Data Collection and Preprocessing Phase

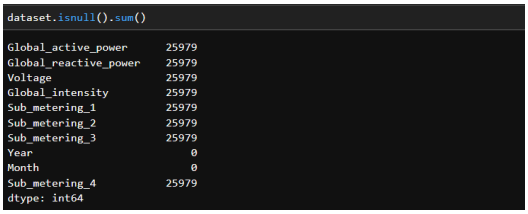
Date	June 2024
Team ID	Team-740046
Project Title	Power Consumption Analysis For Households
Maximum Marks	6 Marks

PreparationTemplate

The images will be preprocessed by resizing, normalizing, augmenting, denoising, adjusting contrast, detecting edges, converting color space, cropping, batch normalizing, and whitening data. These steps will enhance data quality, promote model generalization, and improve convergence during neural network training, ensuring robust and efficient performance across various computer vision tasks.

Section	**Description**
Data Overview	There are many popular open sources for collecting the data. Eg: kaggle.com, UCI repository, etc. In this project we have used .csv data.
Data Preparation	These are the general steps of pre-processing the data before using it for machine learning
Handling missing values	We use Handling missing values For checking the null values
Data Preparation	
Collect the dataset	Please refer to the link given below to download the dataset. Link: household_power_consumption.txt

Importing the libraries	`import pandas as pd`
	`import numpy as np`
	`import seaborn as sns`
	`import matplotlib.pyplot as plt`
	`import warnings`

Loading Data	`dataset = pd.read_csv("household_power_consumption.txt",delimiter=';',low_memory=False)` `dataset.head()`
Handling missing values	`dataset.isnull().sum()`  Global_active_power 25979 Global_reactive_power 25979 Voltage 25979 Global_intensity 25979 Sub_metering_1 25979 Sub_metering_2 25979 Sub_metering_3 25979 Year 0 Month 0 Sub_metering_4 25979 dtype: int64