

Study Case: Titanic

We are trying to test the following hypothesis:

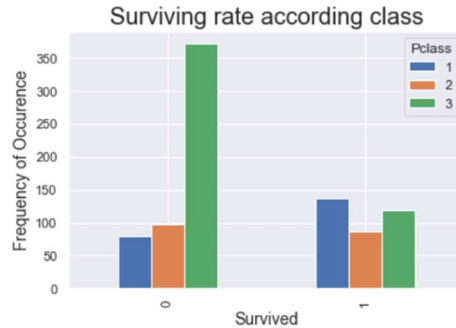
H_0 : Survival rate and class of passenger have no relationship

We reject the null hypothesis, therefore we enough statistical evidence to say that survival rate and class of passenger are related.

Relative Frequency Table

Pclass	1	2	3
Survived			
0	0.37037	0.527174	0.757637
1	0.62963	0.472826	0.242363

Graph



Chi-Square result

degrees of freedom = 2
probability=0.950, critical=5.991, stat=102.889
Variables are dependent (reject H_0)

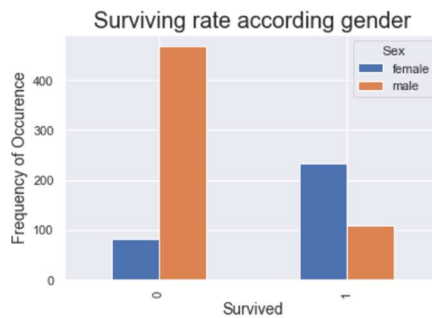
H_0 : Survival rate and gender have no relationship

We reject the null hypothesis, therefore we enough statistical evidence to say that survival rate and gender are related.

Relative Frequency Table

Sex	female	male
Survived		
0	0.257962	0.811092
1	0.742038	0.188908

Graph



Chi-Square result

degrees of freedom = 1
probability=0.950, critical=3.841, stat=260.717
Variables are dependent (reject H_0)

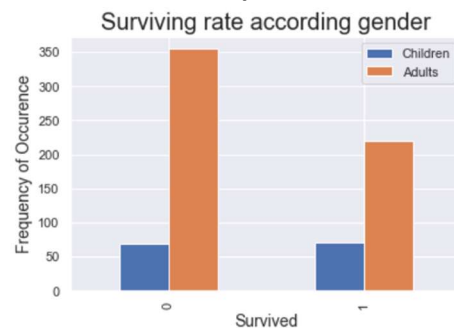
H_0 : Survival rate and age have no relationship

We reject the null hypothesis, therefore we enough statistical evidence to say that survival rate and age are related.

Relative Frequency Table

	Children	Adults
Survived		
0	0.496403	0.617391
1	0.503597	0.382609

Graph



Chi-Square result

degrees of freedom = 1
probability=0.950, critical=3.841, stat=6.301
Variables are dependent (reject H_0)