CS5346 2023-24 OTOT Tasks A1

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1 Introduction

Data Name	Description	Data Type
PassengerId	Passenger ID	Norminal
Survived	Whether the person survives or not (1 means yes and 0 means no)	Norminal
Pclass	Class of cabin	Discrete
Name	Name of the person	Norminal
Sex	Sex of the person	Discrete
Age	Age of the person	Discrete
SibSp	Unknown	Norminal
Parch	Unknown	Norminal
Ticket	Ticket number	Norminal
Fare	Ticket price	Continuous
Cabin	Cabin number	Norminal
Embarked	Place of boarding (S means Southampton, C means Cherbourg, and Q means Queenstown)	Discrete

Data source: https://www.kaggle.com/datasets/pankajvermacool/titanic-traincsv

This task is done through **D3.js**.

The purpose of this visualization task is to find the relationship between Titanic survivors and information such as age, gender, passenger class and so on.

Task on Github: https://github.com/Edward-EH-Holmes/CS5346-2023-24-Own-Time-Own-Target-OTOT-Tasks/tree/main/Task%20A/A1

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If you want to localize this deployment, I have provided the Ubuntu tutorial here.

Install npm:

```
sudo apt install npm
```

Install node:

```
npm install node
```

Install missing dependence:

```
npm install
```

Run demo:

```
node app.js
```

Finally, open your browser and jump to: http://localhost:5000

2 Screenshoot of Visualization

Survivors by Passenger Class (Bar)
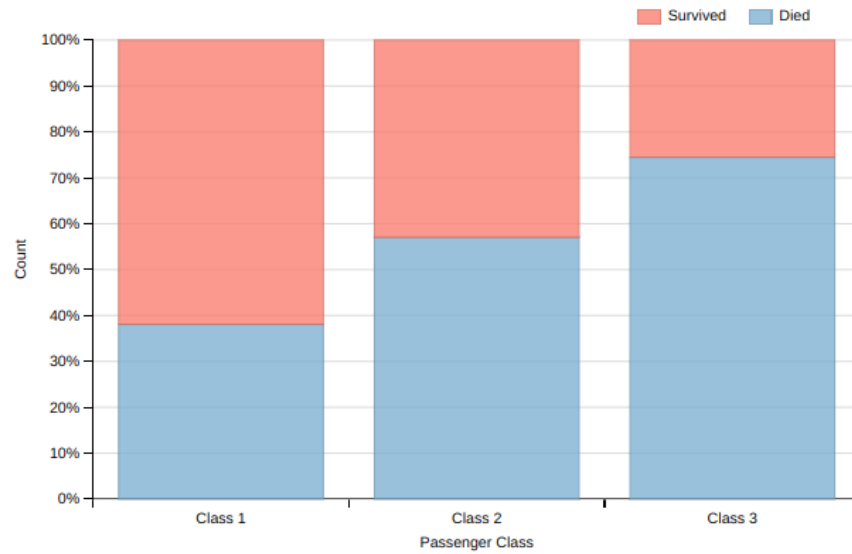
Figure 1: Survivors by Passenger Class (Percentage Stacked Bar Chart)

Passenger Share By Class 1, Class 2, Class 3
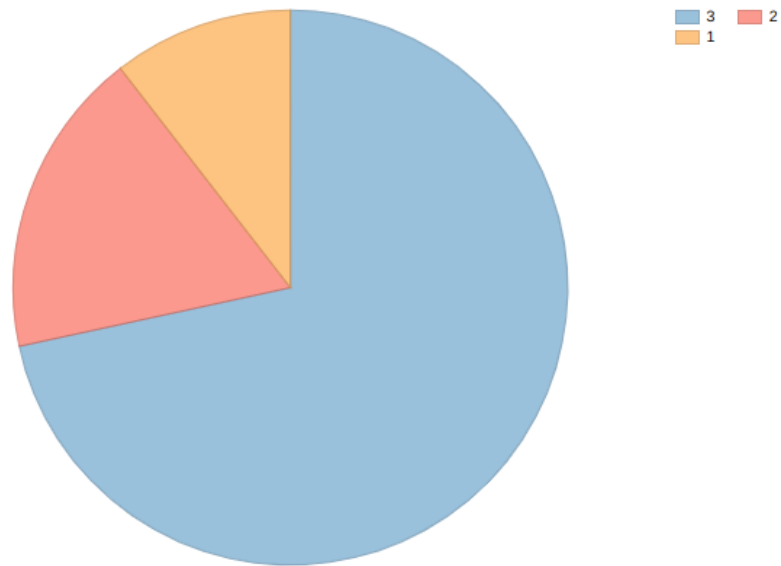
The share of class 3 passengers was highest

