

# ASSIGNMENT 3 - Data Visualization using Titanic Dataset

## Data Visualization - Titanic Disaster

**Problem Statement :** Perform Data Visualizations using different explorations from the Titanic Dataset and gather better insights that would bring concluding statements and clear picture of Titanic Disaster with exclusive points that need to be noted/informed.

**Dataset :** [https://drive.google.com/drive/folders/1-Zode8MLdjQJvFeYgj1SD7JDNPWfhoJE?usp=share\\_link](https://drive.google.com/drive/folders/1-Zode8MLdjQJvFeYgj1SD7JDNPWfhoJE?usp=share_link)

### Things to Do :

1. Explore and Sort the Data to make it visualization ready
2. Compare the Parameters using Histogram and Pie Charts - Technical Topic 1
3. Compare the Parameters using Bar Charts and Violin Plots - Technical Topic 2
4. Compare the Parameters using Scatter Plots and Box Plots - Technical Topic 3
5. Generate the Heatmap, Correlation Matrix and precisely mention the findings about the dataset

### Approach :

Perform data visualization on titanic dataset:

- i. Read the dataset into a pandas dataframe
- ii. Check for duplicates and handle them
- iii. Check for missing values and use appropriate technique to impute the missing values
- iv. Perform univariate analysis using suitable plots / charts
- v. Perform bi-variate analysis using suitable plots / charts
- vi. Show patterns not only between independent and dependent features but also within independent features
- vii. Mention your observations in markdown cells below a visualization
- viii. Use groupby, value\_counts, mean, var and other suitable functions to extract important information / findings

If you're willing to add more ways to showcase the representations, you're most welcome to do so.