```
In [72]: import pandas as pd
         import numpy as np
```

```
In [73]: file_paths = {
             "Seattle Fencing": "Senna Capital Leads - Seattle Fencing.csv",
             "Seattle HVAC": "Senna Capital Leads - Seattle HVAC.csv",
             "Seattle Roofing": "Senna Capital Leads - Seattle Roofing.csv",
             "Seattle Tree Trimming": "Senna Capital Leads - Seattle Tree Trimming.csv",
             "Tacoma HVAC": "Senna Capital Leads - Tacoma HVAC.csv",
             "Vancouver Fencing": "Senna Capital Leads - Vancouver Fencing .csv",
             "Vancouver Tree Trimming": "Senna Capital Leads - Vancouver Tree Trimming.csv"
         }

         dataframes = []

         for category, path in file_paths.items():
             df = pd.read_csv(path)
             df['Category'] = category
             dataframes.append(df)

         merged_df = pd.concat(dataframes, ignore_index=True)
```

```
In [74]: merged_df.head()
```

Out[74]:

	Company Name	Website	Owner/Management	
0	Rare Bears Fencing	https://www.rarebearsfencing.com/	-	info@rar€
1	Gibson Fence and Deck	https://gibsonfenceanddeck.com/deck-and-fence-...	Damon Gibson	Gibson@gibsonf
2	Rain City Fence	https://raincityfence.com/	Caleb Helm	fence@
3	Top Rail Fence Seattle	https://toprailfences.com/locations/seattle/?u...	John Schussler	seattle(
4	Cain Fence and Deck	http://www.cainfenceanddeck.com/	Chris Cain	

5 rows × 39 columns

◀ ━━━━━━━━ ▶

```
In [75]: merged_df.columns
```

Out[75]: Index(['Company Name', 'Website', 'Owner/Management', 'Email', 'Phone',
         'Location ', 'reviewsCount', 'Unnamed: 7', 'Unnamed: 8', 'Unnamed: 9',
         'Unnamed: 10', 'Unnamed: 11', 'Unnamed: 12', 'Unnamed: 13',
         'Unnamed: 14', 'Unnamed: 15', 'Unnamed: 16', 'Unnamed: 17', 'Category',
         'Owner Name', 'Location', 'Total Score', 'Reviews Count',
         'Reviews Rate', 'Column 1', 'Company', 'Owner', 'Rating',
         'Review Count', 'City', 'Unnamed: 18', 'Unnamed: 19', 'Unnamed: 0',
         'Unnamed: 1', 'Unnamed: 2', 'Unnamed: 3', 'Unnamed: 4', 'Unnamed: 5',
         'Unnamed: 6'],
       dtype='object')

In [76]: ```python
print(merged_df['Unnamed: 0'])
```

0                              NaN
1                              NaN
2                              NaN
3                              NaN
4                              NaN
                  ...
326     Pacific NW Landscape & Tree Services
327             LIGHTNING TREE SERVICE LLC
328                           TREE WARRIOR
329                     Alpha Tree Care, LLC
330                              NaN
Name: Unnamed: 0, Length: 331, dtype: object

In [77]:  ```python
merged_df['Website']
```

Out[77]: 0   https://www.rarebearsfencing.com/
         1   https://gibsonfenceanddeck.com/deck-and-fence-...
         2   https://raincityfence.com/
         3   https://toprailfences.com/locations/seattle/?u...
         4   http://www.cainfenceanddeck.com/
                              ...
         326   NaN
         327   NaN
         328   NaN
         329   NaN
         330   NaN
         Name: Website, Length: 331, dtype: object

In [78]: ```python
merged_df.columns
```

Out[78]:  Index(['Company Name', 'Website', 'Owner/Management', 'Email', 'Phone',
         'Location ', 'reviewsCount', 'Unnamed: 7', 'Unnamed: 8', 'Unnamed: 9',
         'Unnamed: 10', 'Unnamed: 11', 'Unnamed: 12', 'Unnamed: 13',
         'Unnamed: 14', 'Unnamed: 15', 'Unnamed: 16', 'Unnamed: 17', 'Category',
         'Owner Name', 'Location', 'Total Score', 'Reviews Count',
         'Reviews Rate', 'Column 1', 'Company', 'Owner', 'Rating',
         'Review Count', 'City', 'Unnamed: 18', 'Unnamed: 19', 'Unnamed: 0',
         'Unnamed: 1', 'Unnamed: 2', 'Unnamed: 3', 'Unnamed: 4', 'Unnamed: 5',
         'Unnamed: 6'],
       dtype='object')

In [79]:  ```python
merged_df.drop(columns=['Unnamed: 7', 'Unnamed: 8', 'Unnamed: 9',
         'Unnamed: 10', 'Unnamed: 11', 'Unnamed: 12', 'Unnamed: 13',
```

```
              'Unnamed: 14', 'Unnamed: 15', 'Unnamed: 16', 'Unnamed: 17', 'Unnamed: 1','Un
              'Unnamed: 1', 'Unnamed: 2', 'Unnamed: 3', 'Unnamed: 4', 'Unnamed: 5',
              'Unnamed: 6'], inplace=True)
```

In [80]:
```
merged_df.dropna(subset=['Company Name'], inplace=True)
```

In [81]:
```
merged_df.sort_values(by='Category')
```

Out[81]:

	Company Name	Website	Owner/Management	
0	Rare Bears Fencing	https://www.rarebearsfencing.com/	-	
14	Red = called and owner did not want to share i...	NaN	NaN	
13	Dull green = called but no one picked up	NaN	NaN	
12	Green = called already, got information	NaN	NaN	
9	Harbison Fencing	https://mercerisland.harbisonfencing.com/#caro...	-	
...	...	...	...	
270	Columbia Fence & Deck	NaN	NaN	
269	Vista Home Construction LLC	https://vistahome-constructionllc.com/	NaN	info@
268	Fence Butler	https://fencebutlers.com/	NaN	
279	Adam's Affordable Fencing LLC	http://www.adamsaffordablefencing.com/	NaN	adam
292	Pacific NW Landscape & Tree Services	https://pacificnwpdx.com/	NaN	

252 rows × 19 columns

```
In [82]: cat_index = merged_df.columns.get_loc('Category')
         print(cat_index)
```

7

```
In [83]: cols = merged_df.columns.tolist()
         c = cols.pop(7)
         cols.insert(0, c)
         merged_df = merged_df[cols]
```

```
In [84]: merged_df.head()
```

Out[84]:

	Category	Company Name	Website	Owner/Management	
0	Seattle Fencing	Rare Bears Fencing	https://www.rarebearsfencing.com/	-	
1	Seattle Fencing	Gibson Fence and Deck	https://gibsonfenceanddeck.com/deck-and-fence-...	Damon Gibson	Gibs
2	Seattle Fencing	Rain City Fence	https://raincityfence.com/	Caleb Helm	
3	Seattle Fencing	Top Rail Fence Seattle	https://toprailfences.com/locations/seattle/?u...	John Schussler	
4	Seattle Fencing	Cain Fence and Deck	http://www.cainfenceanddeck.com/	Chris Cain	

```
In [85]: merged_df.fillna("")
```

Out[85]:

	Category	Company Name	Website	Owner/Managemen
0	Seattle Fencing	Rare Bears Fencing	https://www.rarebearsfencing.com/	
1	Seattle Fencing	Gibson Fence and Deck	https://gibsonfenceanddeck.com/deck-and-fence-...	Damon Gibson
2	Seattle Fencing	Rain City Fence	https://raincityfence.com/	Caleb Heln
3	Seattle Fencing	Top Rail Fence Seattle	https://toprailfences.com/locations/seattle/?u...	John Schussle
4	Seattle Fencing	Cain Fence and Deck	http://www.cainfenceanddeck.com/	Chris Cai
...	...	...	...	.
288	Vancouver Fencing	Perez Landscaping Maintenance LLC	https://perezlandscapingmaintenanceor.com/	
289	Vancouver Fencing	Able Fence Company Inc.	http://www.ablefenceinc.com/	
290	Vancouver Fencing	Cowboy Creek Construction	https://www.fencesbycowboycreek.com/	
291	Vancouver Fencing	GH Gate Products	https://www.ghgateproducts.com/	
292	Vancouver Fencing	Pacific NW Landscape & Tree Services	https://pacificnwpdx.com/	

252 rows × 19 columns

```
In [86]:  merged_df.columns
          print(merged_df.columns.tolist())
```

