

# CS5346 2023-24 OTOT Tasks A1

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## 1 Introduction

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>

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>

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## 2 Screenshot of Visualization

### Survivors by Passenger Class (Bar)

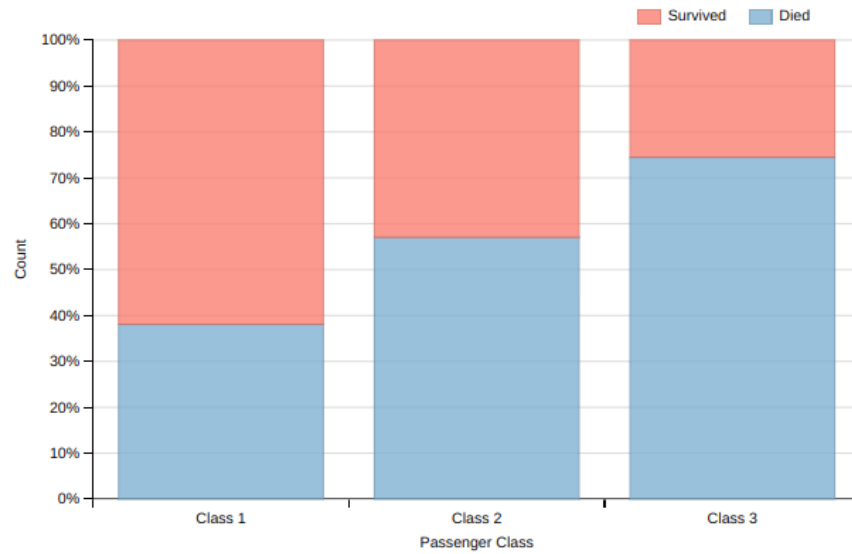


Figure 1: Survivors by Passenger Class (Percentage Stacked Bar Chart)

## Passenger Share By Class 1, Class 2, Class 3

*The share of class 3 passengers was highest*

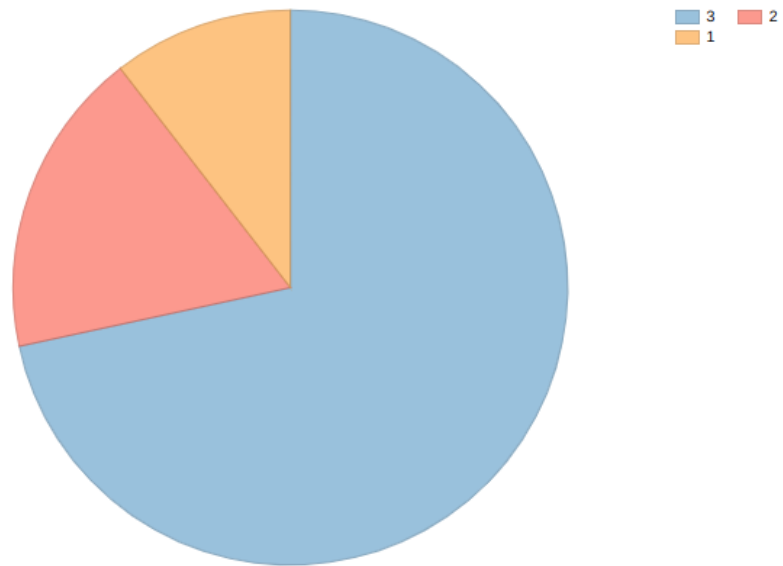


Figure 2: Passenger Share By Class 1, 2 & 3 (Pie chart)

### Survivors by Gender (Pie chart)

*Females were given priority during the rescue*

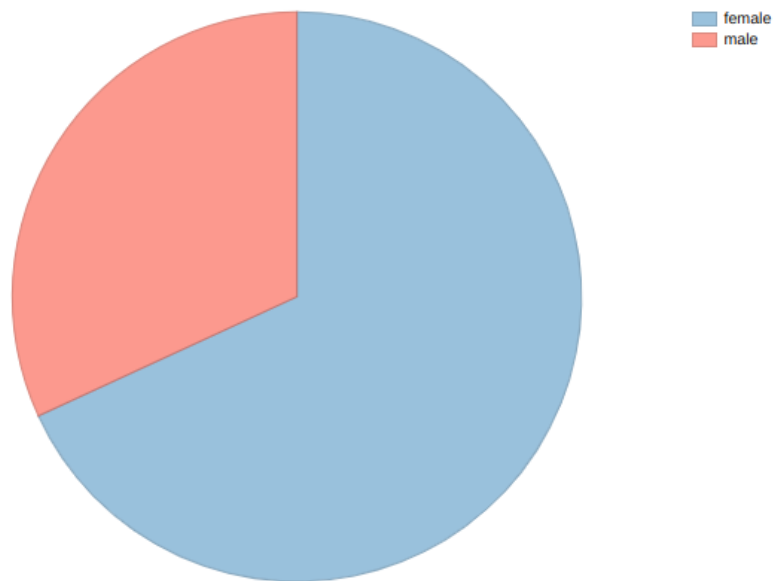


Figure 3: Survivors by Gender (Pie chart)

## Survivors by Age

*Senior passengers were given priority to Life-Boats as seen in the movie*

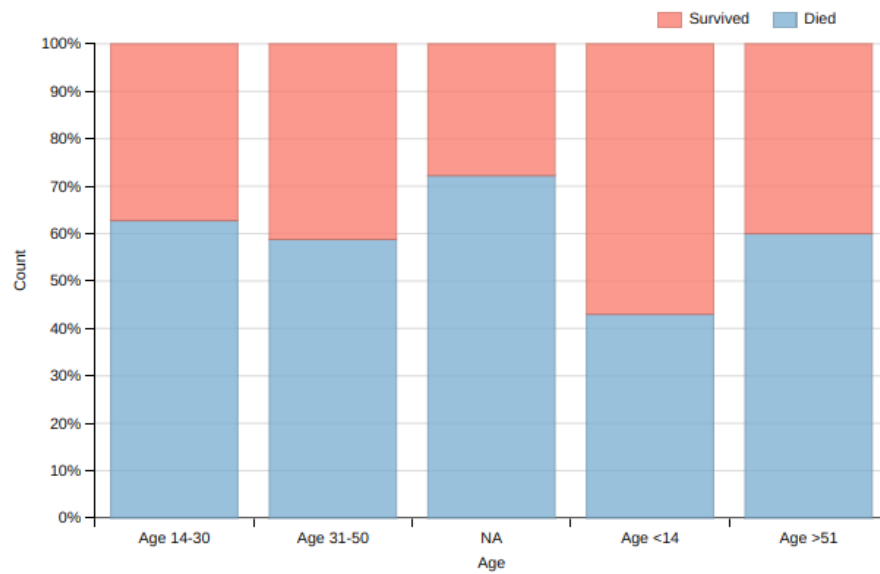


Figure 4: Survivors by Age (Percentage Stacked Bar Chart)

