

```
In [ ]: from mylib.calculator import (
        load_dataset,
        get_mean,
        get_median,
        get_std,
        plot_histogram,
        plot_scatter,
    )
```

```
In [ ]: def get_describe():
        """get dataset"""
        data = load_dataset()
        return data.describe()
```

```
In [ ]: def col_summ_stats(col):
        """generate the summary of the statistic data"""
        data = load_dataset()
        mean = get_mean(data, col)
        median = get_median(data, col)
        std = get_std(data, col)
        print(f"Column of Interest: {col}")
        print(f"Mean: {mean}")
        print(f"Median: {median}")
        print(f"Standard Deviation: {std}")
        return {"mean": mean, "median": median, "std": std}
```

```
In [ ]: def generate_visualization(col, col2):
        """generate histogram and scatter plot"""
        data = load_dataset()
        plot_histogram(data, col)
        plot_scatter(data, col, col2)
```

```
In [ ]: def save_to_md():
        """save result to a markdown file"""
        with open("test.md", "a") as file:
            file.write("test")
```

```
In [ ]: if __name__ == "__main__":
        print(get_describe())
        col_of_intrst = "ShareWomen"
        compare_col = "Total"
        col_summ_stats(col_of_intrst)
        generate_visualization(col_of_intrst, compare_col)
```

\	Rank	Major_code	Total	Men	Women
count	76.000000	76.000000	76.000000	76.000000	76.000000
mean	38.500000	3580.026316	25515.289474	12800.763158	12714.526316
std	22.083176	1437.455038	43998.008553	21307.554101	29056.014723
min	1.000000	1301.000000	609.000000	488.000000	77.000000
25%	19.750000	2409.750000	3782.000000	2047.750000	1227.500000
50%	38.500000	3601.500000	11047.500000	4583.000000	5217.500000
75%	57.250000	5002.250000	27509.250000	11686.500000	12463.500000
max	76.000000	6199.000000	280709.000000	111762.000000	187621.000000

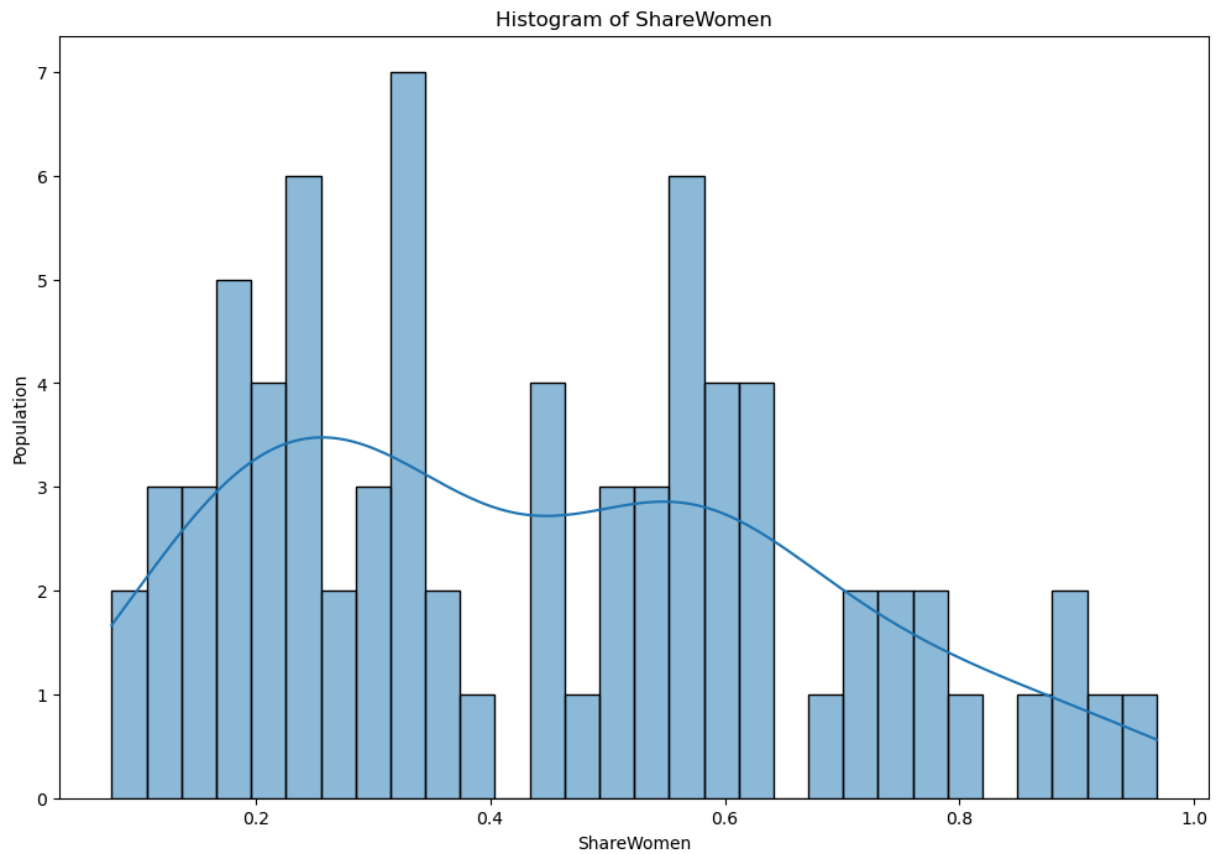
	ShareWomen	Median
count	76.000000	76.000000
mean	0.436929	46118.421053
std	0.232176	13187.223216
min	0.077453	26000.000000
25%	0.247918	36150.000000
50%	0.405868	44350.000000
75%	0.591803	52250.000000
max	0.967998	110000.000000

Column of Interest: ShareWomen

Mean: 0.43692924057894733

Median: 0.4058678835

Standard Deviation: 0.23217586451601752



ShareWomen vs. Total

