```
import pandas as pd

df = pd.read_csv("/content/amazon.csv")

df
```

	product_id	product_name	category	discounted_price	actual_price	di
0	B07JW9H4J1	Wayona Nylon Braided USB to Lightning Fast Cha...	Computers&Accessories|Accessories&Peripherals|...	₹399	₹1,099	
1	B098NS6PVG	Ambrane Unbreakable 60W / 3A Fast Charging 1.5...	Computers&Accessories|Accessories&Peripherals|...	₹199	₹349	
2	B096MSW6CT	Sounce Fast Phone Charging Cable & Data Sync U...	Computers&Accessories|Accessories&Peripherals|...	₹199	₹1,899	
3	B08HDJ86NZ	boAt Deuce USB 300 2 in 1 Type-C & Micro USB S...	Computers&Accessories|Accessories&Peripherals|...	₹329	₹699	
4	B08CF3B7N1	Portronics Konnect L 1.2M Fast Charging 3A 8 P...	Computers&Accessories|Accessories&Peripherals|...	₹154	₹399	
...	...	...	...	...	...	
1460	B08L7J3T31	Noir Aqua - 5pcs PP Spun Filter + 1 Spanner | ...	Home&Kitchen|Kitchen&HomeAppliances|WaterPurif...	₹379	₹919	
1461	B01M6453MB	Prestige Delight PRWO Electric Rice Cooker (1 ...	Home&Kitchen|Kitchen&HomeAppliances|SmallKitch...	₹2,280	₹3,045	
1462	B009P2LIL4	Bajaj Majesty RX10 2000 Watts Heat Convector R...	Home&Kitchen|Heating,Cooling&AirQuality|RoomHe...	₹2,219	₹3,080	
1463	B00J5DYCCA	Havells Ventil Air DSP 230mm Exhaust Fan (Pist...	Home&Kitchen|Heating,Cooling&AirQuality|Fans|E...	₹1,399	₹1,890	
1464	B01486F4G6	Borosil Jumbo 1000-Watt Grill Sandwich Maker (...	Home&Kitchen|Kitchen&HomeAppliances|SmallKitch...	₹2,863	₹3,690	

1465 rows × 16 columns

```
df.isnull().sum() # check missing value
```

	0
product_id	0
product_name	0
category	0
discounted_price	0
actual_price	0
discount_percentage	0
rating	0
rating_count	2
about_product	0
user_id	0
user_name	0
review_id	0
review_title	0
review_content	0
img_link	0
product_link	0

dtype: int64

```
#rating_count has 2 missing values (two rows where rating_count is empty or NaN).

#2. drop missing value.

df['rating_count'] = df['rating_count'].fillna(0) # fill missing value by '0'

# df = df.drop(columns=['rating_count'],axis=1) -- can drop missing columns.

df.isnull().sum()
```

	0
product_id	0
product_name	0
category	0
discounted_price	0
actual_price	0
discount_percentage	0
rating	0
rating_count	0
about_product	0
user_id	0
user_name	0
review_id	0
review_title	0
review_content	0
img_link	0
product_link	0

dtype: int64

```
df.duplicated() # check duplicate values.
```

	0
0	False
1	False
2	False
3	False
4	False
...	...
1460	False
1461	False
1462	False
1463	False
1464	False

1465 rows × 1 columns

dtype: bool

```
df
```

	product_id	product_name	category	discounted_price	actual_price	di
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1	B098NS6PVG	Ambrane Unbreakable 60W / 3A Fast Charging 1.5...	Computers&Accessories|Accessories&Peripherals|...	₹199	₹349	
2	B096MSW6CT	Sounce Fast Phone Charging Cable & Data Sync U...	Computers&Accessories|Accessories&Peripherals|...	₹199	₹1,899	
3	B08HDJ86NZ	boAt Deuce USB 300 2 in 1 Type-C & Micro USB S...	Computers&Accessories|Accessories&Peripherals|...	₹329	₹699	
4	B08CF3B7N1	Portronics Konnect L 1.2M Fast Charging 3A 8 P...	Computers&Accessories|Accessories&Peripherals|...	₹154	₹399	
...	...	...		...	...	...
1460	B08L7J3T31	Noir Aqua - 5pcs PP Spun Filter + 1 Spanner | ...	Home&Kitchen|Kitchen&HomeAppliances|WaterPurif...	₹379	₹919	
1461	B01M6453MB	Prestige Delight PRWO Electric Rice	Home&Kitchen|Kitchen&HomeAppliances|SmallKitch...	₹2,280	₹3,045	