

# relatorio\_data\_3000\_analise

February 14, 2023

```
[ ]: import pandas as pd
import seaborn as srn
import numpy as np
from matplotlib import pyplot as plt
import statistics
```

```
[ ]: data = pd.read_excel('C:
↳\\Users\\Riallen\\Documents\\Print_de_telas\\data2\\data_geral.xlsx')
data.head()
```

```
[ ]: Odds Qt_Apostadores Time_Odds Data_Hora_Aposta \
0 1.01 1976 Mon Feb 13 09:34:18 2023 2023-02-13 09:34:18
1 1.83 1930 Mon Feb 13 09:34:36 2023 2023-02-13 09:34:36
2 4.48 2073 Mon Feb 13 09:35:07 2023 2023-02-13 09:35:07
3 6.58 2104 Mon Feb 13 09:35:42 2023 2023-02-13 09:35:42
4 1.53 2065 Mon Feb 13 09:36:01 2023 2023-02-13 09:36:01
```

```
    Date_Aposta Hora_Aposta hour
0 2023-02-13 09:34:18 9
1 2023-02-13 09:34:36 9
2 2023-02-13 09:35:07 9
3 2023-02-13 09:35:42 9
4 2023-02-13 09:36:01 9
```

```
[ ]: data['Odds'].describe()
```

```
[ ]: count    3308.000000
mean         9.271333
std          91.754512
min           1.000000
25%          1.290000
50%          1.960000
75%          3.937500
max         4339.900000
Name: Odds, dtype: float64
```

```
[ ]: data['Qt_Apostadores'].describe()
```

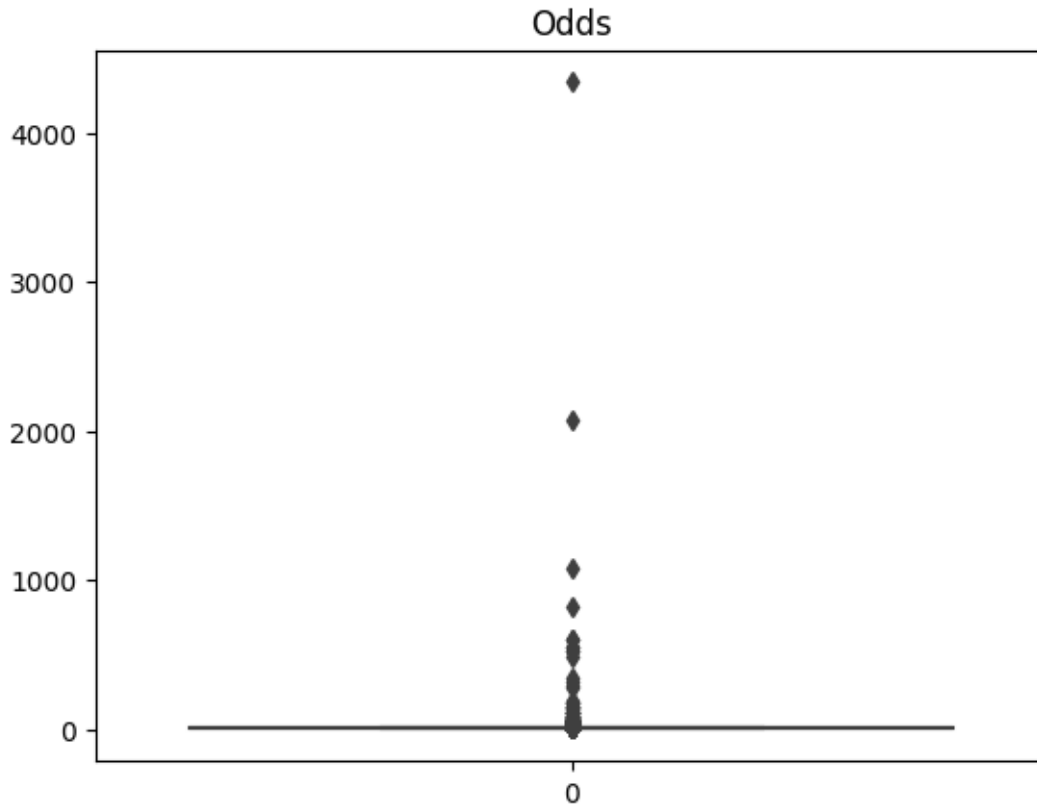
```
[ ]: count    3308.000000
     mean     2100.227932
     std      1009.730459
     min       42.000000
     25%      1435.000000
     50%      2074.000000
     75%      2787.000000
     max      5180.000000
     Name: Qt_Apostadores, dtype: float64
```

```
[ ]: data['hour'].describe()
```

```
[ ]: count    3308.000000
     mean      10.901149
     std       6.877314
     min       0.000000
     25%       5.000000
     50%      11.000000
     75%      17.000000
     max      23.000000
     Name: hour, dtype: float64
```

