**The EDA Report - All Insights**

1. **Pclass or Passenger Class** is the most correlated numeric feature with **Survived(target)** attribute compared with other numeric features.

2. **Pclass/Passenger Class** and **Fare** features have significant **negative correlation** value ***(0.55)*** which is as our expectation.

3. **SibSp** and **Parch**, these two features have significant **positive correlation** value ***(0.41)***

4. **PassengerId** feature has **no reasonable correlation** with any other features.

5. Majority of the passengers ***(61.6%)*** in Titanic, were not able to survive.

6. Only ***38.4%*** passengers were able to survive.

7. We've observed that most of the passengers ***(55.1%)*** in Titanic were travelling in **Economy(3rd) Class**.

8. ***24.2%*** & ***20.7%*** passengers in Titanic were travelling in **Premium(1st) & Middle(2nd) Class** respectively.

9. Majority of the passengers ***(41.75%)*** who were travelling in **Economy(3rd) Class** of Titanic were not able to survive.

10. The **Survival rate** of **Premium(1st) Class** passengers is higher than other two passenger classes.

11. The passengers of **Economy(3rd) Class** had least **Survival rate**.

12. The **Average Fare** of **Premium(1st), Middle(2nd) and Economy(3rd) Class** is **84, 20, 13** dollars respectively.

13. Majority of the passengers ***(76.09%)*** in Titanic were travelling **alone** (i.e., not travelling with their parents/children).

14. Around ***50%*** of the total passengers in Titanic who were travelling **alone**, not able to survive.

15. The passengers who were travelling with **total 3 family members (including himself/herself)** has the **highest Survival rate**.

16. If we neglect the Parch value of 4, 5 and 6 then the passengers who were travelling **alone** has the **least Survival rate**.

17. Most of passengers ***(44.33%)*** in Titanic belongs to the **mid-Age** group (i.e., age between ***21 & 44***).

18. **Mid-Age (21 - 44)** group passengers had the **Survival rate** of ***41%***.

19. **Toddlers (0 - 2)** had the **highest Survival rate**.

20. **Old-Age (60 - 80)** group passengers had the **least Survival rate**.

21. Similar to the **Parch** feature, majority of the passengers ***(68.24%)*** in Titanic were travelling **alone** (i.e., not travelling with their siblings/spouses).

22. ***45%*** of the total passengers in Titanic who were travelling **alone** (i.e., not travelling with their siblings/spouses) not able to survive.

23. Majority of the passengers ***(72.4%)*** in Titanic embarked from the **Southampton** port.

24. Only ***8.7%*** of the passengers in Titanic embarked from the **Queenstown** port.

25. ***48%*** of the total passengers in Titanic who embarked from **Southampton Port** not able to survive.

26. The passengers who embarked from **Cherbourg Port** had the **highest Survival rate**.

27. The passengers who embarked from **Southampton Port** had the **least Survival rate**.

28. Most of the passengers ***(around 65%)*** in Titanic were **Male**.

29. In Titanic only around ***35%*** of the total passengers were **Female**.

30. ***52.53%*** of the total passenger in Titanic who were not able to survive was **Male**.

31. Overall the **Survival rate** of **Female** passengers is almost **4** times **greater** than the **Male** passengers.

32. In **all Passenger Classes, Female** passengers had **more survived** than the **Male** passengers.

33. The **Female** passengers who were travelling in **Premium(1st) Class** of Titanic had the **highest Survival Rate** compared with other Class's Male and Female passengers.

34. The **Male** passengers who were travelling in **Economy(3rd) Class** of Titanic had the **least Survival Rate** compared with other Class's Male and Female passengers.

35. The **Female** passengers who embarked from **Cherbourg Port** in Titanic had the **highest Survival Rate**.

36. The **Male** passengers who embarked from **Queenstown Port** in Titanic had the **least Survival Rate**.

37. The **Female** passengers who embarked from **Cherbourg Port** and belongs to the **Premium(1st) Class** in Titanic had the **highest Survival Rate**.

38. The **Male** passengers who embarked from **Queenstown Port** and belongs to **Economy(3rd) Class** in Titanic had the **least Survival Rate**.

39. The **Female** passengers who were travelling **alone** in Titanic had the **highest Survival Rate** compared with the other Male and Female passengers who were travelling alone as well as with their family.

40. As the **Age Increases,** passenger's **Survival Rate** also **decreases** for all kind of passengers except for the **Female passengers** of **premium(1st) Class**.

41. The **females, males and child** of **premium(1st) class** had **higher Survival rate** than other classes.

42. In **Economy(3rd) class** more **child** had survived.

43. The **old-age Female passengers** of **Premium(1st) class** had **highest Survival Rate**.

44. The **old-age Male passengers** of **Economy(3rd) class** had **least Survival Rate**.