heartrate_dict_keys, 'heartrate':heartrate_dict_values})
        #preparing plot title name
        plot_title_name = 'user ID: '+str(row[0])+' Date: '+str(row[1])+' Type: '+str(row[2])
        #creating lineplot
        sns.lineplot(x='time', y='heartrate', data=heartrate_samples_df, color='red')
        plt.title(plot_title_name)
        plt.show()
```

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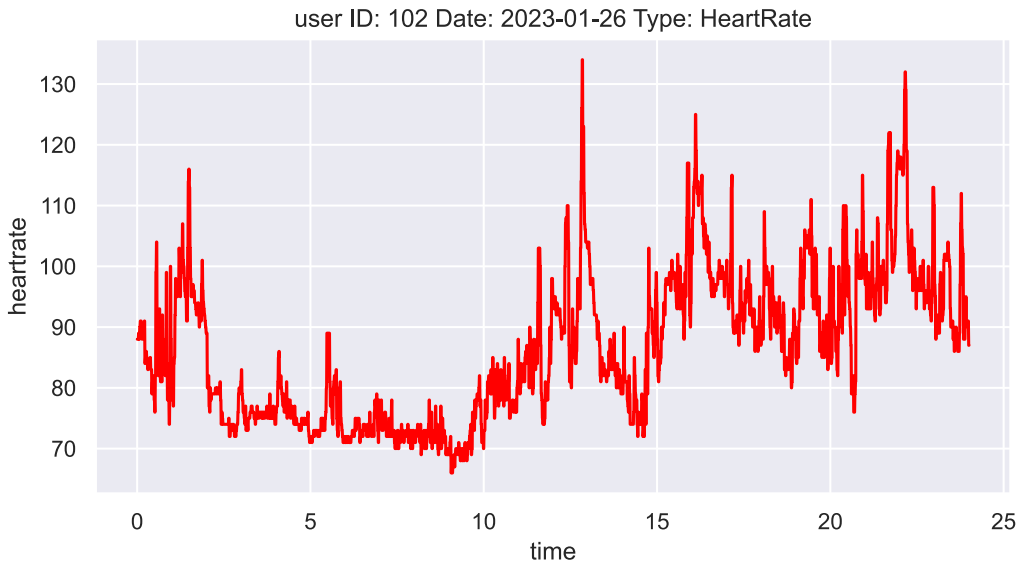
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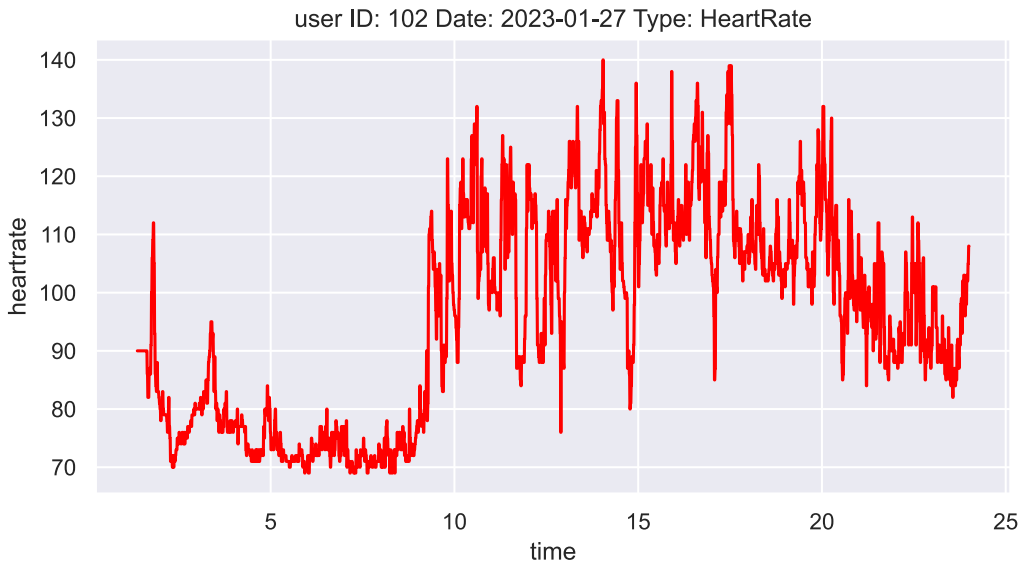
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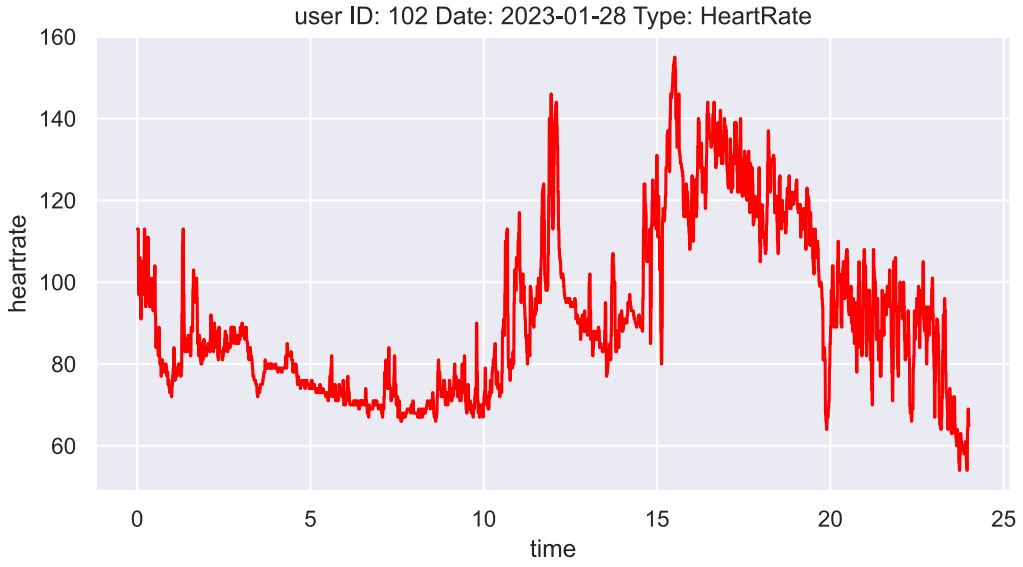
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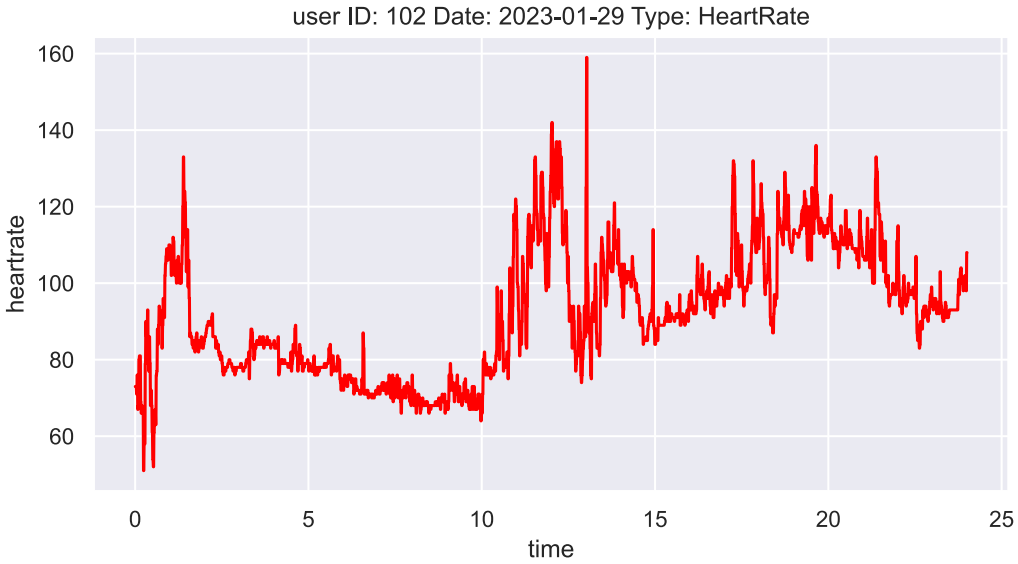
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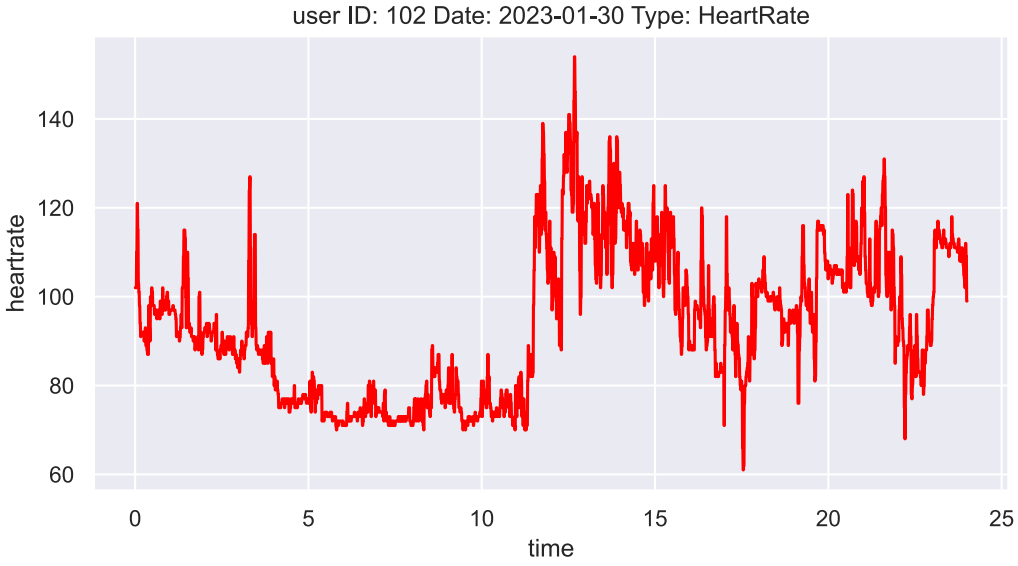
