Scraping data from Google Maps using Python

Python Scraping

Objective Three

Discover simple yet effective techniques for data scraping

Objective Two

Understand how to extract data from Google Maps listings

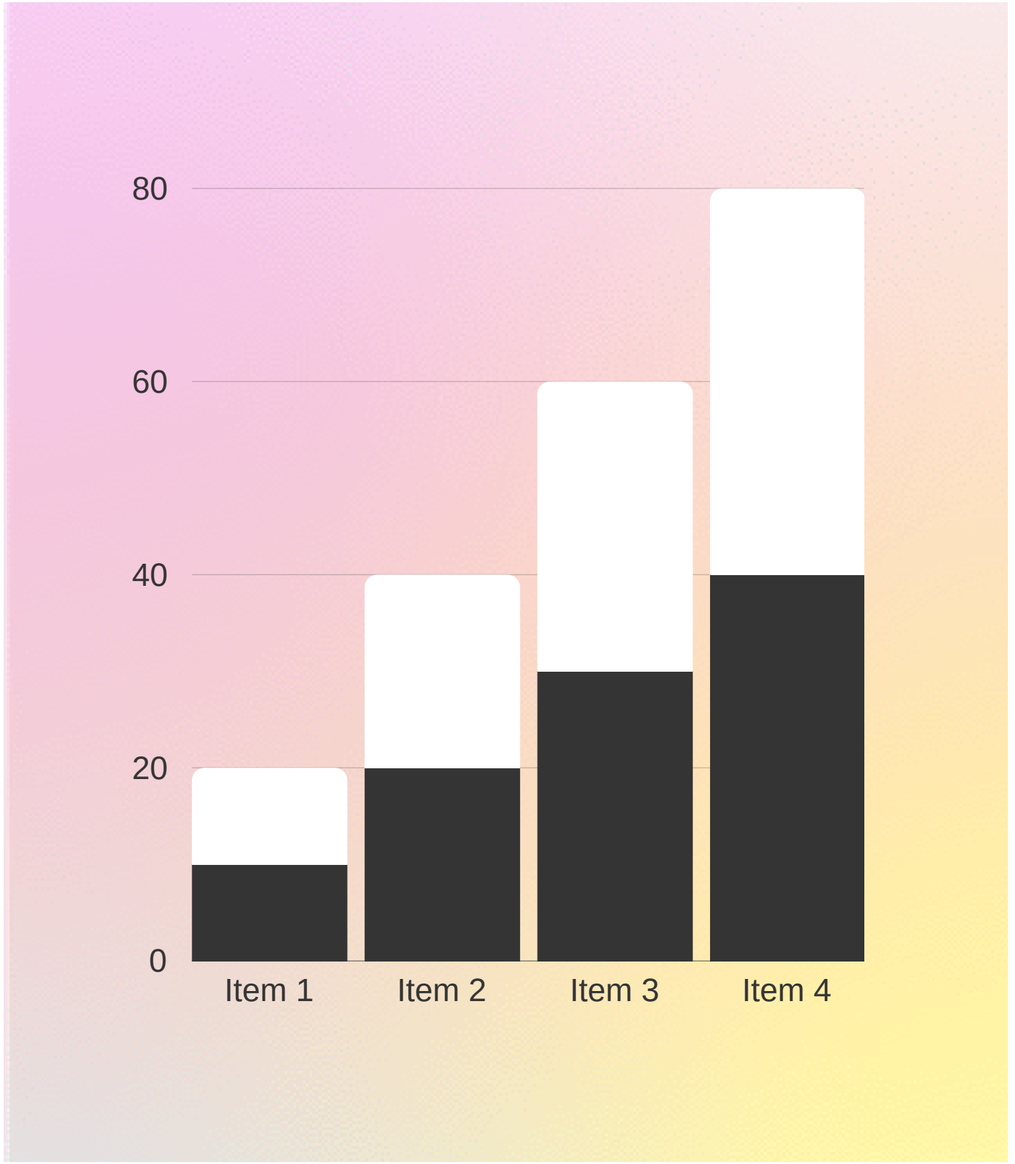
Objective One

Learn how to use Python to scrape Google Maps

Google Maps Scraping

Scraped Data

The following graph represents the percentage of data scraped over a time period using Python. The majority of data was collected in the first 3 hours of scraping.



Code!

