PROJECT BRIEF

Welcome to the Titanic Dataset Analysis project in Power BI! In this task, you will explore the Titanic passenger data to uncover insights and trends using Power BI's intuitive data visualization capabilities.

Objective:

- To analyze the Titanic dataset and extract valuable insights regarding passenger demographics, survival rates, and other relevant factors using Power BI.

Task: Titanic Dataset Analysis in Power BI (Intermediate Level)

1. Data Preparation:

- Import the Titanic dataset into Power BI.
- Cleanse and transform the data using Power Query Editor.
- Handle missing values and inconsistencies effectively.

2. Data Modeling:

- Define relationships between different tables (e.g., Passenger, Ticket, Fare).
- Create calculated columns or measures to enrich the dataset with additional insights.

3. Survival Analysis:

- Calculate the overall survival rate of passengers.
- Analyze survival rates based on factors such as gender, age, and passenger class.

4. Demographic Analysis:

- Explore passenger demographics using visualizations like bar charts and pie charts.
- Analyze the distribution of age, gender, and passenger class among the passengers.

5. Family Size Analysis:

- Investigate the impact of family size (SibSp and Parch) on survival rates.
- Visualize survival rates for passengers traveling alone versus those with family members.

6. Fare Analysis:

- Explore fare distribution based on passenger class.

- Create visualizations such as box plots or histograms to analyze fare variations.

Evaluation Criteria:
Participants will be evaluated based on the following criteria:

- Data import and cleaning process in Power BI.
- Effectiveness of the data model with correctly defined relationships.
- Clarity and relevance of visualizations in conveying insights.
- Proper use of basic DAX measures for calculations.
- Creativity and interactivity in the Power BI report.

Submission Requirements:

- Participants are required to submit the Power BI report file (.pbix)

Documentation:

- A brief document summarizing the insights gained from the analysis.

Social Media Post Link:

- A social media post on twitter and LinkedIn, sharing your experience during the hackathon, the challenges faced and how you overcome them.

Timeline:

- Deadline: 15 days after project initiation.

Submission Mode: Google forms

Data Dictionary:

- PassengerId: A unique identifier for each passenger.
- Survived: Indicates whether the passenger survived (1) or not (0).
- Pclass: Represents the passenger's class (1st, 2nd, or 3rd).
- Name: The name of the passenger.
- Sex: Gender of the passenger.
- Age: Age of the passenger.
- SibSp: Number of siblings or spouses aboard.
- Parch: Number of parents or children aboard.
- Ticket: Ticket number.
- Fare: The fare paid for the ticket.

- Cabin: Cabin number.
- Embarked: Port of embarkation (Cherbourg, Queenstown, or Southampton).