['Category', 'Company Name', 'Website', 'Owner/Management', 'Email', 'Phone', 'Locat
ion ', 'reviewsCount', 'Owner Name', 'Location', 'Total Score', 'Reviews Count', 'Re
views Rate', 'Column 1', 'Company', 'Owner', 'Rating', 'Review Count', 'City']

```
In [87]:  merged_df.columns.str.strip()
          merged_df['Owner/Management']
```

```
Out[87]:  0                    -
          1         Damon Gibson
          2          Caleb Helm
          3      John Schussler
          4          Chris Cain
                      ...
          288              NaN
          289              NaN
          290              NaN
          291              NaN
          292              NaN
          Name: Owner/Management, Length: 252, dtype: object
```

```
In [88]:  merged_df.drop(columns="Column 1", inplace=True)
```

```
In [90]:  merged_df['Owner'] = merged_df['Owner Name'].combine_first(merged_df['Owner/Managem
```

```
In [91]:  merged_df['Owner']
```

```
Out[91]:  0                    -
          1         Damon Gibson
          2          Caleb Helm
          3      John Schussler
          4          Chris Cain
                      ...
          288              NaN
          289              NaN
          290              NaN
          291              NaN
          292              NaN
          Name: Owner, Length: 252, dtype: object
```

```
In [94]:  merged_df.columns
          merged_df.head()
```

Out[94]:

	Category	Company Name	Website	Owner/Management
0	Seattle Fencing	Rare Bears Fencing	https://www.rarebearsfencing.com/	-
1	Seattle Fencing	Gibson Fence and Deck	https://gibsonfenceanddeck.com/deck-and-fence-...	Damon Gibson Gibs
2	Seattle Fencing	Rain City Fence	https://raincityfence.com/	Caleb Helm
3	Seattle Fencing	Top Rail Fence Seattle	https://toprailfences.com/locations/seattle/?u...	John Schussler
4	Seattle Fencing	Cain Fence and Deck	http://www.cainfenceanddeck.com/	Chris Cain

In [103...   `merged_df`

Out[103…

	Category	Company Name	Website	
0	Seattle Fencing	Rare Bears Fencing	https://www.rarebearsfencing.com/	info@rarebear
1	Seattle Fencing	Gibson Fence and Deck	https://gibsonfenceanddeck.com/deck-and-fence-…	Gibson@gibsonfence
2	Seattle Fencing	Rain City Fence	https://raincityfence.com/	fence@rain
3	Seattle Fencing	Top Rail Fence Seattle	https://toprailfences.com/locations/seattle/?u…	seattle@top
4	Seattle Fencing	Cain Fence and Deck	http://www.cainfenceanddeck.com/	
...	...	...	...	
288	Vancouver Fencing	Perez Landscaping Maintenance LLC	https://perezlandscapingmaintenanceor.com/	Obdulioperez6
289	Vancouver Fencing	Able Fence Company Inc.	http://www.ablefenceinc.com/	ablefenceco@
290	Vancouver Fencing	Cowboy Creek Construction	https://www.fencesbycowboycreek.com/	
291	Vancouver Fencing	GH Gate Products	https://www.ghgateproducts.com/	
292	Vancouver Fencing	Pacific NW Landscape & Tree Services	https://pacificnwpdx.com/	info@pacif

