

# Creating Benchmark Model

# Problem Types

Regression



Big Mart

Classification



Titanic

# Problem Types

Regression



Big Mart

Classification



Titanic

# Problem Statement

To predict whether the Passenger of Titanic would have survived or not

# Problem Statement

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 (British pound)
cabin	Cabin
embarked	Port of Embarkation (C = Cherbourg; Q = Queenstown; S = Southampton)
boat	Lifeboat
body	Body Identification Number
home.dest	Home/Destination

# Problem Statement

Pclass	Passenger Class (1 = 1st; 2 = 2nd; 3 = 3rd)
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boat	Lifeboat
body	Body Identification Number
home.dest	Home/Destination



# Problem Statement

Pclass

survival (0 = No; 1 = Yes)

name

sex

age

sibsp

parch

ticket

fare

cabin

embarked

boat

body

home.dest

# Creating Benchmark Model

- Mode of Survival

Pclass

survival (0 = No; 1 = Yes)

name

sex

age

sibsp

parch

ticket

fare

cabin

embarked

boat

body

home.dest



# Creating Benchmark Model

- Mode of Survival
- Gender Based mode of Survival

Pclass  
survival (0 = No; 1 = Yes)  
name  
sex  
age  
sibsp  
parch  
ticket  
fare  
cabin  
embarked  
boat  
body  
home.dest

# Creating Benchmark Model

- Mode of Survival
- Gender Based mode of Survival
- Other Combinations!

Pclass  
survival (0 = No; 1 = Yes)  
name  
sex  
age  
sibsp  
parch  
ticket  
fare  
cabin  
embarked  
boat  
body  
home.dest

# Creating Benchmark Model: Evaluation

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**Accuracy:** Correctly predicted observations upon total observations

# Creating Benchmark Model: Evaluation

ID	Actual Survived	Predicted Survived	Notation
ID1	1	0	
ID2	1	1	
ID3	1	0	
ID4	0	0	
ID5	1	1	
ID6	1	1	
ID7	0	1	
ID8	0	0	

**Accuracy:**  
Correctly predicted observations  
upon total observations

# Creating Benchmark Model: Evaluation

ID	Actual Survived	Predicted Survived	Notation
ID1	1	0	incorrect
ID2	1	1	correct
ID3	1	0	incorrect
ID4	0	0	correct
ID5	1	1	correct
ID6	1	1	correct
ID7	0	1	incorrect
ID8	0	0	incorrect

**Accuracy:**  
Correctly predicted observations  
upon total observations