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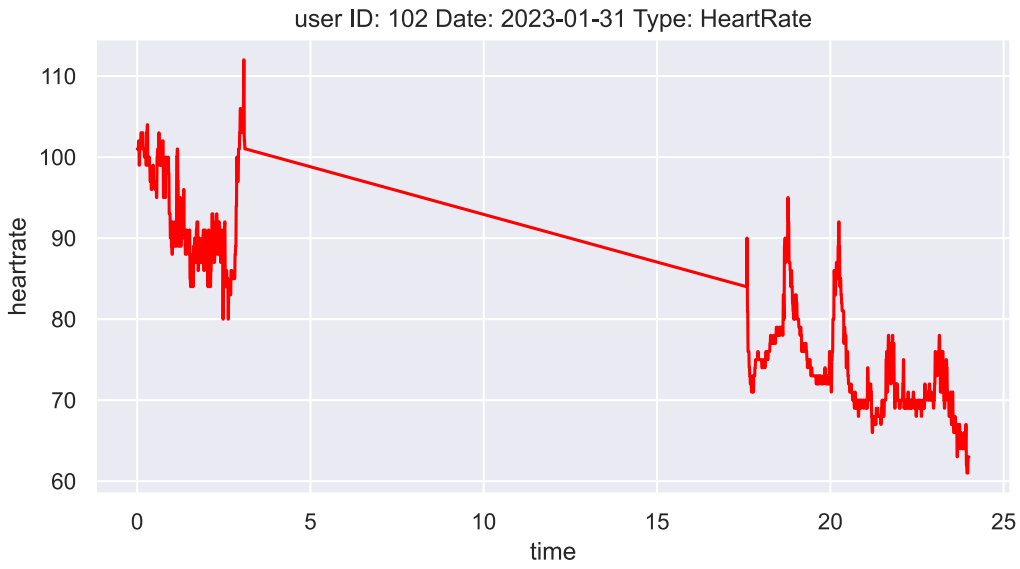
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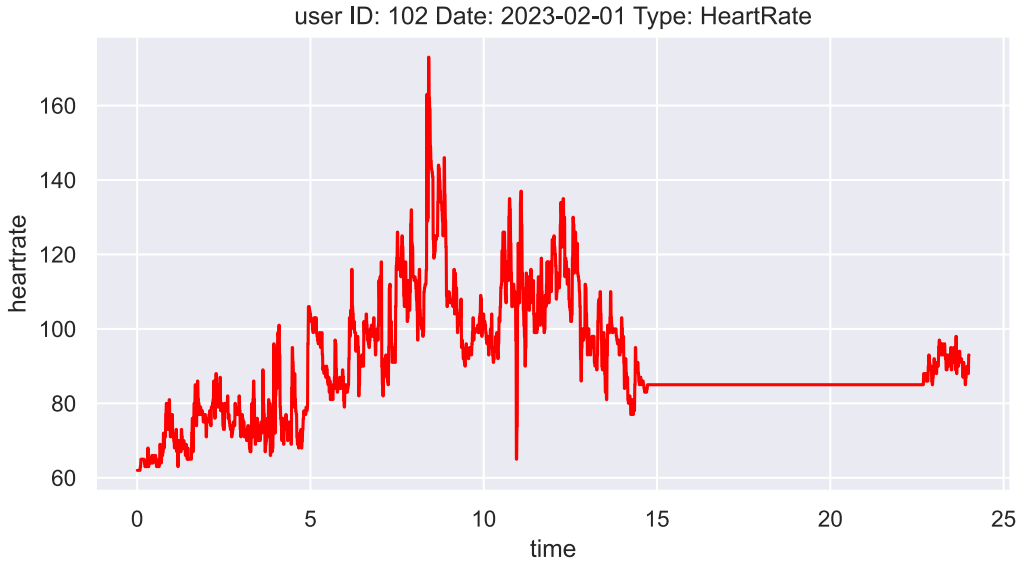
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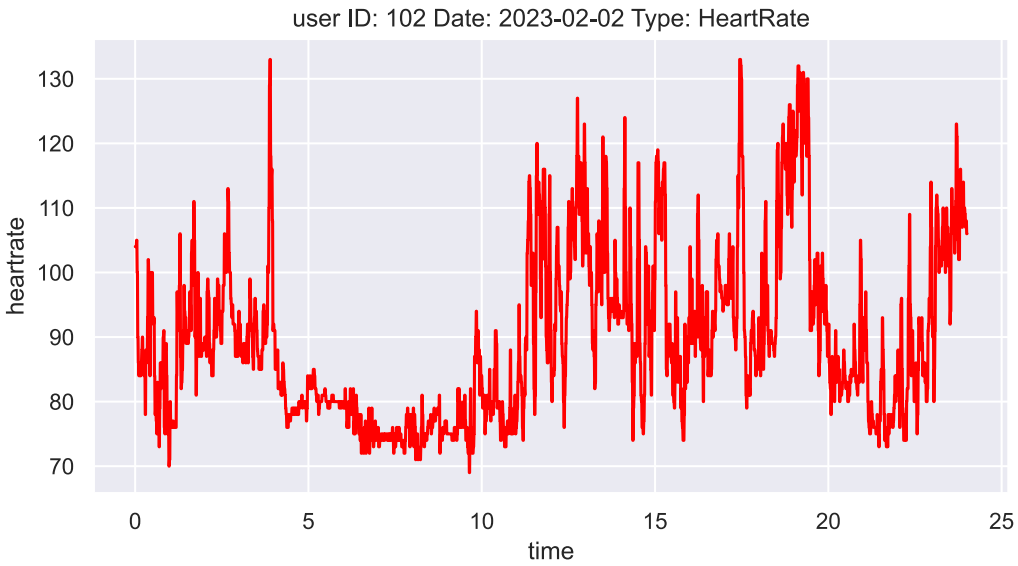
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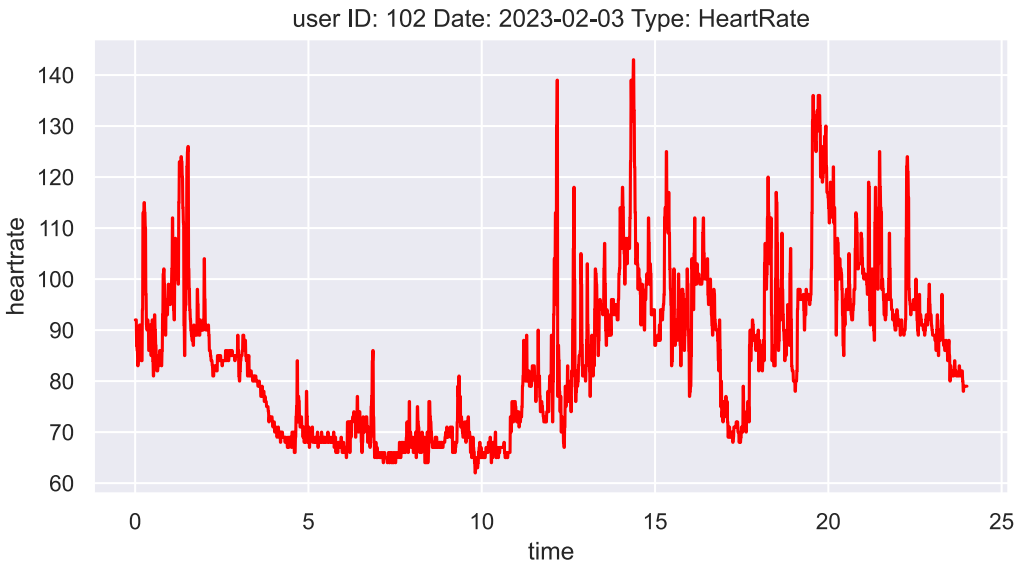
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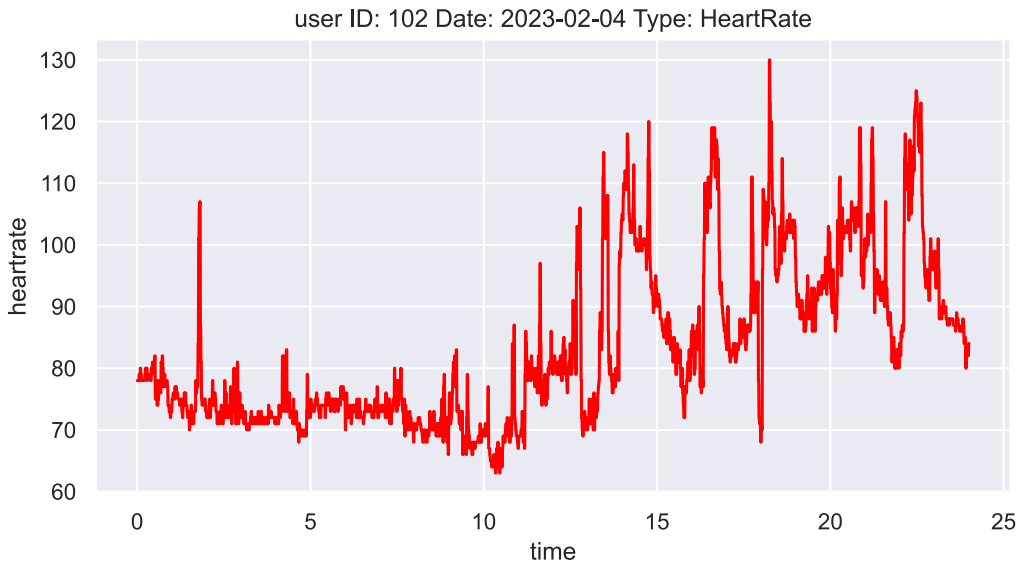
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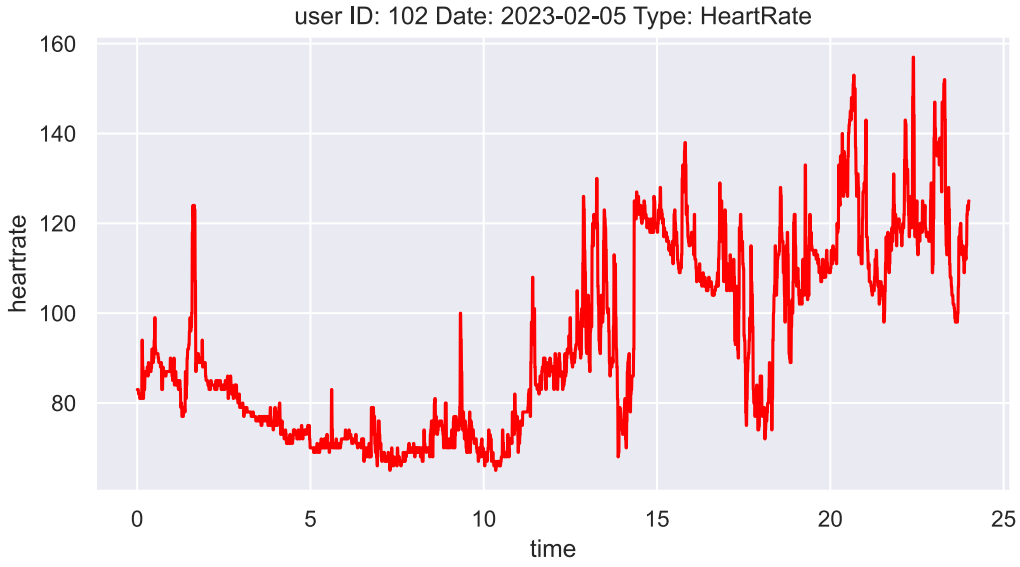
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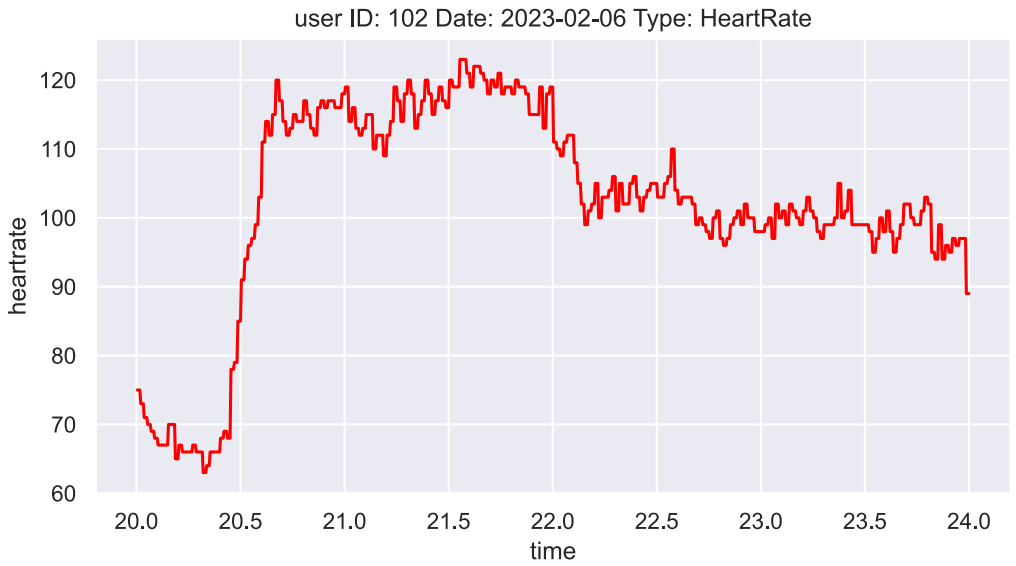
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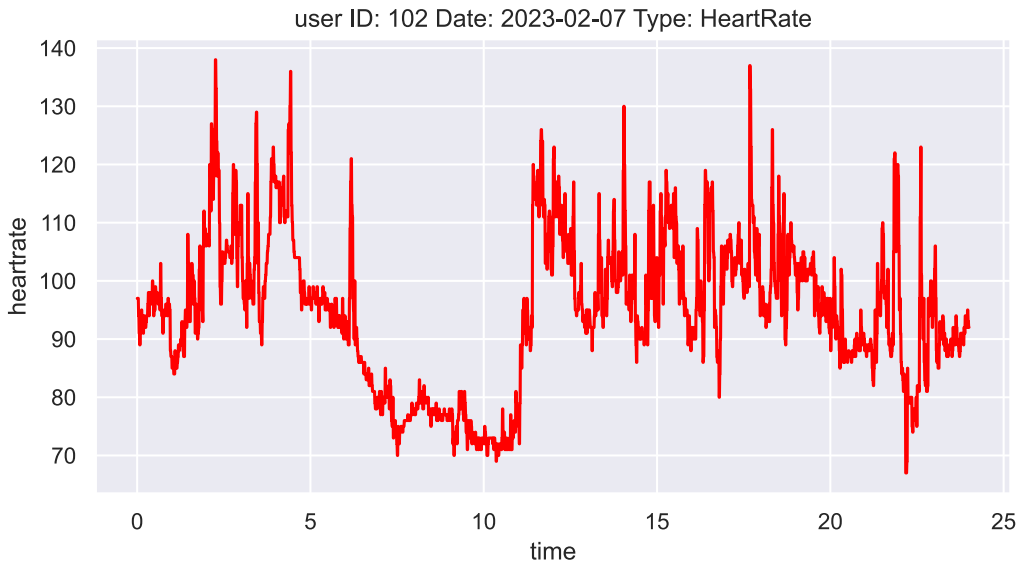
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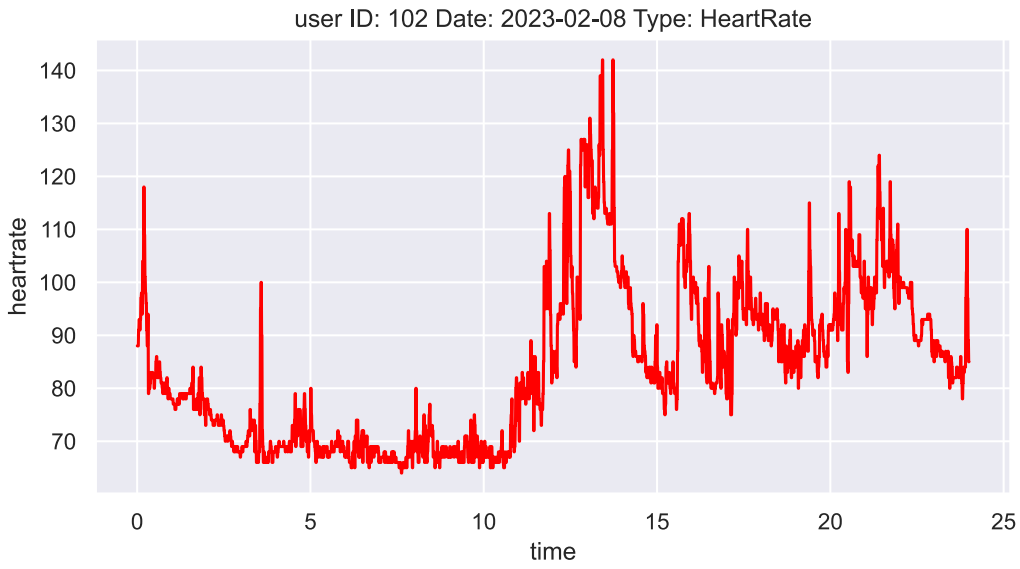
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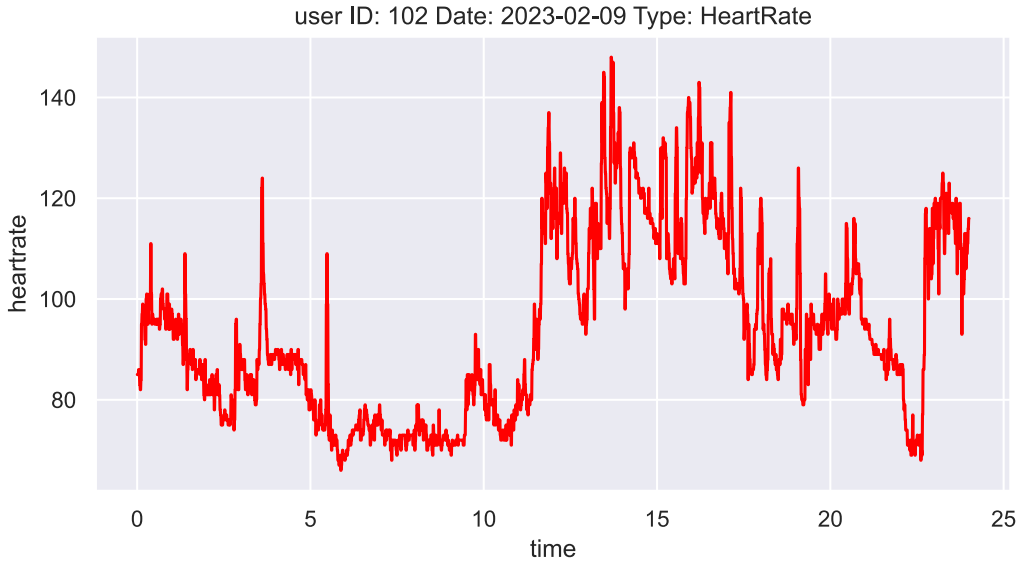
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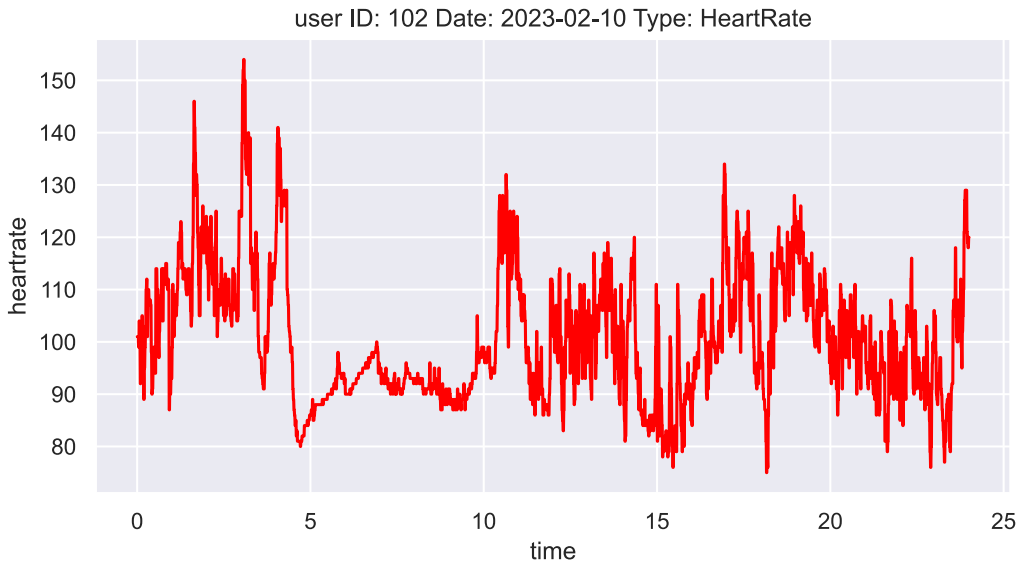
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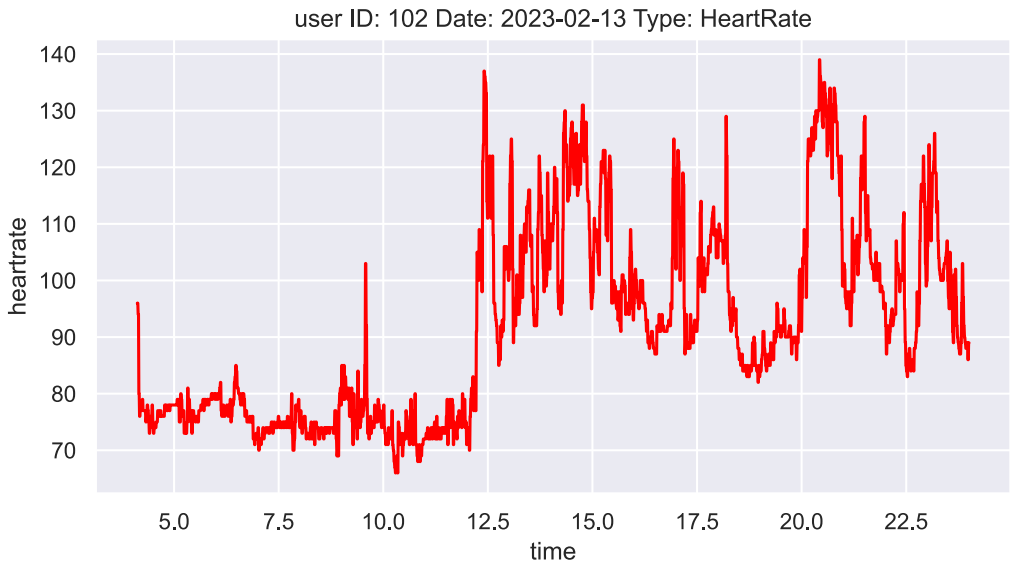
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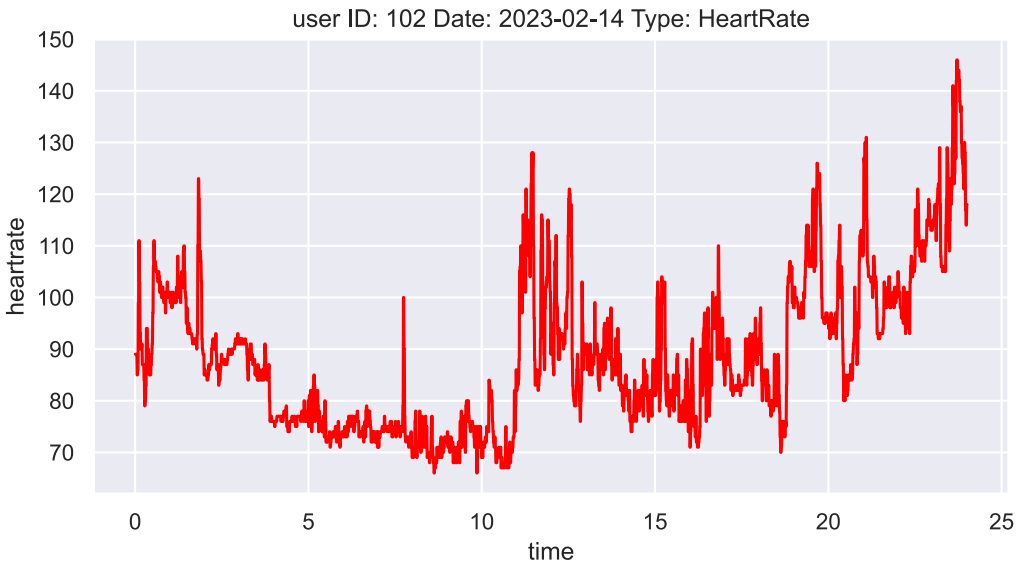
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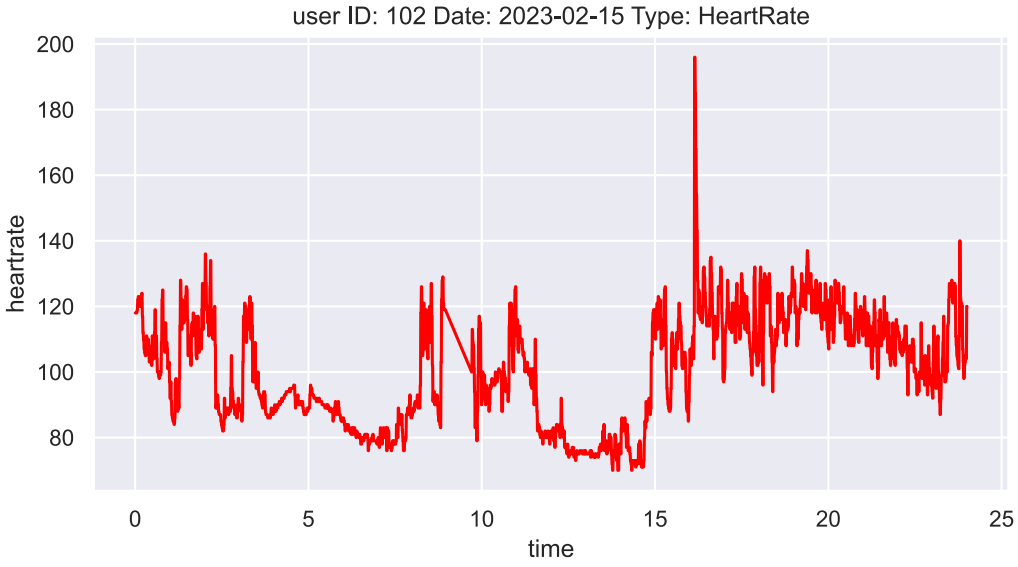
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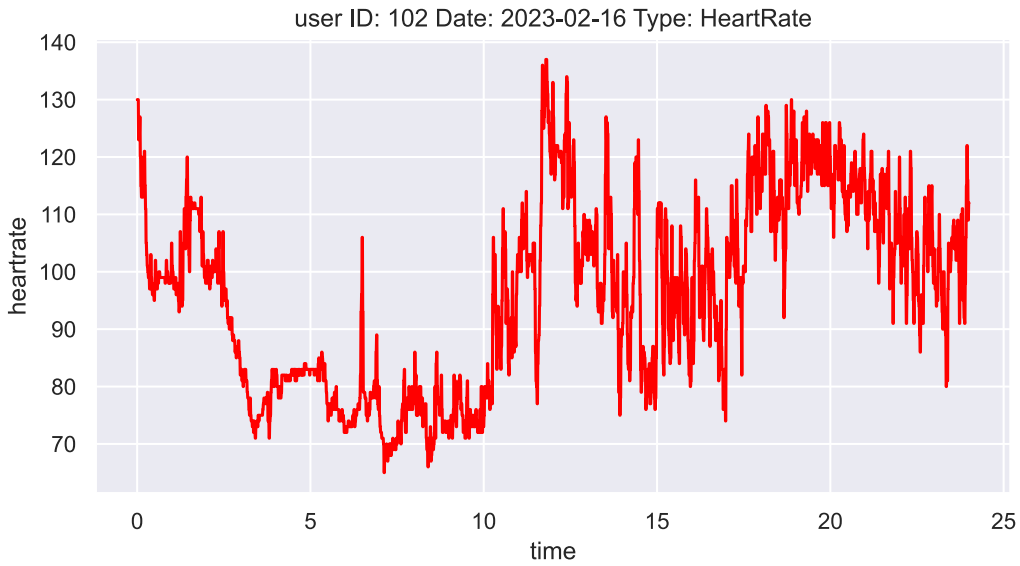
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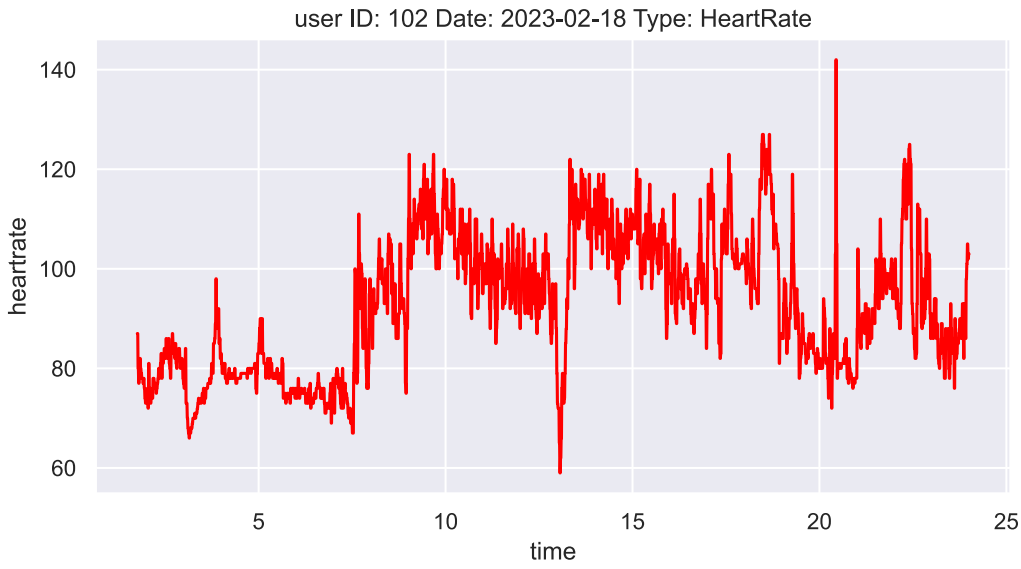
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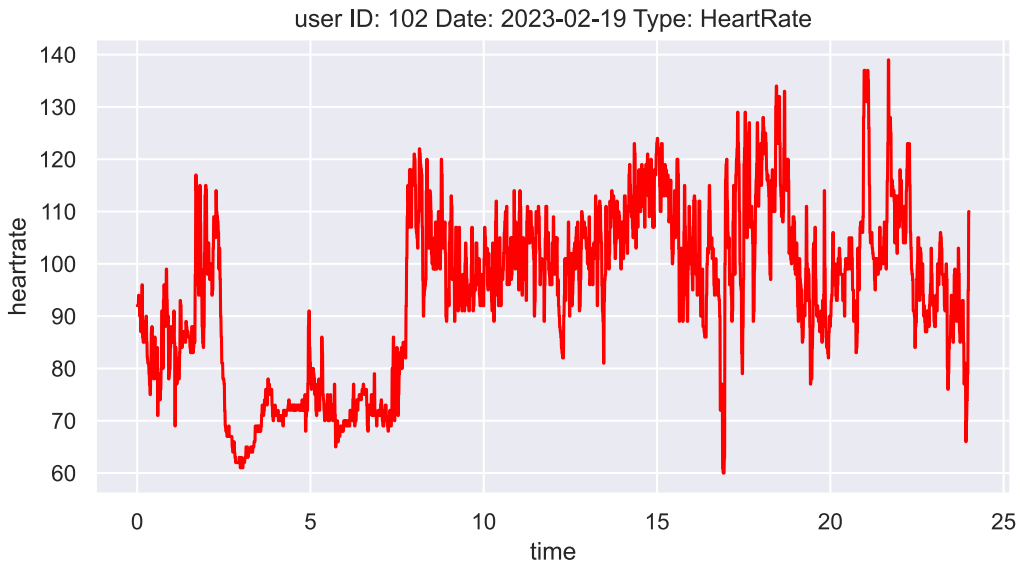
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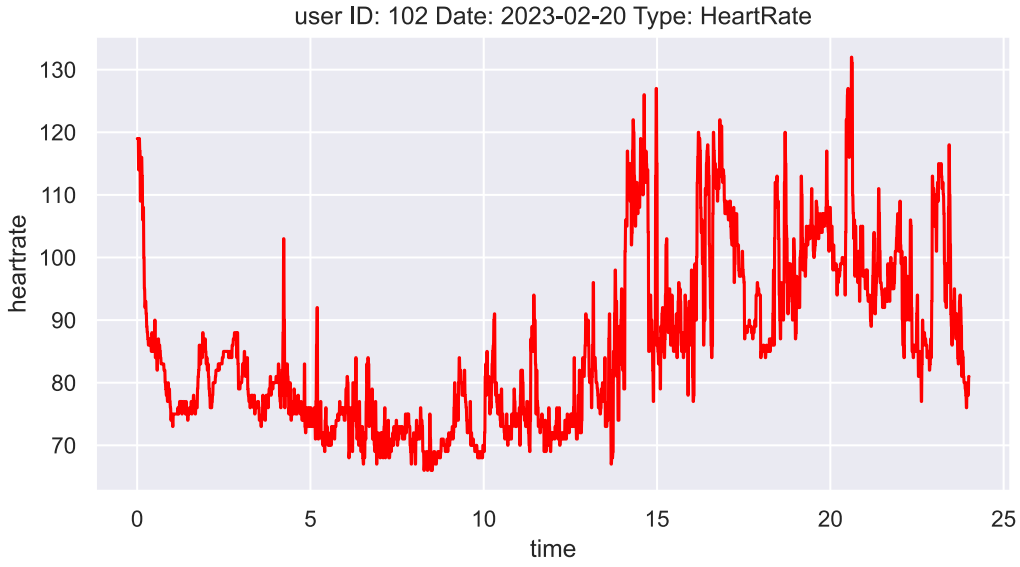
