Web Scraping Amazon Data

November 22, 2024

```python
[4]: from bs4 import BeautifulSoup
     import pandas as pd

     # Read and parse the HTML file
     with open(r"D:\DATA ANALYTICS\python 2\Amazon_volleyball40.html", 'r',␣
       ↪encoding='utf8') as file:
         soup = BeautifulSoup(file, 'html.parser')

     # Lists to store the extracted data
     product_names = []
     product_prices = []
     product_reviews = []
     quantity_for_pastmonth = []
     ratings = []
     original_price = []

     # Find all product containers
     divs = soup.find_all('div', class_="sg-col-inner")
     print(f"Found {len(divs)} product divs")  # Debugging line

     # Extract details for each product
     for div in divs:
         # Product Name
         name_element = div.find('span' , class_="a-size-base-plus a-color-base␣
       ↪a-text-normal")
         product_name = name_element.get_text(strip=True) if name_element else " "
         product_names.append(product_name)
         print(f"Product Name: {product_name}")  # Debugging line

         # Product Price
         price_element = div.find('span', class_="a-price-whole")
         product_price = price_element.get_text(strip=True) if price_element else " "
         product_prices.append(product_price)
         print(f"Product Price: {product_price}")  # Debugging line

         # Product Reviews
         review_element = div.find('span', class_="a-size-base")
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        product_reviews_text = review_element.get_text(strip=True) if␣
↪review_element else " "
        product_reviews.append(product_reviews_text)
        print(f"Product Reviews: {product_reviews_text}")   # Debugging line

        quantity_element = div.find('span', class_="a-size-base a-color-secondary")
        product_quantity_text = quantity_element.get_text(strip=True) if␣
↪quantity_element else " "
        quantity_for_pastmonth.append(product_quantity_text)
        print(f"Product Quantity: {product_quantity_text}")

        rating_element = div.find('span', class_="a-icon-alt")
        product_rating_text = rating_element.get_text(strip=True) if rating_element␣
↪else " "
        ratings.append(product_rating_text)
        print(f"Product Ratings: {product_quantity_text}")

        originalprice = div.find_all('span', class_="a-offscreen")
        originalprice_element = originalprice[1] if len(originalprice) > 1 else None
        product_original_text = originalprice_element.get_text(strip=True) if␣
↪originalprice_element else " "
        original_price.append(product_original_text)
        print(f"Product Original_price: {product_original_text}")

# Create a DataFrame and save to CSV
data = {
    'Product_Name': product_names,
    'Product_Price': product_prices,
    'Product_Reviews': product_reviews,
    'Product_Quantity': quantity_for_pastmonth,
    'Product_Ratings': ratings,
    'Original_Price': original_price
}

df = pd.DataFrame(data)
output_path = r'D:\DATA ANALYTICS\Amazon files2\Amazon_volleyball40.csv'
df.to_csv(output_path, index=False)
print(f"Data saved to {output_path}")
```

```
Found 46 product divs
Product Name:
Product Price:
Product Reviews:
Product Quantity:
Product Ratings:
Product Original_price:
Product Name:
```

Product Price:
Product Reviews:
Product Quantity:
Product Ratings:
Product Original_price:
Product Name:
Product Price:
Product Reviews:
Product Quantity:
Product Ratings:
Product Original_price:
Product Name:
Product Price:
Product Reviews:
Product Quantity:
Product Ratings:
Product Original_price:
Product Name: jaspo Soft Touch Recreational pu Leather Volleyball with Hand Air Pump, Machine Stitched Volleyball Waterproof Indoor/Outdoor Size:5 (Next to Fun, Black/White)
Product Price: 329
Product Reviews: Check each product page for other buying options. Price and other details may vary based on product size and colour.
Product Quantity: 100+ bought in past month
Product Ratings: 100+ bought in past month
Product Original_price: 329
Product Name: jaspo Soft Touch Recreational pu Leather Volleyball with Hand Air Pump, Machine Stitched Volleyball Waterproof Indoor/Outdoor Size:5 (Next to Fun, Black/White)
Product Price: 449
Product Reviews: 20
Product Quantity: 100+ bought in past month
Product Ratings: 100+ bought in past month
Product Original_price: 699
Product Name: BOLT Volleyball Twister/Rubberized Moulded/Suitable for Outdoor and Indoor Surfaces/for Men Women and Kids/Color Yellow Blue Size-4
Product Price: 349
Product Reviews: M.R.P:
Product Quantity: M.R.P:
Product Ratings: M.R.P:
Product Original_price: 999
Product Name: XCELERATE SPORTS Volleyball Official Size 5 Waterproof Soft Sand Volley Balls for Beginners Adults Men Women Indoor Outdoor Pool Beach Gym Game Training Competition Play Gift (1 Pack)
Product Price: 449
Product Reviews: 1
Product Quantity: M.R.P:
Product Ratings: M.R.P:

Product Original_price: 899
Product Name: Nivia Crater Volleyball with Ball Pump Volleyball - Size: 4 (Pack of 2, Yellow/Blue)
Product Price: 498
Product Reviews: 4,233
Product Quantity: 600+ bought in past month
Product Ratings: 600+ bought in past month
Product Original_price: 814
Product Name: NIVIA Spikester (Encounter) 494 Polypropylene Volleyball, Size - 4 (Multicolour)
Product Price: 730
Product Reviews: 1,719
Product Quantity: 1K+ bought in past month
Product Ratings: 1K+ bought in past month
Product Original_price: 899
Product Name: Nivia Rubber Kross Rubber Hand Stitched Volleyball, Size 4, (Yellow and Blue)
Product Price: 499
Product Reviews: 5,222
Product Quantity: 300+ bought in past month
Product Ratings: 300+ bought in past month
Product Original_price: 695
Product Name:
Product Price: 1,388
Product Reviews: 5,807
Product Quantity: 50+ bought in past month
Product Ratings: 50+ bought in past month
Product Original_price: 2,399
Product Name:
Product Price:
Product Reviews:
Product Quantity:
Product Ratings:
Product Original_price:
Product Name:
Product Price: 1,388
Product Reviews: 5,807
Product Quantity: 50+ bought in past month
Product Ratings: 50+ bought in past month
Product Original_price: 2,399
Product Name: Vector X Spike Rubber Vollyball (Color : Multicolour, Size : 4) (Volleyball+Pump)
Product Price: 389
Product Reviews: 1,539
Product Quantity: 700+ bought in past month
Product Ratings: 700+ bought in past month
Product Original_price: 695
Product Name: Volleyball with Pump - Size: 4 (Multi-Colour) (Volley/Pump)

Product Price: 249
Product Reviews: M.R.P:
Product Quantity: M.R.P:
Product Ratings: M.R.P:
Product Original_price: 599
Product Name: Cosco Super Volley Volleyball, Size 4 (Multicolour) (15002)
Product Price: 1,199
Product Reviews: 797
Product Quantity: 200+ bought in past month
Product Ratings: 200+ bought in past month
Product Original_price: 1,480
Product Name: jaspo Soft Touch Recreational pu Leather Volleyball with Hand Air
Pump, Machine Stitched Volleyball Waterproof Indoor/Outdoor Size:5 (Next to Fun,
Black/White)
Product Price: 449
Product Reviews: 20
Product Quantity: 100+ bought in past month
Product Ratings: 100+ bought in past month
Product Original_price: 699
Product Name: Nivia Volleyball/Rubberized Moulded/Suitable for Indoor/Outdoor
Surfaces/for Men/Women/Size - 4 (Yellow)
Product Price: 349
Product Reviews: 192
Product Quantity: 50+ bought in past month
Product Ratings: 50+ bought in past month
Product Original_price: 399
Product Name: XCELERATE SPORTS Volleyball Official Size 5 Waterproof Soft Sand
Volley Balls for Beginners Adults Men Women Indoor Outdoor Pool Beach Gym Game
Training Competition Play Gift (1 Pack)
Product Price: 449
Product Reviews: 1
Product Quantity: M.R.P:
Product Ratings: M.R.P:
Product Original_price: 899
Product Name: SPARTAN Approved by VFI Super Volley Leather Volleyball - Size 4,
Yellow
Product Price: 1,150
Product Reviews: 154
Product Quantity: 50+ bought in past month
Product Ratings: 50+ bought in past month
Product Original_price: 1,650
Product Name: SPARTAN Pro Volleyball, Size 4, Genuine Leather Dotted Surface,
8-Panel, Lightweight, Waterproof, Perfect for Training, Match, Practicing, Beach
Play, and All-Season (Best for New Experience)
Product Price: 1,149
Product Reviews: 7
Product Quantity: M.R.P:
Product Ratings: M.R.P:

