WEEK 2

TASK 1

Preprocess Customer call list dataset.

TASK 2

Dataset: Titanic dataset

Tasks:

1. Data Exploration:
    - Load the Titanic dataset.
    - Perform basic data exploration to understand the features and their distributions.
2. Feature Creation:
    - Create a new feature FamilySize by combining SibSp (number of siblings/spouses aboard the Titanic) and Parch (number of parents/children aboard the Titanic).
    - Create a new binary feature IsAlone indicating whether a passenger is traveling alone (1) or not (0).
3. Feature Transformation:
    - Convert the Fare feature to a categorical feature with bins representing different fare ranges (e.g., low, medium, high).
    - Extract the title (Mr., Mrs., Miss, etc.) from the Name feature and create a new categorical feature Title.
4. Handling Missing Values:
    - Impute missing values in the Age feature using the median value.
    - Fill missing values in the Embarked feature with the most frequent value.
5. Model Training and Evaluation:
    - Train a logistic regression model using the original features.
    - Train another logistic regression model using the new and transformed features.
    - Compare the performance of the two models using accuracy, precision, recall, and F1-score.

Deliverables:

- A Jupyter notebook containing code, explanations, and visualizations.

TASK 3

Watch the **video Complete Machine Learning In 6 Hours| Krish Naik,** following is the provided link : https://www.youtube.com/watch?v=JxgmHe2NyeY

Take short note of 4-5 lines for each algorithm discussed. Apply the all of the algorithms to titanic dataset after cleaning it.

Task 4

Download any dataset of your choice, clean and preprocess it. Apply all the algorithms.

TASK 5

Clean and visualize food_coded.csv