

The background is a deep blue gradient representing an underwater environment. At the bottom, there are dark silhouettes of coral reefs and seafloor. Several bright light sources are scattered throughout: a cluster of small lights in the top left, a large bright light at the top center, and several smaller starburst lights on the right and bottom right. The overall mood is mysterious and serene.

TITANIC SURVIVAL

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Matthew Thomas
Nabih Saleh
Andi Rodriguez

DATA TEAM



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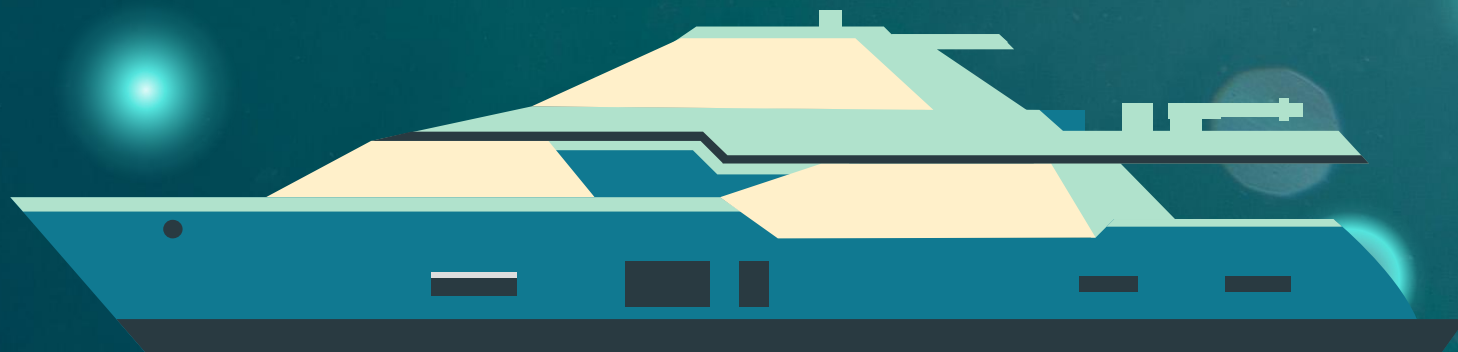
RESULTS EXPLAINED

05.

CLOSING

01.

DATA EXPLAINED



VALUE COUNTS

Total: 891
Male: 571
Female: 314

Passenger Breakdown

Survived: 342
Died: 549

Survival Breakdown

Male: 109
Female: 314

Survivors Breakdown



COLUMNS DROPPED

Survived	PClass	Sex	Age	SibSp	Parch	Fare	Embarked			
LIVE	CLASS	GENDER	AGE	SIBLING OR SPOUSE	PARENT OR CHILD	\$	BOARDED AT			

DATA PROCESSING

1.



**Dropping
Columns**

Passenger ID,
Ticket #, Name,
Cabin, Fare

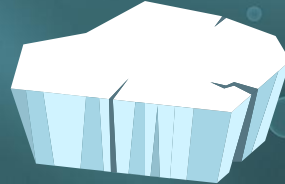
2.



**Age Missing
Values**

177 Missing
Values

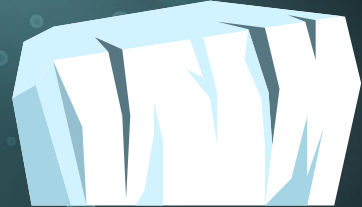
3.



**Embarked & Gender
Missing Values**

Missing handful
of values

4.



**Feature
Engineering**

MAR, One Hot
Encoder, and
Label Encoder

KEY VALUES

PARENT/CHILD

Parch.

