1) Data wrangling

August 8, 2023

1 1) Preparación previa

1.0.1 Carga de librerías

[1]:
```
import pandas as pd
import re
import numpy as np
```

1.0.2 Lectura del dataset original de Properati

[2]:
```
data = pd.read_csv("https://media.githubusercontent.com/media/Agustin-Bulzomi/
↪Projects/main/Programming/Digital%20House%20(Python)/Support%20Files/
↪Project%201/Properati.csv")
data.head()
```

[2]:
```
   Unnamed: 0 operation property_type place_name  \
0           0      sell            PH  Mataderos
1           1      sell     apartment   La Plata
2           2      sell     apartment  Mataderos
3           3      sell            PH    Liniers
4           4      sell     apartment     Centro

                           place_with_parent_names country_name  \
0             |Argentina|Capital Federal|Mataderos|    Argentina
1        |Argentina|Bs.As. G.B.A. Zona Sur|La Plata|    Argentina
2             |Argentina|Capital Federal|Mataderos|    Argentina
3               |Argentina|Capital Federal|Liniers|    Argentina
4  |Argentina|Buenos Aires Costa Atlántica|Mar de…    Argentina

                    state_name  geonames_id                  lat-lon  \
0              Capital Federal    3430787.0  -34.6618237,-58.5088387
1        Bs.As. G.B.A. Zona Sur    3432039.0  -34.9038831,-57.9643295
2              Capital Federal    3430787.0  -34.6522615,-58.5229825
3              Capital Federal    3431333.0  -34.6477969,-58.5164244
4  Buenos Aires Costa Atlántica    3435548.0  -38.0026256,-57.5494468

         lat  …  surface_covered_in_m2  price_usd_per_m2 price_per_m2  \
```

```
0 -34.661824  …                  40.0       1127.272727  1550.000000
1 -34.903883  …                   NaN               NaN          NaN
2 -34.652262  …                  55.0       1309.090909  1309.090909
3 -34.647797  …                   NaN               NaN          NaN
4 -38.002626  …                  35.0       1828.571429  1828.571429

   floor  rooms  expenses                                      properati_url  \
0    NaN    NaN       NaN  http://www.properati.com.ar/15bo8_venta_ph_mat…
1    NaN    NaN       NaN  http://www.properati.com.ar/15bob_venta_depart…
2    NaN    NaN       NaN  http://www.properati.com.ar/15bod_venta_depart…
3    NaN    NaN       NaN  http://www.properati.com.ar/15boh_venta_ph_lin…
4    NaN    NaN       NaN  http://www.properati.com.ar/15bok_venta_depart…

                                        description  \
0  2 AMBIENTES TIPO CASA PLANTA BAJA POR PASILLO,…
1  Venta de departamento en décimo piso al frente…
2  2 AMBIENTES 3ER PISO LATERAL LIVING COMEDOR AM…
3  PH 3 ambientes con patio. Hay 3 deptos en lote…
4  DEPARTAMENTO CON FANTÁSTICA ILUMINACIÓN NATURA…

                                              title  \
0                 2 AMB TIPO CASA SIN EXPENSAS EN PB
1  VENTA Depto 2 dorm. a estrenar 7 e/ 36 y 37   …
2           2 AMB 3ER PISO CON ASCENSOR APTO CREDITO
3                       PH 3 amb. cfte. reciclado
4  DEPTO 2 AMB AL CONTRAFRENTE ZONA CENTRO/PLAZA …

                                    image_thumbnail
0  https://thumbs4.properati.com/8/BluUYiHJLhgIIK…
1  https://thumbs4.properati.com/7/ikpVBu2ztHA7jv…
2  https://thumbs4.properati.com/5/SXKr34F_IwG3W_…
3  https://thumbs4.properati.com/3/DgIfX-85Mog5SP…
4  https://thumbs4.properati.com/5/xrRqlNcSI_vs-f…

[5 rows x 26 columns]
```

1.0.3 Separación de columna con muchas ubicaciones

[3]:
```
# La columna "place_with_parent_names" tiene información separada con '|'. Se␣
 ↪separa para obtener info adicional
separado = data["place_with_parent_names"].str.split('|', expand = True)
separado.head()
```