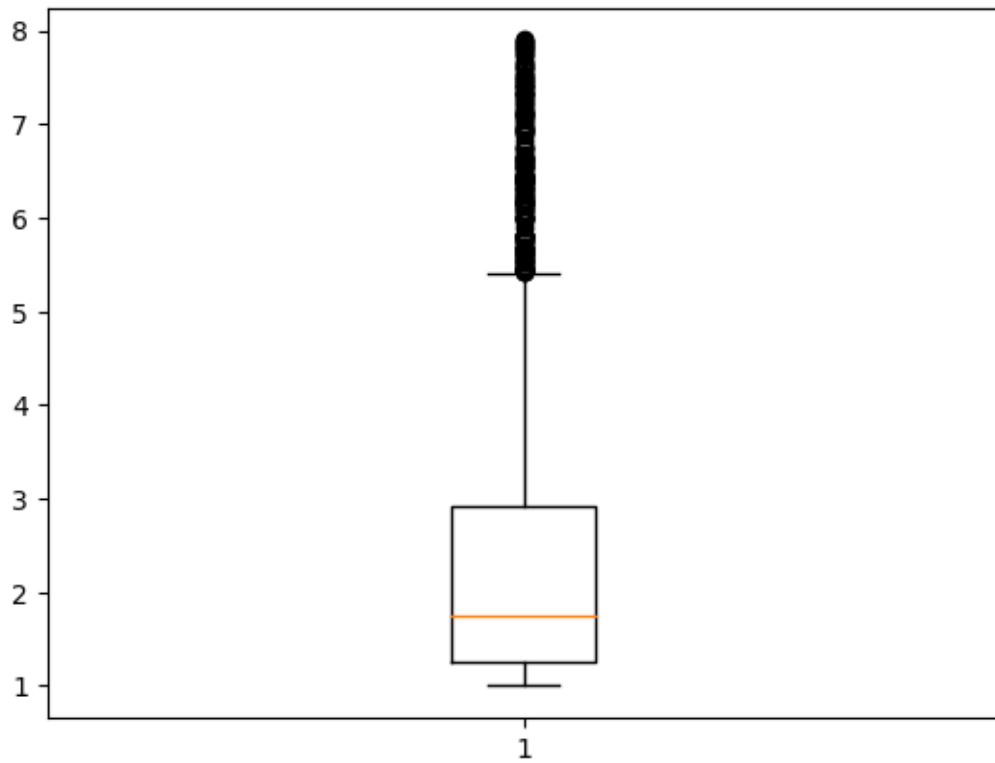
```
[ ]: srn.boxplot(data['Odds']).set_title('Odds')
```

```
[ ]: Text(0.5, 1.0, 'Odds')
```



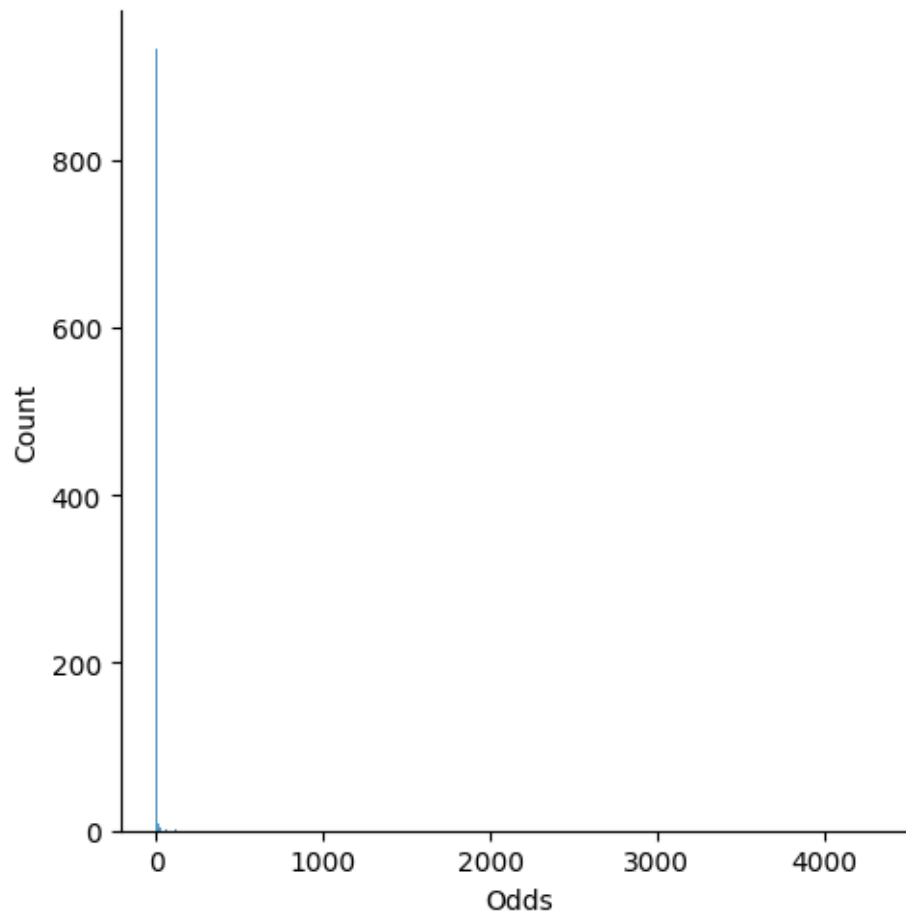
```
[ ]: data_box_plot = np.array(data['Odds'])
q1 = np.percentile(data_box_plot, 25)
q3 = np.percentile(data_box_plot, 75)
iqr = q3 - q1
lower_bound = q1 - (1.5 * iqr)
upper_bound = q3 + (1.5 * iqr)
data_sem_outliers = [x for x in data_box_plot if x > lower_bound and x <=
    ↪upper_bound]

# Plotar o boxplot sem outliers
plt.boxplot(data_sem_outliers)
plt.show()
```



