

```
In [4]: '''
If you visit http://quotes.toscrape.com/, on the top right-hand side of the page,
you will see a list with the heading "Top Ten tags".

Using the BeautifulSoup library, write a python program to scrape these tags
(for ex: love, inspiration, life, humor).

Use pandas and/or NumPy to create a tabular representation of your data, with the
column heading being TAGS. Each row in your tabular representation will have a
tag (for ex: love).

(a) Display this tabular representation.

(b) In addition, print the HTML TAG OBJECT immediately surrounding
the first tag (love).

(c) In addition, print the HTML TAG OBJECT immediately surrounding
the last tag (simile).

Note:
You should NOT save the data as a CSV file.
You should not use exception handling.
'''

import requests
from bs4 import BeautifulSoup
import time
import pandas as pd
import numpy as np

page = requests.get("http://quotes.toscrape.com/")

soup = BeautifulSoup(page.content, 'html.parser')
tags = soup.find("div", class_ = "tags-box").find_all("a", class_ = "tag")

print("HTML TAG OBJECT for the first tag:", tags[0])
print("HTML TAG OBJECT for the last tag:", tags[-1])

data = []

for tag in tags:
    label = tag.get_text().strip()
```

```
data.append((label))
```

```
df = pd.DataFrame(np.array(data))
df.columns = ['TAGS']
print(df)
```

HTML TAG OBJECT for the first tag: love

HTML TAG OBJECT for the last tag: simile

```

TAGS
0      love
1  inspirational
2        life
3        humor
4        books
5      reading
6  friendship
7      friends
8        truth
9        simile

```

In [5]: '''

Imagine that a data scientist started writing a web scraping script to collect data from <https://www.bookdepository.com/bestsellers> by handling pagination. As a first step, the data scientist wrote a "for" loop to create a list of all main pagination pages (1, 2, 3, and so on until 34). However, there are issues with the code that doesn't let the data scientist create a list of all main pagination pages. I have provided the code below. Please fix the issues with the code so that the code creates a list of all main pagination pages (1, 2, 3, and so on until 34).

```
'''
main_page_list = []
```

```
for i in range(1, 35):
    main_page = 'https://www.bookdepository.com/bestsellers?page=' + str(i)
    print(main_page)
    main_page_list.append(main_page)
```

```
print(main_page_list)
```

https://www.bookdepository.com/bestsellers?page=1
https://www.bookdepository.com/bestsellers?page=2
https://www.bookdepository.com/bestsellers?page=3
https://www.bookdepository.com/bestsellers?page=4
https://www.bookdepository.com/bestsellers?page=5
https://www.bookdepository.com/bestsellers?page=6
https://www.bookdepository.com/bestsellers?page=7
https://www.bookdepository.com/bestsellers?page=8
https://www.bookdepository.com/bestsellers?page=9
https://www.bookdepository.com/bestsellers?page=10
https://www.bookdepository.com/bestsellers?page=11
https://www.bookdepository.com/bestsellers?page=12
https://www.bookdepository.com/bestsellers?page=13
https://www.bookdepository.com/bestsellers?page=14
https://www.bookdepository.com/bestsellers?page=15
https://www.bookdepository.com/bestsellers?page=16
https://www.bookdepository.com/bestsellers?page=17
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https://www.bookdepository.com/bestsellers?page=20
https://www.bookdepository.com/bestsellers?page=21
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https://www.bookdepository.com/bestsellers?page=32
https://www.bookdepository.com/bestsellers?page=33
https://www.bookdepository.com/bestsellers?page=34
['https://www.bookdepository.com/bestsellers?page=1', 'https://www.bookdepository.com/bestsellers?page=2', 'https://www.bookdepository.com/bestsellers?page=3', 'https://www.bookdepository.com/bestsellers?page=4', 'https://www.bookdepository.com/bestsellers?page=5', 'https://www.bookdepository.com/bestsellers?page=6', 'https://www.bookdepository.com/bestsellers?page=7', 'https://www.bookdepository.com/bestsellers?page=8', 'https://www.bookdepository.com/bestsellers?page=9', 'https://www.bookdepository.com/bestsellers?page=10', 'https://www.bookdepository.com/bestsellers?page=11', 'https://www.bookdepository.com/bestsellers?page=12', 'https://www.bookdepository.com/bestsellers?page=13', 'https://www.bookdepository.com/bestsellers?page=14', 'https://www.bookdepository.com/bestsellers?page=15', 'https://www.bookdepository.com/bestsellers?page=16', 'https://www.bookdepository.com/bestsellers?page=17', 'https://www.bookdepository.com/bestsellers?page=18', 'https://www.bookdepository.com/bestsellers?page=19', 'https://www.bookdepository.com/bestsellers?page=20', 'https://www.bookdepository.com/bestsellers?page=21', 'https://www.bookdepository.com/bestsellers?page=22', 'http

