Python Script 2 : Crawling all emails from a website (/post/217/python-script-2-crawling-all-emails-from-a-website/)

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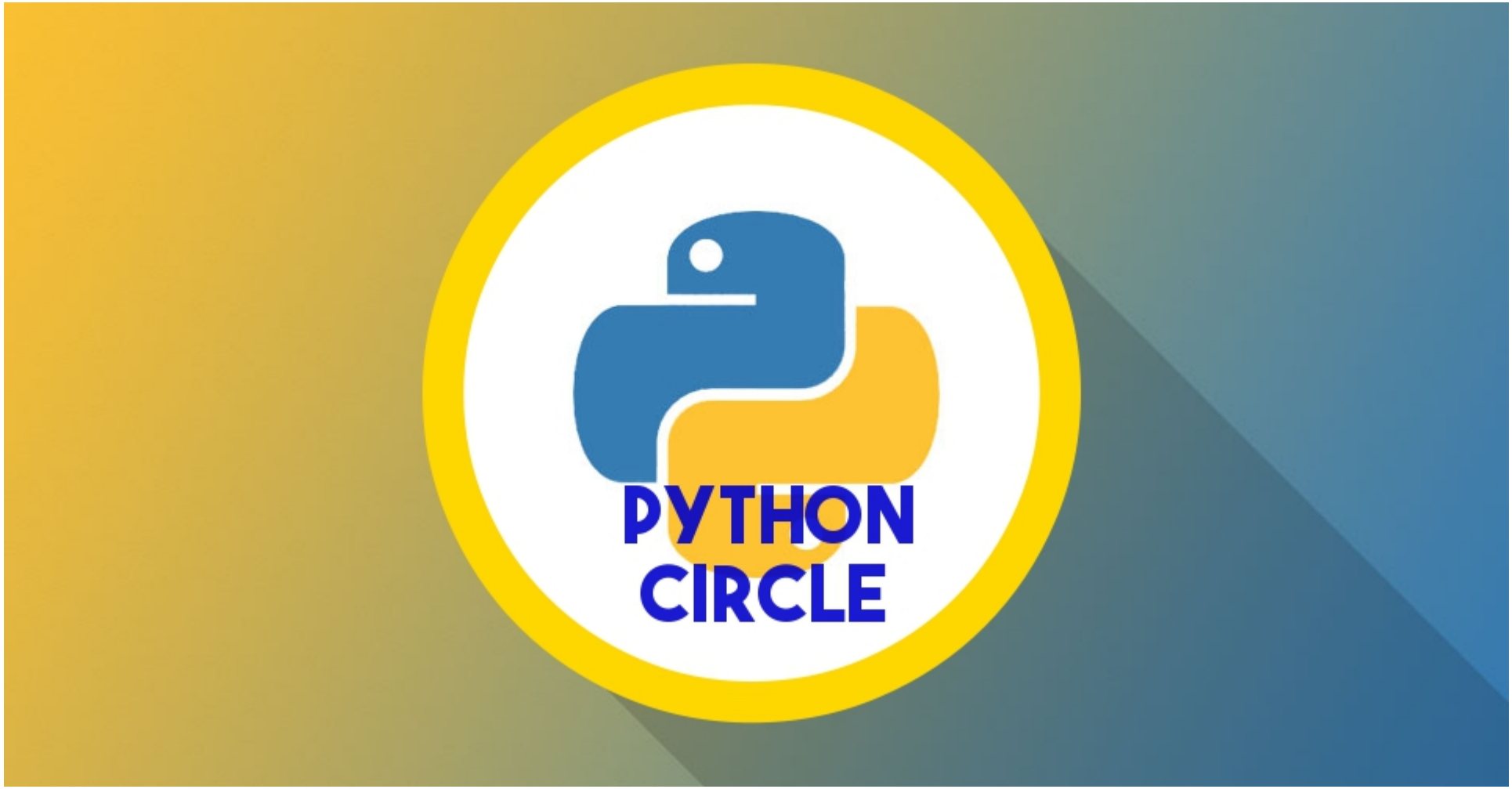

This is the second article in the series of python scripts.

In this article we will see how to crawl all pages of a website and fetch all the emails.

Important: Please note that some sites may not want you to crawl their site. Please honour their robot.txt file. In some cases it may lead to legal action. This article is only for educational purpose. Readers are requested not to misuse it.

Instead of explaining the code separately, I have embedded the comments over the source code lines. I have tried to explain the code wherever I felt the requirement.

Please comment in case of any query. You might need to install some packages like `requests` and `BeautifulSoup` for this script to work. It is recommended that you create a virtual environment (https://www.pythoncircle.com/post/404/virtual-environment-in-python-a-pocket-guide/) and install packages in it.

```
import re
import requests
import requests.exceptions
from urllib.parse import urlsplit
from collections import deque
from bs4 import BeautifulSoup

# starting url. replace google with your own url.
starting_url = 'http://www.miet.ac.in'

# a queue of urls to be crawled
unprocessed_urls = deque([starting_url])

# set of already crawled urls for email
processed_urls = set()

# a set of fetched emails
emails = set()

# process urls one by one from unprocessed_url queue until queue is empty
while len(unprocessed_urls):

    # move next url from the queue to the set of processed urls
    url = unprocessed_urls.popleft()
    processed_urls.add(url)

    # extract base url to resolve relative links
    parts = urlsplit(url)
    base_url = "{0.scheme}://{0.netloc}".format(parts)
    path = url[:url.rfind('/')+1] if '/' in parts.path else url

    # get url's content
    print("Crawling URL %s" % url)
    try:
        response = requests.get(url)
    except (requests.exceptions.MissingSchema, requests.exceptions.ConnectionError):
```

```
        # ignore pages with errors and continue with next url
        continue

    # extract all email addresses and add them into the resulting set
    # You may edit the regular expression as per your requirement
    new_emails = set(re.findall(r"[a-z0-9\.\-+_]+@[a-z0-9\.\-+_]+\.[a-z]+", response.text, re.I))
    emails.update(new_emails)
    print(emails)
    # create a beutiful soup for the html document
    soup = BeautifulSoup(response.text, 'lxml')

    # Once this document is parsed and processed, now find and process all the anchors i.e. linked urls
    for anchor in soup.find_all("a"):
        # extract link url from the anchor
        link = anchor.attrs["href"] if "href" in anchor.attrs else ''
        # resolve relative links (starting with /)
        if link.startswith('/'):
            link = base_url + link
        elif not link.startswith('http'):
            link = path + link
        # add the new url to the queue if it was not in unprocessed list nor in processed list yet
        if not link in unprocessed_urls and not link in processed_urls:
            unprocessed_urls.append(link)
```

Constructive feedback is always welcomed.

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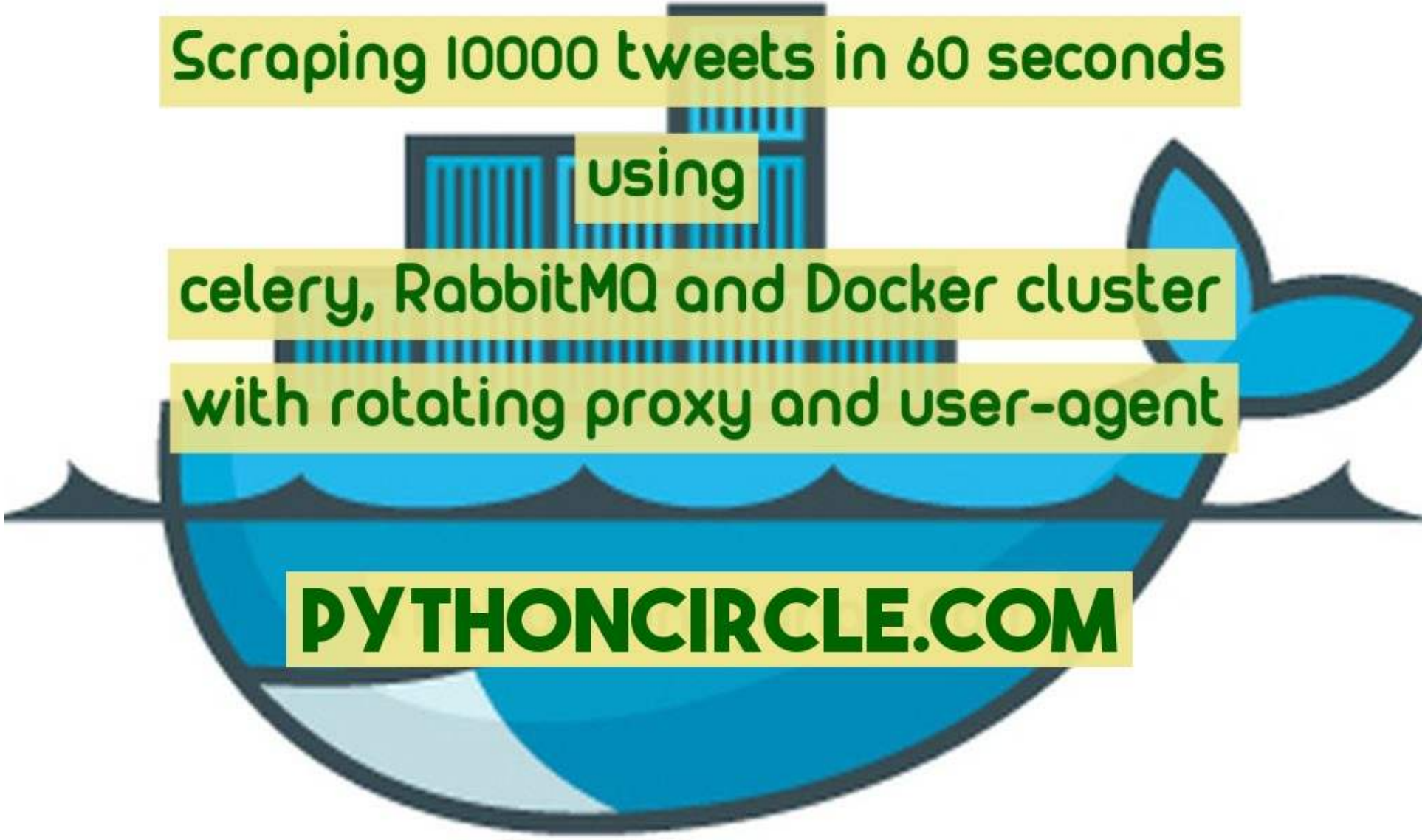

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3 thoughts on 'Python Script 2 : Crawling All Emails From A Website'

Mrcee :
Hi there, How long does this script take to complete crawling? The crawl does not seem to be contained to the website?If you could advise it would be much appreciated.

> **Admin ⊘ :**
> yes, this script is not contained to one site only. it will crawl any other website as well if that is linked to current website. This will keep running it have no more links to process. If there is any specific issue, le us know.
>
> Reply

Faheem :
can you modify script that scraped emails it will export it in csv format alot of thanks in advance, appreciate your guidance.Regards,FaheemSkype mfaheem2009

> Reply

Mitchell :
What version of Python is required to run this code, I have version 3.7 and it doesent seem to work? I dont know what I am doing wrong

> **Admin ⊘ :**
> I used python 3.4. What is the error you are getting. please share pastebin

Reply

Leave a comment:

Type your comment here. For code use pastebin link. Limit 500 chars.

Your email please.

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