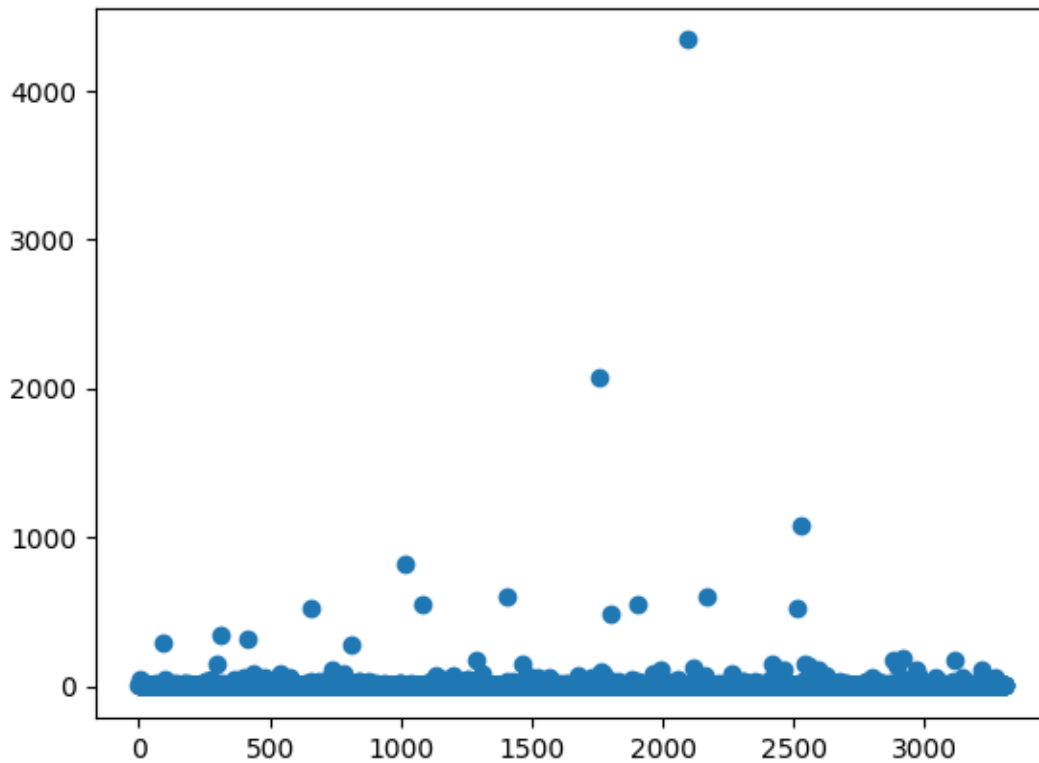
```
[ ]: srn.displot(data['Odds'])
```

```
[ ]: <seaborn.axisgrid.FacetGrid at 0x1e8cfcf6c20>
```



```
[ ]: x = np.array(range(0,3308,1))  
      y = np.array(data['Odds'])  
      plt.scatter(x,y)
```

```
[ ]: <matplotlib.collections.PathCollection at 0x1e8d8e2e920>
```



```
[ ]: moda = statistics.mode(y)
      moda
```

```
[ ]: 1.0
```

```
[ ]: data['Odds'].value_counts()
```

```
[ ]: 1.00      118
      1.01       36
      1.07       35
      1.05       34
      1.06       34
      ...
      336.49      1
      4.60        1
      8.38        1
      3.88        1
      11.52       1
      Name: Odds, Length: 888, dtype: int64
```

```
[ ]: data[data["Odds"] == 1.00]
```

```
[ ]: Odds Qt_Apostadores Time_Odds Data_Hora_Aposta \
16 1.0 2117 Mon Feb 13 09:41:21 2023 2023-02-13 09:41:21
141 1.0 1600 Mon Feb 13 10:30:52 2023 2023-02-13 10:30:52
165 1.0 1824 Mon Feb 13 10:40:22 2023 2023-02-13 10:40:22
189 1.0 1953 Mon Feb 13 10:49:37 2023 2023-02-13 10:49:37
203 1.0 2536 Mon Feb 13 10:55:31 2023 2023-02-13 10:55:31
...
3176 1.0 1725 Tue Feb 14 08:36:12 2023 2023-02-14 08:36:12
3219 1.0 2110 Tue Feb 14 08:54:32 2023 2023-02-14 08:54:32
3250 1.0 2549 Tue Feb 14 09:07:26 2023 2023-02-14 09:07:26
3259 1.0 1995 Tue Feb 14 09:10:51 2023 2023-02-14 09:10:51
3260 1.0 2088 Tue Feb 14 09:11:04 2023 2023-02-14 09:11:04
```

```

Date_Aposta Hora_Aposta hour
16 2023-02-13 09:41:21 9
141 2023-02-13 10:30:52 10
165 2023-02-13 10:40:22 10
189 2023-02-13 10:49:37 10
203 2023-02-13 10:55:31 10
...
3176 2023-02-14 08:36:12 8
3219 2023-02-14 08:54:32 8
3250 2023-02-14 09:07:26 9
3259 2023-02-14 09:10:51 9
3260 2023-02-14 09:11:04 9
```