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s://www.bookdepository.com/bestsellers?page=23', 'https://www.bookdepository.com/bestsellers?page=24', 'http
s://www.bookdepository.com/bestsellers?page=25', 'https://www.bookdepository.com/bestsellers?page=26', 'http
s://www.bookdepository.com/bestsellers?page=27', 'https://www.bookdepository.com/bestsellers?page=28', 'http
s://www.bookdepository.com/bestsellers?page=29', 'https://www.bookdepository.com/bestsellers?page=30', 'http
s://www.bookdepository.com/bestsellers?page=31', 'https://www.bookdepository.com/bestsellers?page=32', 'http
s://www.bookdepository.com/bestsellers?page=33', 'https://www.bookdepository.com/bestsellers?page=34']
```

In [6]: '''

Use pagination approach 1 to answer to this question.

If you take a deeper look at <http://quotes.toscrape.com/>, you will see a "Next →" button at the bottom right-hand side corner of the page. This indicates pagination i.e. this website is divided into a sequence of webpages, with each page having some quotations. Using the BeautifulSoup library, write a python program that extracts all the quotations along with the authors, and the tags (for ex: change, deep-thoughts, thinking, world) from all of these webpages.

Use pandas and/or NumPy to create a tabular representation of your data, with the column headings being quote, author, and tags. Each row in your tabular representation will have a quotation, and its author, and tags. Display this tabular data. Save the data as a .csv file named question6a.csv. But, you should not attach the question6a.csv file when you submit your assignment.

Additional Requirements:

- (1) Halt the program execution for two seconds after each time you visit a webpage so that your program doesn't place undue load on the server of <http://quotes.toscrape.com/>.
- (2) Use a print function in such a way that each time your program is scraping a particular webpage, it displays something like "Now scraping:" followed by the URL of the page being scraped.

```
'''
data = []

current_listingpage_link = "https://quotes.toscrape.com/"

next_page_tag = True

while next_page_tag:
    print("*****NOW SCRAPING LINKS FROM PRODUCT LISTING PAGE:",current_listingpage_link)
    print("\n")

    current_listingpage_resp = requests.get(current_listingpage_link)
```

```
current_listingpage_soup = BeautifulSoup(current_listingpage_resp.content, "html.parser")

quotes = current_listingpage_soup.find_all('div', class_='quote')

for block in quotes:
    print("Quote:")
    try:
        text = block.find('span', class_="text").get_text().strip()
    except:
        text = "NA"
    print(text)
    try:
        author = block.find('small', class_="author").get_text().strip()
    except:
        author = "NA"
    print("Author:", author)
    try:
        tags = block.find('div', class_="tags").get_text().strip()
    except:
        tags = "NA"
    print(tags)
    print("\n")
    data.append((text, author, tags))
    time.sleep(2)

next_page_tag = current_listingpage_soup.find("li", class_="next")

if next_page_tag:
    print("Next Page Exists:")
    #Extract the link of the next page
    current_listingpage_link = "https://quotes.toscrape.com"+next_page_tag.find("a").attrs['href']