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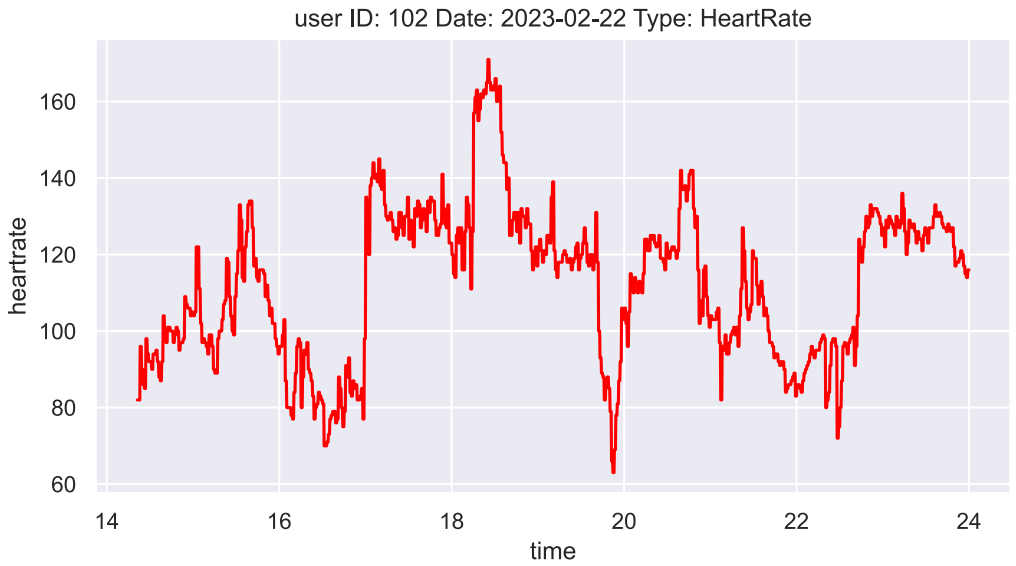
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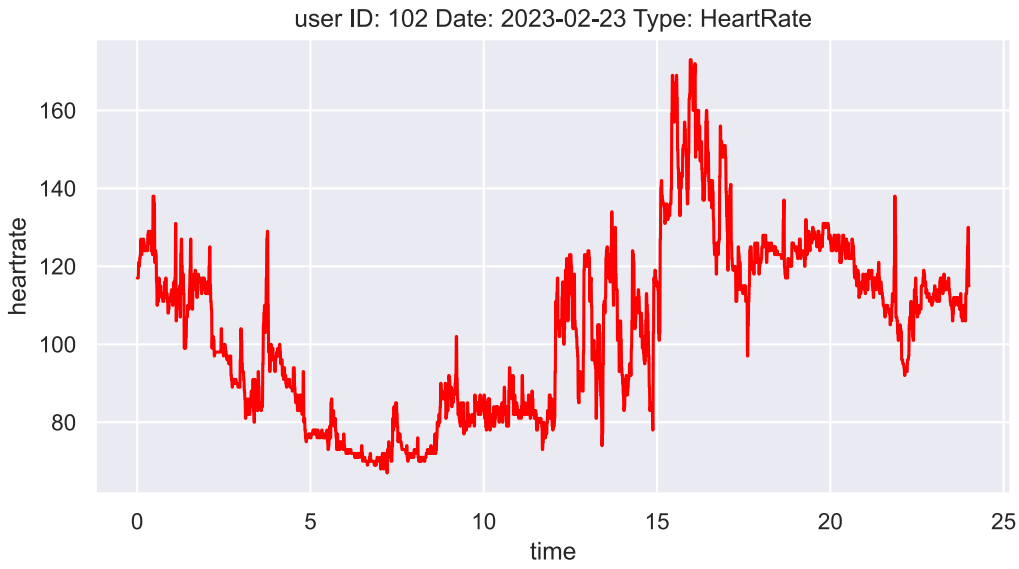
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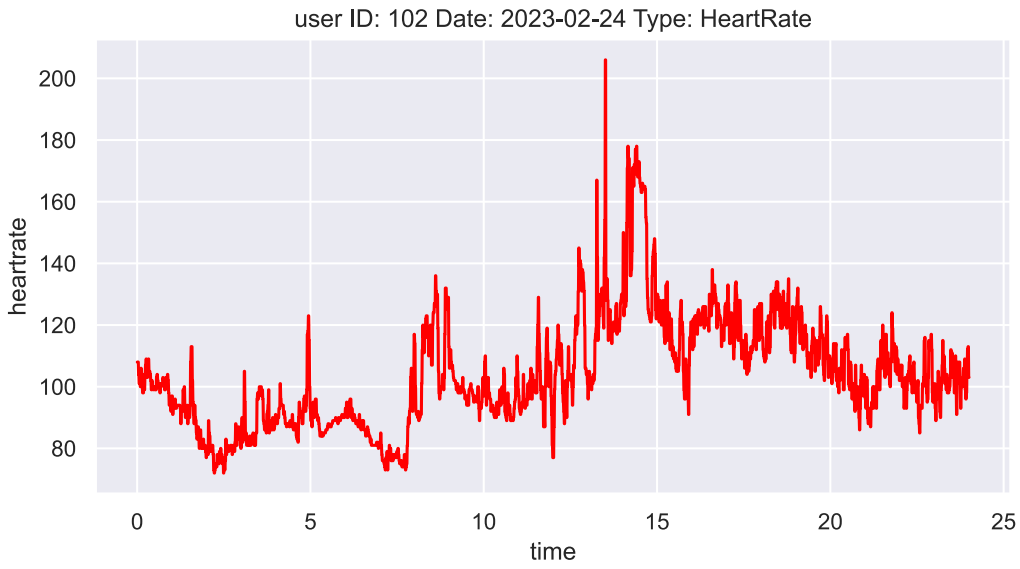
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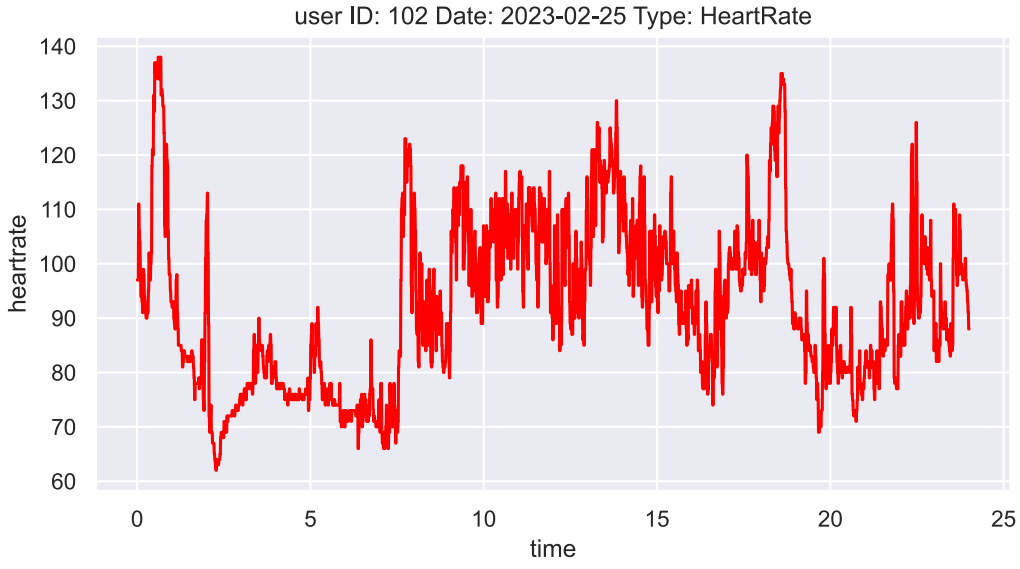
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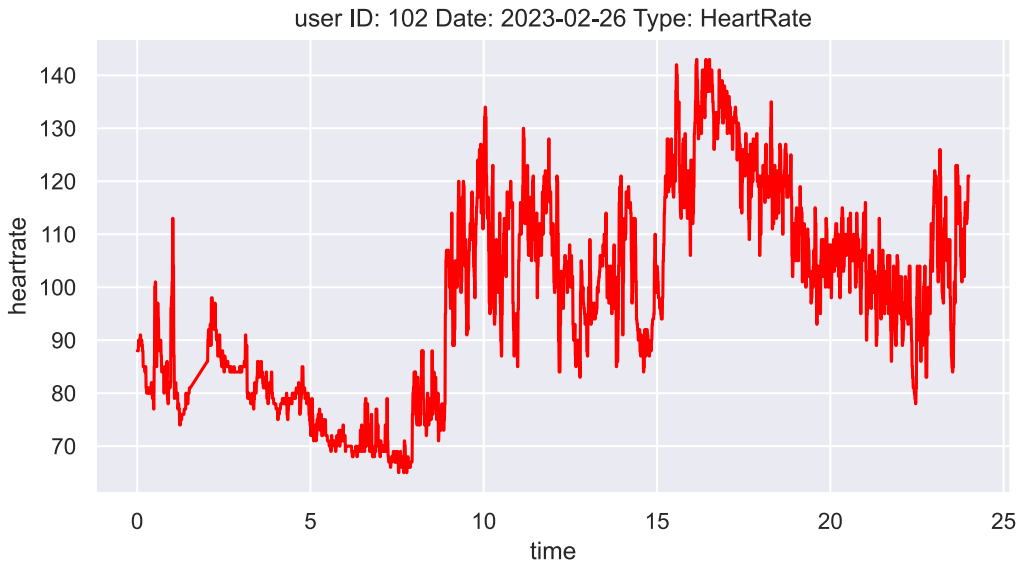
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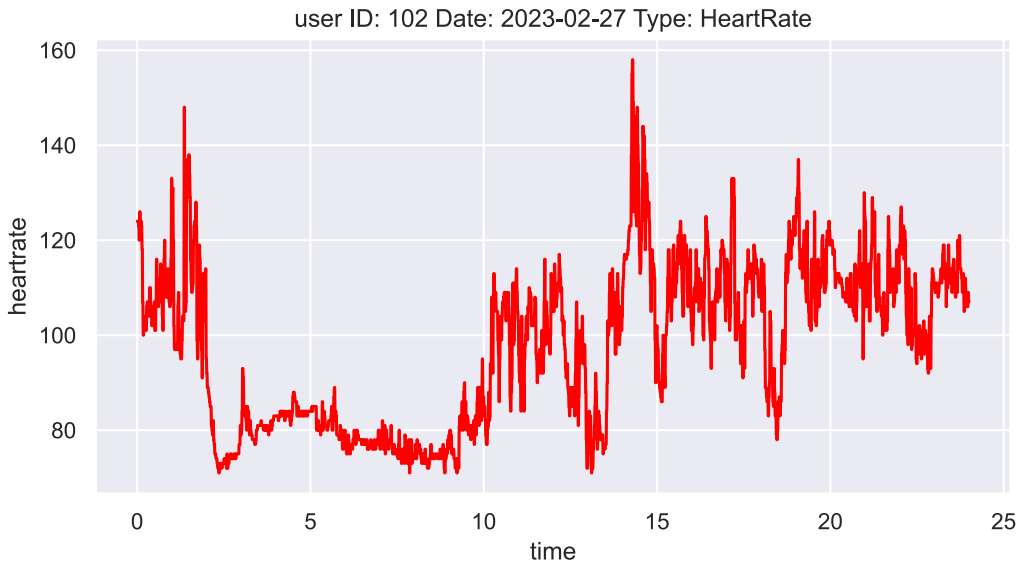
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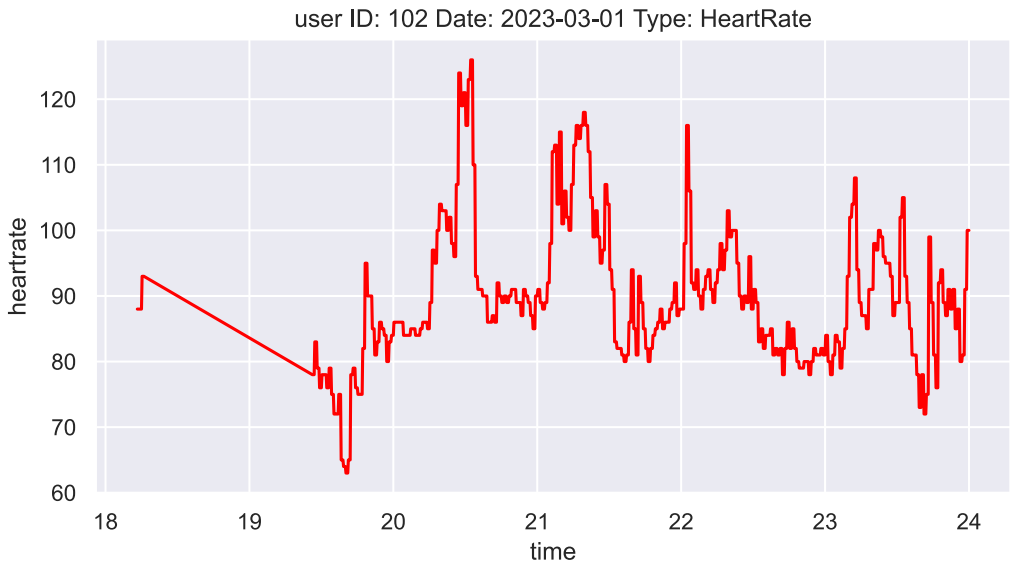
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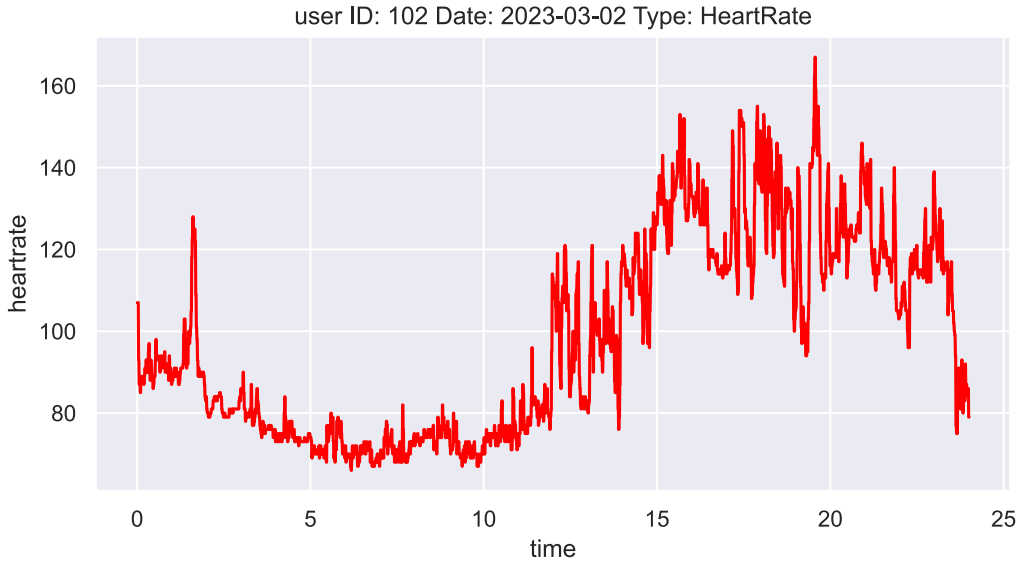
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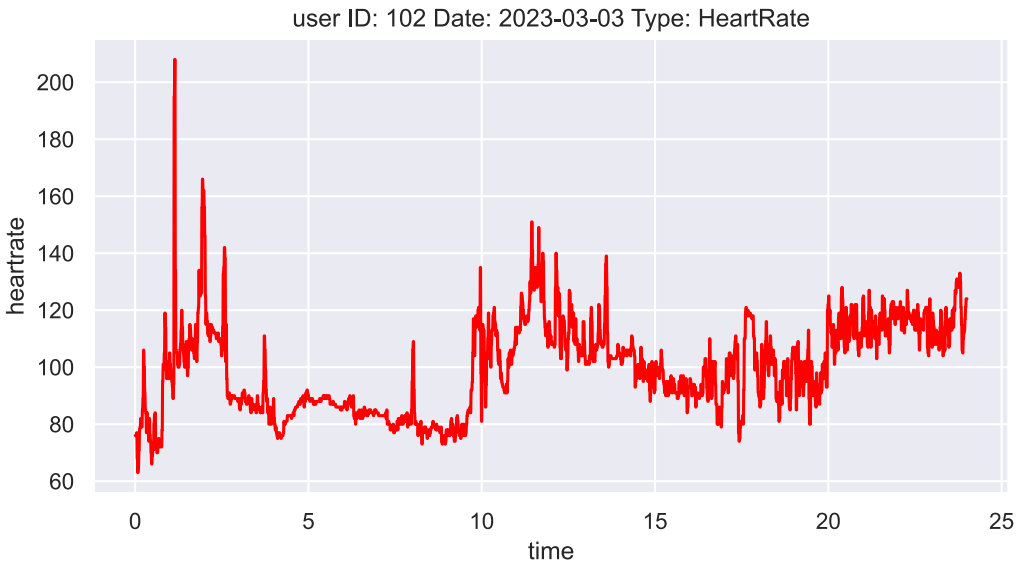