[118 rows x 7 columns]

```
[ ]: 118/len(data['Odds'])
```

```
[ ]: 0.035671100362756954
```

```
[ ]: data[data["Odds"] <= 1.61]
```

```
[ ]: Odds Qt_Apostadores Time_Odds Data_Hora_Aposta \
0 1.01 1976 Mon Feb 13 09:34:18 2023 2023-02-13 09:34:18
4 1.53 2065 Mon Feb 13 09:36:01 2023 2023-02-13 09:36:01
5 1.25 1740 Mon Feb 13 09:36:16 2023 2023-02-13 09:36:16
7 1.60 2502 Mon Feb 13 09:36:59 2023 2023-02-13 09:36:59
11 1.03 1778 Mon Feb 13 09:39:33 2023 2023-02-13 09:39:33
...
3299 1.36 2194 Tue Feb 14 09:27:28 2023 2023-02-14 09:27:28
3302 1.27 2207 Tue Feb 14 09:28:26 2023 2023-02-14 09:28:26
3304 1.22 2137 Tue Feb 14 09:29:04 2023 2023-02-14 09:29:04
3305 1.01 1793 Tue Feb 14 09:29:19 2023 2023-02-14 09:29:19
3307 1.27 1835 Tue Feb 14 12:48:49 2023 2023-02-14 12:48:49
```

	Date_Aposta	Hora_Aposta	hour
0	2023-02-13	09:34:18	9
4	2023-02-13	09:36:01	9
5	2023-02-13	09:36:16	9
7	2023-02-13	09:36:59	9
11	2023-02-13	09:39:33	9
...	...	...	...
3299	2023-02-14	09:27:28	9
3302	2023-02-14	09:28:26	9
3304	2023-02-14	09:29:04	9
3305	2023-02-14	09:29:19	9
3307	2023-02-14	12:48:49	12

[1295 rows x 7 columns]

```
[ ]: 1295/len(data['Odds'])
```

```
[ ]: 0.3914752116082225
```

```
[ ]: data[data["Odds"] <= 1.40]
```

```
[ ]:
      Odds  Qt_Apostadores      Time_Odds  Data_Hora_Aposta \
0      1.01          1976  Mon Feb 13 09:34:18 2023 2023-02-13 09:34:18
5      1.25          1740  Mon Feb 13 09:36:16 2023 2023-02-13 09:36:16
11     1.03          1778  Mon Feb 13 09:39:33 2023 2023-02-13 09:39:33
13     1.05          1885  Mon Feb 13 09:40:12 2023 2023-02-13 09:40:12
16     1.00          2117  Mon Feb 13 09:41:21 2023 2023-02-13 09:41:21
...     ...          ...      ...      ...
3299  1.36          2194  Tue Feb 14 09:27:28 2023 2023-02-14 09:27:28
3302  1.27          2207  Tue Feb 14 09:28:26 2023 2023-02-14 09:28:26
3304  1.22          2137  Tue Feb 14 09:29:04 2023 2023-02-14 09:29:04
3305  1.01          1793  Tue Feb 14 09:29:19 2023 2023-02-14 09:29:19
3307  1.27          1835  Tue Feb 14 12:48:49 2023 2023-02-14 12:48:49
```

	Date_Aposta	Hora_Aposta	hour
0	2023-02-13	09:34:18	9
5	2023-02-13	09:36:16	9
11	2023-02-13	09:39:33	9
13	2023-02-13	09:40:12	9
16	2023-02-13	09:41:21	9
...	...	...	...
3299	2023-02-14	09:27:28	9
3302	2023-02-14	09:28:26	9
3304	2023-02-14	09:29:04	9
3305	2023-02-14	09:29:19	9
3307	2023-02-14	12:48:49	12



[1023 rows x 7 columns]

```
[ ]: 1023/len(data['Odds'])
```

```
[ ]: 0.3092503022974607
```

```
[ ]: data[data["Odds"] <= 1.28]
```

```
[ ]:      Odds  Qt_Apostadores      Time_Odds      Data_Hora_Aposta \
0      1.01      1976 Mon Feb 13 09:34:18 2023 2023-02-13 09:34:18
5      1.25      1740 Mon Feb 13 09:36:16 2023 2023-02-13 09:36:16
11     1.03      1778 Mon Feb 13 09:39:33 2023 2023-02-13 09:39:33
13     1.05      1885 Mon Feb 13 09:40:12 2023 2023-02-13 09:40:12
16     1.00      2117 Mon Feb 13 09:41:21 2023 2023-02-13 09:41:21
...     ...      ...      ...      ...
3293  1.27      2477 Tue Feb 14 09:24:53 2023 2023-02-14 09:24:53
3302  1.27      2207 Tue Feb 14 09:28:26 2023 2023-02-14 09:28:26
3304  1.22      2137 Tue Feb 14 09:29:04 2023 2023-02-14 09:29:04
3305  1.01      1793 Tue Feb 14 09:29:19 2023 2023-02-14 09:29:19
3307  1.27      1835 Tue Feb 14 12:48:49 2023 2023-02-14 12:48:49
```

	Date_Aposta	Hora_Aposta	hour
0	2023-02-13	09:34:18	9
5	2023-02-13	09:36:16	9
11	2023-02-13	09:39:33	9
13	2023-02-13	09:40:12	9
16	2023-02-13	09:41:21	9
...	...	...	...
3293	2023-02-14	09:24:53	9
3302	2023-02-14	09:28:26	9
3304	2023-02-14	09:29:04	9
3305	2023-02-14	09:29:19	9
3307	2023-02-14	12:48:49	12

