

Script Workflow

1. Fetching Webpage Content:

- The script sends an HTTP GET request to the Flipkart search URL using the `requests` library.
- It includes a `User-Agent` header to mimic a browser request and avoid anti-scraping blocks.
- It then waits for 2 seconds between requests using `time.sleep(2)` to avoid overwhelming the server and bypassing anti scraping mechanisms.

2. Parsing and Extracting Product Details:

- The script uses the `BeautifulSoup` library to parse the HTML content.
- It identifies product containers using class names and extracts:
 - **Product Name:** Located in a `div` with the class `KzD1HZ`
 - **Price:** Located in a `div` with the class `Nx9bqj _4b5DiR`
 - **Rating:** Located in a `div` with the class `XQDdHH`
- Each product's details are stored in a list of dictionaries.

3. Saving Extracted Data to CSV:

- The script writes the extracted product details to a CSV file.
- The file includes headers: **Name**, **Price**, and **Rating**.

Customization Options

1. Change Search URL:

Modify the `url` variable in the `main()` function to scrape other products. Replace laptops with the product you want. For example: `url = "https://www.flipkart.com/search?q=mobiles"`

You can add sorting to your query by modifying the URL. For example:

Sort by **Price** (ascending): `url = "https://www.flipkart.com/search?q=laptops&sort=price_asc"`

Sort by **Rating** (descending): `url = "https://www.flipkart.com/search?q=laptops&sort=rating_desc"`

2. Extract Additional Data:

Update the `extract` function to include other details like **discounts** or **product links** by inspecting the webpage's HTML.

3. Output File Name:

Change the default CSV file name in the `save` function: