

Vishal Mega Mart



Vishal Mega Mart is India's leading Fashion led hypermarket with 400+ stores spread across India. Vishal Mega Mart's mission is to make aspirations affordable for all its customers by providing shoppers with a wide range of Latest Fashion, General Merchandise and Grocery needs. Vishal's customers love its unique combination of great quality and amazing prices.

Vishal also delivers excellent quality products in fashion, food & grocery and general merchandise at great value through its exclusive brands available only at Vishal.

Assignment Prompt: Retail Store Location Scraper

For this assignment, your task is to scrape the locations of your favourite retail brand in India and extract the following information:

- Store Name
- Address
- Timings
- Coordinates (Latitude/Longitude) (bonus)
- Phone Number

Vishal Mega Mart Website.

<https://stores.vishalmegamart.com/> or <https://stores.vishalmegamart.com/?page=1>

There are a total of 21 pages on Vishal Mega Mart website containing details of 559 stores.

We will scrap them one by one.

The full process is divided into five Parts.

1. We will use Postman to create a Request code for us to web scrap data. Postman is an API Platform for developers to design, build, test and iterate their APIs.
2. We will Copy this Request code and use it in Jupyter Notebook or any other IDE for web scraping the webpage.
3. We will inspect the website to get the html tag details of the element containing the desired information.
4. After getting the html tag detail, we will extract the information from webpage.
5. In the end, we will convert the information we have found from the webpage to a .csv file.

We will use Postman to create a request code for us to web scrap data.

Postman

File Edit View Help

NewImportRunner

My Workspace

Invite

Sign In

Filter

HistoryCollectionsAPIs

Save Responses

You haven't sent any requests

Any request you send in this workspace will appear here.

Show me how

GETUntitled Request

GETUntitled Request

No Environment

Comments 0

GETEnter request URLSendSave

ParamsAuthorizationHeaders (6)BodyPre-request ScriptTestsSettingsCookiesCode

Query Params

KEY	VALUE	DESCRIPTION		Bulk Edit
Key	Value	Description		

Response

Bootcamp

Postman

File Edit View Help

NewImportRunner

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HistoryCollectionsAPIs

Save Responses

You haven't sent any requests

Any request you send in this workspace will appear here.

Show me how

GETUntitled Request

GEThttps://stores.vishalmegamart....

No Environment

Comments 0

GEThttps://stores.vishalmegamart.com/?page=1SendSave

ParamsAuthorizationHeaders (6)BodyPre-request ScriptTestsSettingsCookiesCode

Query Params

KEY	VALUE	DESCRIPTION		Bulk Edit
<input checked="" type="checkbox"/> page	1			
Key	Value	Description		

Response

Bootcamp

Postman

File Edit View Help

New Import Runner

My Workspace Invite

Filter

History Collections APIs

Save Responses Clear all

Today

GET https://stores.vishalmegamart.com/?page=1

GET Untitled Request

Comments 0

GET https://stores.vishalmegamart.com/?page=1

Send Save

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies Code

Query Params

KEY	VALUE	DESCRIPTION
<input checked="" type="checkbox"/> page	1	
Key	Value	Description

Body Cookies (2) Headers (18) Test Results

Status: 200 OK Time: 1412 ms Size: 13.5 KB Save Response

Pretty Raw Preview Visualize HTML

```

1 <!doctype html>
2 <html lang="en" itemscope itemtype="http://www.schema.org/WebPage">
3
4 <head>
5   <meta charset="UTF-8">
6   <meta name="viewport" content="width=device-width, initial-scale=1">
7   <meta name="theme-color" content="#00626e">
8   <meta name="mobile-web-app-capable" content="yes">
9   <title>Grooming, Clothing, and Household Items | Vishal Mega Mart</title>

```

Bootcamp

GET https://stores.vishalmegamart.com/?page=1

Send Save

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies Code

GENERATE CODE SNIPPETS

Filter languages...