[807 rows x 7 columns]

```
[ ]: 807/len(data['Odds'])
```

```
[ ]: 0.2439540507859734
```

```
[ ]: data[data["Odds"] >= 2.5]
```

```
[ ]:      Odds  Qt_Apostadores      Time_Odds      Data_Hora_Aposta \
2      4.48      2073 Mon Feb 13 09:35:07 2023 2023-02-13 09:35:07
3      6.58      2104 Mon Feb 13 09:35:42 2023 2023-02-13 09:35:42
8     51.46      2199 Mon Feb 13 09:37:59 2023 2023-02-13 09:37:59
9     28.16      2117 Mon Feb 13 09:38:52 2023 2023-02-13 09:38:52
10     2.77      1978 Mon Feb 13 09:39:16 2023 2023-02-13 09:39:16
```

...	...	...	...	...	...	...
3291	3.91	2288	Tue Feb 14 09:24:23 2023	2023-02-14 09:24:23		
3296	11.52	2185	Tue Feb 14 09:26:09 2023	2023-02-14 09:26:09		
3297	4.72	2334	Tue Feb 14 09:26:40 2023	2023-02-14 09:26:40		
3298	3.71	2324	Tue Feb 14 09:27:12 2023	2023-02-14 09:27:12		
3306	2.54	2003	Tue Feb 14 09:29:44 2023	2023-02-14 09:29:44		

	Date_Aposta	Hora_Aposta	hour
2	2023-02-13	09:35:07	9
3	2023-02-13	09:35:42	9
8	2023-02-13	09:37:59	9
9	2023-02-13	09:38:52	9
10	2023-02-13	09:39:16	9

...	...	...	...
3291	2023-02-14	09:24:23	9
3296	2023-02-14	09:26:09	9
3297	2023-02-14	09:26:40	9
3298	2023-02-14	09:27:12	9
3306	2023-02-14	09:29:44	9

[1303 rows x 7 columns]

```
[ ]: 1303/len(data['Odds'])
```

```
[ ]: 0.3938935912938331
```

```
[ ]: data[data["Odds"] >= 3.83]
```

	Odds	Qt_Apostadores	Time_Odds	Data_Hora_Aposta \
2	4.48	2073	Mon Feb 13 09:35:07 2023	2023-02-13 09:35:07
3	6.58	2104	Mon Feb 13 09:35:42 2023	2023-02-13 09:35:42
8	51.46	2199	Mon Feb 13 09:37:59 2023	2023-02-13 09:37:59
9	28.16	2117	Mon Feb 13 09:38:52 2023	2023-02-13 09:38:52
14	5.44	2074	Mon Feb 13 09:40:44 2023	2023-02-13 09:40:44

...	...	...	...	...
3283	17.40	2190	Tue Feb 14 09:21:21 2023	2023-02-14 09:21:21
3286	20.90	2014	Tue Feb 14 09:22:40 2023	2023-02-14 09:22:40
3291	3.91	2288	Tue Feb 14 09:24:23 2023	2023-02-14 09:24:23
3296	11.52	2185	Tue Feb 14 09:26:09 2023	2023-02-14 09:26:09
3297	4.72	2334	Tue Feb 14 09:26:40 2023	2023-02-14 09:26:40

	Date_Aposta	Hora_Aposta	hour
2	2023-02-13	09:35:07	9
3	2023-02-13	09:35:42	9
8	2023-02-13	09:37:59	9
9	2023-02-13	09:38:52	9
14	2023-02-13	09:40:44	9

```

...
3283  2023-02-14    09:21:21    9
3286  2023-02-14    09:22:40    9
3291  2023-02-14    09:24:23    9
3296  2023-02-14    09:26:09    9
3297  2023-02-14    09:26:40    9

```

[850 rows x 7 columns]

```
[ ]: 850/len(data['Odds'])
```

```
[ ]: 0.2569528415961306
```

```
[ ]: data['Qt_Apostadores'].describe()
```

```

[ ]: count    3308.000000
     mean     2100.227932
     std      1009.730459
     min       42.000000
     25%      1435.000000
     50%      2074.000000
     75%      2787.000000
     max      5180.000000
     Name: Qt_Apostadores, dtype: float64

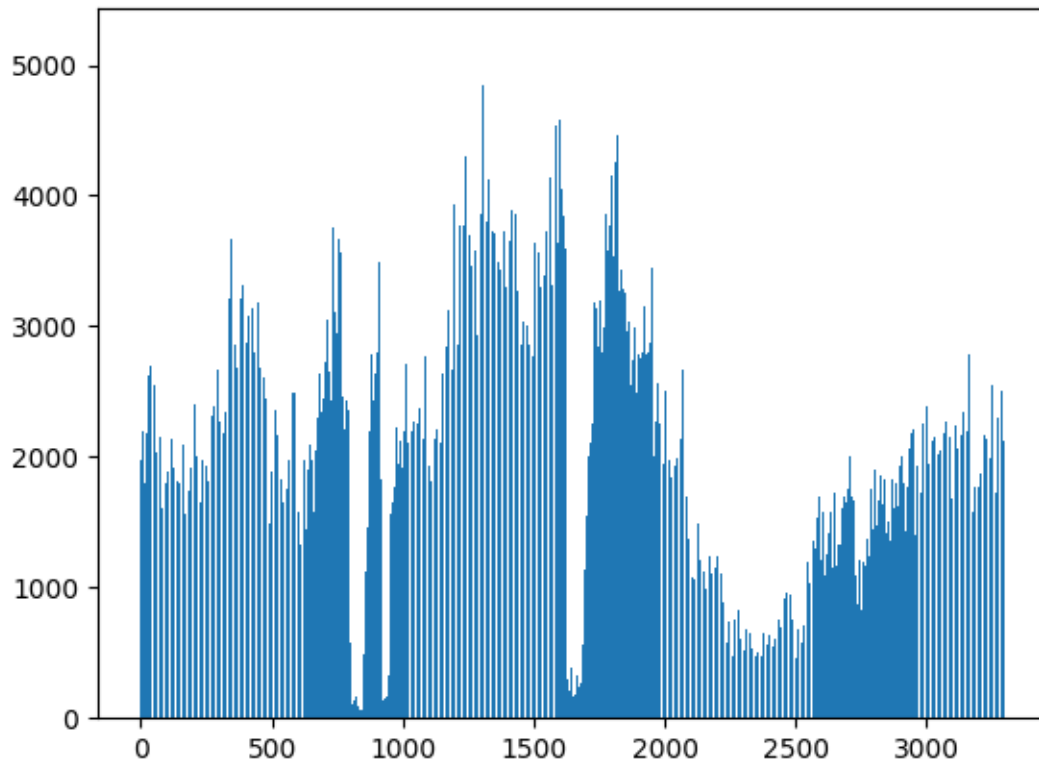
```

```

[ ]: x = np.array(range(0,3308,1))
     y = np.array(data['Qt_Apostadores'])
     plt.bar(x,y)

