Missão Prática | Nível 3 | Mundo 5

MICROATIVIDADE 1

In [ ]:
```
import pandas as pd
df = pd.read_csv('database.csv', delimiter=';')
print(df.head())
```

```
   ID  Duration          Date  Pulse  Maxpulse Calories
0   0        60  '2020/12/01'    110       130     4091
1   1        60  '2020/12/02'    117       145     4790
2   2        60  '2020/12/03'    103       135     3400
3   3        45  '2020/12/04'    109       175     2824
4   4        45  '2020/12/05'    117       148     4060
```

MICROATIVIDADE 2

In [ ]:
```
df_parcial_by_nome = df[['Date', 'Pulse', 'Calories']] # ou pelo nome das coluna
print(df_parcial_by_nome.head())
```

```
           Date  Pulse Calories
0  '2020/12/01'    110     4091
1  '2020/12/02'    117     4790
2  '2020/12/03'    103     3400
3  '2020/12/04'    109     2824
4  '2020/12/05'    117     4060
```

In [ ]:
```
df_parcial_by_index = df.iloc[:, [2, 3, 5]] # ou pela posição das colunas
print(df_parcial_by_index.head())
```

```
           Date  Pulse Calories
0  '2020/12/01'    110     4091
1  '2020/12/02'    117     4790
2  '2020/12/03'    103     3400
3  '2020/12/04'    109     2824
4  '2020/12/05'    117     4060
```

MICROATIVIDADE 3

In [ ]:
```
pd.set_option('display.max_rows', 9999)
print(df.to_string())
```

	ID	Duration	Date	Pulse	Maxpulse	Calories
0	0	60	'2020/12/01'	110	130	4091
1	1	60	'2020/12/02'	117	145	4790
2	2	60	'2020/12/03'	103	135	3400
3	3	45	'2020/12/04'	109	175	2824
4	4	45	'2020/12/05'	117	148	4060
5	5	60	'2020/12/06'	102	127	3000
6	6	60	'2020/12/07'	110	136	3740
7	7	450	'2020/12/08'	104	134	2533
8	8	30	'2020/12/09'	109	133	1951
9	9	60	'2020/12/10'	98	124	2690
10	10	60	'2020/12/11'	103	147	3293
11	11	60	'2020/12/12'	100	120	2507
12	12	60	'2020/12/12'	100	120	2507
13	13	60	'2020/12/13'	106	128	3453
14	14	60	'2020/12/14'	104	132	3793
15	15	60	'2020/12/15'	98	123	2750
16	16	60	'2020/12/16'	98	120	2152
17	17	60	'2020/12/17'	100	120	3000
18	18	45	'2020/12/18'	90	112	NaN
19	19	60	'2020/12/19'	103	123	3230
20	20	45	'2020/12/20'	97	125	2430 2
21	1	60	'2020/12/21'	108	131	3642
22	22	45	NaN	100	119	2820
23	23	60	'2020/12/23'	130	101	3000
24	24	45	'2020/12/24'	105	132	2460
25	25	60	'2020/12/25'	102	126	3345
26	26	60	20201226	100	120	2500
27	27	60	'2020/12/27'	92	118	2410
28	28	60	'2020/12/28'	103	132	NaN
29	29	60	'2020/12/29'	100	132	2800
30	30	60	'2020/12/30'	102	129	3803
31	31	60	'2020/12/31'	92	115	2430

MICROATIVIDADE 4

In [ ]:
```
print(df.head(10))
```

	ID	Duration	Date	Pulse	Maxpulse	Calories
0	0	60	'2020/12/01'	110	130	4091
1	1	60	'2020/12/02'	117	145	4790
2	2	60	'2020/12/03'	103	135	3400
3	3	45	'2020/12/04'	109	175	2824
4	4	45	'2020/12/05'	117	148	4060
5	5	60	'2020/12/06'	102	127	3000
6	6	60	'2020/12/07'	110	136	3740
7	7	450	'2020/12/08'	104	134	2533
8	8	30	'2020/12/09'	109	133	1951
9	9	60	'2020/12/10'	98	124	2690

In [ ]:
```
print(df.tail(10))
```

	ID	Duration	Date	Pulse	Maxpulse	Calories
22	22	45	NaN	100	119	2820
23	23	60	'2020/12/23'	130	101	3000
24	24	45	'2020/12/24'	105	132	2460
25	25	60	'2020/12/25'	102	126	3345
26	26	60	20201226	100	120	2500
27	27	60	'2020/12/27'	92	118	2410
28	28	60	'2020/12/28'	103	132	NaN
29	29	60	'2020/12/29'	100	132	2800
30	30	60	'2020/12/30'	102	129	3803
31	31	60	'2020/12/31'	92	115	2430

MICROATIVIDADE 5

In [ ]:
```
print("Informações gerais sobre o DataFrame:")
df_info = df.info()
```

```
Informações gerais sobre o DataFrame:
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 32 entries, 0 to 31
Data columns (total 6 columns):
 #   Column    Non-Null Count  Dtype 
---  ------    --------------  ----- 
 0   ID        32 non-null     int64 
 1   Duration  32 non-null     int64 
 2   Date      31 non-null     object
 3   Pulse     32 non-null     int64 
 4   Maxpulse  32 non-null     int64 
 5   Calories  30 non-null     object
dtypes: int64(4), object(2)
memory usage: 1.6+ KB
```

In [ ]:
```
print("\nQuantidade de dados nulos por coluna:")
print(df.isnull().sum())
```

```
Quantidade de dados nulos por coluna:
ID          0
Duration    0
Date        1
Pulse       0
Maxpulse    0
Calories    2
dtype: int64
```

In [ ]:
```
print("\nMemória utilizada pelo DataFrame em bytes:")
print(df.memory_usage(deep=True).sum())
```

```
Memória utilizada pelo DataFrame em bytes:
5219
```