### **SUMMARY 2**

#### **Data Collection (Section 1):**

- 1. Imports the Pandas library to work with data.
- Reads a CSV file named "europe-motorbikes-zenrows.csv" into a Pandas DataFrame called dataset.
- 3. Displays the contents of the dataset DataFrame.

#### **Data Preprocessing (Section 2):**

- 1. Calculates and displays the shape of the dataset (number of rows and columns).
- 2. Provides information about the dataset, including data types and non-null counts for each column.
- 3. Checks for missing values in the dataset and displays the count of missing values for each column.
- 4. Generates summary statistics for numeric columns using describe().
- 5. Displays the first few rows of the dataset using head().
- 6. Counts the unique values in the "power" column.
- 7. Identifies rows where the "power" column is null.
- 8. Fills missing values in the "power" column with the mean value of the column.
- 9. Removes duplicate rows from the dataset.
- 10. Identifies rows where the "fuel" column is null.
- 11. Fills missing values in the "fuel" column with the mode (most frequent value) of the column.
- 12. Identifies rows where the "gear" column is null.
- 13. Fills missing values in the "gear" column with the mode of the column.
- 14. Drops the "version" and "link" columns from the dataset.
- 15. Counts the unique values in various columns: "make\_model," "gear," "fuel," "price," "mileage," and "offer\_type."
- 16. Checks for missing values again and displays the updated count of missing values.

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## Data Export:

- 1. Creates a copy of the preprocessed dataset called Bike\_df.
- 2. Saves the Bike\_df DataFrame to a new CSV file named "Premotorbike.csv" without including the index.

In summary, this code reads a motorbike dataset, performs data preprocessing tasks including handling missing values and duplicates, and saves the cleaned dataset to a new CSV file for further analysis or modeling.