Product Original_price: 1,750
Product Name: Play Nation Premium Volleyball for Boys & Girls | Outdoor Training
Volleyball Size 4 |Diameter 20.8cm | Birthday Gift | BIS Certified | 5+ Years
(Black & Yellow)
Product Price: 419
Product Reviews: 6
Product Quantity: M.R.P:
Product Ratings: M.R.P:
Product Original_price: 899
Product Name: Vector X Glider Volleyball/Rubberized Moulded/Suitable for
Indoor/Outdoor Surfaces/for Men/Women/Kids Rubber Material/Training Ball/Match
Ball/Color - Yellow /- Size - 4
Product Price: 321.
Product Reviews: 34
Product Quantity: M.R.P:
Product Ratings: M.R.P:
Product Original_price: 899
Product Name: Nivia Electric Volleyball/Beach Volleyball/Rubber Moulded
Volleyball/for Indoor/Outdoor/for Men/Women Size - 4 (Multicolor) with Ball Pump
Product Price: 422.
Product Reviews: 15
Product Quantity: 100+ bought in past month
Product Ratings: 100+ bought in past month
Product Original_price: 211.46
Product Name: HTM Volleyball - Size: 4 (Multi Colour)
Product Price: 289
Product Reviews: 4
Product Quantity: M.R.P:
Product Ratings: M.R.P:
Product Original_price: 599
Product Name: Cosco Rubber Premier Volley Ball, Size 4, Multicolour
Product Price: 640
Product Reviews: 87
Product Quantity: M.R.P:
Product Ratings: M.R.P:
Product Original_price: 800
Product Name: Nivia Storm Football | Rubberized Moulded | Suitable for Hard
Ground Without Grass | Training Ball | Soccer Ball | for Men/Women | Football
Size - 5 (White)
Product Price: 349
Product Reviews: 47,183
Product Quantity: 5K+ bought in past month
Product Ratings: 5K+ bought in past month
Product Original_price: 726
Product Name: Cosco Gold Star Volley Ball
Product Price: 849
Product Reviews: 28
Product Quantity: M.R.P:

Product Ratings: M.R.P:
Product Original_price: 960
Product Name: Cosco Shot Volleyball, 4
Product Price: 455
Product Reviews: 1,719
Product Quantity: 100+ bought in past month
Product Ratings: 100+ bought in past month
Product Original_price: 620
Product Name: Cosco 15010 Rubber Volley Ball, Size 4, (Multicolour)
Product Price: 699
Product Reviews: 332
Product Quantity: M.R.P:
Product Ratings: M.R.P:
Product Original_price: 900
Product Name: Nivia VB-492 Spot Volleyball, Size 4, Rubber, Multicolour
Product Price: 1,190
Product Reviews: 709
Product Quantity: 100+ bought in past month
Product Ratings: 100+ bought in past month
Product Original_price: 1,620
Product Name: Nivia 472 Rubber Volley Ball – Size: 4 (Yellow & Blue)
Product Price: 519
Product Reviews: 270
Product Quantity: M.R.P:
Product Ratings: M.R.P:
Product Original_price: 730
Product Name: Nivia G-2020 Rubber Volleyball, (Yellow and Blue) Standard Size
Product Price: 845
Product Reviews: 1,603
Product Quantity: 100+ bought in past month
Product Ratings: 100+ bought in past month
Product Original_price: 1,160
Product Name: Cosco Serve Volleyball Multicolour Size 4 (15031)
Product Price: 684
Product Reviews: 41
Product Quantity: M.R.P:
Product Ratings: M.R.P:
Product Original_price: 800
Product Name: GRS Hand Stiched Rubber VOLLYBALL Size-4 (Multicolour, Ball+ Free AIR Pump, Volleyball)
Product Price: 339
Product Reviews: 440
Product Quantity: 50+ bought in past month
Product Ratings: 50+ bought in past month
Product Original_price: 799
Product Name: Nivia Encounter (PU Pasted) Volleyball
Product Price: 725
Product Reviews: 151

