

## Analysis and Visualization of a Titanic data set

In this assessment, I'll utilize Python to investigate and envision the exemplary titanic information. The focal point of this investigation is to respond to the inquiry - "what are the qualities of the titanic survivors? "The titanic information can be downloaded from the Kaggle site. I'll utilize the train.csv for information investigation, which contains the endurance information expected to get the attributes of the titanic survivors.

We should initially see what the information resembles.

In the preparation information, there're 891 travelers, and the normal endurance rate is 38%. Age goes from 0.42 to 80 and the normal is ~30 year old. No less than half of travelers don't have kin/life partners on board the Titanic, and something like 75% of travelers don't have guardians/kids on board the Titanic. The toll fluctuates a ton.

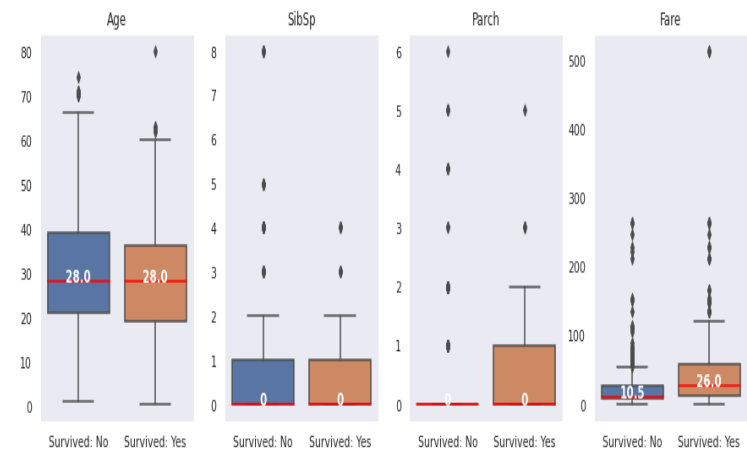
### Glance of data set

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	Cummings, 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

Above is a rundown of travelers with \$0 charge. I spot really look at a couple of travelers to

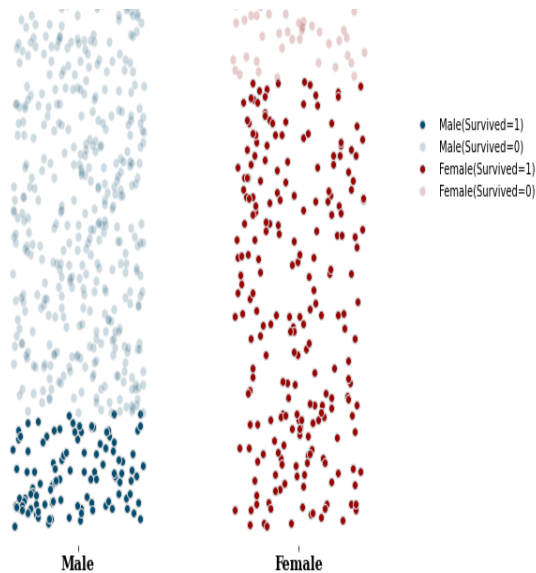
check whether the \$0 admission is planned. As per [www.encyclopedia-titanica.org](http://www.encyclopedia-titanica.org), Mr Thomas Andrews Jr was a nephew of Lord Pirrie, head proprietor of Harland and Wolff (the developers of the Titanic). He loaded up with a free ticket №112050. Mr William Henry Marsh Parr was an overseeing electrical architect and decided to supervise the smooth running of the Titanic's first journey.

### Statistics of data set and Plots



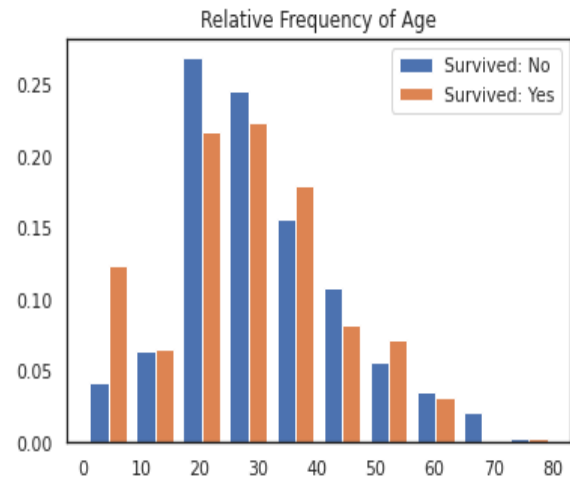
This is comparison plot which states that survival rate can be compared on the basis of various features like age parch fare etc hence this gives overall comparison of the survived persons

### Distribution of survival with respect to gender



As shown in above plot it is clear that survival of females is more than males as 19 percent of males are survived whereas 74 percent of females are survived

In the above plots of relative recurrence for age, what truly stands apart is the age bunch < 10. Kids were bound to endure contrasted with casualties among all age gatherings.



In the past, **dimensional reduction** has been widely used in multidimensional data analysis.

However, it is seldom used to analyze it after clustering.

This visualization draws separate graphs based on gender and Pclass based on the clustering results according to survival, so that the distribution of survivors according to the criteria can be viewed differently.