

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 numpy as np
import pandas as pd

data = "https://raw.githubusercontent.com/anlane611/datasets/main/population.csv"
dataframe = load_dataset(data)
df_y = dataframe["Y"]

print(df_y)
```

```
0      21.973610
1      12.387638
2      12.665114
3      16.753335
4      22.435229
...
99995   23.310289
99996   20.406937
99997   25.335073
99998   29.479947
99999   16.473850
Name: Y, Length: 100000, dtype: float64
```

```
In [ ]: print(df_y.describe())
```

```
count    100000.000000
mean      19.975793
std        5.004965
min       -3.058220
25%       16.590524
50%       19.971020
75%       23.351637
max       45.856084
Name: Y, dtype: float64
```

```
In [ ]: def test_mean():
        """Test the get_mean function"""
        assert get_mean(df_y) == round(np.mean(df_y), 3)

def test_median():
    """Test the get_median function"""
    assert get_median(df_y) == round(np.median(df_y), 3)

def test_std():
    """Test the get_std function"""
    assert get_std(df_y) == round(np.std(df_y), 3)
```

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

