```
1 from google.colab import files
  2 uploaded = files.upload()
Choose Files flipkart_pro...0250405.csv
      flipkart products 20250405.csv(text/csv) - 903362 bytes, last modified: 4/6/2025 - 100% done
    Saving flipkart_products_20250405.csv to flipkart_products_20250405 (1).csv
  1 import pandas as pd
  3 # Replace the file name with your actual uploaded file name
  4 df = pd.read_csv('flipkart_products_20250405.csv')
  5 df.head()
₹
                                          Number
                           Price Rating
                                                  Total Available
                                                                                         Sub Discount
                                                                                                                      Return
                                                                          Main
        Product Name
                                              of
                                                                                                              Seller
                             (₹)
                                     (★)
                                                   Sold
                                                              Stock
                                                                      Category
                                                                                    Category
                                                                                                    (%)
                                                                                                                       Policy
                                          Buyers
        Krishnamurthy-
               Devan
                                                                                                                               https://www.flipkart.com
           Laboriosam
                       142247.04
                                      3 2
                                            7348
                                                   4812
                                                                364 Electronics
                                                                                 Smartphones
                                                                                                    45
                                                                                                             RetailNet
                                                                                                                        False
                 Ultra
          Smartphon...
          Nanda-Mahal
                                                                                                              Flipkart
                                                                                                                                https://www.flipkart.cor
                                                                                                                        False
           Dignissimos
                       186922.43
                                      4.1
                                            2342
                                                    881
                                                                145 Electronics
                                                                                      Laptops
                                                                                                    55
                                                                                                              Assured
         Lite Laptops 1
            Choudhury
                                                                                                                                  https://www.flipkart.c
     2 LLC Amet Plus
                        11843.41
                                      5.0
                                             739
                                                   2580
                                                                206
                                                                         Home
                                                                                       Decor
                                                                                                    58 SuperComNet
                                                                                                                         True
             Decor 15
     4 -
Next steps: ( Generate code with df

    View recommended plots

                                                                  New interactive sheet
 1 # Extracting a Series object
 2 # Check for typos in the column name - It might be 'Product Name' instead of 'product_name'
 3 title series = df['Product Name']
 4 print(type(title_series))
 5 print(title_series.head())
    <class 'pandas.core.series.Series'>
         Krishnamurthy-Devan Laboriosam Ultra Smartphon...
    1
                     Nanda-Mahal Dignissimos Lite Laptops 1
    2
                           Choudhury LLC Amet Plus Decor 15
    3
                   Borah LLC Accusantium Lite Smartphones 9
                       Murty Inc Placeat Pro Smartwatches 8
    Name: Product Name, dtype: object
 1 # DataFrame info
 2 print(type(df))
 3 df.info()
→ <class 'pandas.core.frame.DataFrame'>
     <class 'pandas.core.frame.DataFrame'>
    RangeIndex: 5000 entries, 0 to 4999
    Data columns (total 12 columns):
     #
         Column
                            Non-Null Count Dtype
     0
         Product Name
                             5000 non-null
                                             object
     1
         Price (₹)
                             5000 non-null
                                             float64
         Rating (★)
                             5000 non-null
                                             float64
         Number of Buyers
                            5000 non-null
                                             int64
         Total Sold
                             5000 non-null
     4
                                             int64
          Available Stock
                            5000 non-null
                                             int64
     6
         Main Category
                             5000 non-null
                                             object
         Sub Category
                             5000 non-null
                                             object
     8
         Discount (%)
                             5000 non-null
                                             int64
          Seller
                             5000 non-null
                                             object
     10 Return Policy
                             5000 non-null
                                             bool
     11 Product URL
                            5000 non-null
                                             object
    dtypes: bool(1), float64(2), int64(4), object(5)
    memory usage: 434.7+ KB
 1 # Selecting column (Series)
 2 # Check if 'price' column exists, if not try 'Price'
 3 print(df['Price']) if 'Price' in df.columns else print(df['price']) if 'price' in df.columns else print("Column 'price' or 'Price' not f
```

```
5 # Selecting multiple columns
 6 # Ensure column names used here match the actual names in your DataFrame
 7 print(df[['product_name', 'Price']].head()) if 'Price' in df.columns else print(df[['product_name', 'price']].head()) if 'price' in df.c
 9
10 # Row selection using iloc
11 print(df.iloc[0]) # First row
13 # Row selection using loc
14 print(df.loc[0]) # Based on index label

→ Column 'price' or 'Price' not found in DataFrame

    Column 'price' or 'Price' not found in DataFrame
                        Krishnamurthy-Devan Laboriosam Ultra Smartphon...
    Product Name
    Price (₹)
    Rating (★)
                                                                        3.2
    Number of Buyers
                                                                      7348
    Total Sold
                                                                      4812
    Available Stock
                                                                       364
    Main Category
                                                               Electronics
    Sub Category
                                                               Smartphones
    Discount (%)
                                                                        45
                                                                 RetailNet
    Seller
    Return Policy
                                                                     False
    Product URL
                        https://www.flipkart.com/Krishnamurthy-Devan-L...
    Name: 0, dtype: object
    Product Name
                        Krishnamurthy-Devan Laboriosam Ultra Smartphon...
    Price (₹)
                                                                 142247.04
    Rating (★)
                                                                       3.2
    Number of Buyers
                                                                      7348
                                                                      4812
    Total Sold
    Available Stock
                                                                       364
    Main Category
                                                               Electronics
                                                               Smartphones
    Sub Category
    Discount (%)
                                                                        45
    Seller
                                                                 RetailNet
    Return Policy
                                                                     False
                        https://www.flipkart.com/Krishnamurthy-Devan-L...
    Product URL
    Name: 0, dtype: object
 1 import pandas as pd
 2 import numpy as np
 3
 4 # ... (Your existing code to load the DataFrame) ...
 6 # Check if 'price' or 'Price' column exists in the DataFrame
 7 price_column = 'price' if 'price' in df.columns else 'Price' if 'Price' in df.columns else None
 8
 9 if price_column:
10
       # Apply np.log1p on prices (safe for 0 values)
11
       df['log_price'] = np.log1p(df[price_column])
12
       df[[price_column, 'log_price']].head()
13 else:
       print("Column 'price' or 'Price' not found in DataFrame")

→ Column 'price' or 'Price' not found in DataFrame

 1 # Check for nulls
 2 df.isnull().sum()
 4 # Drop rows with missing values
 5 df cleaned = df.dropna()
 7 # Fill missing values
 8 df_filled = df.fillna({'price': 0})
 1 # Check which rows have null prices, handling potential column name variations
 2 if 'price' in df.columns:
      null_price_rows = df[df['price'].isnull()]
 4 elif 'Price' in df.columns:
 5
       null_price_rows = df[df['Price'].isnull()]
 6 else:
       print("No 'price' or 'Price' column found for null check")
 7
 8
       null_price_rows = pd.DataFrame() # Empty DataFrame if column not found
10 print(null_price_rows)
11 # Replace null product names with "Unknown"
```

```
12 # Check if 'product_name' or 'Product Name' column exists before filling NaNs
13 product_name_col = 'product_name' if 'product_name' in df.columns else 'Product Name' if 'Product Name' in df.columns else None
14
15 if product_name_col:
16     df[product_name_col] = df[product_name_col].fillna("Unknown")
17 else:
18     print("Column 'product_name' or 'Product Name' not found in DataFrame")

No 'price' or 'Price' column found for null check
Empty DataFrame
Columns: []
Index: []

1     # Create a MultiIndex using category and brand
2     if 'category' in df.columns and 'brand' in df.columns:
3     df_multi = df.set_index(['category', 'brand'])
4     print(df_multi.head())
```