Figure 2: Passenger Share By Class 1, 2 & 3 (Pie chart)

Survivors by Gender (Pie chart)

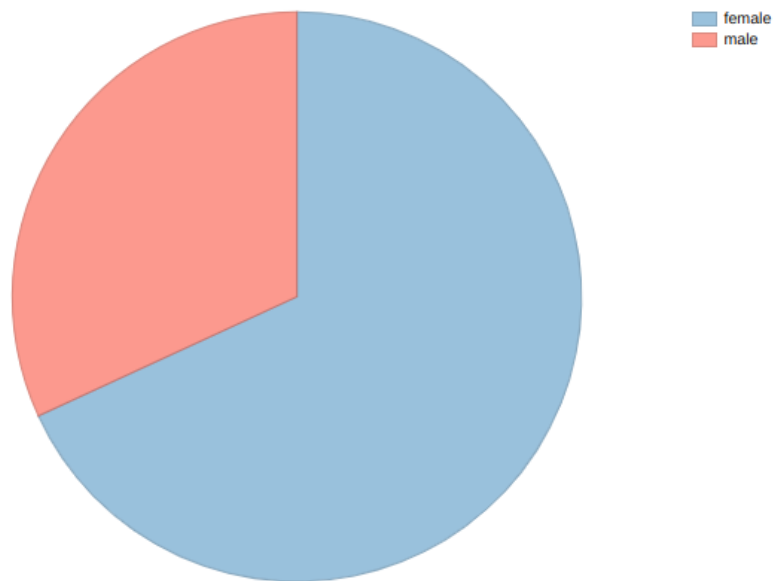*Females were given priority during the rescue*
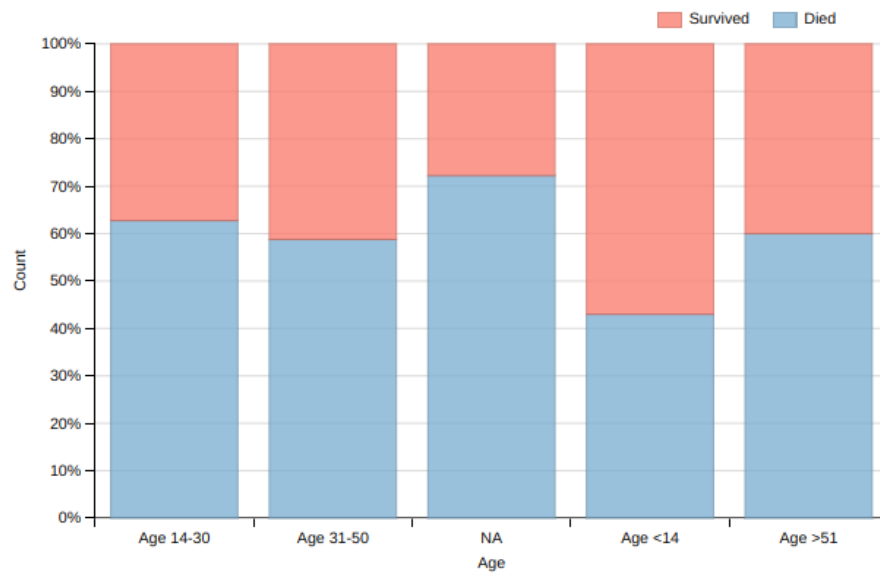

Figure 3: Survivors by Gender (Pie chart)

Figure 4: Survivors by Age (Percentage Stacked Bar Chart)

Survivors by Embarked

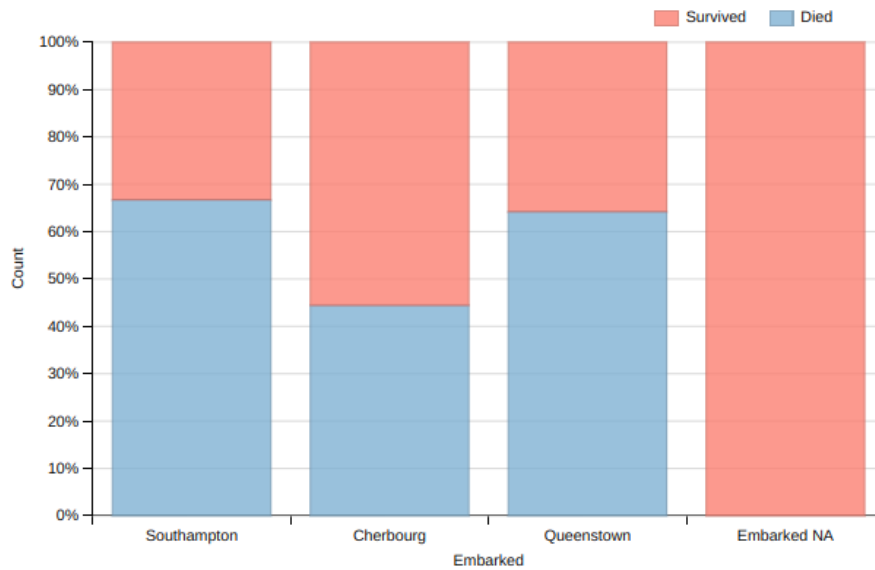*Most 1st Class passengers aboarded the ship at Southampton UK*