PHP - cURL

PHP - HTTP_Request2

PHP - pecl_http

PowerShell - RestMethod

Python - http.client

Python - Requests

Ruby - Net::HTTP

Shell - Httpie

Shell - wget

Swift - URLSession

Generated code for Python - Requests

Contribute on GitHub

Settings

```

1 import requests
2
3 url = "https://stores.vishalmegamart.com/?page=1"
4
5 payload = {}
6 headers = {
7     'Cookie':
8         'XSRF-TOKEN=eyJpdiI6ImYraV11bUs2REdUVkhmWHhGaI9xd1E9PSIsInZhbnHV
9         1IjoicWU3MU02TURJL29tQ2NtQTQyRXY5RzFDcG10OVZ0c0JaTGlyQ0R3d3NIIZ2
10        pmZUdtQjNwSWR6N05sMGJlQVVDMMJyN3d4eDJCWw9NekRTdkRUMWdKMC9LVG1iZ
11        DlsUUFwUE1sMjc0UFlwaC81RS93TlBGaWZUMTdVbXUzL2xPSnIiLCJtYWMiOiJm
12        YzM0YjQyNWU4Y2I4YmM4ODgwOTRiNTFkZTU1OTRkZGMwNjM1NGQyYmVhMjlkYTd
13        lMTFmN2E1MWU0OTQ2NmEzIn0%3D;
14        vishal_mega_mart_session=eyJpdiI6IiI0Yk9DaEVMTUM2L2VBOW5LWThRQm
15        c9PSIsInZhbnHV1IjoiaitTW1JRGRNYNGtPwkhYR1VVQXVvY0szeU9YS2E3eG4wN
16        2ZBdTJ5RzVDOVRMSkpWUzJWVCttempRkZnKK0NUK2EwTkxUSHdodS9LOExzV0xG
17        ZFU5SUtVemxIWfJlWGRTRXJHa1Fjb1JvdmdBeW1XRUFJby8yNTI1MENGUMQzNEU
18        iLCJtYWMiOiI4NzZjOGIzMzU3NjdkY2Q3ZGNjYzJlNjJhMjA5ZDRhMGUxNTZiZT
19        d1NjE4Y2NkYzQ2ZDUwN2RlOWVhNDJkNTI5In0%3D'
20 }

```

This is our Request code. We will Copy this code and use it in Jupyter Notebook or any other ide for web scraping.

Jupyter Notebook

```
In [2]: import requests
response=[]
for i in range(1,22):
    url = "https://stores.vishalmegamart.com/?page="+str(i)

    payload = {}
    headers = {
        'Cookie': 'XSRF-TOKEN=eyJpdiI6IjF2L1lyMGd1aVplUTlRb2pQNExUSVpSISInZhbHVlIjoivXhZbXFqTi9rSTNuc2hsbDZJekp2OE1FMkdmVWdxQUYz
    }

    res=requests.request("GET", url, headers=headers, data = payload)
    response.append(res.text.encode('utf8'))
    print(res.text.encode('utf8'))
```

```
b'<!doctype html><html lang="en" itemscope itemtype="http://www.schema.org/WebPage"><head><meta charset="UTF-8"><meta name="vie
wport" content="width=device-width, initial-scale=1"><meta name="theme-color" content="#00626e"><meta name="mobile-web-app-capa
ble" content="yes"><title>Grocery, Clothing and Household Items | Vishal Mega Mart</title><meta itemprop="name" content="Grocer
y, Clothing and Household Items | Vishal Mega Mart" /><meta name="robots" content="index, follow"><meta name="googlebot" conten
t="index, follow"><meta name="description" itemprop="description" content="Vishal Mega Mart is India\&#x2013;s leading Fashi
on led hypermarket stores. Locate our nearest Shopping Mart and buy daily grocery, household items and Apparels"/><meta name="k
eywords" content="Grocery, Clothing and Household Items | Vishal Mega Mart"/><meta property="og:title" content="Grocery, Clothe
ng and Household Items | Vishal Mega Mart"><meta property="og:description" content="Vishal Mega Mart is India\&#x2013;s lead
ing Fashion led hypermarket stores. Locate our nearest Shopping Mart and buy daily grocery, household items and Apparels"><meta
name="twitter:description" content="Vishal Mega Mart is India\&#x2013;s leading Fashion led hypermarket stores. Locate our n
earest Shopping Mart and buy daily grocery, household items and Apparels"><meta name="copyright" content="\&#xa9 Copyright 20
10-20 Vishal Mega Mart"/><link rel="canonical" href="https://stores.vishalmegamart.com"/><link rel="icon" type="image/png" sizes
="32x32" href="https://stores.vishalmegamart.com/vishalmms/images/favicon/favicon-32x32.png"><link rel="preload stylesheet" as
="style" href="https://stores.vishalmegamart.com/vishalmms/css/bootstrap.min.css?ver=9"><link rel="preload stylesheet" as="styl
e" href="https://stores.vishalmegamart.com/vishalmms/font/flaticons/flaticon.css?ver=9"><link rel="preload stylesheet" as="styl
e" href="https://stores.vishalmegamart.com/vishalmms/font/icon_fonts/css/all_icons.css?ver=9"><link rel="preload stylesheet" as
="style" href="https://stores.vishalmegamart.com/vishalmms/css/common/common.css?ver=9"><link async defer href="https://stores.
vishalmegamart.com/vishalmms/css/store-locator/store-locator.css?ver=9" rel="stylesheet" type="text/css"><link async defer href
="https://stores.vishalmegamart.com/vishalmms/css/search/search-no-result.css?ver=9" rel="stylesheet" type="text/css"></head><b
```