```

```
[ ]: <BarContainer object of 3308 artists>
```



```
[ ]: i = 0
t = len(data['Hora_Aposta'])
#print(t)
segundo = []
minuto = []
for j in range(0,t):
    #print(data['Hora_Aposta'][j])
    #print(data['Hora_Aposta'][j].split(":"))
    x = data['Hora_Aposta'][j].split(":")
    segundo.append(float(x[2]))
    minuto.append(float(x[1]))

for j in range(0,t):
    segundo[j] = segundo[j]/60
    minuto[j] = minuto[j] + round(segundo[j],6)

for j in range(0,t):
    minuto[j] = round(minuto[j]/60, 6)

data['hour_edi'] = data['hour']
for j in range(0,t):
    data['hour_edi'][j] = data['hour_edi'][j] + minuto[j]
```

```
data['hour_edi']
```

C:\Users\Riallen\AppData\Local\Temp\ipykernel\_8168\1362838707.py:22:

SettingWithCopyWarning:

A value is trying to be set on a copy of a slice from a DataFrame

See the caveats in the documentation: [https://pandas.pydata.org/pandas-docs/stable/user\\_guide/indexing.html#returning-a-view-versus-a-copy](https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-copy)

```
data['hour_edi'][j] = data['hour_edi'][j] + minuto[j]
```

```
[ ]: 0      9.571667
      1      9.576667
      2      9.585278
      3      9.595000
      4      9.600278
      ...
      3303    9.479722
      3304    9.484444
      3305    9.488611
      3306    9.495556
      3307    12.813611
      Name: hour_edi, Length: 3308, dtype: float64
```

```
[ ]: data['hour_edi'].describe()
```

```
[ ]: count    3308.000000
      mean      11.405956
      std       6.891906
      min       0.001111
      25%       5.428681
      50%      11.017222
      75%      17.204375
      max      23.995556
      Name: hour_edi, dtype: float64
```

```
[ ]: data['hour']
```

```
[ ]: 0      9
      1      9
      2      9
      3      9
      4      9
      ..
      3303    9
      3304    9
      3305    9
      3306    9
```

```
3307      12
Name: hour, Length: 3308, dtype: int64
```

```
[ ]: data_hora_145 = data[data['Odds']> 1.45]
data_hora_145
```

```
[ ]:      Odds  Qt_Apostadores      Time_Odds      Data_Hora_Aposta \
1      1.83          1930  Mon Feb 13 09:34:36 2023  2023-02-13 09:34:36
2      4.48          2073  Mon Feb 13 09:35:07 2023  2023-02-13 09:35:07
3      6.58          2104  Mon Feb 13 09:35:42 2023  2023-02-13 09:35:42
4      1.53          2065  Mon Feb 13 09:36:01 2023  2023-02-13 09:36:01
6      1.83          2138  Mon Feb 13 09:36:35 2023  2023-02-13 09:36:35
...
3298  3.71          2324  Tue Feb 14 09:27:12 2023  2023-02-14 09:27:12
3300  2.21          1760  Tue Feb 14 09:27:49 2023  2023-02-14 09:27:49
3301  1.78          2135  Tue Feb 14 09:28:11 2023  2023-02-14 09:28:11
3303  2.03          1922  Tue Feb 14 09:28:47 2023  2023-02-14 09:28:47
3306  2.54          2003  Tue Feb 14 09:29:44 2023  2023-02-14 09:29:44
```