else:
    print("No More Pagination")

df = pd.DataFrame(np.array(data))

df.columns = ['Quote', 'Author', 'Tags']

print(df)

df.to_csv('question6a.csv')
```

*****NOW SCRAPING LINKS FROM PRODUCT LISTING PAGE: <https://quotes.toscrape.com/>

Quote:

"The world as we have created it is a process of our thinking. It cannot be changed without changing our thinking."

Author: Albert Einstein

Tags:

change
deep-thoughts
thinking
world

Quote:

"It is our choices, Harry, that show what we truly are, far more than our abilities."

Author: J.K. Rowling

Tags:

abilities
choices

Quote:

"There are only two ways to live your life. One is as though nothing is a miracle. The other is as though everything is a miracle."

Author: Albert Einstein

Tags:

inspirational
life
live
miracle
miracles

Quote:

"The person, be it gentleman or lady, who has not pleasure in a good novel, must be intolerably stupid."

Author: Jane Austen

Tags:

aliteracy
books
classic

humor

Quote:

"Imperfection is beauty, madness is genius and it's better to be absolutely ridiculous than absolutely boring."

Author: Marilyn Monroe

Tags:

be-yourself

inspirational

Quote:

"Try not to become a man of success. Rather become a man of value."

Author: Albert Einstein

Tags:

adulthood

success

value

Quote:

"It is better to be hated for what you are than to be loved for what you are not."

Author: André Gide

Tags:

life

love

Quote:

"I have not failed. I've just found 10,000 ways that won't work."

Author: Thomas A. Edison

Tags:

edison

failure

inspirational

paraphrased

Quote:

"A woman is like a tea bag; you never know how strong it is until it's in hot water."

Author: Eleanor Roosevelt

Tags:

misattributed-eleanor-roosevelt

Quote:

"A day without sunshine is like, you know, night."

Author: Steve Martin

Tags:

humor

obvious

simile

Next Page Exists:

*****NOW SCRAPING LINKS FROM PRODUCT LISTING PAGE: <https://quotes.toscrape.com/page/2/>

Quote:

"This life is what you make it. No matter what, you're going to mess up sometimes, it's a universal truth. But the good part is you get to decide how you're going to mess it up. Girls will be your friends - they'll act like it anyway. But just remember, some come, some go. The ones that stay with you through everything - they're your true best friends. Don't let go of them. Also remember, sisters make the best friends in the world. As for lovers, well, they'll come and go too. And baby, I hate to say it, most of them - actually pretty much all of them are going to break your heart, but you can't give up because if you give up, you'll never find your soulmate. You'll never find that half who makes you whole and that goes for everything. Just because you fail once, doesn't mean you're gonna fail at everything. Keep trying, hold on, and always, always, always believe in yourself, because if you don't, then who will, sweetie? So keep your head high, keep your chin up, and most importantly, keep smiling, because life's a beautiful thing and there's so much to smile about."

Author: Marilyn Monroe

Tags:

friends

heartbreak

inspirational

life

love

sisters

Quote:

"It takes a great deal of bravery to stand up to our enemies, but just as much to stand up to our friends."

Author: J.K. Rowling

Tags:

courage
friends

Quote:

"If you can't explain it to a six year old, you don't understand it yourself."

Author: Albert Einstein

Tags:

simplicity
understand

Quote:

"You may not be her first, her last, or her only. She loved before she may love again. But if she loves you now, what else matters? She's not perfect—you aren't either, and the two of you may never be perfect together but if she can make you laugh, cause you to think twice, and admit to being human and making mistakes, hold onto her and give her the most you can. She may not be thinking about you every second of the day, but she will give you a part of her that she knows you can break—her heart. So don't hurt her, don't change her, don't analyze and don't expect more than she can give. Smile when she makes you happy, let her know when she makes you mad, and miss her when she's not there."

