

Connected to base (Python 3.12.5)

```
In [ ]: from main import load_dataset, get_mean, get_median, get_std, save_to_md, create_boxplot

import pandas as pd

data = "https://raw.githubusercontent.com/anlane611/datasets/main/population.csv"
dataframe = load_dataset(data)
```

```
In [ ]: print(dataframe)

# Print descriptive statistics
print(dataframe.describe())
print(get_mean(dataframe, "Y"))
print(get_median(dataframe, "Y"))
print(get_std(dataframe, "Y"))
```

	Y	X1	X2
0	21.973610	4	1
1	12.387638	3	1
2	12.665114	3	1
3	16.753335	1	1
4	22.435229	2	1
...	...	..	..
99995	23.310289	2	1
99996	20.406937	4	1
99997	25.335073	2	1
99998	29.479947	4	1
99999	16.473850	2	1

  

	Y	X1	X2
count	100000.000000	100000.000000	100000.000000
mean	19.975793	3.004000	0.99193
std	5.004965	1.379131	0.08947
min	-3.058220	1.000000	0.00000
25%	16.590524	2.000000	1.00000
50%	19.971020	3.000000	1.00000
75%	23.351637	4.000000	1.00000
max	45.856084	5.000000	1.00000

19.97579252039033  
19.97102000166825  
5.004964559422916

```
In [ ]: # Define test functions
def test_mean():
    """Test the get_mean function"""
    assert get_mean(dataframe, "Y") == 19.97579252039033

def test_median():
    """Test the get_median function"""
    assert get_median(dataframe, "Y") == 19.97102000166825

def test_std():
    """Test the get_std function"""
    assert get_std(dataframe, "Y") == 5.004964559422916
```

```
In [ ]: if __name__ == "__main__":
    test_mean()
    test_median()
    test_std()
    create_boxplot(dataframe["Y"], "boxplot.png")
    mean_y = get_mean(dataframe, "Y")
    median_y = get_median(dataframe, "Y")
    std_y = get_std(dataframe, "Y")
    save_to_md(mean_y, median_y, std_y)
```