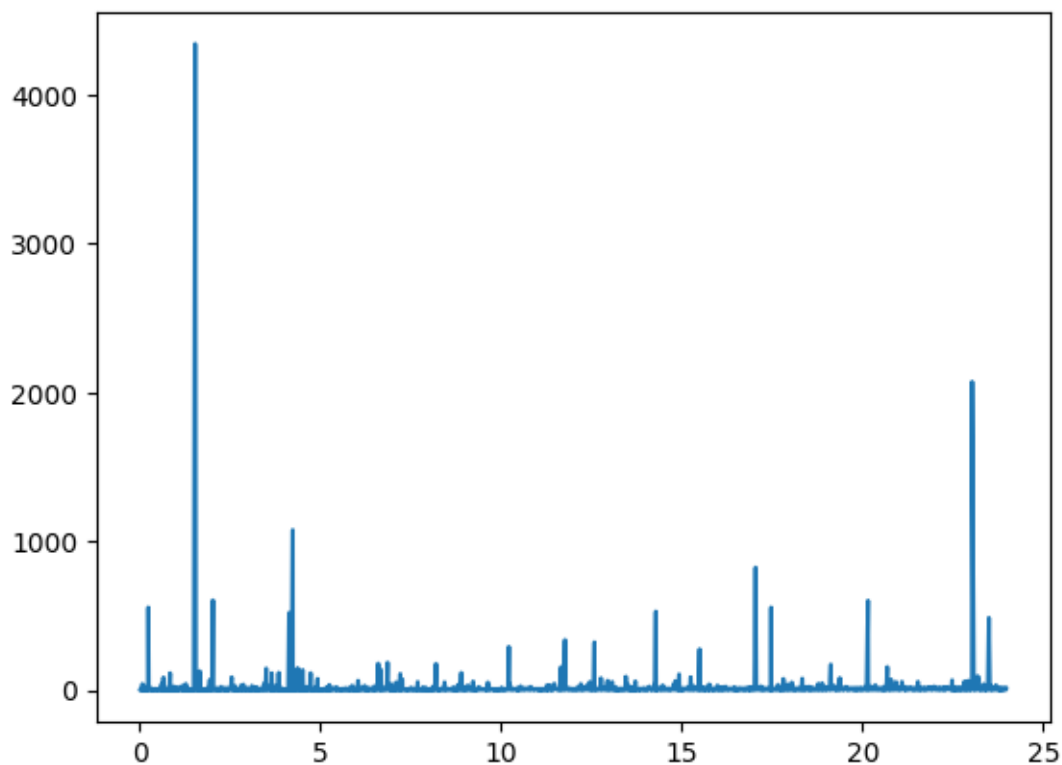
```
      Date_Aposta Hora_Aposta  hour  hour_edi
1      2023-02-13      09:34:36      9  9.576667
2      2023-02-13      09:35:07      9  9.585278
3      2023-02-13      09:35:42      9  9.595000
4      2023-02-13      09:36:01      9  9.600278
6      2023-02-13      09:36:35      9  9.609722
...
3298  2023-02-14      09:27:12      9  9.453333
3300  2023-02-14      09:27:49      9  9.463611
3301  2023-02-14      09:28:11      9  9.469722
3303  2023-02-14      09:28:47      9  9.479722
3306  2023-02-14      09:29:44      9  9.495556
```

```
[2216 rows x 8 columns]
```

```
[ ]: x = np.array(data_hora_145['hour_edi'])
y = np.array(data_hora_145['Odds'])

plt.plot(x,y)
```

```
[ ]: [ <matplotlib.lines.Line2D at 0x1e8dce131c0>]
```



```
[ ]: dia_23_02 = data[data['Date_Aposta'] == '2023-02-13']
dia_23_02
```

```
[ ]:
      Odds  Qt_Apostadores      Time_Odds      Data_Hora_Aposta \
0      1.01          1976  Mon Feb 13 09:34:18 2023  2023-02-13 09:34:18
1      1.83          1930  Mon Feb 13 09:34:36 2023  2023-02-13 09:34:36
2      4.48          2073  Mon Feb 13 09:35:07 2023  2023-02-13 09:35:07
3      6.58          2104  Mon Feb 13 09:35:42 2023  2023-02-13 09:35:42
4      1.53          2065  Mon Feb 13 09:36:01 2023  2023-02-13 09:36:01
...      ...              ...              ...
1867   3.54              3299  Mon Feb 13 23:58:15 2023  2023-02-13 23:58:15
1868  15.38              3234  Mon Feb 13 23:59:02 2023  2023-02-13 23:59:02
1869   1.11              3110  Mon Feb 13 23:59:16 2023  2023-02-13 23:59:16
1870   1.32              2593  Mon Feb 13 23:59:31 2023  2023-02-13 23:59:31
1871   1.00              2548  Mon Feb 13 23:59:44 2023  2023-02-13 23:59:44
```

```
      Date_Aposta Hora_Aposta  hour  hour_e di
0      2023-02-13  09:34:18     9  9.571667
1      2023-02-13  09:34:36     9  9.576667
2      2023-02-13  09:35:07     9  9.585278
3      2023-02-13  09:35:42     9  9.595000
4      2023-02-13  09:36:01     9  9.600278
```

	...	...	...	...
1867	2023-02-13	23:58:15	23	23.970833
1868	2023-02-13	23:59:02	23	23.983889
1869	2023-02-13	23:59:16	23	23.987778
1870	2023-02-13	23:59:31	23	23.991944
1871	2023-02-13	23:59:44	23	23.995556

[1872 rows x 8 columns]

```
[ ]: array = []
for j in range(9,24):
    x = dia_23_02[dia_23_02['hour'] == j]
    a0 = len(x)
    a = len(x[x['Odds'] >= 1.29])/len(x['Odds'])
    b = len(x[x['Odds'] >= 1.40])/len(x['Odds'])
    c = len(x[x['Odds'] >= 1.45])/len(x['Odds'])
    d = len(x[x['Odds'] >= 1.65])/len(x['Odds'])
    att = [j,a0,a,b,c,d]
    for name in att:
        array.append(name)

array
```

```
[ ]: [9,
63,
0.7619047619047619,
0.7142857142857143,
0.7142857142857143,
0.6349206349206349,
10,
153,
0.7450980392156863,
0.673202614379085,
0.6274509803921569,
0.5555555555555556,
11,
126,
0.8015873015873016,
0.7222222222222222,
0.7063492063492064,
0.6349206349206349,
12,
129,
0.7751937984496124,
0.7054263565891473,
0.6744186046511628,
0.5736434108527132,
```