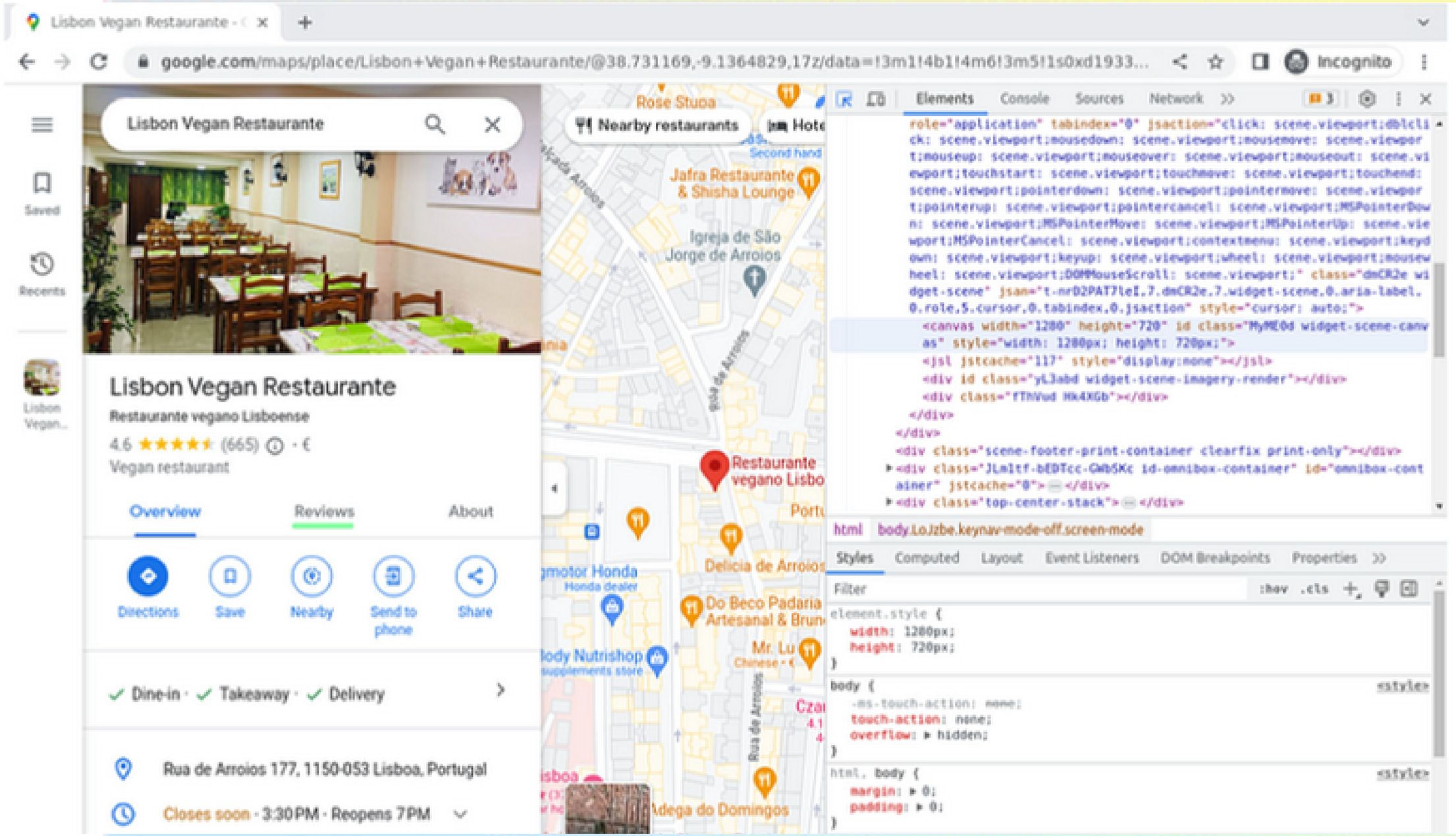
```
from selenium import webdriver
from webdriver_manager.chrome import ChromeDriverManager
from selenium.webdriver.support.ui import WebDriverWait
from selenium.webdriver.common.action_chains import ActionChains
from selenium.webdriver.support import expected_conditions as EC
from selenium.common.exceptions import ElementNotVisibleException
from selenium.webdriver.common.by import By
from selenium.common.exceptions import TimeoutException
from bs4 import BeautifulSoup

driver = webdriver.Chrome(ChromeDriverManager().install())


driver.maximize_window()
driver.implicitly_wait(30)

# Either we can hard code or can get via input.
# The given input should be a valid one
location = "600028"
print("Search By ")
print("1.Book shops")
print("2.Food")
print("3.Temples")
print("4.Exit")
ch = "Y"

while (ch.upper() == 'Y'):
  choice = input("Enter choice(1/2/3/4):")
```

```
while (ch.upper() == 'Y'):
  choice = input("Enter choice(1/2/3/4):")

  if (choice == '1'):
    query = "book shops near " + location

  if (choice == '2'):
    query = "food near " + location

  if (choice == '3'):
    query = "temples near " + location

  driver.get("https://www.google.com/search?q=" + query)
  wait = WebDriverWait(driver, 10)
  ActionChains(driver).move_to_element(wait.until(EC.element_to_be_clickable(
    (By.XPATH, "//a[contains(@href, '/search?tbs')]")))).perform()
  wait.until(EC.element_to_be_clickable(
    (By.XPATH, "//a[contains(@href, '/search?tbs')]"))).click()
  names = []

  for name in driver.find_elements(By.XPATH, "//div[@aria-level='3']"):
    names.append(name.text)
  print(names)

  ch = input("Do you want to continue (Y/N): ")
```

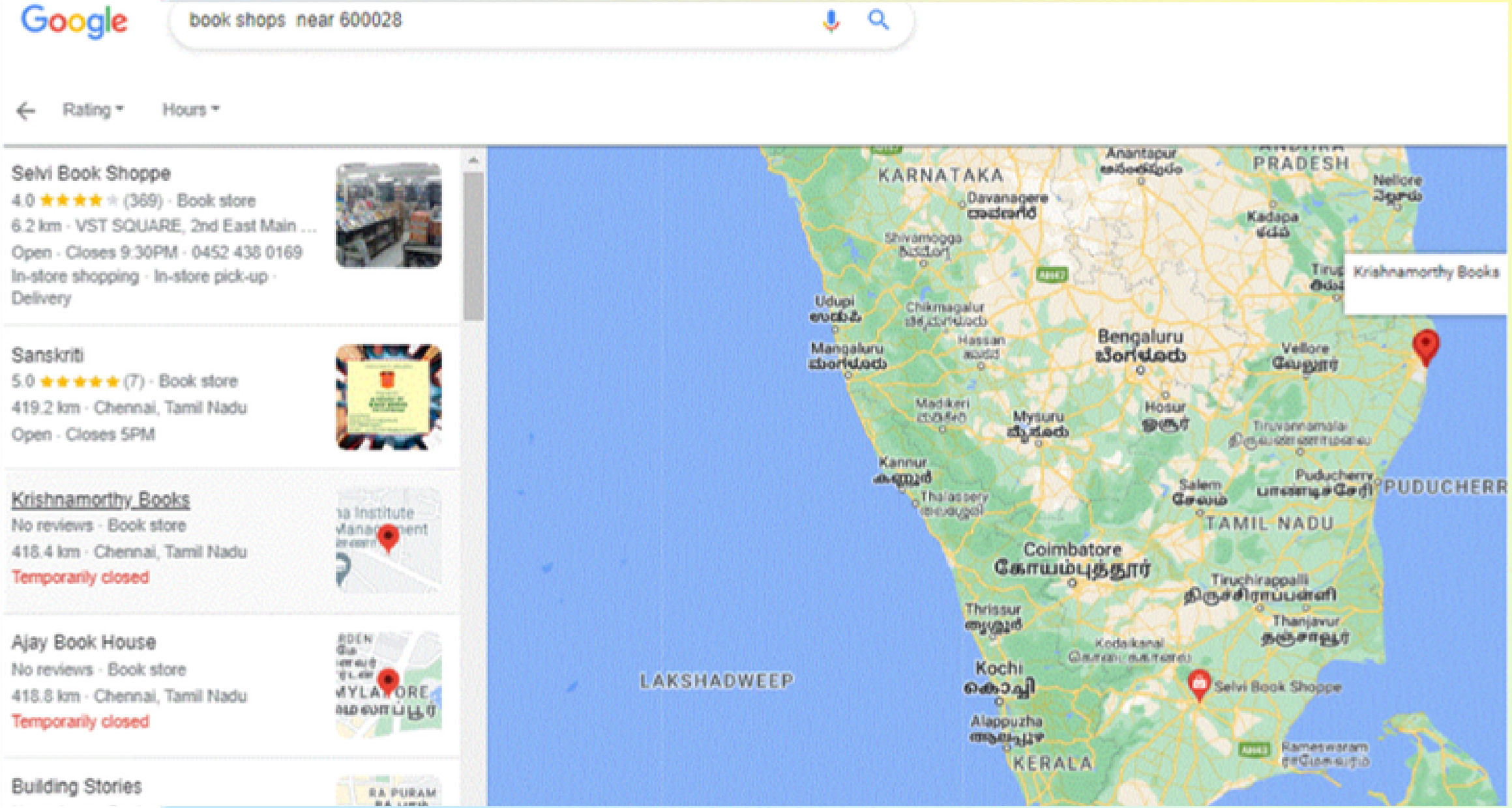
Output!

```
Search By
1.Book shops
2.Food
3.Temples
4.Exit
Enter choice(1/2/3/4):1
['Sanskriti', 'Krishnamorthy Books', 'Ajay Book House', 'Building Stories', 'RARE BOOKS', 'Sri Kamachiamman', 'Jayaprakash Book
Stores', 'Ravi Book House', 'Little Prodigy Books', 'Word of Christ Ministries', 'Tattvaloka', 'Royal Books & Stationery', 'THE
LAW WEEKLY', 'Sri Sai Sudha Book Centre', 'Edison Book House', 'CreA Book Shop', 'crow nest- Environment Book Store', 'Karthik
Book Shoppe', 'MURUGAN OLD BOOK SHOP', 'Vidya Book Centre']
Do you want to continue (Y/N): y
Enter choice(1/2/3/4):2
['Food Nirvana', 'SULTHAN BUHARI BIRIYANI', "Shankar's food hotel", 'Thattarakali Mess', 'Rathna Foods', 'The Food Car', 'ADYAR
FOOD COURT', 'Sri Sangeetha Food Corner', 'Smarti Food', 'Vibe - R.A.Puram', 'quesadillas', 'இது நம்ம ஏரியா. Chennai 28 sand
wich shop', 'Ashvita Bistro', 'Udipi Sri Ganesh Bhavan', 'Anbhu Fast Food', 'Aaradhana Tea Stall', 'G S S Restaurant', 'Pradee
p', 'Anburaj Briyani And Fast Food', 'Hotel Deepam']
Do you want to continue (Y/N): y
Enter choice(1/2/3/4):3
['Arulmigu Sri Venkatesa Perumal Temple', 'Shri Ayyappan Temple', 'அருள்மிகு ஓம் ஸ்ரீ பவானி அம்மன் ஆலயம்', 'அருள்மிகு
ஜீவரத்ன விநாயகர் ஆலயம்', 'Gangaiamman Koil கங்கை அம்மன் கோயில்', 'Arulmigu Sri Devi Karumari Amman Temple', 'Sakala
Siddi & Navadurgai Temple', 'Arulmigu Mundagakanniamman Thiru Koil', 'Arulmigu Sri Mariamman Temple', 'Ganesha Temple', 'Krishn
apuri', 'Udaiyar sami temple', 'Arulmigu Mundakanni Amman Temple', 'Lakshmi Kamakshi Temple', 'Temple', 'Arulmigu Sri Ayyapan T
emple', 'Sri Navasakthi Pilliyar Temple', 'Sri Valampuri Vinayagar Temple', 'Arulmigu Muthumariamman Alayam', 'ஸ்ரீ கற்பக
விநாயகர் ஆலயம் ( Sri Karpaga Vinayagar Temple)']
Do you want to continue (Y/N): 4
```

Output!


Lisbon Vegan Restaurante
google.com/maps/place/Lisbon+Vegan+Restaurante/@38.731169,-9.1364829,17z/data=!3m1!4b1!4m6!3m5!1s0xd1933...
Incognito
Saved
Recents
Lisbon Vegan...
Lisbon Vegan Restaurante
Restaurante vegano Lisboense
4.6 (665) · €
Vegan restaurant
Overview
Reviews
About
Directions
Save
Nearby
Send to phone
Share
Dine-in · Takeaway · Delivery
Rua de Arroios 177, 1150-053 Lisboa, Portugal
Closes soon · 3:30 PM · Reopens 7 PM
Nearby restaurants
Jafra Restaurante & Shisha Lounge
Igreja de São Jorge de Arroios
Restaurante vegano Lisbo
Delicia de Arroios
Do Beco Padaria Artesanal & Brun
Mr. Lu
Honda dealer
Nutrishop
Rua de Arroios
Elements
Console
Sources
Network
Styles
Computed
Layout
Event Listeners
DOM Breakpoints
Properties
Filter
element.style {
width: 1280px;
height: 720px;
}
body {
-ms-touch-action: none;
touch-action: none;
overflow: ▸ hidden;
}
html, body {
margin: ▸ 0;
padding: ▸ 0;
}

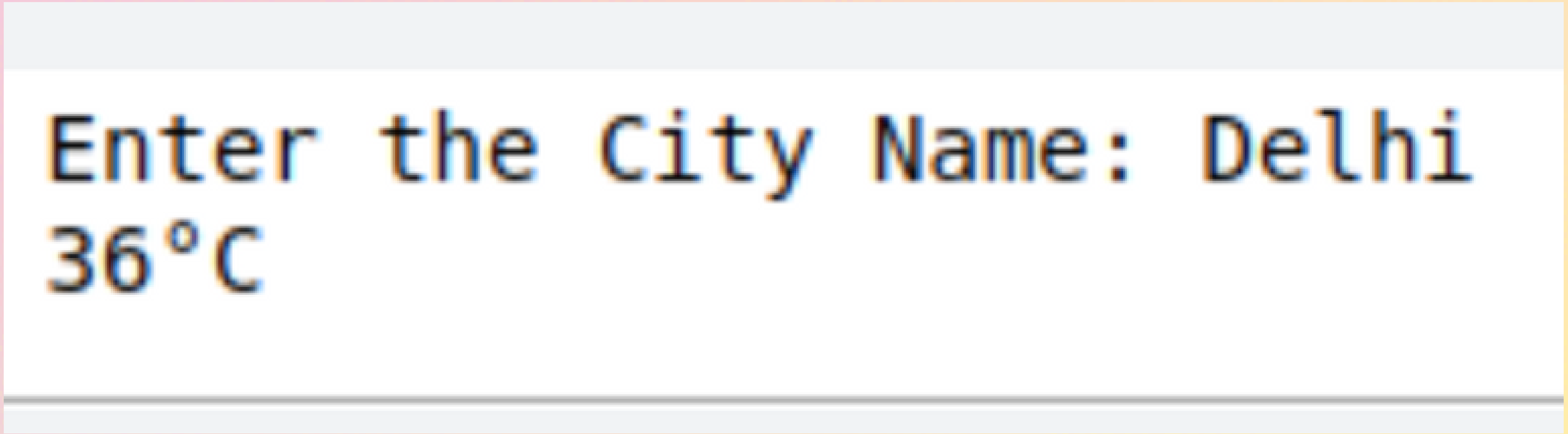
Output!


Google
book shops near 600028
Rating
Hours
Selvi Book Shoppe
4.0 (369) · Book store
6.2 km · VST SQUARE, 2nd East Main ...
Open · Closes 9:30PM · 0452 438 0169
In-store shopping · In-store pick-up · Delivery
Sanskriti
5.0 (7) · Book store
419.2 km · Chennai, Tamil Nadu
Open · Closes 5PM
Krishnamorthy Books
No reviews · Book store
418.4 km · Chennai, Tamil Nadu
Temporarily closed
Ajay Book House
No reviews · Book store
418.8 km · Chennai, Tamil Nadu
Temporarily closed
Building Stories
KARNATAKA
Anantapur
PRADESH
Nellore
Davanagere
Kadapa
Shivamogga
Krishnamorthy Books
Udupi
Chikmagalur
Hassan
Bengaluru
Vellore
Mangaluru
Madikeri
Mysuru
Hosur
Tiruvannamalai
Kannur
Thalassery
Salem
Puducherry
PUDUCHERR
TAMIL NADU
Coimbatore
Tiruchirappalli
Thrissur
Thanjavur
Kodaikanal
Kochi
LAKSHADWEEP
Selvi Book Shoppe
Alappuzha
KERALA
Rameswaram

Code!

```python
import requests
from bs4 import BeautifulSoup

# Enter the City Name
city = input("Enter the City Name: ")
search = "Weather in {}".format(city)

# URL
url = f"https://www.google.com / search?&q ={search}"

# Sending HTTP request
req = requests.get(url)

# Pulling HTTP data from internet
sor = BeautifulSoup(req.text, "html.parser")

# Finding temperature in Celsius
temp = sor.find("div", class_='BNeawe').text

print(temp)
```

Output!



Happy Scrapping!

We hope this presentation has been helpful in guiding you towards scrapping data from Google Maps using Python.

Thank you!