Handling of Outliers at least for the "Age" variable.

```
In [1]:  ▶  import pandas as pd
            import numpy as np
            import matplotlib.pyplot as plt
            pd.pandas.set_option('display.max_columns', None)
```

```
In [2]:  ▶  dataset = pd.read_csv('Titanic_Dataset.csv')
            print(dataset.shape)
            dataset.head()
```

(891, 12)

Out[2]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500	NaN	S
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.2833	C85	C
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250	NaN	S
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	113803	53.1000	C123	S
4	5	0	3	Allen, Mr. William Henry	male	35.0	0	0	373450	8.0500	NaN	S

```
In [4]:  ▶  max_thresold = dataset['Age'].quantile(0.95)
            max_thresold
```

Out[4]: 56.0

```
In [5]:  ▶ dataset[dataset['Age']>max_thresold]
```

Out[5]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
11	12	1	1	Bonnell, Miss. Elizabeth	female	58.0	0	0	113783	26.5500	C103	S
33	34	0	2	Wheadon, Mr. Edward H	male	66.0	0	0	C.A. 24579	10.5000	NaN	S
54	55	0	1	Ostby, Mr. Engelhart Cornelius	male	65.0	0	1	113509	61.9792	B30	C
94	95	0	3	Coxon, Mr. Daniel	male	59.0	0	0	364500	7.2500	NaN	S
96	97	0	1	Goldschmidt, Mr. George B	male	71.0	0	0	PC 17754	34.6542	A5	C
116	117	0	3	Connors, Mr. Patrick	male	70.5	0	0	370369	7.7500	NaN	Q
170	171	0	1	Van der hoef, Mr. Wyckoff	male	61.0	0	0	111240	33.5000	B19	S
195	196	1	1	Lurette, Miss. Elise	female	58.0	0	0	PC 17569	146.5208	B80	C
232	233	0	2	Sjostedt, Mr. Ernst Adolf	male	59.0	0	0	237442	13.5000	NaN	S

```
In [6]:  ▶ min_thresold = dataset['Age'].quantile(0.05)
           min_thresold
```

Out[6]: 4.0

In [8]: ▶ `dataset[dataset['Age']<min_thresold]`

Out[8]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
7	8	0	3	Palsson, Master. Gosta Leonard	male	2.00	3	1	349909	21.0750	NaN	S
16	17	0	3	Rice, Master. Eugene	male	2.00	4	1	382652	29.1250	NaN	Q
43	44	1	2	Laroche, Miss. Simonne Marie Anne Andree	female	3.00	1	2	SC/Paris 2123	41.5792	NaN	C
78	79	1	2	Caldwell, Master. Alden Gates	male	0.83	0	2	248738	29.0000	NaN	S
119	120	0	3	Andersson, Miss. Ellis Anna Maria	female	2.00	4	2	347082	31.2750	NaN	S
164	165	0	3	Panula, Master. Eino Viljami	male	1.00	4	1	3101295	39.6875	NaN	S
172	173	1	3	Johnson, Miss. Eleanor Ileen	female	1.00	1	1	347742	11.1333	NaN	S

In [11]: ▶ `dataset[(dataset['Age']<max_thresold) & (dataset['Age']>min_thresold)]`

Out[11]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500	NaN	S
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.2833	C85	C
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250	NaN	S
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	113803	53.1000	C123	S
4	5	0	3	Allen, Mr. William Henry	male	35.0	0	0	373450	8.0500	NaN	S
...	...	...	...	...	...	...	...	...	...	...	...	...
885	886	0	3	Rice, Mrs. William (Margaret Norton)	female	39.0	0	5	382652	29.1250	NaN	Q
886	887	0	2	Montvila, Rev. Juozas	male	27.0	0	0	211536	13.0000	NaN	S
887	888	1	1	Graham, Miss. Margaret Edith	female	19.0	0	0	112053	30.0000	B42	S
889	890	1	1	Behr, Mr. Karl Howell	male	26.0	0	0	111369	30.0000	C148	C
890	891	0	3	Dooley, Mr. Patrick	male	32.0	0	0	370376	7.7500	NaN	Q

635 rows × 12 columns

CONCLUSION