Imports

```python
import requests
from bs4 import BeautifulSoup
import pandas as pd
import time
```

Define constants (headers & base URL)

```python
headers = {
    'User-Agent': 'Mozilla/5.0 (Windows NT 10.0; Win64; x64)'
}
base_url = "https://www.jumia.com.ng/laptops/?page={}"
products = []
```

Function to get reviews for certian product

```python
def get_reviews(product_url):

    try:
        resp = requests.get(product_url, headers=headers, timeout=10)
        if resp.status_code != 200:
            return None, None

        soup = BeautifulSoup(resp.text, 'html.parser')

        rating_tag = soup.find(string=lambda t: t and "out of 5" in t)
        rating = rating_tag.strip() if rating_tag else None

        num_reviews = None
        for tag in soup.find_all(string=lambda t: t and "verified
ratings" in t):
            num_reviews = tag.strip()
            break

        return rating, num_reviews

    except Exception as e:
        print(f"Error fetching reviews for {product_url}: {e}")
        return None, None
```

Scraping multiple pages with live progress updates

```python
import requests
from requests.exceptions import ReadTimeout, ConnectionError
import time

number_of_pages = 5

for page in range(1, number_of_pages + 1):
    print(f"Scraping page {page}...")

    try:
        resp = requests.get(base_url.format(page), headers=headers,
timeout=20)  # longer timeout
        resp.raise_for_status()
    except (ReadTimeout, ConnectionError) as e:
        print(f"⚠ Timeout/Connection error on page {page}, skipping...
({e})")
        continue

    soup = BeautifulSoup(resp.text, 'html.parser')
    items = soup.select('a.core')
    if not items:
        print(f"⚠ No items found on page {page}")
        continue

    for idx, item in enumerate(items, start=1):
        title_tag = item.select_one('h3.name')
        if not title_tag:
            continue
        title = title_tag.text.strip()
        if not title:
            continue

        price = item.select_one('.prc').text.strip() if
item.select_one('.prc') else None
        brand = item.get('data-gtm-brand', None)
        product_url = "https://www.jumia.com.ng" + item.get('href')
        img_tag = item.select_one('img.img')
        image_url = img_tag.get('data-src') or img_tag.get('src') if
img_tag else None

        try:
            rating, num_reviews = get_reviews(product_url)
        except (ReadTimeout, ConnectionError):
            rating, num_reviews = None, None

        products.append({
            'title': title,
            'price': price,
```

```
                'brand': brand,
                'rating': rating,
                'num_reviews': num_reviews,
                'product_url': product_url,
                'image_url': image_url
            })

            time.sleep(1)  # Delay between product requests

        print(f"Finished page {page}")
        time.sleep(2)  # Delay between pages

print("Done scraping")
```

```
Scraping page 1...
Finished page 1
Scraping page 2...
Finished page 2
Scraping page 3...
Finished page 3
Scraping page 4...
Finished page 4
Scraping page 5...
Finished page 5
Done scraping
```

Save results to CSV

```
df = pd.DataFrame(products)
df.to_csv("jumia_laptops.csv", index=False)
print(f"Collected {len(products)} products from (number_of_pages)
pages.")
```

```
Collected 200 products from (number_of_pages) pages.

df
```

```
                                                 title        price
brand  \
0       Ace Elec 14.1'' Intel(R)Pentium(R) CPU N3700 1...   ₦ 220,442  Ace
Elec
1       Macbook PRO Laptop A1278 13.3 Inch Core I5 2.5...   ₦ 191,680
Renewed
2       Blueing 15.6" Laptop J4125 8GB+256GB SSD Stude...   ₦ 232,580
Blueing
3       Hp EliteBook 840 G7 10th Gen Intel Core I5 Tou...   ₦ 538,000
Hp
4       Hp Stream 11 Pro Intel Celeron 4GB RAM- 64GB H...   ₦ 145,000
Hp
```

```
..                                          ...        ...
...
195  DELL  Latitude 7480 Intel Core I5, Keyboard Ba...  ₦ 450,000
DELL
196  DELL  Latitude 5300 TOUCHSCREEN  Core i5 -512G...  ₦ 440,000
DELL
197  Hp ProBook 11 X360- TOUCH Intel Celeron 256GB ...  ₦ 205,000
Hp
198  Hp  EliteBook 840 G5 TOUCHSCREEN Core I7-32GB ...  ₦ 630,000
Hp
199  Asus VIVOBOOK 14  E410M  INTEL CELERON N4020 4...  ₦ 355,000
Asus

            rating            num_reviews  \
0     3.7 out of 5  (83 verified ratings)
1     3.6 out of 5  (28 verified ratings)
2       4 out of 5  (56 verified ratings)
3     4.1 out of 5  (45 verified ratings)
4     3.8 out of 5  (13 verified ratings)
..           ...                      ...
195     0 out of 5                    None
196   4.5 out of 5  (11 verified ratings)
197     0 out of 5                    None
198     0 out of 5                    None
199     0 out of 5                    None

                                          product_url  \
0    https://www.jumia.com.ng/ace-elec-14.1-intelrp...
1    https://www.jumia.com.ng/renewed-macbook-pro-l...
2    https://www.jumia.com.ng/blueing-15.6-laptop-j...
3    https://www.jumia.com.ng/elitebook-840-g6-inte...
4    https://www.jumia.com.ng/hp-stream-11-pro-inte...
..                                                 ...
195  https://www.jumia.com.ng/dell-latitude-7480-in...
196  https://www.jumia.com.ng/dell-latitude-5300-to...
197  https://www.jumia.com.ng/hp-probook-11-x360-to...
198  https://www.jumia.com.ng/elitebook-840-g5-touc...
199  https://www.jumia.com.ng/asus-vivobook-14-e410...

                                            image_url
0    https://ng.jumia.is/unsafe/fit-in/300x300/filt...
1    https://ng.jumia.is/unsafe/fit-in/300x300/filt...
2    https://ng.jumia.is/unsafe/fit-in/300x300/filt...
3    https://ng.jumia.is/unsafe/fit-in/300x300/filt...
4    https://ng.jumia.is/unsafe/fit-in/300x300/filt...
..                                                 ...
195  https://ng.jumia.is/unsafe/fit-in/300x300/filt...
196  https://ng.jumia.is/unsafe/fit-in/300x300/filt...
197  https://ng.jumia.is/unsafe/fit-in/300x300/filt...
198  https://ng.jumia.is/unsafe/fit-in/300x300/filt...
```

```
199  https://ng.jumia.is/unsafe/fit-in/300x300/filt...

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```