Survival of the passengers of the RMS Titanic

Your report on the following exercise forms part of the assessment for this course. The report should be in PDF format, and be prepared using LATEX. It should be of no more than 5 sides, and should be submitted by 12 noon on Friday 22 November (Week 10): a PDF version ONLY should be submitted using the Learn page for the course.

RMS Titanic was a British passenger liner that sank in the North Atlantic Ocean in 1912 after striking an iceberg during her maiden voyage from Southampton to New York City. Of the estimated 2,224 passengers and crew aboard, more than 1,500 died, making the sinking one of modern history's deadliest peacetime commercial marine disasters (see **https://en.wikipedia.org/wiki/RMS_Titanic**).

The file `titanicMod.txt` contains data on the 1309 passengers of the Titanic (excluding crew and the 8 components of the band). The following variables are included in the file.

- **pclass:** Passenger class (1 = 1st; 2 = 2nd; 3 = 3rd)
- **survival:** Indicating whether the passenger survived or not (0 = No; 1 = Yes)
- **name:** Title, first name and family names
- **sex:** male/female
- **age:** In years
- **sibsp:** Number of siblings/spouses aboard
- **parch:** Number of parents/children aboard
- **ticket:** Ticket number
- **fare:** Passenger fare (British Pound)
- **cabin:** Cabin number
- **embarked**: Port of embarkation (C = Cherbourg; Q = Queenstown; S = Southampton)
- **boat:** Number of the lifeboat the passenger boarded
- **body:** Body Identification Number
- **home.dest:** Home/destination

CONSULTANCY PROBLEM

Investigate which factors influenced the survival of the passengers of the RMS Titanic, paying special attention to the economic and social factors (for example, was the 'women and children first' old code of conduct applied? See **https://en.wikipedia.org/wiki/Women_and_children_first**). Present survival probability estimates for a few archetypes of passengers to exemplify your discussion. You should also discuss if the age had a different impact depending on the sex and class of the passenger.

NOTE: For this assignment, you should NOT focus on model selection, but on the interpretation of the results and the prediction. You do not need to use all the variables included in the database.