[3]:
```
   0          1                              2             3       4     5  \
0  Argentina               Capital Federal      Mataderos          None
1  Argentina        Bs.As. G.B.A. Zona Sur       La Plata          None
2  Argentina               Capital Federal      Mataderos          None
```

```
3    Argentina               Capital Federal        Liniers          None
4    Argentina  Buenos Aires Costa Atlántica  Mar del Plata  Centro

      6
0  None
1  None
2  None
3  None
4  None
```

1.0.4 Agregado de la nueva información en nuevas columnas

[4]:
```
separado.columns = ['??', 'Pais', 'Zona', 'Partido', 'Barrios', 'Country',␣
 ↪'Otra']
data_concat = pd.concat([data, separado], axis=1)
```

1.0.5 Cálculo del tipo de cambio para corroborar

[5]:
```
data_concat['TC'] = data_concat['price_aprox_local_currency'] /␣
 ↪data_concat['price_aprox_usd']
# Calculando el promedio, decidimos tomar la columna 'price_aprox_usd' como el␣
 ↪$ de las propiedades
data_concat['TC'].mean().round(2)
```

[5]:
```
17.64
```

1.0.6 Revisión de registros nulos según columnas

[6]:
```
data_concat.isnull().sum()
```

[6]:
```
Unnamed: 0                      0
operation                       0
property_type                   0
place_name                     23
place_with_parent_names         0
country_name                    0
state_name                      0
geonames_id                 18717
lat-lon                     51550
lat                         51550
lon                         51550
price                       20410
currency                    20411
price_aprox_local_currency  20410
price_aprox_usd             20410
surface_total_in_m2         39328
surface_covered_in_m2       19907
```

```
price_usd_per_m2          52603
price_per_m2              33562
floor                    113321
rooms                     73830
expenses                 106958
properati_url                 0
description                   2
title                         0
image_thumbnail            3112
??                            0
Pais                          0
Zona                          0
Partido                       0
Barrios                    4780
Country                   80780
Otra                     120672
TC                        20411
dtype: int64
```

1.0.7 Creación de función para limpiar superficie

[7]:
```
# La siguiente función nos permite limpiar la superficie según las␣
 ↪inconsistencias entre la total y la cubierta.
# Se eligió dicha columna con respecto a 'surface_total_in_m2' ya que tenía␣
 ↪menor cantidad de registros nulos
def limpieza_superficie(sup_total, sup_cubierta):
    if sup_total is not None and sup_cubierta is not None:
            if sup_total >= sup_cubierta:
                superficie = sup_total
            else:
                superficie = np.NaN
    elif sup_total is not None:
            superficie = sup_total
    elif sup_cubierta is not None:
            superficie = sup_cubierta
    else: superficie = np.NaN

    return superficie
```

1.0.8 Aplicación de la susodicha función

[8]:
```
data_concat["superficie"] =␣
 ↪data_concat[['surface_total_in_m2','surface_covered_in_m2']].apply(lambda␣
 ↪data_concat:␣
 ↪limpieza_superficie(data_concat['surface_total_in_m2'],data_concat['surface_covered_in_m2']
data_concat.head(10)
```

[8]:

	Unnamed: 0	operation	property_type	place_name	\
0	0	sell	PH	Mataderos	
1	1	sell	apartment	La Plata	
2	2	sell	apartment	Mataderos	
3	3	sell	PH	Liniers	
4	4	sell	apartment	Centro	
5	5	sell	house	Gualeguaychú	
6	6	sell	PH	Munro	
7	7	sell	apartment	Belgrano	
8	8	sell	apartment	Belgrano	
9	9	sell	house	Rosario	

	place_with_parent_names	country_name	\
0	|Argentina|Capital Federal|Mataderos|	Argentina	
1	|Argentina|Bs.As. G.B.A. Zona Sur|La Plata|	Argentina	
2	|Argentina|Capital Federal|Mataderos|	Argentina	
3	|Argentina|Capital Federal|Liniers|	Argentina	
4	|Argentina|Buenos Aires Costa Atlántica|Mar de…	Argentina	
5	|Argentina|Entre Ríos|Gualeguaychú|	Argentina	
6	|Argentina|Bs.As. G.B.A. Zona Norte|Vicente Ló…	Argentina	
7	|Argentina|Capital Federal|Belgrano|	Argentina	
8	|Argentina|Capital Federal|Belgrano|	Argentina	
9	|Argentina|Santa Fe|Rosario|	Argentina	