13,  
149,  
0.7315436241610739,  
0.6510067114093959,  
0.6510067114093959,  
0.5570469798657718,  
14,  
130,  
0.8153846153846154,  
0.7538461538461538,  
0.7384615384615385,  
0.6615384615384615,  
15,  
128,  
0.703125,  
0.671875,  
0.671875,  
0.5859375,  
16,  
136,  
0.75,  
0.6691176470588235,  
0.6470588235294118,  
0.5514705882352942,  
17,  
147,  
0.7482993197278912,  
0.673469387755102,  
0.6326530612244898,  
0.54421768707483,  
18,  
115,  
0.7913043478260869,  
0.7739130434782608,  
0.7652173913043478,  
0.7043478260869566,  
19,  
118,  
0.7203389830508474,  
0.6779661016949152,  
0.6694915254237288,  
0.5847457627118644,  
20,  
115,  
0.782608695652174,  
0.6956521739130435,  
0.6782608695652174,

```

0.5739130434782609,
21,
115,
0.7304347826086957,
0.6956521739130435,
0.6608695652173913,
0.6086956521739131,
22,
126,
0.753968253968254,
0.6984126984126984,
0.6666666666666666,
0.6428571428571429,
23,
122,
0.7459016393442623,
0.680327868852459,
0.6721311475409836,
0.6147540983606558]

```

```

[ ]: dia_23_02 = data[data['Date_Aposta'] == '2023-02-14']
dia_23_02

```

```

[ ]:
      Odds  Qt_Apostadores      Time_Odds      Data_Hora_Aposta \
1872  1.91          2618  Tue Feb 14 00:00:04 2023  2023-02-14 00:00:04
1873  2.38          3085  Tue Feb 14 00:00:29 2023  2023-02-14 00:00:29
1874  1.56          3418  Tue Feb 14 00:00:46 2023  2023-02-14 00:00:46
1875  1.30          2934  Tue Feb 14 00:01:02 2023  2023-02-14 00:01:02
1876  1.04          2465  Tue Feb 14 00:01:15 2023  2023-02-14 00:01:15
...    ...          ...          ...          ...
3303  2.03          1922  Tue Feb 14 09:28:47 2023  2023-02-14 09:28:47
3304  1.22          2137  Tue Feb 14 09:29:04 2023  2023-02-14 09:29:04
3305  1.01          1793  Tue Feb 14 09:29:19 2023  2023-02-14 09:29:19
3306  2.54          2003  Tue Feb 14 09:29:44 2023  2023-02-14 09:29:44
3307  1.27          1835  Tue Feb 14 12:48:49 2023  2023-02-14 12:48:49

```

```

      Date_Aposta Hora_Aposta  hour  hour_edt
1872  2023-02-14   00:00:04     0   0.001111
1873  2023-02-14   00:00:29     0   0.008056
1874  2023-02-14   00:00:46     0   0.012778
1875  2023-02-14   00:01:02     0   0.017222
1876  2023-02-14   00:01:15     0   0.020833
...    ...          ...    ...    ...
3303  2023-02-14   09:28:47     9   9.479722
3304  2023-02-14   09:29:04     9   9.484444
3305  2023-02-14   09:29:19     9   9.488611
3306  2023-02-14   09:29:44     9   9.495556

```

3307 2023-02-14 12:48:49 12 12.813611

[1436 rows x 8 columns]

```
[ ]: array = []
for j in range(0,10):
    x = dia_23_02[dia_23_02['hour'] == j]
    a0 = len(x)
    a = len(x[x['Odds'] >= 1.29])/len(x['Odds'])
    b = len(x[x['Odds'] >= 1.40])/len(x['Odds'])
    c = len(x[x['Odds'] >= 1.45])/len(x['Odds'])
    d = len(x[x['Odds'] >= 1.65])/len(x['Odds'])
    att = [j,a0,a,b,c,d]
    for name in att:
        array.append(name)

array
```

```
[ ]: [0,
      145,
      0.7931034482758621,
      0.7241379310344828,
      0.6896551724137931,
      0.6,
      1,
      153,
      0.7581699346405228,
      0.6666666666666666,
      0.6470588235294118,
      0.5947712418300654,
      2,
      166,
      0.7228915662650602,
      0.6506024096385542,
      0.6204819277108434,
      0.5602409638554217,
      3,
      154,
      0.7467532467532467,
      0.6688311688311688,
      0.6428571428571429,
      0.5844155844155844,
      4,
      145,
      0.7655172413793103,
      0.7172413793103448,
      0.6896551724137931,
```

0.6206896551724138,  
5,  
158,  
0.759493670886076,  
0.7151898734177216,  
0.6772151898734177,  
0.6012658227848101,  
6,  
148,  
0.6959459459459459,  
0.6756756756756757,  
0.6554054054054054,  
0.5743243243243243,  
7,  
147,  
0.8367346938775511,  
0.7619047619047619,  
0.7482993197278912,  
0.673469387755102,  
8,  
144,  
0.7569444444444444,  
0.7013888888888888,  
0.6944444444444444,  
0.6041666666666666,  
9,  
75,  
0.7066666666666667,  
0.6533333333333333,  
0.6266666666666667,  
0.6]