Description:

The sinking of the Titanic is one of the most infamous shipwrecks in history. While there was some element of luck involved in surviving, it seems some groups of people were more likely to survive than others. In this Task, we ask you to build a predictive model that answers the question: "**what sorts of people were more likely to survive?**" using passengers' data (ie age, gender, etc) using any suitable classification algorithm.

Dataset description:

You will have two similar datasets that include passengers' information like age, gender, fare, etc. One dataset is titled **train.csv** and the other is titled **test.csv**. **Train.csv** contains the details of a subset of the passengers on board and importantly, contains a column called **survived** which indicates whether they survived or not. The **test.csv** dataset contains similar information but does not contain **survived** column for each passenger. It's your job to predict this outcome. Using the patterns you find in the **train.csv** data, predict whether the other passengers on board (found in **test.csv**) survived or not.

Columns description:

- Pclass: Ticket class
- Sex: Passenger's gender
- Age: Passenger's age in years. (age is fractional if less than 1)
- Ticket: Ticket number
- Fare: Passenger's fare
- Cabin: Cabin number
- Parch: #of parents / children aboard the Titanic for each passenger
- Sibsp: #of siblings / spouses aboard the Titanic for each passenger
- Take-off: the take-off port (C=Cherbourg, Q=Queenstown, S=Southampton)
- Survived: the ground truth column

Important notes:

- Don't forget to apply pre-processing on both the training and testing data, ex: handling NaNs **with suitable values for each column**, etc...

Delivery:

- Kindly send your code to this mail: nada_khaled@cis.asu.edu.eg