Here we have used a loop. As there are total 21 pages on the website.

To scrap them all we will do by iterating and then combining the scraped data in a list called “response”.

```
from bs4 import BeautifulSoup
import pandas as pd
```

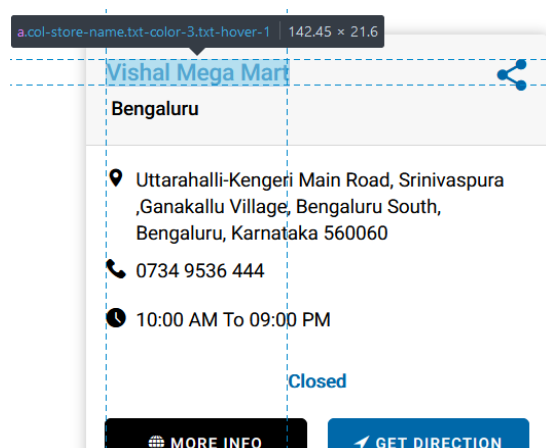
We are also using BeautifulSoup for scraping and Pandas for data manipulation purpose.

```
z=BeautifulSoup(response[20], 'html.parser')
```

Object of BeautifulSoup on a subset data.

- **Store Name**

First, we will inspect the website to get the html tag details of the element containing the Store Name.



Second Step is to find the class name of the html tag that contains store name.



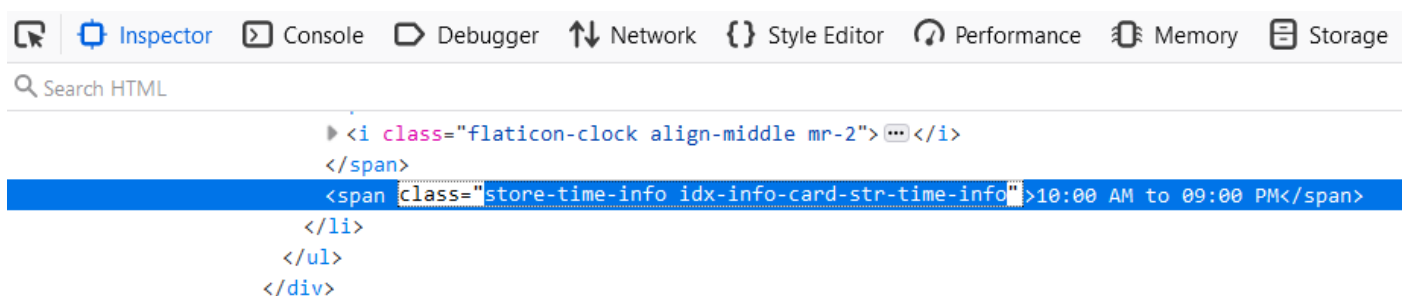
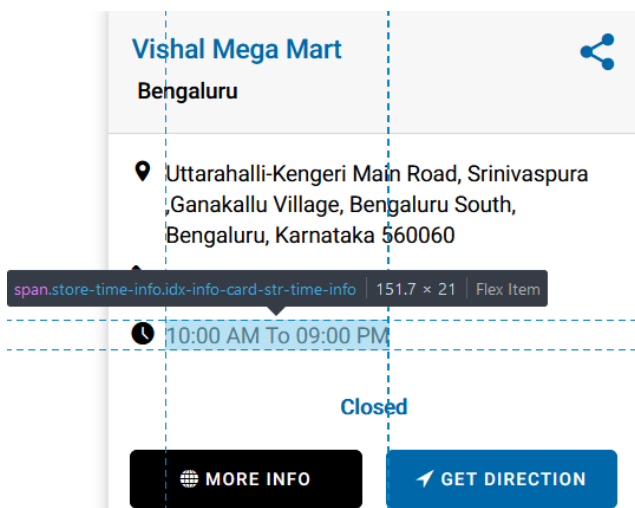
Now use the class name we find to extract the store name from the website.

```
# Store Name
z.find_all('div',class_='card h-100 info-card idx-str-info-card rounded-0')[0].find(
    ('a',class_='col-store-name txt-color-3 txt-hover-1')).text

' Vishal Mega Mart '
```

Similar steps will be followed to extract the Timing, Full Address, Phone no. etc...

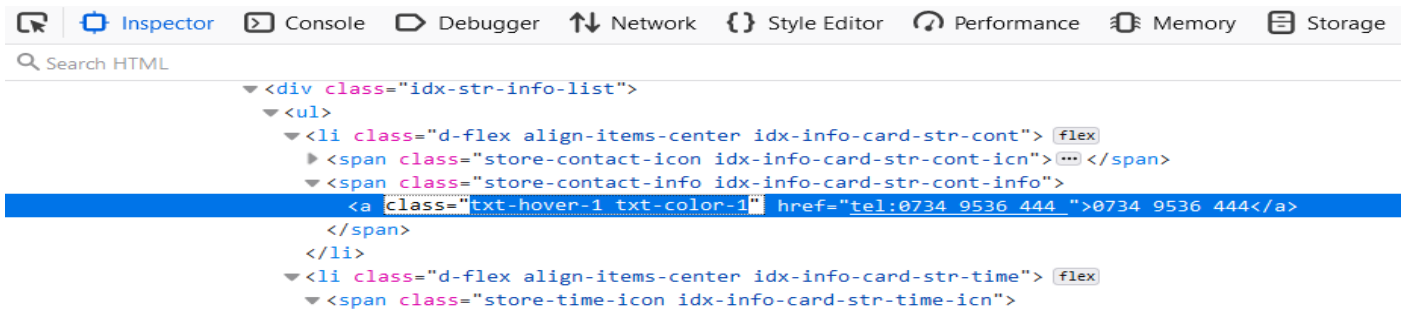
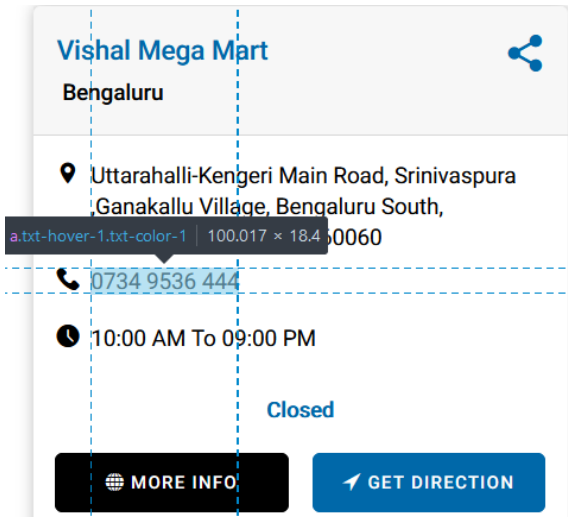
- **Timing**



```
# Timing
z.find_all('div',class_='card h-100 info-card idx-str-info-card rounded-0')[0].find(
    ('span',class_='store-time-info idx-info-card-str-time-info')).text

'10:00 AM to 09:00 PM'
```

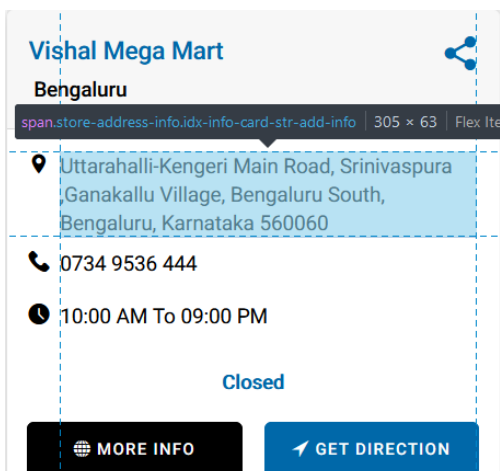
• Phone



```
# Phone Number
z.find_all('div',class_='card h-100 info-card idx-str-info-card rounded-0')[0].find('a',class_='txt-hover-1 txt-color-1').text

'0734 9536 444 '
```

• Full Address



Search HTML

```

<li class="mb-2 d-flex idx-info-card-str-add"> flex
  <span class="store-address-icon idx-info-card-str-add-icn"> ... </span>
  <span class="store-address-info idx-info-card-str-add-info">
    Uttarahalli-Kengeri Main Road, Srinivaspura ,Ganakallu Village, Bengaluru South, Bengaluru, Karnataka
    560060
  </span>
</li>
</ul>
<div class="idx-str-info-list">

```

Full Address

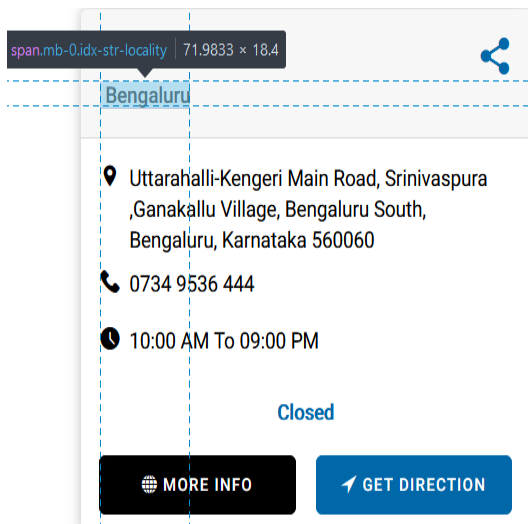
```

z.find_all('div',class_='card h-100 info-card idx-str-info-card rounded-0')[0].find
  ('span',class_='store-address-info idx-info-card-str-add-info').text

```

'Uttarahalli-Kengeri Main Road, Srinivaspura ,Ganakallu Village, Bengaluru South, Bengaluru, Karnataka 560060'

• City Name



Search HTML

```

<div class="brand-data d-flex"> flex
  <h2 class="idx-info-card-str-name mb-0">
    <a class="col-store-name txt-color-3 txt-hover-1" href="https://stores.vishalmegamart.com/
    bengaluru-south-bengaluru-30663/home">Vishal Mega Mart</a>
    <br>
    <span class="mb-0 idx-str-locality"> Bengaluru</span>
  </h2>
</div>

```

City Name

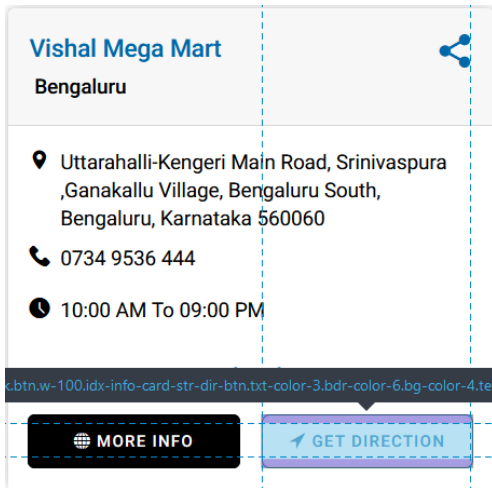
```

z.find_all('div',class_='card h-100 info-card idx-str-info-card rounded-0')[0].find
  ('span',class_='mb-0 idx-str-locality').text.replace('\xa0','')

```

'Bengaluru'

- Coordinates



```
# Coordinates
z.find_all('div',class_='col-md-6 col-sm-6 col-6 form-group mb-0 pl-2')[0].find('a')['href'].split('=')[-1]

'12.9037588,77.5078448'
```

Now will scrap out the data from all 559 stores.

```
store_name_lst=[]
city_name_lst=[]
full_address_lst=[]
phone_lst=[]
timing_lst=[]
coordinate_lst=[]
for i in range(len(response)):
    z=BeautifulSoup(response[i], 'html.parser')
    for j in range(len(z.find_all('div',class_='card h-100 info-card idx-str-info-card rounded-0'))):
        store_name_lst.append(z.find_all('div',class_='card h-100 info-card idx-str-info-card rounded-0')[j].find(
            ('a',class_='col-store-name txt-color-3 txt-hover-1')).text)

        city_name_lst.append(z.find_all('div',class_='card h-100 info-card idx-str-info-card rounded-0')[j].find(
            ('span',class_='mb-0 idx-str-locality')).text.replace('\xa0',''))

        full_address_lst.append(z.find_all('div',class_='card h-100 info-card idx-str-info-card rounded-0')[j].find(
            ('span',class_='store-address-info idx-info-card-str-add-info')).text)

        phone_lst.append(z.find_all('div',class_='card h-100 info-card idx-str-info-card rounded-0')[j].find(
            ('a',class_='txt-hover-1 txt-color-1')).text)

        timing_lst.append(z.find_all('div',class_='card h-100 info-card idx-str-info-card rounded-0')[j].find(
            ('span',class_='store-time-info idx-info-card-str-time-info')).text)

        coordinate_lst.append(z.find_all('div',class_='col-md-6 col-sm-6 col-6 form-group mb-0 pl-2')[j].find(
            ('a')['href']).split('=')[-1])
```



```
len(coordinate_lst)
```

559

As the total number of stores are 559.

Converting all lists into a DataFrame

```
Vishal_store_df=pd.DataFrame(data={'store_name':store_name_lst,'city_name':city_name_lst,'full_address':full_address_lst,
                                   'Coordinates(Longtude/Latitude)':coordinate_lst,'phone_no':phone_lst,
                                   'store_timing':timing_lst})
```

Web Scraped Data

Vishal_store_df

	store_name	city_name	full_address	Coordinates(Longtude/Latitude)	phone_no	store_timing
0	Vishal Mega Mart	Central Delhi	Shop No 10209, 10210, Padam Singh Road, Near ...	28.648012,77.190996	0721 7887 958	10:00 AM to 09:00 PM
1	Vishal Mega Mart	South Delhi	Khirki Extension, Near Sant Nirankari Public ...	28.5346856,77.2185205	0995 3586 868	10:00 AM to 09:00 PM
2	Vishal Mega Mart	West Delhi	Main Market Rajouri Garden, Block H, H2, Rajo...	28.6424381,77.1231081	0846 7004 041	10:00 AM to 09:00 PM
3	Vishal Mega Mart	North East Delhi	Bholanath Nagar Main Road, Bholanath Nagar, N...	28.6666937,77.286952	0728 9901 351	10:00 AM to 09:00 PM
4	Vishal Mega Mart	South Delhi	MCD No 1679, E/1,d/1,2/1679, Khasra No 19 Gal...	28.5341443,77.2598518	0721 7887 898	10:00 AM to 09:00 PM
...
554	Vishal Mega Mart	Mysuru	General Thimmaiah Road, Vijayanagar 1st Stage...	12.331566,76.609817	0	09:00 AM to 10:00 PM
555	Vishal Mega Mart	Mysore	Shop No 1518, 3, Devaraja Mohalla, Shivarampe...	12.3112527,76.647769	0721 7888 413	10:00 AM to 09:00 PM
556	Vishal Mega Mart	Kodagu	Harichandrapura, Thalassery - Mysore Road, SH...	12.18438,75.93355161	0845 3698 662	09:00 AM to 10:00 PM
557	Vishal Mega Mart	Nilgiris	Plot No 144, Botanical, Garden Road, Garden R...	11.4148737,76.7088164	0721 7887 951	10:00 AM to 09:00 PM
558	Vishal Mega Mart	Ernakulam	Shop No 12/1472, Payyattu Building, Chullicka...	9.9468524,76.2560285	0721 7888 401	10:00 AM to 09:00 PM

559 rows × 6 columns

Saving the pandas DataFrame to a .csv file

```
Vishal_store_df.to_csv('Vishal_store.csv')
```