

1. Consider the Excel file for the Titanic disaster (titanic.xls) which was sent separately. Convert the Excel file into CSV format using Pandas tool 'xlrd'. This file has the following columns with their definitions mentioned.

<u>Variable</u>	<u>Definition</u>	<u>Key</u>
pclass	Ticket class	1 = 1st, 2 = 2nd, 3 = 3rd
survived	Survival	0 = No, 1 = Yes
name	Name of passenger	
sex	Sex	
Age	Age in years	
sibsp	# of siblings / spouses aboard the Titanic	
parch	# of parents / children aboard the Titanic	
ticket	Ticket number	
embarked	Port of Embarkation	C = Cherbourg, Q = Queenstown, S= Southampton

Find the following:

- How many people in survived vs. not survived in the disaster with the Titanic?
- Number of males that survived vs. number of males who did not survive
- Number of females that survived vs. number of females who did not survive.
- Normalize the survival rate (output in some decimal which helps to predict in percentage)
(Hint : `print(df["survived"][df["sex"] == 'female'].value_counts(normalize=True))`)
- Create a column called 'Child' . Assign 1 to passengers under 18, 0 to those 18 or older. Print the new column
Hint : `df["child"][df["Age"] < 18] = 1`
- Print normalized Survival Rates for passengers under 18 and above 18