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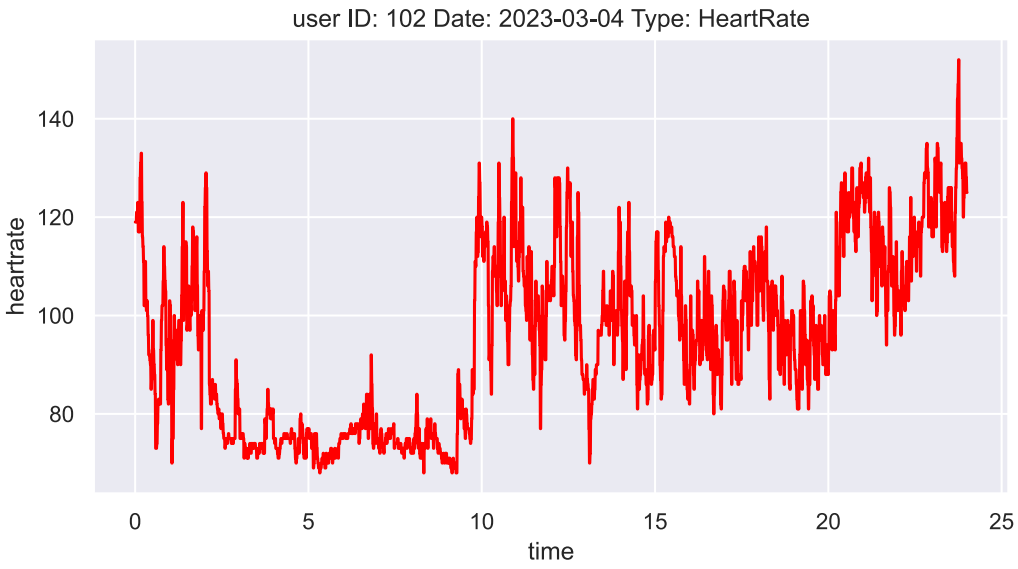
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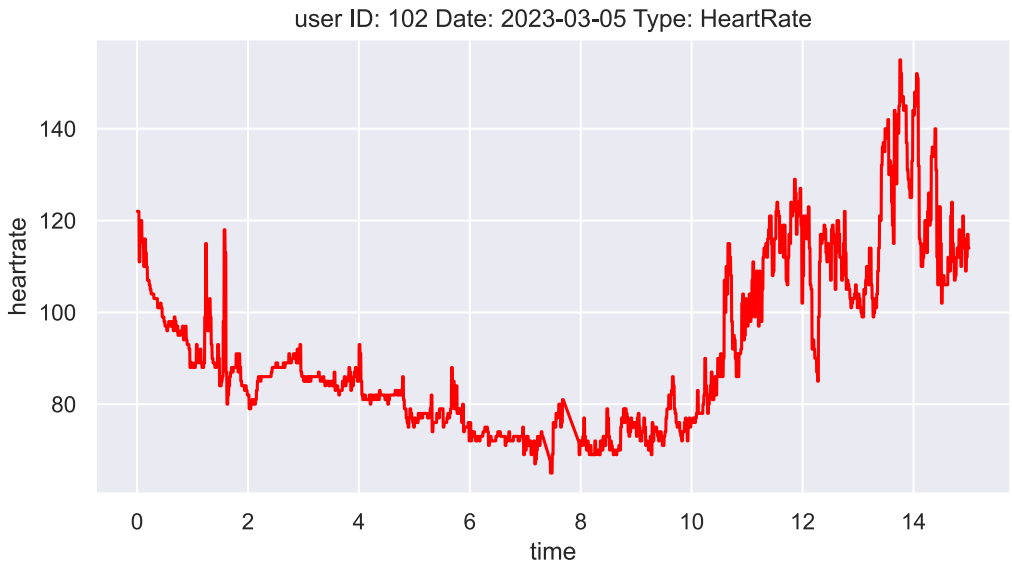
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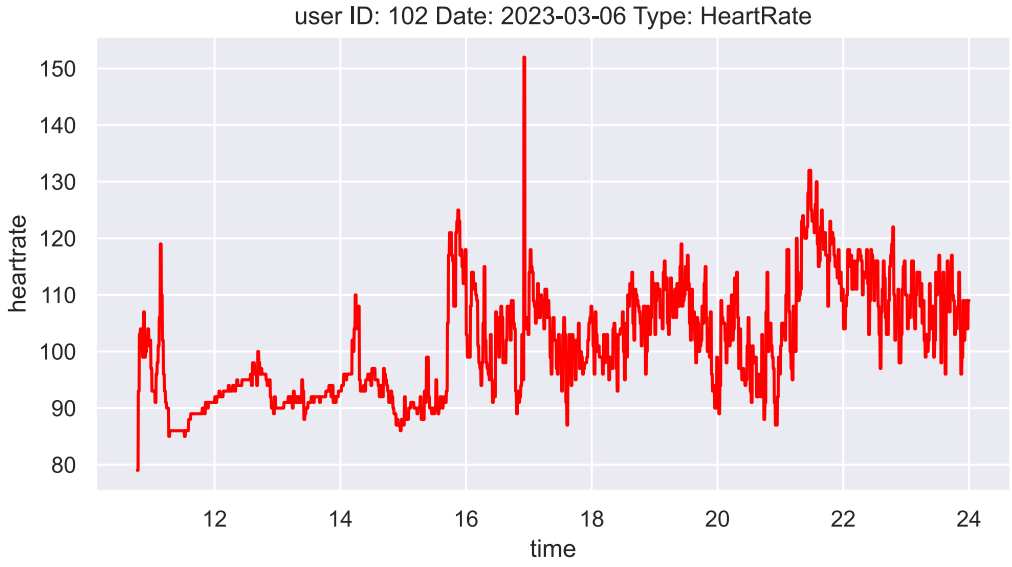
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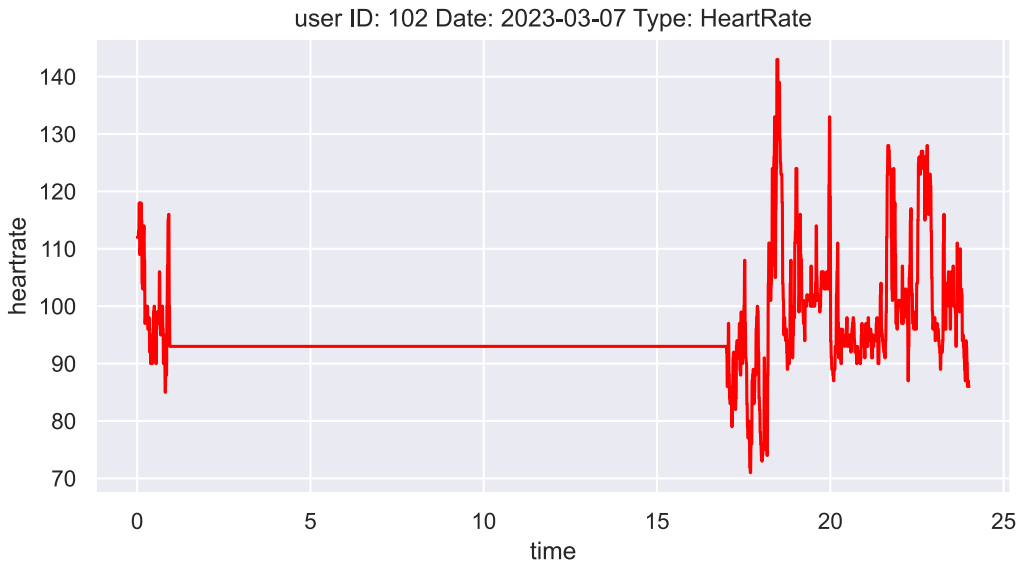
user ID: 102 Date: 2023-03-07 Type: HeartRate
heartrate
140
130
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110
100
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80
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0
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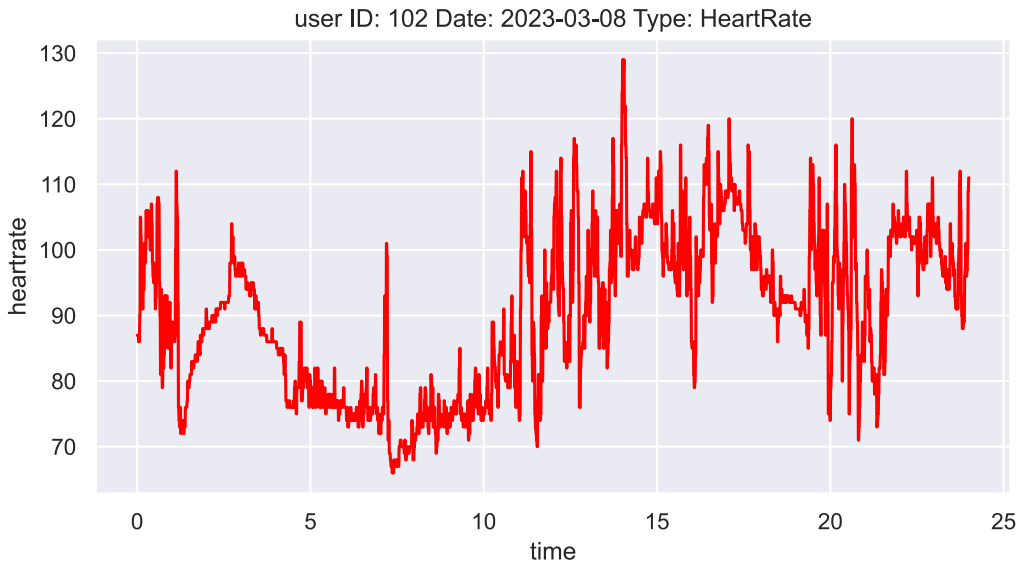
10
15
20
25
time


user ID: 102 Date: 2023-03-08 Type: HeartRate
heartrate
130
120
110
100
90
80
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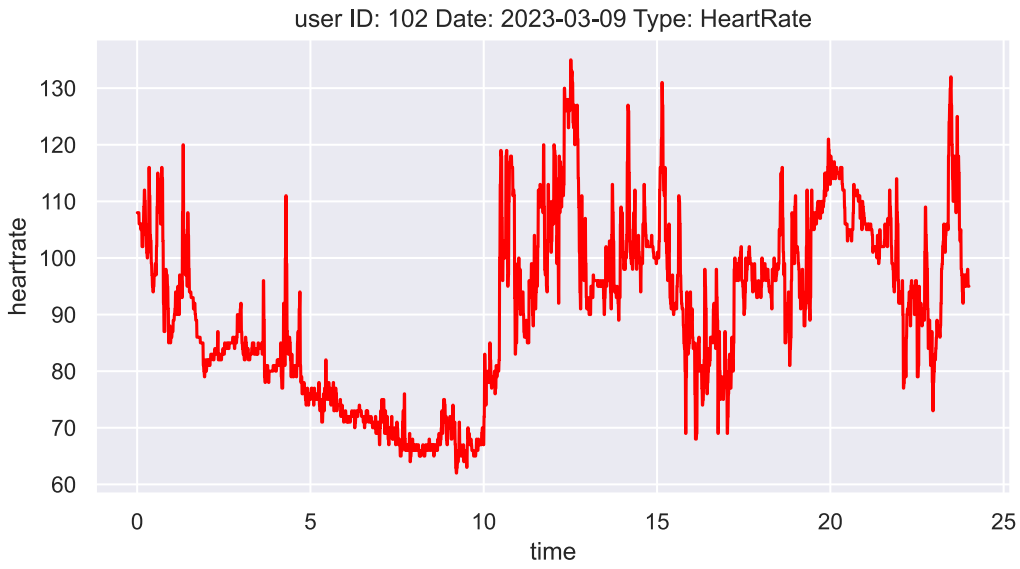
