

# **WEB SCRAPING ASSIGNMENT 3**

## **Instructions:**

- All questions are compulsory.
- In each of the questions you have to automate the process. You do not have to click on any button, click any clickable element, enter keywords in search boxes manually. Each process has to be performed via coding.
- Q1 and Q2 are connected questions i.e. after attempting Q1 proceed to Q2. Do not write whole code from beginning for Q2.
- You may use any web scraping library and tools.
- The question can be attempted in various ways; the correctness of question depends on the output.
- If you encounter any Null values during scraping, you may replace it by hyphen.

## **Exercise:**

1. Write a python program which searches all the product under a particular product from [www.amazon.in](http://www.amazon.in). The product name to be searched will be taken as input from user. For e.g. If user input is 'guitar'. Then search for guitars.
2. In the above question, now scrape the following details of each product listed in first 3 pages of your search results and save it in a dataframe and csv. In case if any product vertical has less than 3 pages in search results then scrape all the products available under that product vertical. Details to be scraped are: "Brand Name", "Name of the Product", "Rating", "No. of Ratings", "Price", "Return/Exchange", "Expected Delivery", "Availability", "Other Details" and "Product URL". In case, if any of the details are missing for any of the product then replace it by "-".
3. Write a python program to access the search bar and search button on [images.google.com](http://images.google.com) and scrape 100 images each for keywords 'fruits', 'cars' and 'Machine Learning'.
4. Write a python program to search for a smartphone(e.g.: Oneplus Nord, pixel 4A, etc.) on [www.flipkart.com](http://www.flipkart.com) and scrape following details for all the search results displayed on 1<sup>st</sup> page. Details to be scraped: "Brand Name", "Smartphone name", "Colour", "RAM", "Storage(ROM)", "Primary Camera", "Secondary Camera", "Display Size", "Display Resolution", "Processor", "Processor Cores", "Battery Capacity", "Price", "Product URL". In case if any of the details is missing then replace it by "-". Save your results in a dataframe and CSV.
5. Write a program to scrap geospatial coordinates (latitude, longitude) of a city searched on google maps.
6. Write a program to scrap details of all the funding deals for second quarter (i.e. July 20 – September 20) from [trak.in](http://trak.in).
7. Write a program to scrap all the available details of top 10 gaming laptops from [digit.in](http://digit.in).