## Survivors by Embarked

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

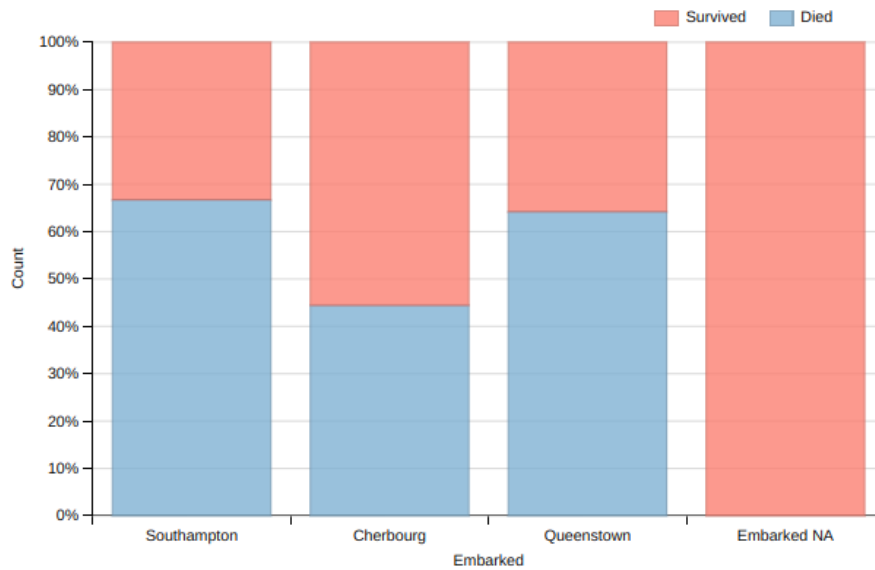


Figure 5: Survivors by Embarked (Percentage Stacked Bar Chart)

### Survivors by Embarked (Pie chart)

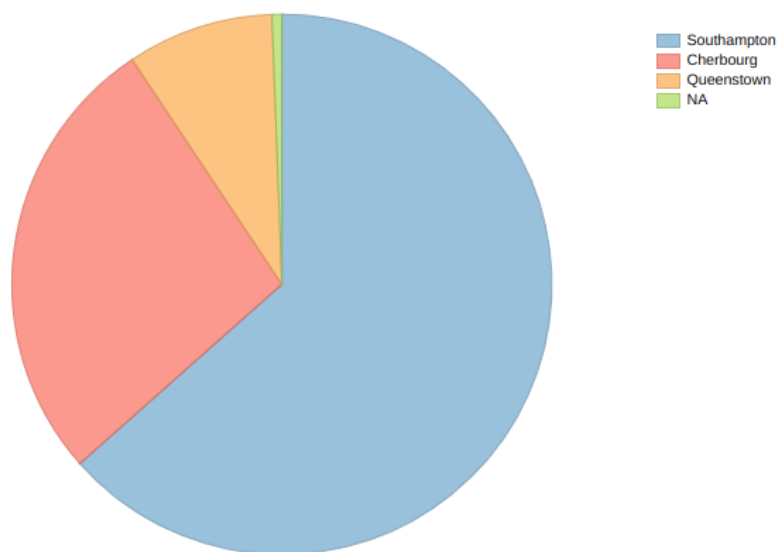


Figure 6: Survivors by Embarked (Pie chart)

## Passenger survival rate By Class

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

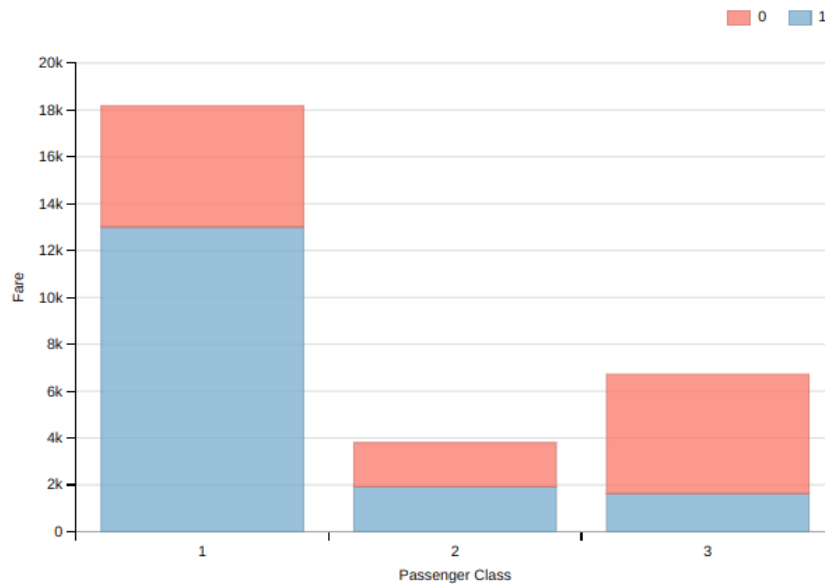


Figure 7: Passenger Survival Rate by Class (Bar Chart)

## 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.



- 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