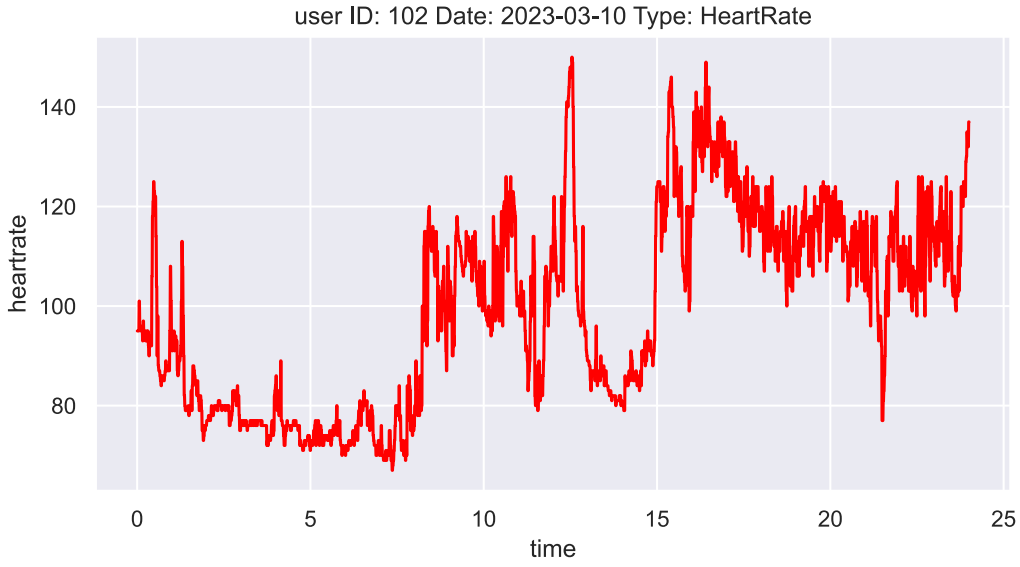
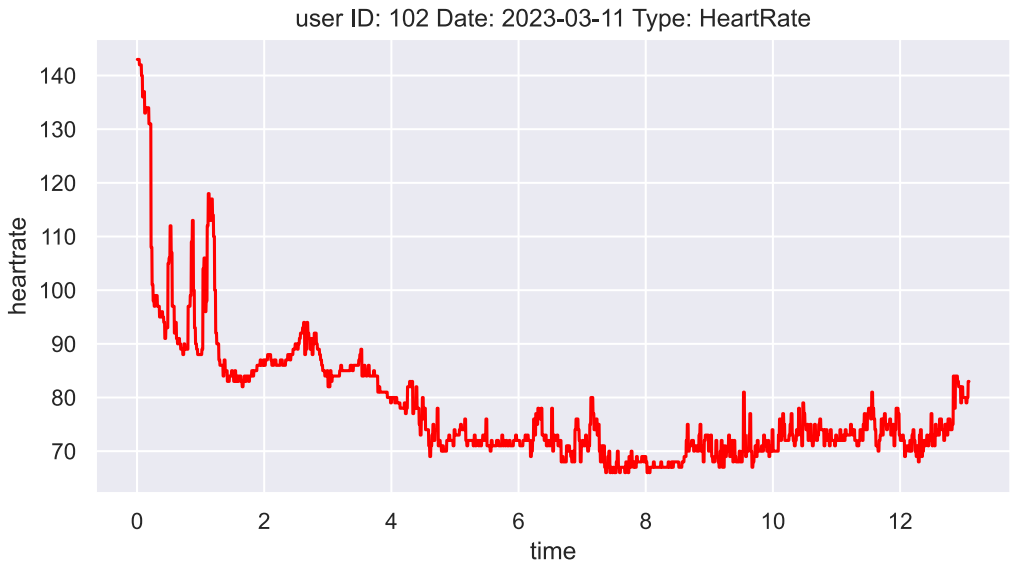
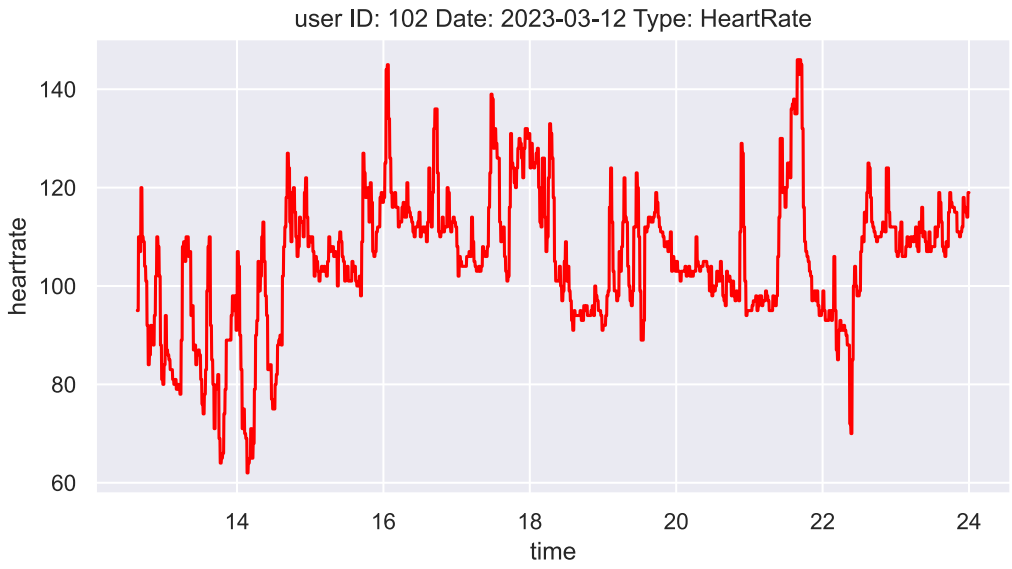
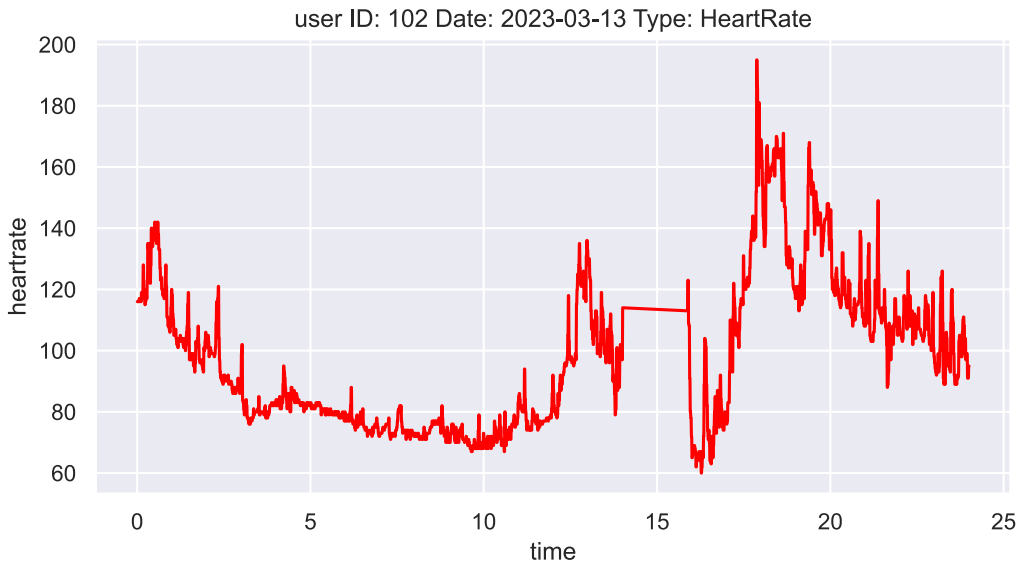
0
5
10
15
20
25
time

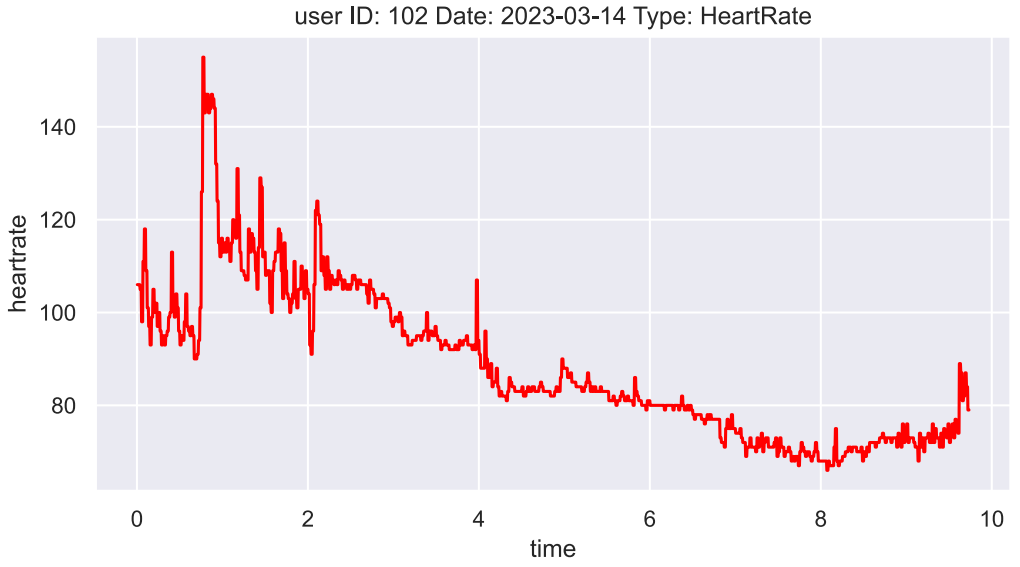

user ID: 102 Date: 2023-03-09 Type: HeartRate
heartrate
130
120
110
100
90
80
70
60
0
5
10
15
20
25
time

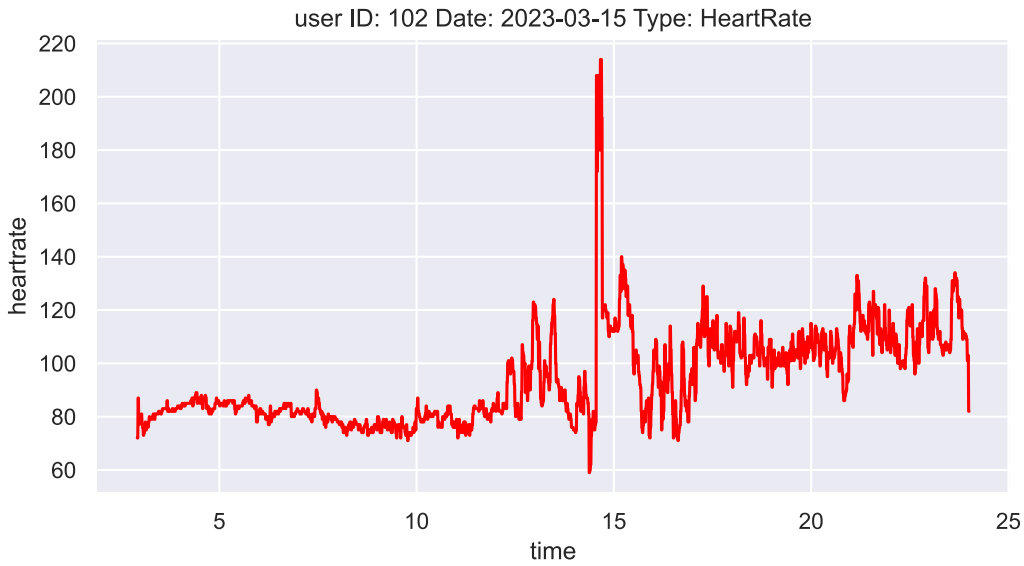

user ID: 102 Date: 2023-03-10 Type: HeartRate
heartrate
140
120
100
80
0
5
10
15
20
25
time

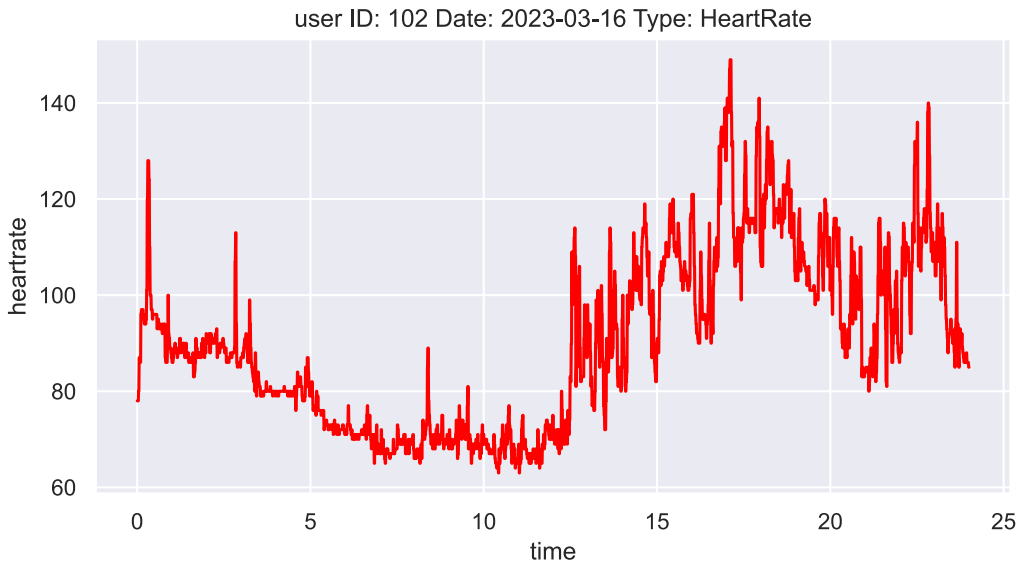

user ID: 102 Date: 2023-03-11 Type: HeartRate
heartrate
140
130
120
110
100
90
80
70
0
2
4
6
8
10
12
time

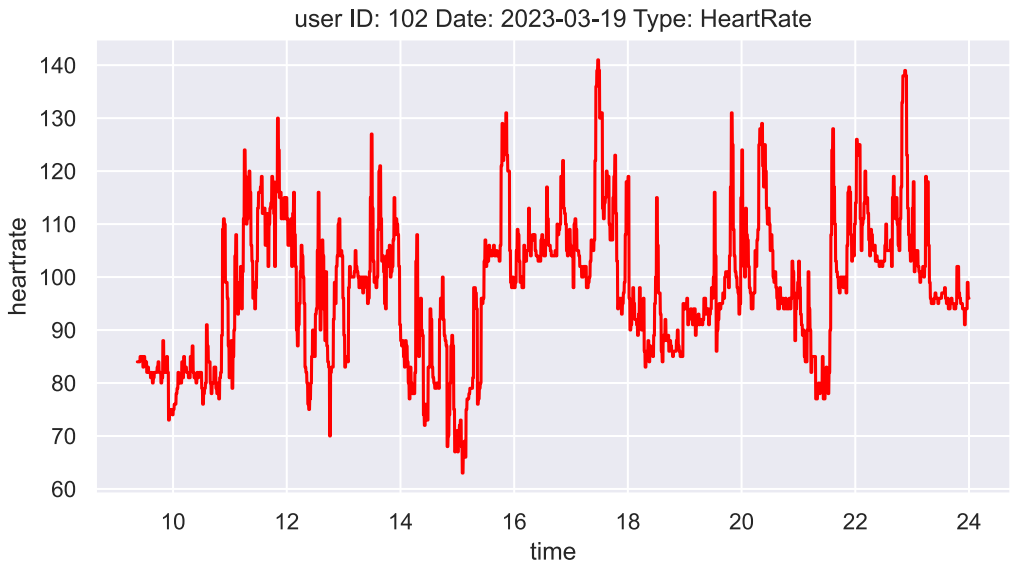

user ID: 102 Date: 2023-03-12 Type: HeartRate
heartrate
140
120
100
80
60
14
16
18
20
22
24
time

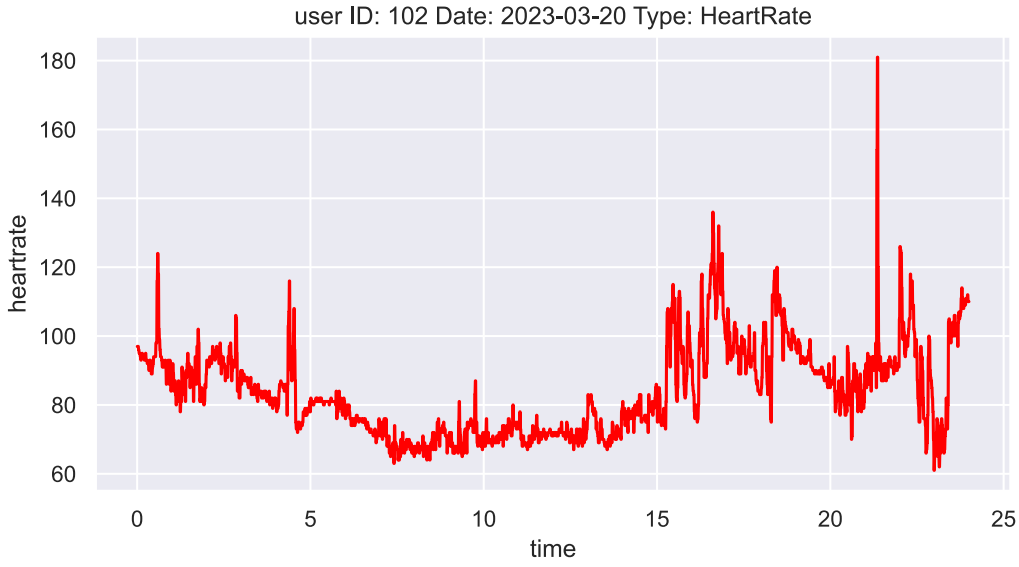

user ID: 102 Date: 2023-03-13 Type: HeartRate