SIBLING/SPOUSE

SibSp

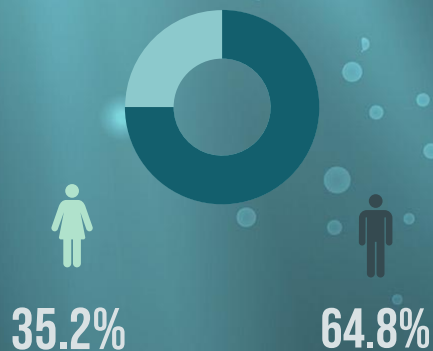
EMBARKED

C, Q, S

CLASS

First, Second, Third

GENDER

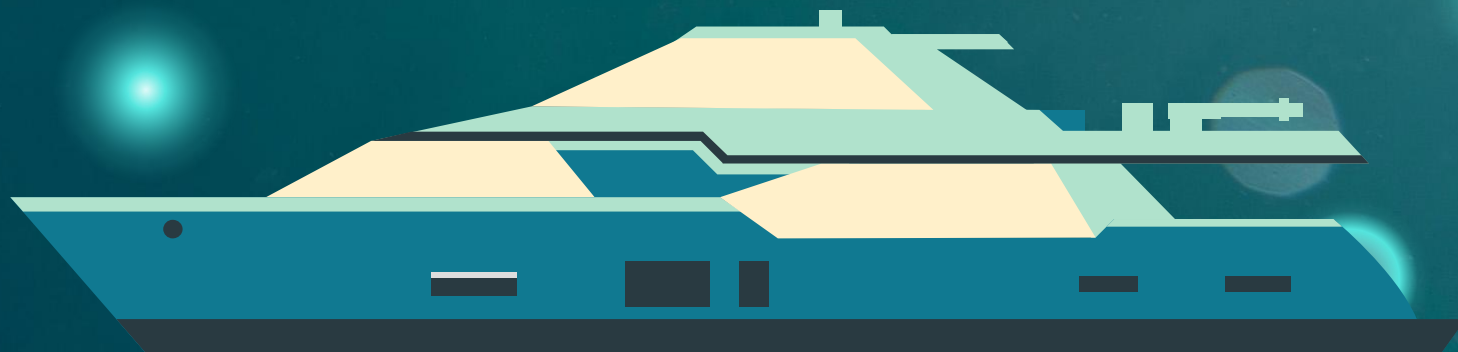


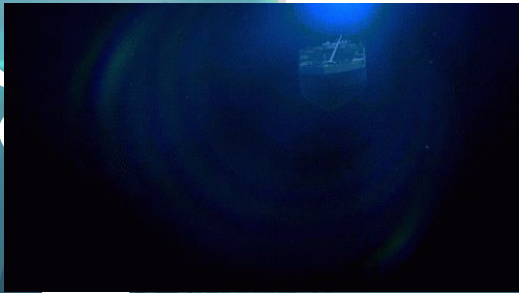
AGES GROUPED



02.

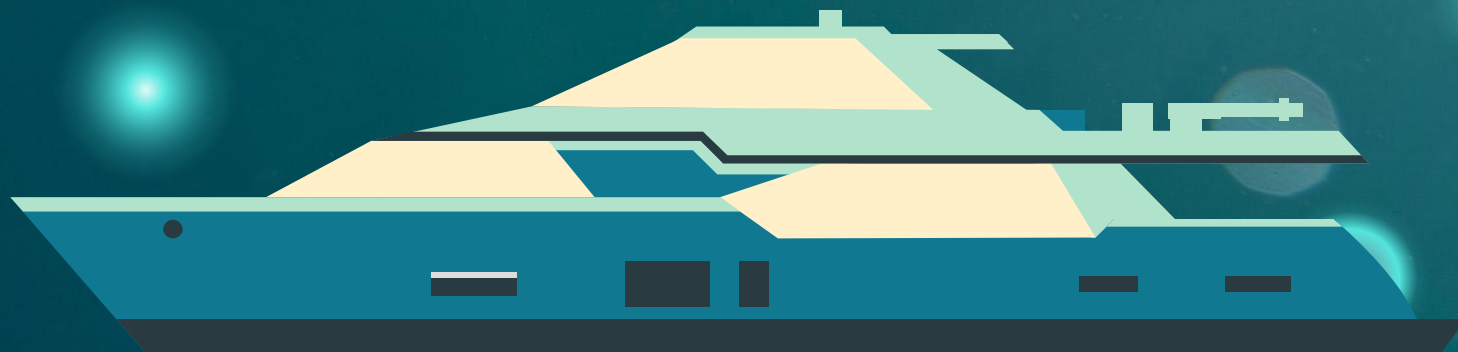
JOURNEY EXPLAINED





03.

MODELS EXPLAINED



MODEL SELECTION



Logistic
Regression

Accuracy Score: 82%

XGBoost

Accuracy Score: 78%

Random Forest

Accuracy Score: 84%

Decision Tree

Accuracy Score: 80%

SVM

Accuracy Score: 67%

MODEL TESTING

PERFORMANCE MEASURED

Various metrics such as accuracy, precision, recall, F1-score, or ROC-AUC are calculated to quantify the model's effectiveness in making predictions.

