

PROJECT FOR WEB SCRAPING

Web Scraping of Motorola Envision TV From Flipkart

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AIM OF THE PROJECT

The aim of this project is to create a Python Web scraping to extract specific details of the Motorola Envision from flipkart . Using BeautifulSoup and Requests libraries, the objective is to gather essential information such as product names, prices, customer reviews, ratings, and comments associated with the Motorola Envision listings.



Description:

Objective: Extract specific product details of the Motorola Envision TV from the Flipkart product page using Python with BeautifulSoup library.

Accessing the Page:

Use Python's requests library to fetch the HTML content of the Motorola Envision TV product page on Flipkart.

Parsing HTML Content:

Utilize BeautifulSoup to parse the HTML content and navigate through the document's structure.

Extracting Product Information:

Locate the relevant HTML elements containing the desired data such as:

Product name

Price

Comments

Reviews

Project Steps :-

- **URL Retrieval:** You've defined the URL for the Motorola Envision TV product page on Flipkart. HTTP Request: Using the requests library, you've fetched the HTML content from the URL.
- **Parsing HTML:** Utilizing BeautifulSoup, you've parsed the HTML content to navigate and extract specific elements.
- **Data Extraction:** Extracted data includes product prices, customer names, comments, reviews, ratings, filtering.
- **Data Manipulation:** You've stored extracted data into lists and a pandas Dataframe.
- **Data Export:** Exported the DataFrame containing the extracted data to a CSV file.

Project Benefits:-

- **Real-time Insights**: Gather up-to-date Motorola Envision prices, reviews, and trends from Flipkart for informed decision-making.
- **Competitive Advantage**: Analyze pricing strategies and customer sentiments, aiding in competitive analysis.
- **Efficiency and Automation**: Streamline data collection processes, enabling efficient market monitoring and operational enhancements.

Analysis of project:

Based on our analysis we conclude that this project has most sales in the smartwatch in

Flipkart as this product has no negative review and has average of 4

Motorola Envision Web Scrapping from Flipkart

Code command:

(1) Access Flipkart web site by using import requests URL and BeautifulSoup library.

```
import requests
from bs4 import BeautifulSoup
import pandas as pd
URL = "https://www.flipkart.com/motorola-envision-x-80-cm-32-inch-hd-ready-led-smart-google-tv/product-reviews/itm1f0478bf9ebd7?r"

