**Overview**

The wreck of the RMS Titanic was one of the worst shipwrecks in history, and is certainly the most well-known. On April 15, 1912, during her maiden voyage, the Titanic sank after colliding with an iceberg, killing 1502 out of 2224 passengers and crew. This sensational tragedy shocked the international community and leads to better safety regulations for ships.

One of the reasons that the shipwreck lead to such loss of life is that were not enough lifeboats for the passengers and crew. Although there was some element of luck involved in surviving the sinking, some groups of people were more likely to survive than others, like women, children, and the upper-class.

In this contest, we ask you to complete the analysis of what sorts of people were likely to survive. In particular, we ask you to apply the tools of Machine Learning to predict which passengers survived the tragedy.

**Problem Statement**

Titanic Survival, Predict who survived the titanic disaster

**Training Dataset**

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**Test Dataset**

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**VARIABLE DESCRIPTIONS:**

pclass Passenger Class

(1 = 1st; 2 = 2nd; 3 = 3rd)

survival Survival

(0 = No; 1 = Yes)

name Name

sex Sex

age Age

sibsp Number of Siblings/Spouses Aboard

parch Number of Parents/Children Aboard

ticket Ticket Number

fare Passenger Fare

cabin Cabin

embarked Port of Embarkation

(C = Cherbourg; Q = Queenstown; S = Southampton)

home.dest Home/Destination

**SPECIAL NOTES:**

Pclass is a proxy for socio-economic status (SES)

1st ~ Upper; 2nd ~ Middle; 3rd ~ Lower

Age is in Years; Fractional if Age less than One (1)

If the Age is Estimated, it is in the form xx.5

With respect to the family relation variables (i.e. sibsp and parch)

some relations were ignored. The following are the definitions used

for sibsp and parch.

Sibling: Brother, Sister, Stepbrother, or Stepsister of Passenger Aboard Titanic

Spouse: Husband or Wife of Passenger Aboard Titanic (Mistresses and Fiances Ignored)

Parent: Mother or Father of Passenger Aboard Titanic

Child: Son, Daughter, Stepson, or Stepdaughter of Passenger Aboard Titanic

Other family relatives excluded from this study include cousins,

nephews/nieces, aunts/uncles, and in-laws. Some children travelled

only with a nanny, therefore parch=0 for them. As well, some

travelled with very close friends or neighbours in a village, however,

the definitions do not support such relations.