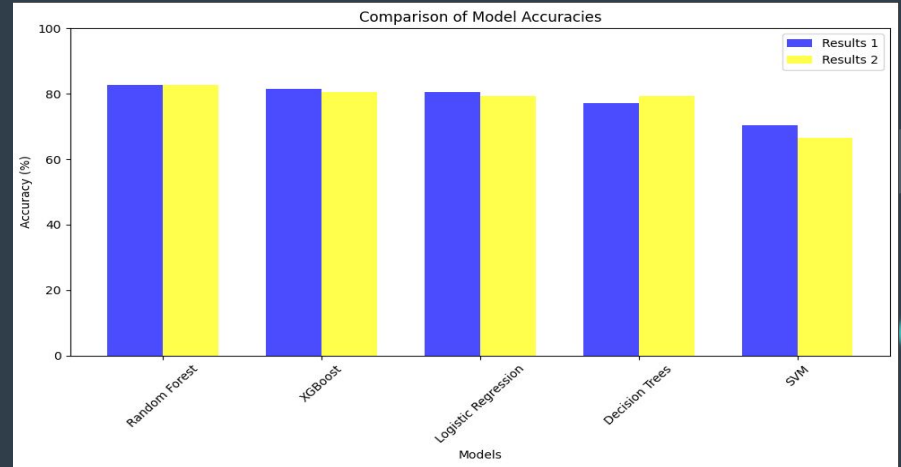
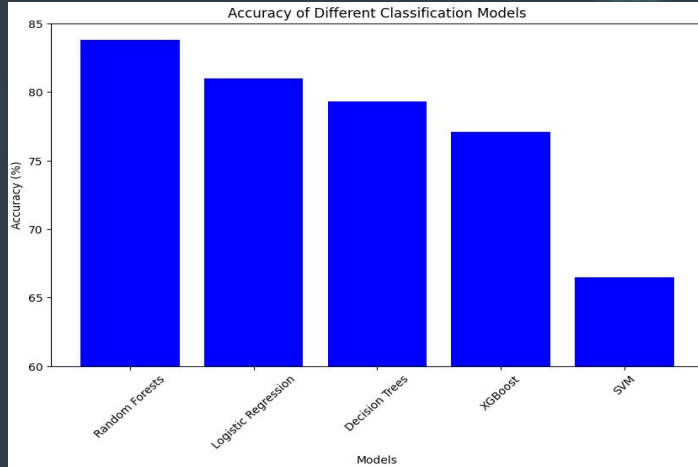
ACCESSES GENERALIZATION

Testing determines how well the model generalizes to new, unseen data, indicating its robustness and ability to perform in real-world applications.

MODEL SELECTION AND REFINEMENT

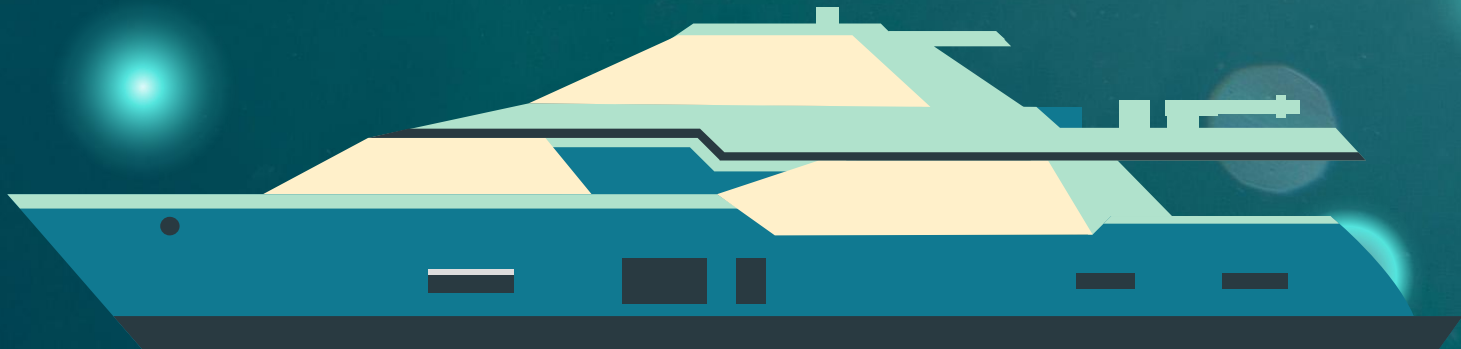
Testing results help in selecting the best-performing model and identifying areas for improvement through further refinement or tuning.

MODEL EVALUATION



04.

RESULTS EXPLAINED



THREE CONCLUSIONS



GENDER

Women had highest chance of survival.