	state_name	geonames_id	lat-lon	\
0	Capital Federal	3430787.0	-34.6618237,-58.5088387	
1	Bs.As. G.B.A. Zona Sur	3432039.0	-34.9038831,-57.9643295	
2	Capital Federal	3430787.0	-34.6522615,-58.5229825	
3	Capital Federal	3431333.0	-34.6477969,-58.5164244	
4	Buenos Aires Costa Atlántica	3435548.0	-38.0026256,-57.5494468	
5	Entre Ríos	3433657.0	-33.0140714,-58.519828	
6	Bs.As. G.B.A. Zona Norte	3430511.0	-34.5329567,-58.5217825	
7	Capital Federal	3436077.0	-34.5598729,-58.443362	
8	Capital Federal	3436077.0	-34.5598729,-58.443362	
9	Santa Fe	3838574.0	-32.942031,-60.7259192	

	lat	…	image_thumbnail	??	\
0	-34.661824	…	https://thumbs4.properati.com/8/BluUYiHJLhgIIK…		
1	-34.903883	…	https://thumbs4.properati.com/7/ikpVBu2ztHA7jv…		
2	-34.652262	…	https://thumbs4.properati.com/5/SXKr34F_IwG3W_…		
3	-34.647797	…	https://thumbs4.properati.com/3/DgIfX-85Mog5SP…		
4	-38.002626	…	https://thumbs4.properati.com/5/xrRqlNcSI_vs-f…		
5	-33.014071	…	https://thumbs4.properati.com/6/q-w68gvaUEQVXI…		
6	-34.532957	…	https://thumbs4.properati.com/5/6GOXsHCyDu1aGx…		
7	-34.559873	…	https://thumbs4.properati.com/1/IHxARynlr8sPEW…		
8	-34.559873	…	https://thumbs4.properati.com/2/J3zOjgaFHrkvnv…		
9	-32.942031	…	https://thumbs4.properati.com/8/RCf1YEWdF4rv98…		

```
        Pais                          Zona        Partido  Barrios  Country  \
0  Argentina              Capital Federal      Mataderos              None
1  Argentina        Bs.As. G.B.A. Zona Sur       La Plata              None
2  Argentina              Capital Federal      Mataderos              None
3  Argentina              Capital Federal        Liniers              None
4  Argentina  Buenos Aires Costa Atlántica  Mar del Plata   Centro
5  Argentina                   Entre Ríos   Gualeguaychú              None
6  Argentina      Bs.As. G.B.A. Zona Norte  Vicente López    Munro
7  Argentina              Capital Federal       Belgrano              None
8  Argentina              Capital Federal       Belgrano              None
9  Argentina                     Santa Fe        Rosario              None

   Otra       TC  superficie
0  None  17.6445        55.0
1  None  17.6445         NaN
2  None  17.6445        55.0
3  None  17.6445         NaN
4  None  17.6445        35.0
5  None      NaN         NaN
6  None  17.6445       106.0
7  None  17.6445        45.0
8  None  17.6445        65.0
9  None  17.6445         NaN

[10 rows x 35 columns]
```

1.0.9 Creación de la columna de precios por metros cuadrados con la nueva superficie

[9]:
```
data_concat['Precio_USD_por_M2']=data_concat.price_aprox_usd/data_concat.
 ↪superficie
data_concat.head()
```

[9]:
```
   Unnamed: 0 operation property_type place_name  \
0           0      sell            PH  Mataderos
1           1      sell     apartment   La Plata
2           2      sell     apartment  Mataderos
3           3      sell            PH    Liniers
4           4      sell     apartment     Centro

                          place_with_parent_names country_name  \
0             |Argentina|Capital Federal|Mataderos|    Argentina
1       |Argentina|Bs.As. G.B.A. Zona Sur|La Plata|    Argentina
2             |Argentina|Capital Federal|Mataderos|    Argentina
3               |Argentina|Capital Federal|Liniers|    Argentina
4  |Argentina|Buenos Aires Costa Atlántica|Mar de…    Argentina
```

```
                    state_name  geonames_id                  lat-lon  \
0              Capital Federal    3430787.0  -34.6618237,-58.5088387
1        Bs.As. G.B.A. Zona Sur    3432039.0  -34.9038831,-57.9643295
2              Capital Federal    3430787.0  -34.6522615,-58.5229825
3              Capital Federal    3431333.0  -34.6477969,-58.5164244
4  Buenos Aires Costa Atlántica    3435548.0  -38.0026256,-57.5494468

         lat  …  ??       Pais                          Zona        Partido  \
0 -34.661824  …      Argentina                Capital Federal      Mataderos
1 -34.903883  …      Argentina         Bs.As. G.B.A. Zona Sur       La Plata
2 -34.652262  …      Argentina                Capital Federal      Mataderos
3 -34.647797  …      Argentina                Capital Federal        Liniers
4 -38.002626  …      Argentina  Buenos Aires Costa Atlántica  Mar del Plata

   Barrios  Country  Otra       TC  superficie  Precio_USD_por_M2
0              None  None  17.6445        55.0        1127.272727
1              None  None  17.6445         NaN                NaN
2              None  None  17.6445        55.0        1309.090909
3              None  None  17.6445         NaN                NaN
4   Centro           None  17.6445        35.0        1828.571429

[5 rows x 36 columns]
```

1.0.10 Eliminación de columnas

[10]:
```
# Algunas se eliminan por no corresponder con nuestro analisis y otras por␣
 ↪estar repetidas
data_eliminacion = data_concat.drop(['Unnamed: 0', 'operation',␣
 ↪'place_with_parent_names', 'place_name', 'country_name', 'state_name',
                                     'description', 'geonames_id', 'lat-lon',␣
 ↪'floor', 'rooms', 'expenses', 'properati_url',
                                     'image_thumbnail', 'title', '??'], axis =␣
 ↪1)
data_eliminacion.head()
```

[10]:
```
  property_type        lat        lon     price currency  \
0            PH -34.661824 -58.508839   62000.0      USD
1     apartment -34.903883 -57.964330  150000.0      USD
2     apartment -34.652262 -58.522982   72000.0      USD
3            PH -34.647797 -58.516424   95000.0      USD
4     apartment -38.002626 -57.549447   64000.0      USD

   price_aprox_local_currency  price_aprox_usd  surface_total_in_m2  \
0                   1093959.0          62000.0                 55.0
1                   2646675.0         150000.0                  NaN
2                   1270404.0          72000.0                 55.0
3                   1676227.5          95000.0                  NaN
```

```
4                   1129248.0          64000.0                 35.0

   surface_covered_in_m2  price_usd_per_m2  price_per_m2       Pais  \
0                   40.0       1127.272727   1550.000000  Argentina
1                    NaN               NaN           NaN  Argentina
2                   55.0       1309.090909   1309.090909  Argentina
3                    NaN               NaN           NaN  Argentina
4                   35.0       1828.571429   1828.571429  Argentina

                          Zona        Partido Barrios Country  Otra       TC  \
0              Capital Federal      Mataderos            None  None  17.6445
1        Bs.As. G.B.A. Zona Sur       La Plata            None  None  17.6445
2              Capital Federal      Mataderos            None  None  17.6445
3              Capital Federal        Liniers            None  None  17.6445
4  Buenos Aires Costa Atlántica  Mar del Plata  Centro          None  17.6445

   superficie  Precio_USD_por_M2
0        55.0        1127.272727
1         NaN                NaN
2        55.0        1309.090909
3         NaN                NaN
4        35.0        1828.571429
```

[11]:
```
# Corroboramos el tamaño del resultado
data_eliminacion.shape
```

[11]:
```
(121220, 20)
```

1.0.11 Eliminamos los valores nulos del precio nuevo

[12]:
```
df_final = data_eliminacion[data_eliminacion['Precio_USD_por_M2'].notna()]
df_final
```