```

```
r=requests.get(URL)
data=r.content
print(data)

s://rukminim1.flixcart.com/blobio/124/124/1mr/blobio-1mr_08e1a0d9542e4e8cad27b0af3c28c24a.jpg?q=90), url(data:image/svg+xml;b
ase64,PHN2YyB3aWR0aD0iMjIiIghlaWdodD0iMTgiIHhtbG5zPSJodHRwOi8vd3d3LnczLm9yZy8yMDAwL3N2ZyI+PgGzmlsbD0iZlE0UQ5RCIGzmlsbC1ydWx
lPSJub256ZXJvIj48CGF0aCBkPSJNMjAgMEgyQzEgMCAwIDEGMCAyZjE0YzAgMS4xLjkgMiAyIDJoMThjMSAwIDITMSAyLTJWMMwLTETMSoyLTITMnptMCAXNS45
MmMlLjAyljAzLS4wNi4wNi0uMDguMDhIMlYyLjA4TDIuMDggMmgxNy44M2MuMDMuMDIuMDYuMDYuMDguMDh2MTMuODRIMjB6Ii8+PHBhdGggZD0iITTEwIDEyLjUxT
DcuNSA5LjUgNCAxNGxNGxNGwNC41LTZ6Ii8+PC9nPjwvc3ZnPg==);width:62px;height:62px"></div></div><div class="row_3n8db9"><div class
="row"><p class="2sc7ZR_2V5EHH">arobindu mondal</p><svg width="14" height="14" viewBox="0 0 12 12" xmlns="http://www.w3.or
g/2000/svg" class="2a1p_T"><g><circle cx="6" cy="6" r="6" fill="#878787"></circle><path stroke="#FFF" stroke-width="1.5" d
="M3 612 2 4-4" fill="#878787"></path></g></svg><p id="review-2f714c7b-f069-4a6b-9f01-db82039645c4" class="2mcZGG"><span>Cer
tified Buyer</span><span>, South Twenty Four Parganas District</span></p></div></div><p class="2sc7ZR">1 month ago</p></div><
div class="1e9_Zu"><div class="row"><div class="27atSS"><div class="1LmwT9"><svg width="20" height="15" xmlns="http://www.
w3.org/2000/svg" class="skCrcq"><path fill="#fff" class="1Lit4y" d="M9.58.006c-.41.043-.794.32-1.01.728-.277.557-2.334 4.693
-2.74 5.1-.41.407-.944.6-1.544.6v8.572h7.5c.45 0 .835-.28 1.007-.665 0 0 2.207-6.234 2.207-6.834 0 -.6-.47-1.072-1.07-1.072h-
3.216c-.6 0-1.07-.535-1.07-1.07 0-.537.835-3.387 1.006-3.944.17-.557-.107-1.157-.664-1.35-.15-.043-.257-.086-.407-.064zM0 6.4
34v8.572h2.143V6.434H0z" fill-rule="evenodd"></path></svg><span class="3c3Px5">28</span></div><div class="1LmwT9 pkR4jH"><s
vg width="20" height="15" xmlns="http://www.w3.org/2000/svg" class="skCrcq pkR4jH"><path fill="#fff" class="1Lit4y" d="M9.5
8.006c-.41.043-.794.32-1.01.728-.277.557-2.334 4.693-2.74 5.1-.41.407-.944.6-1.544.6v8.572h7.5c.45 0 .835-.28 1.007-.665 0 0
2.207-6.234 2.207-6.834 0 -.6-.47-1.072-1.07-1.072h-3.216c-.6 0-1.07-.535-1.07-1.07 0-.537.835-3.387 1.006-3.944.17-.557-.107-
1.157-.664-1.35-.15-.043-.257-.086-.407-.064zM0 6.434v8.572h2.143V6.434H0z" fill-rule="evenodd"></path></svg><span class="3c
3Px5">4</span></div></div><div class="2bmov8"><svg width="6" height="11" viewBox="0 0 16 27" xmlns="http://www.w3.org/2000/s
vg" class="2Uv0RBh"><path d="M16 23.20716 11 13.161 16 3.093 12.955 0 13.161 12.955 13.161z" fill="#fff" class="2aP6F6"></

```

```
#prettify the codes of HTML page
soup=BeautifulSoup(data,'html.parser')
soup.prettify

pple-touch-icon-57x57.png" rel="apple-touch-icon"/><meta content="app" name="twitter:card"/><meta content="@flipkart" name="t
witter:site"/><meta content="@flipkart" name="twitter:creator"/><meta content="Motorola Envision X 80 Cm 32 Inch Hd Ready Led
Smart Google Tv Reviews: Latest Review of Motorola Envision X 80 Cm 32 Inch Hd Ready Led Smart Google Tv | Price in India | F
lipkart.com" name="twitter:title"/><meta content="Shop for electronics, apparels & more using our Flipkart app Free shipp
ing & COD." name="twitter:description"/><meta content="in" name="twitter:app:country"/><meta content="Flipkart" name="al:
ios:app_name"/><meta content="742044692" name="al:ios:app_store_id"/><meta content="Flipkart" name="twitter:app:name:iphone"/
><meta content="742044692" name="twitter:app:id:iphone"/><meta content="http://dl.flipkart.com/dl/home?" name="twitter:app:ur
l:iphone"/><meta content="Flipkart" name="twitter:app:name:ipad"/><meta content="742044692" name="twitter:app:id:ipad"/><meta
content="http://dl.flipkart.com/dl/home?" name="twitter:app:url:ipad"/><meta content="Flipkart" name="twitter:app:name:google
play"/><meta content="com.flipkart.android" name="twitter:app:id:googleplay"/><meta content="http://dl.flipkart.com/dl/home?"
name="twitter:app:url:googleplay"/><style>#container {
    height: 100%;
}</style> <link href="//fk-cp-zion/css/AllReviewsPage.chunk.03bdc3.css" rel="stylesheet"/><title>Motorola En
vision X 80 Cm 32 Inch Hd Ready Led Smart Google Tv Reviews: Latest Review of Motorola Envision X 80 Cm 32 Inch Hd Ready Led
Smart Google Tv | Price in India | Flipkart.com</title><meta content="Motorola Envision X 80 Cm 32 Inch Hd Ready Led Smart Go
ogle Tv Reviews: Latest Review of Motorola Envision X 80 Cm 32 Inch Hd Ready Led Smart Google Tv | Price in India | Flipkart.
com" name="og_title" property="og:title"><meta content="Motorola Envision X 80 Cm 32 Inch Hd Ready Led Smart Google Review
s" name="Keywords"> <meta content="Read Latest Reviews of Motorola Envision X 80 Cm 32 Inch Hd Ready Led Smart Google Tv on F
lipkart.com. Find genuine customer reviews and ratings. Buy Motorola Envision X 80 Cm 32 Inch Hd Ready Led Smart Google Tv at
best prices on Flipkart.com." name="Description"><meta content="Read Latest Reviews of Motorola Envision X 80 Cm 32 Inch Hd R

title=soup.title
print(type(soup))          #beautifulsoup
print(type(title))         #tag
print(type(title.string))   #NavigableString

<class 'bs4.BeautifulSoup'>
<class 'bs4.element.Tag'>
<class 'bs4.element.NavigableString'>

```

(2) To access Motorola Envision price by using this class.

```
title=soup.title
title
```

```
<title>Motorola Envision X 80 Cm 32 Inch Hd Ready Led Smart Google Tv Reviews: Latest Review of Motorola Envision X 80 Cm 32 In
ch Hd Ready Led Smart Google Tv | Price in India | Flipkart.com</title>
```

```
price = soup.find_all(class="_30jeq3")
#<div class="_30jeq3">₹10,999</div>
price
```

```
[<div class="_30jeq3">₹10,999</div>]
```

```
price[0].get_text()
```

```
'₹10,999'
```

(3) To access Motorola Envision Customer Name by using the respective class from its HTML content.

```
: names=soup.find_all(class="_2sc7ZR _2V5EHH")
#<p class="_2sc7ZR _2V5EHH">Flipkart Customer</p>
names=list(names)
print(type(names))
print(names)
len(names)
```

```
<class 'list'>
[<p class="_2sc7ZR _2V5EHH">Flipkart Customer</p>, <p class="_2sc7ZR _2V5EHH">Dr Abid Khan</p>, <p class="_2sc7ZR _2V5EHH">Shub
ham Verma </p>, <p class="_2sc7ZR _2V5EHH">Yashraj Kadam</p>, <p class="_2sc7ZR _2V5EHH">Dhanaprakash A</p>, <p class="_2sc7ZR
_2V5EHH">arobindu mondal</p>, <p class="_2sc7ZR _2V5EHH">manju</p>, <p class="_2sc7ZR _2V5EHH">Arumugaraja Muthiah</p>, <p cla
ss="_2sc7ZR _2V5EHH">Madan Suthar</p>, <p class="_2sc7ZR _2V5EHH">ANURAAG TIWARI</p>]
```

```
: 10
```

```
: names[0].get_text()
```

```
: 'Flipkart Customer'
```

```
: #List of customer names
c_names=[]
for i in names:
    c_names.append(i.get_text())
c_names
```

```
: ['Flipkart Customer',
'Dr Abid Khan',
'Shubham Verma ',
'Yashraj Kadam',
'Dhanaprakash A',
'arobindu mondal',
'manju',
```

(4) To access Motorola Envision Customer Comment by using the respective class.

```
comment = soup.find_all(class="_2-N8Zt")
<p class="_2-N8Zt">Worst experience ever!</p>
comment

[<p class="_2-N8Zt">Worst experience ever!</p>,
<p class="_2-N8Zt">Just wow!</p>,
<p class="_2-N8Zt">Must buy!</p>,
<p class="_2-N8Zt">Mind-blowing purchase</p>,
<p class="_2-N8Zt">Wonderful. Totally worth it.</p>,
<p class="_2-N8Zt">Wonderful</p>,
<p class="_2-N8Zt">Worth every penny</p>,
<p class="_2-N8Zt">Best in the market!</p>,
<p class="_2-N8Zt">Highly recommended</p>,
<p class="_2-N8Zt">Wonderful</p>]
```

```
review_comment = []
for i in comment:
    review_comment.append(i.get_text())
review_comment
```

```
[ 'Worst experience ever!',  
  'Just wow!',  
  'Must buy!',  
  'Mind-blowing purchase',  
  'Wonderful. Totally worth it.',  
  'Wonderful',  
  'Worth every penny',  
  'Best in the market!',  
  'Highly recommended',  
  'Wonderful' ]
```

(5) To access Motorola Envision Customer Review star by using the respective class.

```
stars=soup.find_all('div',class_="_3LWZlK _1BLPMq")
stars
```

[illegible]

```
s_stars=[]
for i in stars:
    s_stars.append(i.get_text())
s_stars
```

```
['3', '5', '5', '5', '5', '5', '5', '5', '5', '5']
```


(6) To access Motorola Envision Customer Comment by using the respective class.

```
review = soup.find_all("div",class_="t-ZTKy")
#<div class="">Better to buy Samsung,LG or Sony. This tv has screen bleeding issue</div> MORE</span></span></div></div>
review
```

```
[<div class="t-ZTKy"><div><div class="">Better to buy Samsung,LG or Sony. This tv has screen bleeding issue</div><span class="_1H-bmy"><span>READ MORE</span></span></div></div>,
  <div class="t-ZTKy"><div><div class="">Aux connectivity is not there .<br>Tv is good</div><span class="_1H-bmy"><span>READ MORE</span></span></div></div>,
  <div class="t-ZTKy"><div><div class="">Best product range in This price</div><span class="_1H-bmy"><span>READ MORE</span></span></div></div>,
  <div class="t-ZTKy"><div><div class="">Very nice product,<br>Value for money...</div><span class="_1H-bmy"><span>READ MORE</span></span></div></div>,
  <div class="t-ZTKy"><div><div class="">Got this on BBD 2023. This is totally worth the price. Has good display and sound effects. Totally worth it for this price.</div><span class="_1H-bmy"><span>READ MORE</span></span></div></div>,
  <div class="t-ZTKy"><div><div class="">Value for money</div><span class="_1H-bmy"><span>READ MORE</span></span></div></div>,
  <div class="t-ZTKy"><div><div class="">Product is awesome,<br><br>Installation person, didnt even bother to remove film on tv screen.<br><br>busy with marketing for stabilizer and additional warranty plan, such a stupid technician, slap these jeeves.<br><br>i had fitted table stands myself later.<br><br>unprofessional jeeves</div><span class="_1H-bmy"><span>READ MORE</span></span></div></div>,
  <div class="t-ZTKy"><div><div class="">Amazing this Product.</div><span class="_1H-bmy"><span>READ MORE</span></span></div></div>,
  <div class="t-ZTKy"><div><div class="">A 1 Quality</div><span class="_1H-bmy"><span>READ MORE</span></span></div></div>,
  <div class="t-ZTKy"><div><div class="">Very nice 🍌</div><span class="_1H-bmy"><span>READ MORE</span></span></div></div>]
```

```
cust_review=[]
for i in review:
    cust_review.append(i.get_text())
cust_review
```

```
['Better to buy Samsung,LG or Sony. This tv has screen bleeding issueREAD MORE',
 'Aux connectivity is not there .Tv is goodREAD MORE',
 'Best product range in This priceREAD MORE',
 'Very nice product,Value for money...READ MORE',
 'Got this on BBD 2023. This is totally worth the price. Has good display and sound effects. Totally worth it for this price.READ MORE',
 'Value for moneyREAD MORE',
 'Product is awesome,Installation person, didnt even bother to remove film on tv screen.busy with marketing for stabilizer and additional warranty plan, such a stupid technician, slap these jeeves.i had fitted table stands myself later.unprofessional jeevesREAD MORE',
 'Amazing this Product.READ MORE',
 'A 1 QualityREAD MORE',
 'Very nice 🍌 READ MORE']
```

(7) To arrange properly in column all above data by using -Pandas library.

```
df = pd.DataFrame({"customers_Names":c_names,"Review_comment":review_comment,"Review_star":s_stars,"review":cust_review})  
print(df)
```

	customers_Names	Review_comment	Review_star	\
0	Flipkart Customer	Worst experience ever!	3	
1	Dr Abid Khan	Just wow!	5	
2	Shubham Verma	Must buy!	5	
3	Yashraj Kadam	Mind-blowing purchase	5	
4	Dhanaprakash A	Wonderful. Totally worth it.	5	
5	arobindu mondal	Wonderful	5	
6	manju	Worth every penny	5	
7	Arumugaraja Muthiah	Best in the market!	5	
8	Madan Suthar	Highly recommended	5	
9	ANURAAG TIWARI	Wonderful	5	

	review
0	Better to buy Samsung,LG or Sony. This tv has ...
1	Aux connectivity is not there .Tv is goodREAD ...
2	Best product range in This priceREAD MORE
3	Very nice product,Value for money...READ MORE
4	Got this on BBD 2023. This is totally worth th...
5	Value for moneyREAD MORE
6	Product is awesome,Installation person, didnt ...
7	Amazing this Product.READ MORE
8	A 1 QualityREAD MORE
9	Very nice 🙌 READ MORE

(8)To see quick overview of the central tendency, spread, and distribution of the data in the DataFrame.

```
df1.describe()
```

	Review_star
count	10.000000
mean	4.800000
std	0.632456
min	3.000000
25%	5.000000
50%	5.000000
75%	5.000000
max	5.000000

This summary can help in identifying outliers, understanding the range of values, and getting a general sense of the data distribution for further analysis.

(9) Find First Five Data.

```
import pandas as pd
df1=pd.read_csv("motorola_envision.csv")
df1.head()
```

	customers_Names	Review_comment	Review_star	review
0	Flipkart Customer	Worst experience ever!	3	Better to buy Samsung,LG or Sony. This tv has ...
1	Dr Abid Khan	Just wow!	5	Aux connectivity is not there .Tv is goodREAD ...
2	Shubham Verma	Must buy!	5	Best product range in This priceREAD MORE
3	Yashraj Kadam	Mind-blowing purchase	5	Very nice product,Value for money...READ MORE
4	Dhanaprakash A	Wonderful. Totally worth it.	5	Got this on BBD 2023. This is totally worth th...

(10) Find INFO of data

```
: df1.info()

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 10 entries, 0 to 9
Data columns (total 4 columns):
#   Column          Non-Null Count  Dtype  
---  -
0   customers_Names  10 non-null    object  
1   Review_comment   10 non-null    object  
2   Review_star      10 non-null    int64   
3   review           10 non-null    object  
dtypes: int64(1), object(3)
memory usage: 452.0+ bytes
```

(11)Sort the name of Customer in Ascending order

```
: df1.customers_Names.sort_values()

9      ANURAAG TIWARI
7  Arumugaraja Muthiah
4      Dhanaprakash A
1      Dr Abid Khan
0  Flipkart Customer
8      Madan Suthar
2      Shubham Verma
3      Yashraj Kadam
5  arobindu mondal
6      manju
Name: customers_Names, dtype: object
```

(12) Sort the Names of Customer in Descending order

```
df1.customers_Names.sort_values(ascending=False)
```

```
6      manju
5  arobindu mondal
3    Yashraj Kadam
2    Shubham Verma
8      Madan Suthar
0  Flipkart Customer
1      Dr Abid Khan
4    Dhanaprakash A
7  Arumugaraja Muthiah
9    ANURAAG TIWARI
Name: customers_Names, dtype: object
```

(13) Find who had given full rating

```
df1[df1.Review_star==5] #["customer_name"]
```

	customers_Names	Review_comment	Review_star	review
1	Dr Abid Khan	Just wow!	5	Aux connectivity is not there .Tv is goodREAD ...
2	Shubham Verma	Must buy!	5	Best product range in This priceREAD MORE
3	Yashraj Kadam	Mind-blowing purchase	5	Very nice product,Value for money...READ MORE
4	Dhanaprakash A	Wonderful. Totally worth it.	5	Got this on BBD 2023. This is totally worth th...
5	arobindu mondal	Wonderful	5	Value for moneyREAD MORE
6	manju	Worth every penny	5	Product is awesome,Installation person, didnt ...
7	Arumugaraja Muthiah	Best in the market!	5	Amazing this Product.READ MORE
8	Madan Suthar	Highly recommended	5	A 1 QualityREAD MORE
9	ANURAAG TIWARI	Wonderful	5	Very nice 🙌 READ MORE

(14) Find who gave less than 5 rating

```
df1[df1.Review_star<5]
```

	customers_Names	Review_comment	Review_star	review
0	Flipkart Customer	Worst experience ever!	3	Better to buy Samsung,LG or Sony. This tv has ...

CONCLUSION

Web scraping the Motorola Envision TV product details from Flipkart demonstrated the efficacy of leveraging Python's BeautifulSoup library to extract structured data from the e-commerce platform. By accessing the HTML content, parsing the elements, and systematically extracting specific information such as product name, price, specifications, and features, the scraping process proved efficient.