heartrate
200
180
160
140
120
100
80
60
0
5
10
15
20
25
time

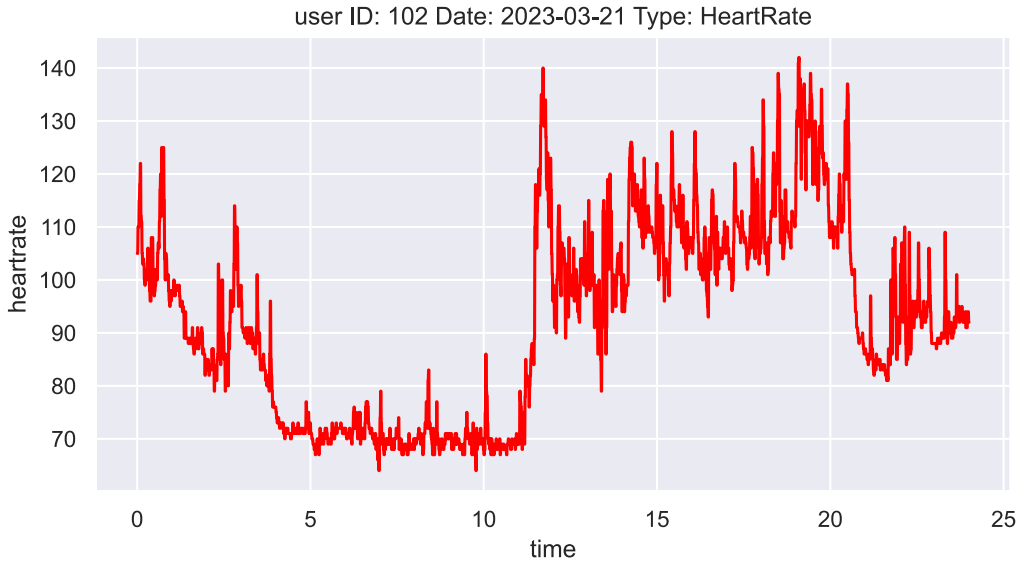

user ID: 102 Date: 2023-03-14 Type: HeartRate
heartrate
140
120
100
80
0
2
4
6
8
10
time

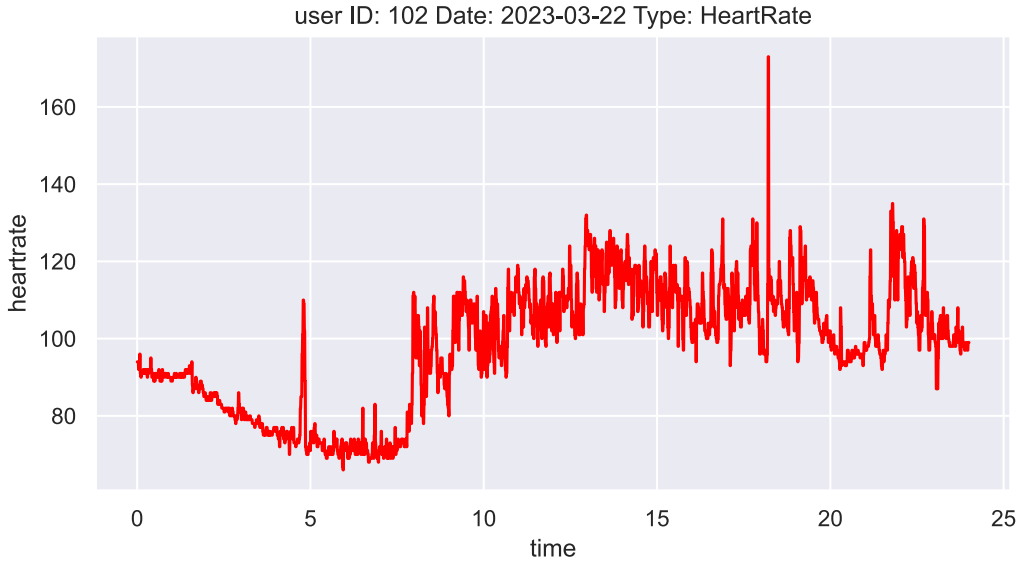

user ID: 102 Date: 2023-03-15 Type: HeartRate
heartrate
220
200
180
160
140
120
100
80
60
5
10
15
20
25
time

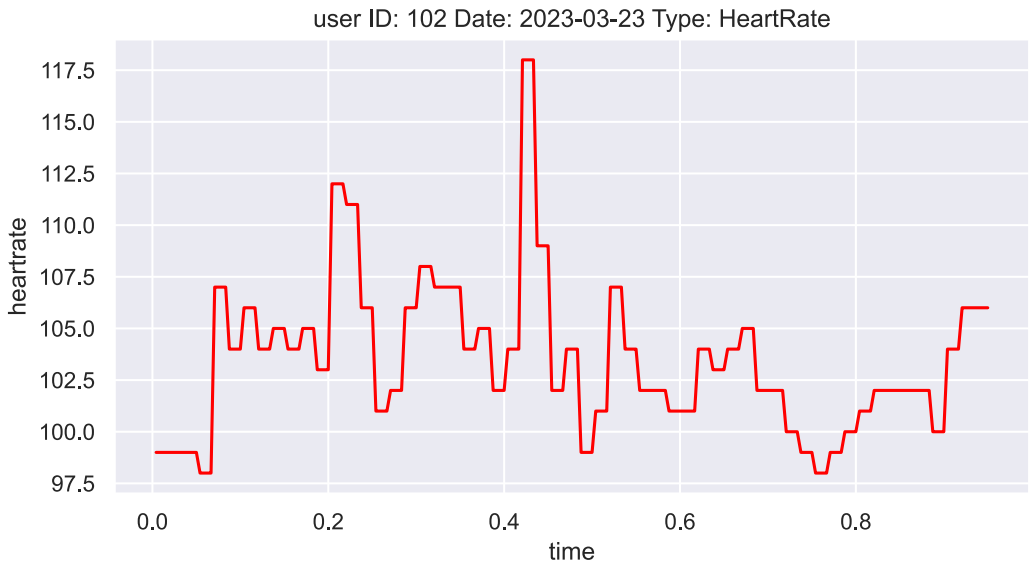

user ID: 102 Date: 2023-03-16 Type: HeartRate
heartrate
140
120
100
80
60
0
5
10
15
20
25
time

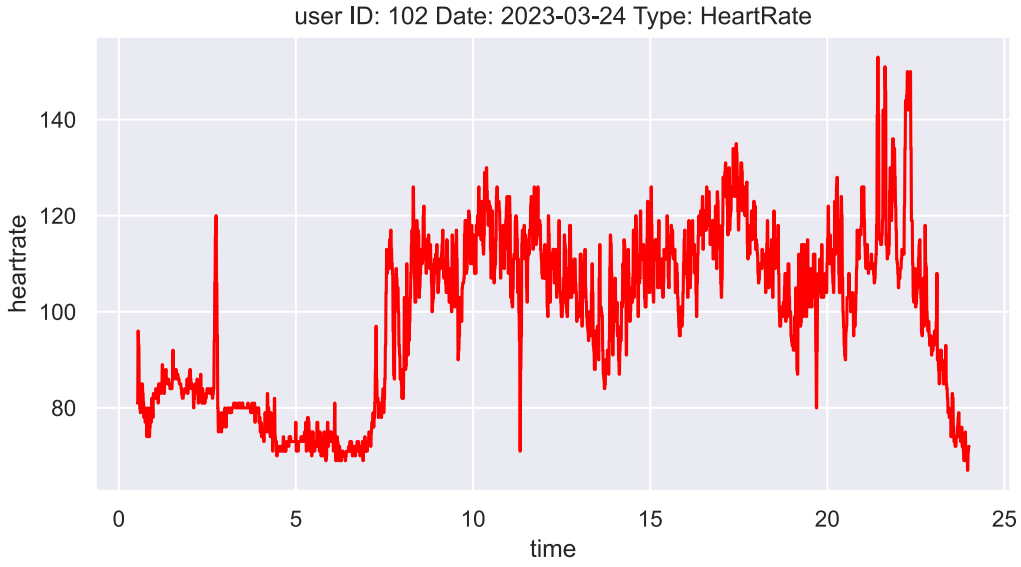

user ID: 102 Date: 2023-03-19 Type: HeartRate
heartrate
140
130
120
110
100
90
80
70
60
10
12
14
16
18
20
22
24
time

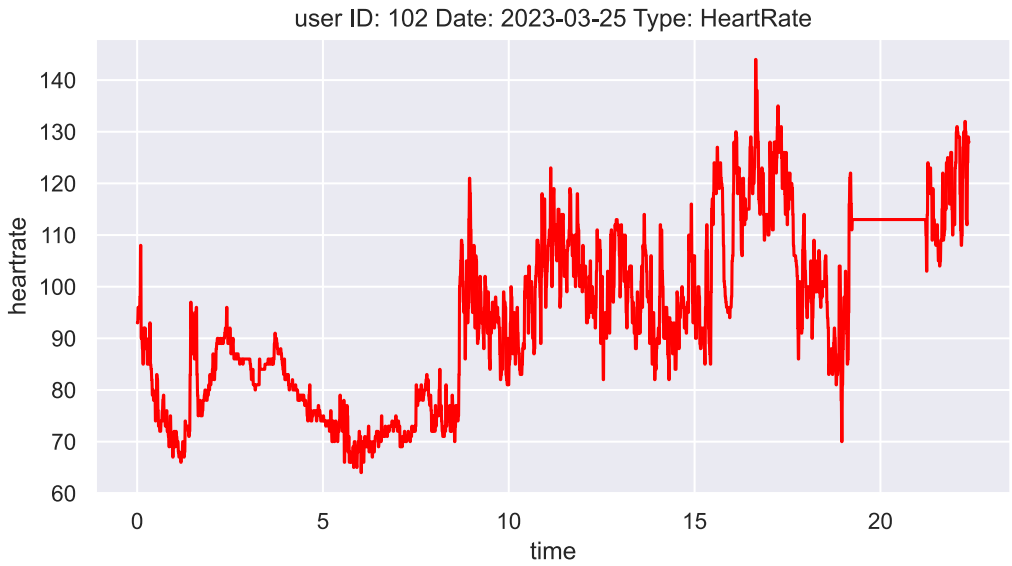

user ID: 102 Date: 2023-03-20 Type: HeartRate
heartrate
180
160
140
120
100
80
60
0
5
10
15
20
25
time

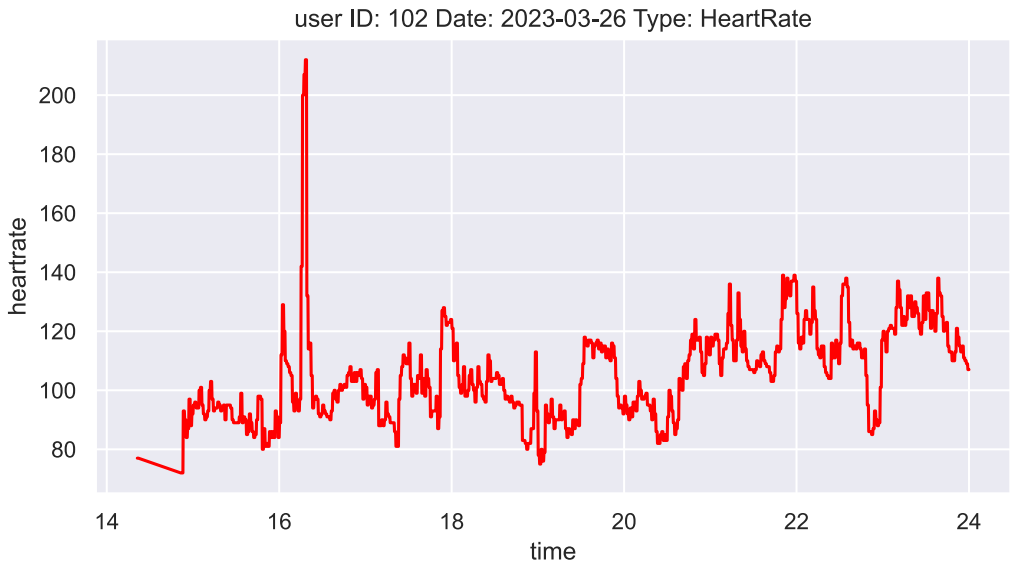