CLASS

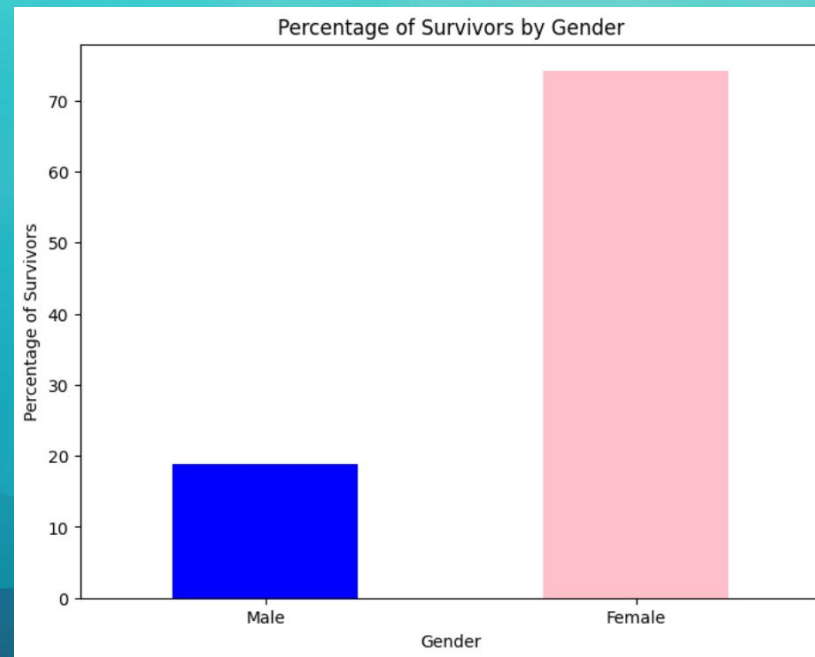
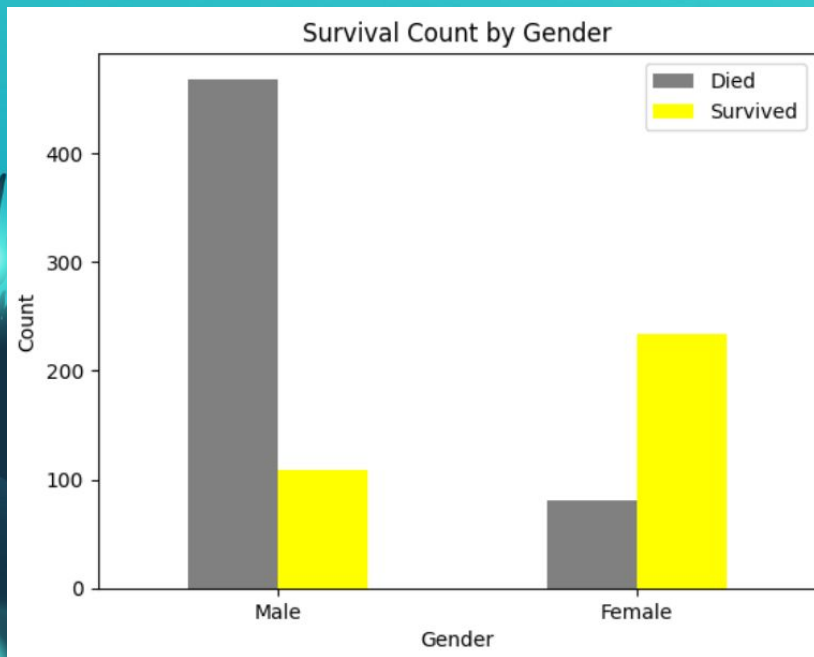
Class was the second highest indicator for survival amongst males and females.



PARENT/CHILD

Missing values in "Age" row impaired this conclusion despite modeling. Correlation found between survival age group.

