

## RBC TEST3

Script to generate a new CSV file that only includes properties sold for less than the average price / foot.

### Installation

Use if package manager pip. Used pandas,sys and numpy libraries

### Installed

```
pip install python3
pip install pandas
```

## Usage

```
<span class="hljs-keyword">import</span> pandas <span class="hljs-keyword">as</span>
pd
<span class="hljs-keyword">import</span> numpy <span class="hljs-keyword">as</span> np
<span class="hljs-keyword">import</span> sys

<span class="hljs-function"><span class="hljs-keyword">def</span> <span class="hljs-title">getProperties</span><span class="hljs-params">(file_name)</span>:</span>

    <span class="hljs-keyword">try</span>:
        df = pd.read_csv(file_name)
        df[<span class="hljs-string">'pricePerSqft'</span>] = df[<span class="hljs-string">'price'</span>].divide(df[<span class="hljs-string">'sq__ft'</span>])
        df = df.replace([np.inf, -np.inf], np.nan).dropna()
        averagePricePerSqft = df[<span class="hljs-string">'pricePerSqft'</span>].mean()
        print(averagePricePerSqft)
        df = df[df[<span class="hljs-string">'pricePerSqft'</span>]
<span class="hljs-string"><span class="hljs-string">averagePricePerSqft</span>
            print(<span class="hljs-string">"Creating a report for properties sold for
less than the average price / sq.foot to sales-data-filtered.csv"</span>)
            df.to_csv(<span class="hljs-string">'sales-data-filtered.csv'</span>)
        <span class="hljs-keyword">except</span>:
            print(<span class="hljs-string">"Exception in getProperties def bliock"
</span>)

<span class="hljs-keyword">if</span> __name__ == <span class="hljs-string">"__main__"
</span>:
    <span class="hljs-keyword">print</span> (<span class="hljs-string">" TEST3 :
Generate a new CSV file that only includes properties sold for less than the average
price / sq.foot."</span>)

    file_name = input(<span class="hljs-string">"Enter filename with full path: "
</span>)
    <span class="hljs-keyword">if</span> len(file_name) == <span class="hljs-number">0</span>:
        print(<span class="hljs-string">"Next time please enter something"</span>)
        sys.exit()
```

```
<span class="hljs-keyword">try</span>:  
    getProperties(file_name)  
<span class="hljs-keyword">except</span> IOError:  
    <span class="hljs-keyword">print</span> (<span class="hljs-string">"There was  
an error reading file"</span>)  
    sys.exit()
```

Please save the above python script to any location on your workstation **and** execute following :

```
131518MBP15:Desktop asinghvi$ python3 saledata.py  
TEST3 : Generate a new CSV file that only includes properties sold for less than the  
average price / sq.foot.  
Enter filename with full path: /Users/asinghvi/Desktop/sales-data.csv  
145.6732527872387  
Creating a report for properties sold for less than the average price / sq.foot to  
sales-data-filtered.csv  
131518MBP15:Desktop asinghvi$
```