```
'''
This program demonstrates data analysis using pandas.
The program uses Avacados prices datasets.
'''
import csv
import pandas as pd

data = pd.read_csv('/Users/staff/downloads/avocado.csv')
df = pd.DataFrame(data)

print("Display first 5 rows")
print (df.head())

print("\nDisplay all rows on columns AveragePrice and Region")
avg_region = df.loc[1:, ['AveragePrice', 'region']]
print(avg_region)

print("\nDisplay price statistics in all regions")
selected_col = df.loc[1:, ['AveragePrice']]
print(selected_col.describe())

print("\nDisplay price statistics in Chicago region only")
print ("Avocados price in Chicago region")
chicago_rows = df.loc[df['region'] == 'Chicago']
avg_price = chicago_rows.loc[1:, ['AveragePrice']]
print(avg_price.describe().stack()[['min','max','mean']])

# display Total Volume of avocados in Chicago region
tot_vol = chicago_rows['Total Volume'].sum()
print("\nTotal Volume of avocados in Chicago region", tot_vol)
```

Output

Display first 5 rows
```
  Unnamed: 0      Date AveragePrice ...        type year region
0         0 2015-12-27       1.33 ... conventional 2015 Albany
1         1 2015-12-20       1.35 ... conventional 2015 Albany
2         2 2015-12-13       0.93 ... conventional 2015 Albany
3         3 2015-12-06       1.08 ... conventional 2015 Albany
4         4 2015-11-29       1.28 ... conventional 2015 Albany
```

[5 rows x 14 columns]

Display all rows on columns AveragePrice and Region

```
      AveragePrice          region
1          1.35          Albany
2          0.93          Albany
3          1.08          Albany
4          1.28          Albany
5          1.26          Albany
...         ...            ...
18244        1.63  WestTexNewMexico
18245        1.71  WestTexNewMexico
18246        1.87  WestTexNewMexico
18247        1.93  WestTexNewMexico
18248        1.62  WestTexNewMexico

[18248 rows x 2 columns]

Display price stastitics in all regions
      AveragePrice
count  18248.000000
mean      1.405983
std      0.402687
min      0.440000
25%      1.100000
50%      1.370000
75%      1.660000
max      3.250000

Display price stastitics in Chicago region only
Avocados price in Chicago region
mean  AveragePrice   1.556775
min   AveragePrice   0.700000
max   AveragePrice   2.300000
dtype: float64

Total Volume of avocados in Chicago region 133702338.50999999
```