SURVIVAL BY GENDER



SURVIVAL BY CLASS

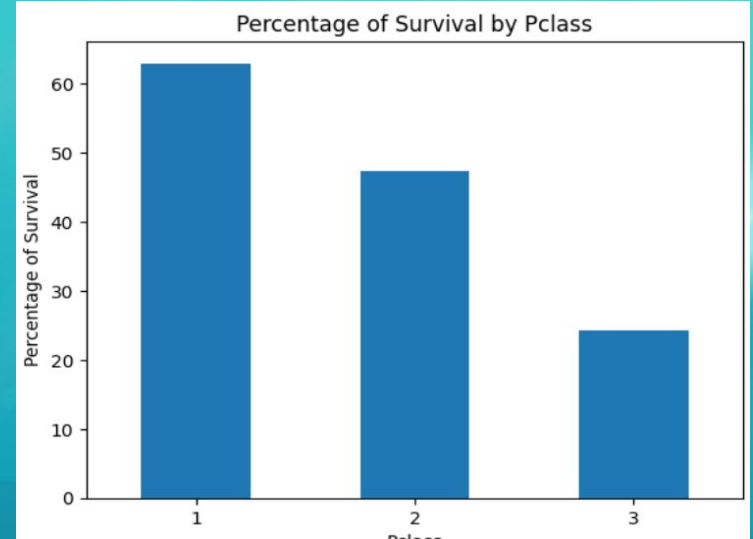
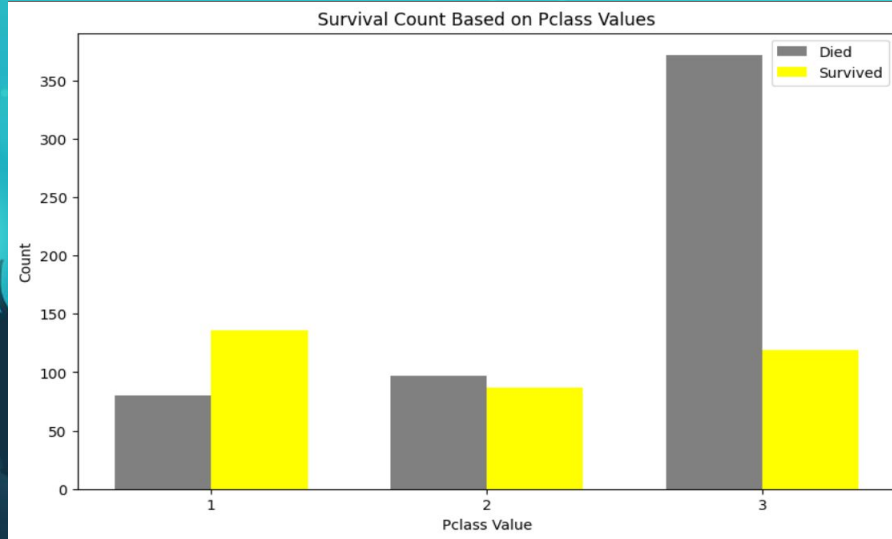
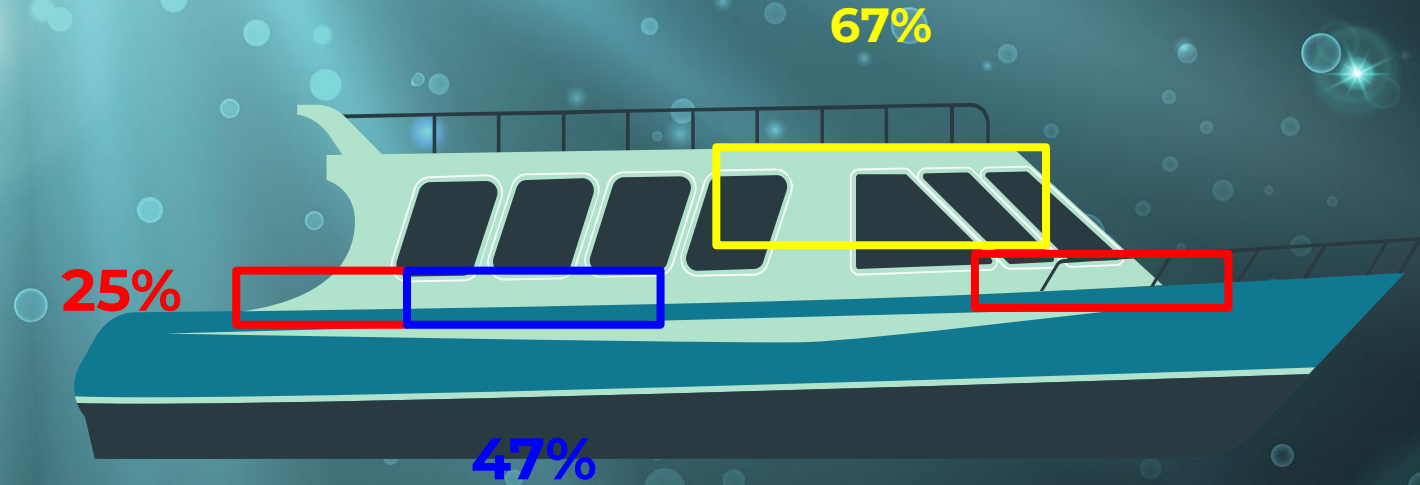