user ID: 102 Date: 2023-03-21 Type: HeartRate
heartrate
140
130
120
110
100
90
80
70
0
5
10
15
20
25
time


user ID: 102 Date: 2023-03-22 Type: HeartRate
heartrate
160
140
120
100
80
0
5
10
15
20
25
time


user ID: 102 Date: 2023-03-23 Type: HeartRate
heartrate
117.5
115.0
112.5
110.0
107.5
105.0
102.5
100.0
97.5
0.0
0.2
0.4
0.6
0.8
time


user ID: 102 Date: 2023-03-24 Type: HeartRate
heartrate
140
120
100
80
0
5
10
15
20
25
time


user ID: 102 Date: 2023-03-25 Type: HeartRate
heartrate
140
130
120
110
100
90
80
70
60
0
5
10
15
20
time


user ID: 102 Date: 2023-03-26 Type: HeartRate
heartrate
200
180
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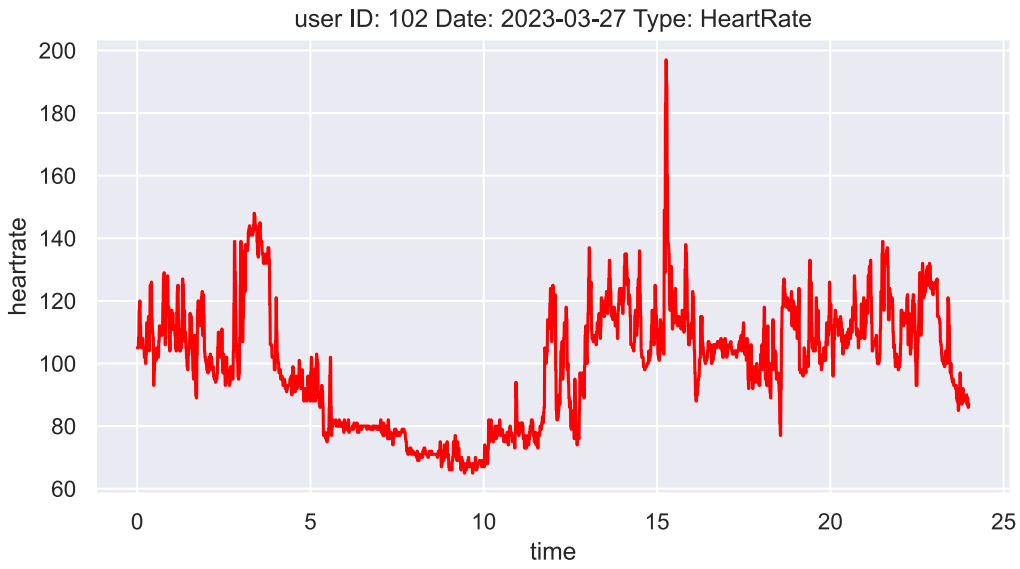
140
120
100
80
14
16
18
20
22
24
time


user ID: 102 Date: 2023-03-27 Type: HeartRate
heartrate
time
200
180
160
140
120
100
80
60
0
5
10
15
20
25

In [ ]: