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from selenium import webdriver

from selenium.webdriver.chrome.options import Options

from webdriver_manager.chrome import ChromeDriverManager

from bs4 import BeautifulSoup

import pandas as pd

import os

import csv


def get_html():

    url = 'https://www.amazon.com.br/s?k=iphone'

    options = Options ()

    options.headless = True

    options.add_experimental_option ("detach", True)

    browser = webdriver.Chrome(ChromeDriverManager().install(), options=options)

    browser.get (url)

    body_page = browser.page_source

    soup = BeautifulSoup (body_page, 'lxml')

    cards = soup.find_all (

        'div', {'data-asin': True, 'data-component-type': 's-search-result'}

    )


return cards


def scrape_data (card):

    try:

        h2 = card.h2

    except:

        title = "

```

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else:

title = h2.text.strip()

try:

cl = card.find ('span', class_='a-offscreen').text

except:

cl = ""

else:

cl = card.find ('span', class_='a-offscreen').text

data = {'Title': title, 'cl': cl}

return data

```

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def format_data (html):

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```

ads_data = []

for card in html:

data = scrape_data (card)

ads_data.append (data)

return ads_data

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def write_csv (ads):

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with open ('iphone_cl.csv', 'w', newline="", encoding='utf-8') as f:

fields = ['Title', 'cl']

writer = csv.DictWriter (

f, fieldnames=fields, delimiter=';', quoting=csv.QUOTE_MINIMAL

)

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for ad in ads:
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```
    writer.writerow (ad)
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```
df = pd.read_csv ("iphone_cl.csv", sep=';', index_col=False)
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```
df.to_excel ("iphone_cls.xlsx", header=["Title", "cl"], index=False)
```

```
os.remove ('iphone_cl.csv')
```

```
def main ():
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```
    html = get_html ()
```

```
    cls = format_data (html)
```

```
    write_csv (cls)
```

```
if __name__ == '__main__':
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```
    main ()
```