Product Quantity: 50+ bought in past month
Product Ratings: 50+ bought in past month
Product Original_price: 899
Product Name: Nivia Combo Spikester Volleyball with Ball Pump (Yellow/Blue, Size - 4)
Product Price: 899
Product Reviews: 1
Product Quantity: (449.50 449.50/count)
Product Ratings: (449.50 449.50/count)
Product Original_price: 449.50
Product Name: Vector X ST-200 Rubberized Pasted 18 Panel Volleyball (Size-4)
Product Price: 999
Product Reviews: 27
Product Quantity: M.R.P:
Product Ratings: M.R.P:
Product Original_price: 1,209
Product Name: Vector X Octane Pu Pasted Japanes Microfiber PU 18 Pannels Premium Match Volleyball
Product Price: 2,229
Product Reviews: 1
Product Quantity: M.R.P:
Product Ratings: M.R.P:
Product Original_price: 2,805
Product Name: Vector X ST-100 Soft Touch PU Pasted 18 Panel Volleyball (Size-4)
Product Price: 939
Product Reviews: 14
Product Quantity: M.R.P:
Product Ratings: M.R.P:
Product Original_price: 1,280
Product Name:
Product Price: 799
Product Reviews: 80
Product Quantity: 50+ bought in past month
Product Ratings: 50+ bought in past month
Product Original_price: 999
Product Name:
Product Price:
Product Reviews:
Product Quantity:
Product Ratings:
Product Original_price:
Product Name:
Product Price: 799
Product Reviews: 80
Product Quantity: 50+ bought in past month
Product Ratings: 50+ bought in past month
Product Original_price: 999
Product Name:

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Product Price:
Product Reviews: or
Product Quantity:
Product Ratings:
Product Original_price:
Product Name:
Product Price:
Product Reviews: Delivery Day
Product Quantity:
Product Ratings:
Product Original_price:
Data saved to D:\DATA ANALYTICS\Amazon files2\Amazon_volleyball40.csv
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[24]:
```python
df.iloc[4:10].reset_index(drop= True)
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[24]:

	Product_Name	Product_Price
0	jaspo Soft Touch Recreational pu Leather Volle…	329
1	jaspo Soft Touch Recreational pu Leather Volle…	449
2	BOLT Volleyball Twister/Rubberized Moulded/Sui…	349
3	XCELERATE SPORTS Volleyball Official Size 5 Wa…	449
4	Nivia Crater Volleyball with Ball Pump Volleyb…	498
5	NIVIA Spikester (Encounter) 494 Polypropylene …	730

	Product_Reviews
0	Check each product page for other buying optio…
1	20
2	M.R.P:
3	1
4	4,233
5	1,719

	Product_Quantity	Product_Ratings	Original_Price
0	100+ bought in past month	3.6 out of 5 stars	329
1	100+ bought in past month	3.6 out of 5 stars	699
2	M.R.P:		999
3	M.R.P:	5.0 out of 5 stars	899
4	600+ bought in past month	3.7 out of 5 stars	814
5	1K+ bought in past month	3.9 out of 5 stars	899

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