[12]:
```
       property_type        lat        lon     price currency  \
0                 PH -34.661824 -58.508839   62000.0      USD
2          apartment -34.652262 -58.522982   72000.0      USD
4          apartment -38.002626 -57.549447   64000.0      USD
6                 PH -34.532957 -58.521782  130000.0      USD
7          apartment -34.559873 -58.443362  138000.0      USD
…                ...        …        …       …      …
121215     apartment        NaN        NaN  870000.0      USD
121216         house        NaN        NaN  498000.0      USD
121217     apartment -34.570639 -58.475596  131500.0      USD
121218     apartment        NaN        NaN   95900.0      USD
121219     apartment        NaN        NaN  129000.0      USD

        price_aprox_local_currency  price_aprox_usd  surface_total_in_m2  \
```

```
0                      1093959.00          62000.0                55.0
2                      1270404.00          72000.0                55.0
4                      1129248.00          64000.0                35.0
6                      2293785.00         130000.0               106.0
7                      2434941.00         138000.0                45.0
…                             …                …                    …
121215                15350715.00         870000.0               113.0
121216                 8786961.00         498000.0               360.0
121217                 2320251.75         131500.0                46.0
121218                 1692107.55          95900.0                48.0
121219                 2276140.50         129000.0                77.0

        surface_covered_in_m2  price_usd_per_m2  price_per_m2       Pais  \
0                        40.0       1127.272727   1550.000000  Argentina
2                        55.0       1309.090909   1309.090909  Argentina
4                        35.0       1828.571429   1828.571429  Argentina
6                        78.0       1226.415094   1666.666667  Argentina
7                        40.0       3066.666667   3450.000000  Argentina
…                           …                 …             …        …
121215                   93.0       7699.115044   9354.838710  Argentina
121216                  360.0       1383.333333   1383.333333  Argentina
121217                   39.0       2858.695652   3371.794872  Argentina
121218                   48.0       1997.916667   1997.916667  Argentina
121219                   77.0       1675.324675   1675.324675  Argentina

                                Zona        Partido      Barrios Country  \
0                    Capital Federal      Mataderos                 None
2                    Capital Federal      Mataderos                 None
4       Buenos Aires Costa Atlántica  Mar del Plata       Centro
6           Bs.As. G.B.A. Zona Norte  Vicente López        Munro
7                    Capital Federal       Belgrano                 None
…                                  …             …          …     …
121215               Capital Federal       Belgrano                 None
121216      Bs.As. G.B.A. Zona Norte     San Isidro       Beccar
121217               Capital Federal  Villa Urquiza                 None
121218  Buenos Aires Costa Atlántica  Mar del Plata  Plaza Colón
121219               Capital Federal                       None    None

        Otra       TC  superficie  Precio_USD_por_M2
0       None  17.6445        55.0        1127.272727
2       None  17.6445        55.0        1309.090909
4       None  17.6445        35.0        1828.571429
6       None  17.6445       106.0        1226.415094
7       None  17.6445        45.0        3066.666667
…          …       …           …                  …
121215  None  17.6445       113.0        7699.115044
121216  None  17.6445       360.0        1383.333333
```

```
121217  None  17.6445        46.0        2858.695652
121218  None  17.6445        48.0        1997.916667
121219  None  17.6445        77.0        1675.324675

[62375 rows x 20 columns]
```

2 2) Análisis estadístico breve del resultado

2.0.1 Cálculo de % de registros según la provincia/región

[13]:
```
(df_final.Zona.value_counts() / df_final.Zona.size) * 100
```

[13]:
```
Capital Federal                35.631263
Bs.As. G.B.A. Zona Norte       26.295792
Bs.As. G.B.A. Zona Sur          8.883367
Buenos Aires Costa Atlántica    8.219639
Bs.As. G.B.A. Zona Oeste        6.613226
Santa Fe                        5.539078
Córdoba                         5.014830
Buenos Aires Interior           1.426854
Corrientes                      0.472946
Mendoza                         0.463327
Neuquén                         0.343086
Misiones                        0.213226
San Luis                        0.189178
Río Negro                       0.160321
Tucumán                         0.153908
Entre Ríos                      0.120240
Salta                           0.078557
Chubut                          0.054509
Tierra Del Fuego                0.041683
Chaco                           0.032064
La Pampa                        0.016032
Santa Cruz                      0.012826
Catamarca                       0.008016
Jujuy                           0.006413
Santiago Del Estero             0.004810
San Juan                        0.003206
La Rioja                        0.001603
Name: Zona, dtype: float64
```

2.0.2 Agrupamos por provincia/región

[14]:
```
data_agrupada_prov = df_final.groupby('Zona')
data_agrupada_prov
```

[14]:
```
<pandas.core.groupby.generic.DataFrameGroupBy object at 0x00000251A4EB1710>
```

2.0.3 Calculamos las métricas según provincia/región

[15]:
```
medidas = data_agrupada_prov[["Precio_USD_por_M2"]].describe().round(2)
```

