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import
pandas
as pd
      import time
      import bs4
      import random
      import requests
      # !pip install fake-useragent
      from fake useragent import UserAgent
      import itertools as it
      token = 'https://www.seloger.com/immobilier/locations/immo-paris-75/bien-
      appartement/?LISTING-LISTpg='
      def get_pages(token, nb):
          pages = []
          for i in range(1,nb+1):
              j = token + str(i)
              pages.append(j)
          return pages
      pages = get_pages(token,295)
      # https://www.proxy-list.download/HTTPS
      proxies = pd.read csv('proxy list.txt', header = None)
      proxies = proxies.values.tolist()
      proxies = list(it.chain.from_iterable(proxies))
      def get_data(pages,proxies):
          df = pd.DataFrame()
          parameters = ['data-prix', 'data-codepostal', 'data-idagence', 'data-
      idannonce', 'data-nb_chambres', 'data-nb_pieces', 'data-surface', 'data-typebien']
          ua = UserAgent()
          proxy_pool = it.cycle(proxies)
          while len(pages) > 0:
              for i in pages:
              # on lit les pages une par une et on initialise une table vide pour ranger
      les données d'une page
                  df_f = pd.DataFrame()
              # itération dans un liste de proxies
                  proxy = next(proxy_pool)
              # essai d'ouverture d'une page
                  try:
```

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response = requests.get(i,proxies={"http": proxy, "https": proxy},
headers={'User-Agent': ua.random},timeout=5)
                time.sleep(random.randrange(1,5))
        # lecture du code html et la recherche des balises <em>
                soup = bs4.BeautifulSoup(response.text, 'html.parser')
                em_box = soup.find_all("em", {"class":"agency-website"})
        # extraction des données
                for par in parameters:
                    1 = []
                    for el in em_box:
                        j = el[par]
                        1.append(j)
                    1 = pd.DataFrame(1, columns = [par])
                    df_f = pd.concat([df_f,1], axis = 1)
                df = df.append(df_f, ignore_index=True)
                pages.remove(i)
                print(df.shape)
            except:
                print("Skipping. Connnection error")
    return df
data = get_data(pages,proxies)
```