

Advanced Programming with R - Homework 1

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Titanic Disaster

In this section we load the **Titanic** dataset which contains the **survival data** of passengers from the **Titanic disaster**. It **summarizes** the counts of **passengers** based on **class**, **age**, **sex** and **survival status**.

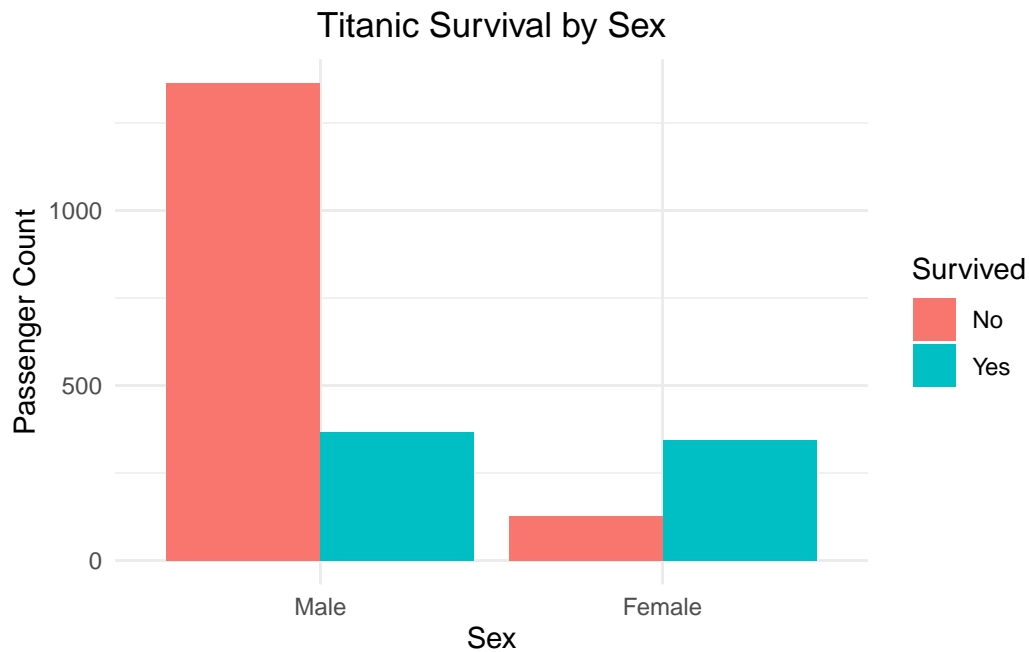
In this data we have the following structure.

```
'data.frame': 32 obs. of 5 variables:
 $ Class      : Factor w/ 4 levels "1st","2nd","3rd",...: 1 2 3 4 1 2 3 4 1 2 ...
 $ Sex        : Factor w/ 2 levels "Male","Female": 1 1 1 1 2 2 2 2 1 1 ...
 $ Age        : Factor w/ 2 levels "Child","Adult": 1 1 1 1 1 1 1 1 2 2 ...
 $ Survived: Factor w/ 2 levels "No","Yes": 1 1 1 1 1 1 1 1 1 1 ...
 $ Freq       : num 0 0 35 0 0 0 17 0 118 154 ...
```

There are total **32 observations** of **5 variables** in the **Titanic dataset**. The variables areas follows:

- **Class** - It shows the **passenger class**. It is a **factor variable** with 4 levels: “1st”, “2nd”, “3rd” and “Crew”.
- **Sex** - It shows **passenger’s sex**. It is also a **factor variable** with 2 levels: “Male” and “Female”.
- **Age** - It shows the **age group** of the **passenger**. It is also a **factor variable** with 2 levels: “Child” and “Adult”.
- **Survived** - It shows the **survival status** of the **passenger**. It is also a **factor variable** with 2 levels: “Yes” and “No”.
- **Freq** - It shows the **count** of the **passengers** that fall into the specific groups mentioned above. It is a **numeric variable**.

We will now show a simple **bar plot** which displays the **number** of **male** and **female** passengers who **survived** or **did not survive** the incident. We will use the **Sex**, **Survived** and **Freq** column for the plot.



The **red bar** shows the passenger which **did not survive** the incident and the **blue bar** shows the **passenger** which **survived**. There are **2 bars** both for “**Male**” and “**Female**”. From the above graph we can interpret the following:

- There are approx **1350-1400 males** which **did not survive** the incident.
- There are approx **350-400 males** which **survived** the incident.
- There are approx **100-150 females** which **did not survive** the incident.
- There are approx **350-400 females** which **survived** the incident.