[16]:
```
# Ordenamos según count
medidas.sort_values(by=[('Precio_USD_por_M2', 'count')], ascending = False)
```

[16]:

	Precio_USD_por_M2				\
	count	mean	std	min	
Zona					
Capital Federal	22225.0	3123.37	3720.31	24.21	
Bs.As. G.B.A. Zona Norte	16402.0	1833.34	1789.96	4.17	
Bs.As. G.B.A. Zona Sur	5541.0	1521.41	1108.30	19.31	
Buenos Aires Costa Atlántica	5127.0	1522.44	807.09	3.00	
Bs.As. G.B.A. Zona Oeste	4125.0	1289.72	1582.14	7.00	
Santa Fe	3455.0	2251.97	4445.15	0.60	
Córdoba	3128.0	1186.38	860.71	1.18	
Buenos Aires Interior	890.0	934.20	688.90	2.07	
Corrientes	295.0	1499.20	627.57	83.68	
Mendoza	289.0	1683.17	2602.58	16.47	
Neuquén	214.0	1815.42	1460.07	72.12	
Misiones	133.0	730.31	650.03	9.88	
San Luis	118.0	1565.47	3550.66	11.22	
Río Negro	100.0	2301.48	1295.92	82.04	
Tucumán	96.0	1823.39	3720.90	62.65	
Entre Ríos	75.0	1260.00	2754.70	5.61	
Salta	49.0	2624.66	5055.14	51.75	
Chubut	34.0	2099.60	2329.06	13.50	
Tierra Del Fuego	26.0	1011.24	675.48	362.21	
Chaco	20.0	962.12	581.70	163.03	
La Pampa	10.0	899.38	335.63	392.59	
Santa Cruz	8.0	778.64	603.60	315.97	
Catamarca	5.0	611.17	610.88	145.45	
Jujuy	4.0	617.08	711.25	210.31	
Santiago Del Estero	3.0	269.77	224.19	72.00	
San Juan	2.0	1648.24	2182.48	105.00	
La Rioja	1.0	243.03	NaN	243.03	

	25%	50%	75%	max
Zona				
Capital Federal	1969.70	2469.44	3068.18	206333.33
Bs.As. G.B.A. Zona Norte	1128.73	1666.67	2327.11	48296.22
Bs.As. G.B.A. Zona Sur	1000.00	1500.00	1937.50	23140.76
Buenos Aires Costa Atlántica	909.09	1579.17	2045.44	6422.22
Bs.As. G.B.A. Zona Oeste	714.29	1225.00	1666.67	80000.00
Santa Fe	1266.79	1585.44	1889.57	57382.08

Córdoba	801.96	1192.60	1542.53	30000.00
Buenos Aires Interior	314.92	833.33	1476.13	4166.67
Corrientes	1078.25	1461.54	1865.32	3500.00
Mendoza	992.08	1428.57	1684.21	31578.95
Neuquén	962.86	1854.00	2444.22	17073.17
Misiones	224.33	467.36	1215.69	3115.38
San Luis	252.76	759.51	1283.17	33333.33
Río Negro	1309.28	2305.84	3304.38	5000.00
Tucumán	785.17	785.17	1304.54	21666.67
Entre Ríos	385.58	800.00	1518.93	24038.46
Salta	690.26	1105.26	1633.93	23750.00
Chubut	1275.88	1765.69	2271.88	14540.55
Tierra Del Fuego	543.17	869.30	1172.63	3333.33
Chaco	542.14	871.87	1145.54	2386.36
La Pampa	632.69	855.94	1186.39	1402.09
Santa Cruz	434.70	565.74	793.93	2166.67
Catamarca	243.03	471.86	528.85	1666.67
Jujuy	262.78	287.74	642.04	1682.51
Santiago Del Estero	148.00	224.00	368.65	513.31
San Juan	876.62	1648.24	2419.87	3191.49
La Rioja	243.03	243.03	243.03	243.03

2.0.4 Métricas generales del data set

[17]:
```
medidas_finales = df_final[["Precio_USD_por_M2"]].describe().round(2)
medidas_finales
```

[17]:

	Precio_USD_por_M2
count	62375.00
mean	2176.12
std	2814.35
min	0.60
25%	1222.22
50%	1818.18
75%	2500.00
max	206333.33

2.0.5 Exportación del DF final

[18]:
```
df_final.to_csv('DF_Final.csv', index = False)
```