ILLUSTRATION OF LOCATION

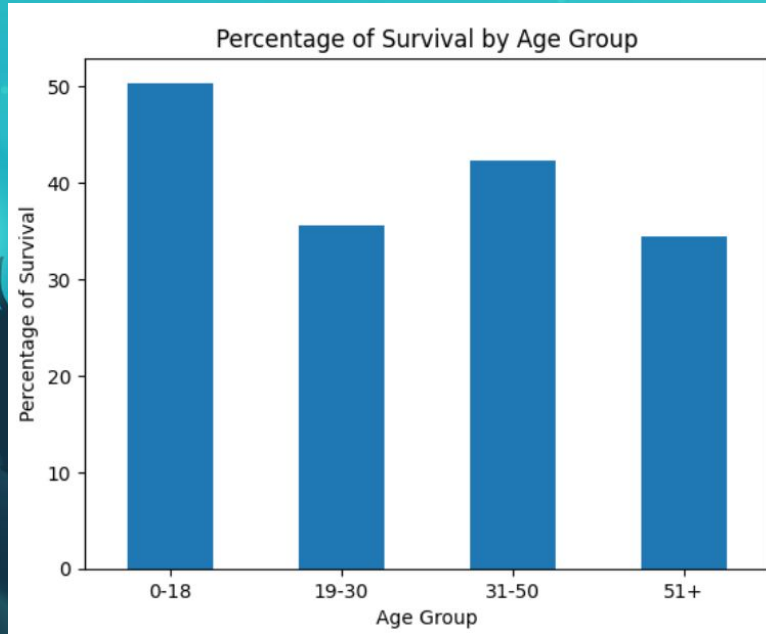


FIRST

SECOND

THIRD

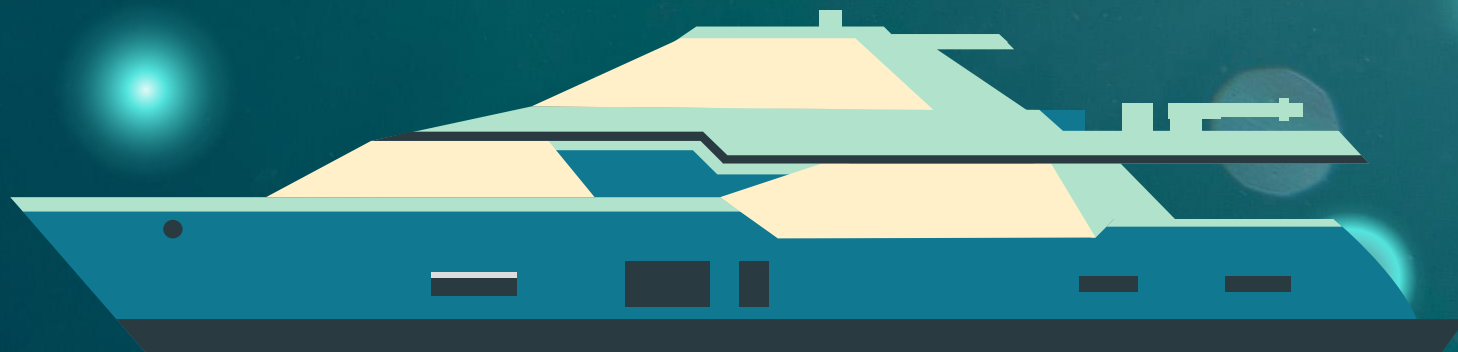
SURVIVAL BY GENDER



- Write
- Bullets
- here

05.

CLOSING



DID YOU KNOW?

COST OF TICKET

The cost of a ticket for the Titanic varied depending on the class of accommodation. A first-class ticket could cost as much as \$4,350 (equivalent to over \$100,000 today), while a third-class ticket could be purchased for around \$30 to \$40.

****Legacy:**** The sinking of the Titanic prompted significant changes to maritime safety regulations, including the implementation of stricter rules regarding the number and capacity of lifeboats, improved wireless communication requirements, and the establishment of an international ice patrol in the North Atlantic.

****Lifeboats:**** Despite being designed to accommodate up to 64 lifeboats, the Titanic carried only 20 lifeboats and four additional collapsible boats. This was insufficient for the number of passengers and crew on board.



I'LL NEVER LET GO, JACK. I'LL NEVER LET GO.



Thank You

Q&A