Figure 5: Survivors by Embarked (Percentage Stacked Bar Chart)
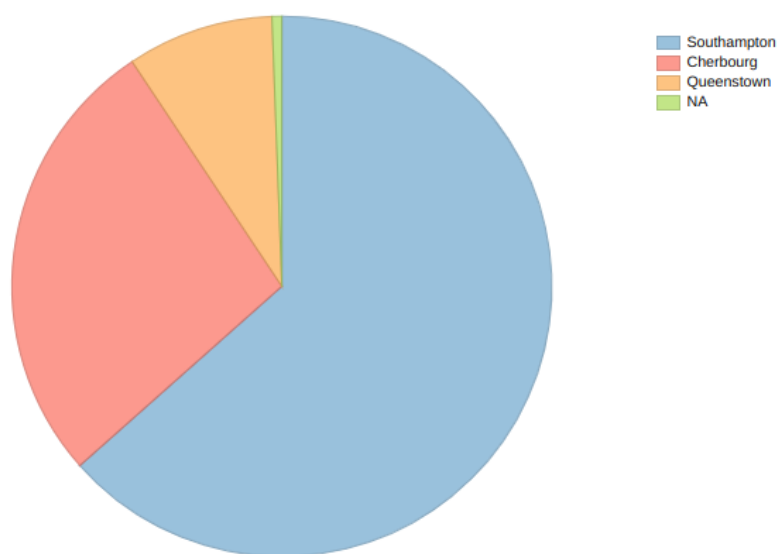
Survivors by Embarked (Pie chart)

Figure 6: Survivors by Embarked (Pie chart)

Passenger survival rate By Class

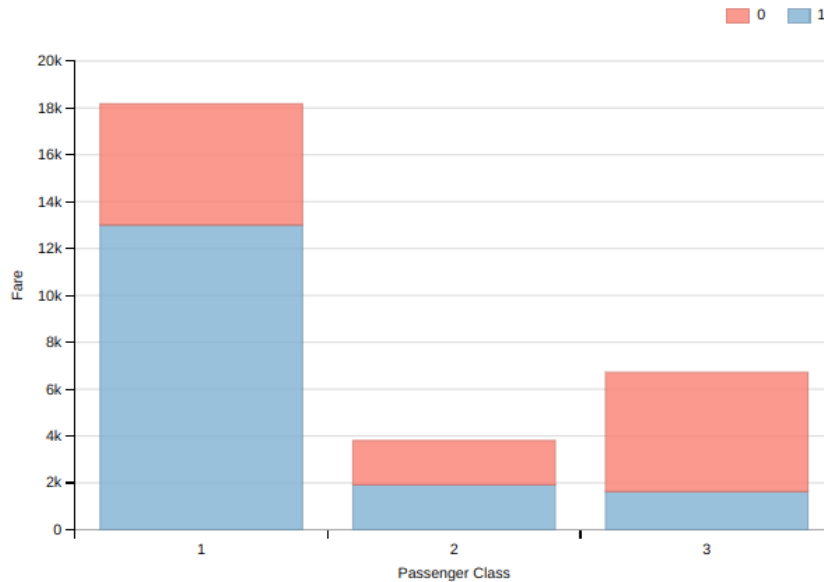*Shows that first class passengers were given priority to Life-Boats*

Figure 7: Passenger Survival Rate by Class (Bar Chart)

3 Conclusion

From this, we can draw the following conclusions:

- In combination with Figure 1 and Figure 7, we can know that first-class passengers have the highest survival rate and are given priority to provide life-boats.

- As can be seen from Figure 2, the third class of passengers accounts for the majority of the total.

- As can be seen from Figure 3, female passengers have priority when receiving life-boats. It shows that the British society at that time also pays attention to gentlemen's manners and pays attention to women's priority.

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- As can be seen from Figure 4, children under the age of 14 have priority in boarding life-boats.

- In combination with Figure 5 and Figure 6, we can know that:

  1. Southampton had the highest number of survivors
  2. Most of the first class members were from Southampton
  3. Excluding people from Embarked NA, people from Cherbourg has the highest survival rate