252 rows × 16 columns

In [100… `merged_df.drop_duplicates`

```
Out[100…   <bound method DataFrame.drop_duplicates of                    Category
           Company Name   \
           0        Seattle Fencing                        Rare Bears Fencing
           1        Seattle Fencing                     Gibson Fence and Deck
           2        Seattle Fencing                           Rain City Fence
           3        Seattle Fencing                    Top Rail Fence Seattle
           4        Seattle Fencing                       Cain Fence and Deck
           ..              ...                                        ...
           288   Vancouver Fencing     Perez Landscaping Maintenance LLC
           289   Vancouver Fencing               Able Fence Company Inc.
           290   Vancouver Fencing            Cowboy Creek Construction
           291   Vancouver Fencing                      GH Gate Products
           292   Vancouver Fencing   Pacific NW Landscape & Tree Services

                                                            Website   \
           0                     https://www.rarebearsfencing.com/
           1       https://gibsonfenceanddeck.com/deck-and-fence-...
           2                         https://raincityfence.com/
           3       https://toprailfences.com/locations/seattle/?u...
           4                     http://www.cainfenceanddeck.com/
           ..                                       ...
           288        https://perezlandscapingmaintenanceor.com/
           289                   http://www.ablefenceinc.com/
           290            https://www.fencesbycowboycreek.com/
           291               https://www.ghgateproducts.com/
           292                     https://pacificnwpdx.com/

                                     Email           Phone  \
           0          info@rarebearsfencing.com  (206) 202-9157
           1      Gibson@gibsonfenceanddeck.com  (206) 387-1002
           2          fence@raincityfence.com  (206) 886-6234
           3         seattle@toprailfence.com  (206) 312-2925
           4                               -  (206) 571-8762
           ..                          ...             ...
           288       Obdulioperez67@gmail.com             NaN
           289       ablefenceco@comcast.net  (360) 256-5896
           290                          NaN  (360) 356-6842
           291                          NaN  (360) 241-0880
           292          info@pacificnwpdx.com  (971) 201-9413

                                              Location   reviewsCount Location  \
           0                                   Seattle           24.0      NaN
           1                                   Seattle           47.0      NaN
           2                                   Seattle          140.0      NaN
           3                                   Seattle           66.0      NaN
           4                                   Seattle           28.0      NaN
           ..                                       ...            ...      ...
           288  9301 E Mill Plain Blvd, Vancouver, WA 98664 Va...      NaN      NaN
           289  6612 NE St Johns Rd, Vancouver, WA 98661 Vanco...      NaN      NaN
           290  2005 SE 192nd Ave Suite 200, Camas, WA 98607 C...      NaN      NaN
           291  300 W 15th St suite 300-2, Vancouver, WA 98660...      NaN      NaN
           292       3830 E 18th St, Vancouver, WA 98661 Vancouver      NaN      NaN

                 Total Score  Reviews Count  Reviews Rate Company        Owner  Rating  \
           0          NaN            NaN          NaN     NaN            -     NaN
           1          NaN            NaN          NaN     NaN   Damon Gibson    NaN
```

```
2      NaN         NaN         NaN     NaN      Caleb Helm      NaN
3      NaN         NaN         NaN     NaN  John Schussler      NaN
4      NaN         NaN         NaN     NaN      Chris Cain      NaN
..     ...         ...         ...     ...             ...      ...
288    NaN         NaN         NaN     NaN             NaN      NaN
289    NaN         NaN         NaN     NaN             NaN      NaN
290    NaN         NaN         NaN     NaN             NaN      NaN
291    NaN         NaN         NaN     NaN             NaN      NaN
292    NaN         NaN         NaN     NaN             NaN      NaN

     Review Count City
0             NaN  NaN
1             NaN  NaN
2             NaN  NaN
3             NaN  NaN
4             NaN  NaN
..            ...  ...
288           4.6  NaN
289           4.2  NaN
290           5.0  NaN
291           NaN  NaN
292           4.9  NaN

[252 rows x 16 columns]>
```

In [102... `merged_df.head()`

Out[102...

	Category	Company Name	Website	
0	Seattle Fencing	Rare Bears Fencing	https://www.rarebearsfencing.com/	info@rarebearsfencing
1	Seattle Fencing	Gibson Fence and Deck	https://gibsonfenceanddeck.com/deck-and-fence-...	Gibson@gibsonfenceanddec
2	Seattle Fencing	Rain City Fence	https://raincityfence.com/	fence@raincityfenc
3	Seattle Fencing	Top Rail Fence Seattle	https://toprailfences.com/locations/seattle/?u...	seattle@toprailfenc
4	Seattle Fencing	Cain Fence and Deck	http://www.cainfenceanddeck.com/	

In [108... `merged_df`

Out[108...

	Category	Company Name	Website	
0	Seattle Fencing	Rare Bears Fencing	https://www.rarebearsfencing.com/	info@rarebear
1	Seattle Fencing	Gibson Fence and Deck	https://gibsonfenceanddeck.com/deck-and-fence-...	Gibson@gibsonfence
2	Seattle Fencing	Rain City Fence	https://raincityfence.com/	fence@rain
3	Seattle Fencing	Top Rail Fence Seattle	https://toprailfences.com/locations/seattle/?u...	seattle@top
4	Seattle Fencing	Cain Fence and Deck	http://www.cainfenceanddeck.com/	
...	...	...	...	
288	Vancouver Fencing	Perez Landscaping Maintenance LLC	https://perezlandscapingmaintenanceor.com/	Obdulioperez6
289	Vancouver Fencing	Able Fence Company Inc.	http://www.ablefenceinc.com/	ablefenceco@
290	Vancouver Fencing	Cowboy Creek Construction	https://www.fencesbycowboycreek.com/	
291	Vancouver Fencing	GH Gate Products	https://www.ghgateproducts.com/	
292	Vancouver Fencing	Pacific NW Landscape & Tree Services	https://pacificnwpdx.com/	info@pacif

252 rows × 16 columns

In [110… `merged_df.to_excel("correct_merge_df.xlsx", engine="openpyxl", index=False)`