Author: Bob Marley

Tags:

love

Quote:

"I like nonsense, it wakes up the brain cells. Fantasy is a necessary ingredient in living."

Author: Dr. Seuss

Tags:

fantasy

Quote:

"I may not have gone where I intended to go, but I think I have ended up where I needed to be."

Author: Douglas Adams

Tags:

life
navigation

Quote:

"The opposite of love is not hate, it's indifference. The opposite of art is not ugliness, it's indifference. The opposite of faith is not heresy, it's indifference. And the opposite of life is not death, it's indifference."

Author: Elie Wiesel

Tags:

activism
apathy
hate
indifference
inspirational
love
opposite
philosophy

Quote:

"It is not a lack of love, but a lack of friendship that makes unhappy marriages."

Author: Friedrich Nietzsche

Tags:

friendship
lack-of-friendship
lack-of-love
love
marriage
unhappy-marriage

Quote:

"Good friends, good books, and a sleepy conscience: this is the ideal life."

Author: Mark Twain

Tags:

books
contentment
friends
friendship
life

Quote:

"Life is what happens to us while we are making other plans."

Author: Allen Saunders

Tags:

fate

life

misattributed-john-lennon

planning

plans

Next Page Exists:

*****NOW SCRAPING LINKS FROM PRODUCT LISTING PAGE: <https://quotes.toscrape.com/page/3/>

Quote:

"I love you without knowing how, or when, or from where. I love you simply, without problems or pride: I love you in this way because I do not know any other way of loving but this, in which there is no I or you, so intimate that your hand upon my chest is my hand, so intimate that when I fall asleep your eyes close."

Author: Pablo Neruda

Tags:

love

poetry

Quote:

"For every minute you are angry you lose sixty seconds of happiness."

Author: Ralph Waldo Emerson

Tags:

happiness

Quote:

"If you judge people, you have no time to love them."

Author: Mother Teresa

Tags:

attributed-no-source

Quote:

"Anyone who thinks sitting in church can make you a Christian must also think that sitting in a garage can make you a car."

Author: Garrison Keillor

Tags:

humor
religion

Quote:

"Beauty is in the eye of the beholder and it may be necessary from time to time to give a stupid or misinformed beholder a black eye."

Author: Jim Henson

Tags:

humor

Quote:

"Today you are You, that is truer than true. There is no one alive who is Youer than You."

Author: Dr. Seuss

Tags:

comedy
life
yourself

Quote:

"If you want your children to be intelligent, read them fairy tales. If you want them to be more intelligent, read them more fairy tales."

Author: Albert Einstein

Tags:

children
fairy-tales

Quote:

"It is impossible to live without failing at something, unless you live so cautiously that you might as well not have lived at all - in which case, you fail by default."

Author: J.K. Rowling

Quote:

"Logic will get you from A to Z; imagination will get you everywhere."

Author: Albert Einstein

Tags:

imagination

Quote:

"One good thing about music, when it hits you, you feel no pain."

Author: Bob Marley

Tags:

music

Next Page Exists:

*****NOW SCRAPING LINKS FROM PRODUCT LISTING PAGE: <https://quotes.toscrape.com/page/4/>

Quote:

"The more that you read, the more things you will know. The more that you learn, the more places you'll go."

Author: Dr. Seuss

Tags:

learning

reading

seuss

Quote:

"Of course it is happening inside your head, Harry, but why on earth should that mean that it is not real?"

Author: J.K. Rowling

Tags:

dumbledore

Quote:

"The truth is, everyone is going to hurt you. You just got to find the ones worth suffering for."

Author: Bob Marley

Tags:

friendship

Quote:

"Not all of us can do great things. But we can do small things with great love."

Author: Mother Teresa

Tags:

misattributed-to-mother-teresa
paraphrased

Quote:

"To the well-organized mind, death is but the next great adventure."

Author: J.K. Rowling

Tags:

death
inspirational

Quote:

"All you need is love. But a little chocolate now and then doesn't hurt."

Author: Charles M. Schulz

Tags:

chocolate
food
humor

Quote:

"We read to know we're not alone."

Author: William Nicholson

Tags:

misattributed-to-c-s-lewis
reading

Quote:

"Any fool can know. The point is to understand."

Author: Albert Einstein

Tags:

knowledge
learning
understanding
wisdom

Quote:

"I have always imagined that Paradise will be a kind of library."

Author: Jorge Luis Borges

Tags:

books

library

Quote:

"It is never too late to be what you might have been."

Author: George Eliot

Tags:

inspirational

Next Page Exists:

*****NOW SCRAPING LINKS FROM PRODUCT LISTING PAGE: <https://quotes.toscrape.com/page/5/>

Quote:

"A reader lives a thousand lives before he dies, said Jojen. The man who never reads lives only one."

Author: George R.R. Martin

Tags:

read

readers

reading

reading-books

Quote:

"You can never get a cup of tea large enough or a book long enough to suit me."

Author: C.S. Lewis

Tags:

books

inspirational

reading

tea

Quote:

"You believe lies so you eventually learn to trust no one but yourself."

Author: Marilyn Monroe

Quote:

"If you can make a woman laugh, you can make her do anything."

Author: Marilyn Monroe

Tags:

girls

love

Quote:

"Life is like riding a bicycle. To keep your balance, you must keep moving."

Author: Albert Einstein

Tags:

life

simile

Quote:

"The real lover is the man who can thrill you by kissing your forehead or smiling into your eyes or just staring into space."

Author: Marilyn Monroe

Tags:

love

Quote:

"A wise girl kisses but doesn't love, listens but doesn't believe, and leaves before she is left."

Author: Marilyn Monroe

Tags:

attributed-no-source

Quote:

"Only in the darkness can you see the stars."

Author: Martin Luther King Jr.

Tags:

hope
inspirational

Quote:

"It matters not what someone is born, but what they grow to be."

Author: J.K. Rowling

Tags:

dumbledore

Quote:

"Love does not begin and end the way we seem to think it does. Love is a battle, love is a war; love is a growing up."

Author: James Baldwin

Tags:

love

Next Page Exists:

*****NOW SCRAPING LINKS FROM PRODUCT LISTING PAGE: <https://quotes.toscrape.com/page/6/>

Quote:

"There is nothing I would not do for those who are really my friends. I have no notion of loving people by halves, it is not my nature."

Author: Jane Austen

Tags:

friendship

love

Quote:

"Do one thing every day that scares you."

Author: Eleanor Roosevelt

Tags:

attributed

fear

inspiration

Quote:

"I am good, but not an angel. I do sin, but I am not the devil. I am just a small girl in a big world trying to find someone to love."

Author: Marilyn Monroe

Tags:

attributed-no-source

Quote:

"If I were not a physicist, I would probably be a musician. I often think in music. I live my daydreams in music. I see my life in terms of music."

Author: Albert Einstein

Tags:

music

Quote:

"If you only read the books that everyone else is reading, you can only think what everyone else is thinking."

Author: Haruki Murakami

Tags:

books

thought

Quote:

"The difference between genius and stupidity is: genius has its limits."

Author: Alexandre Dumas fils

Tags:

misattributed-to-einstein

Quote:

"He's like a drug for you, Bella."

Author: Stephenie Meyer

Tags:

drug

romance

simile

Quote:

"There is no friend as loyal as a book."

Author: Ernest Hemingway

Tags:

books

friends

novelist-quotes

Quote:

"When one door of happiness closes, another opens; but often we look so long at the closed door that we do not see the one which has been opened for us."

Author: Helen Keller

Tags:

inspirational

Quote:

"Life isn't about finding yourself. Life is about creating yourself."

Author: George Bernard Shaw

Tags:

inspirational

life

yourself

Next Page Exists:

*****NOW SCRAPING LINKS FROM PRODUCT LISTING PAGE: <https://quotes.toscrape.com/page/7/>

Quote:

"That's the problem with drinking, I thought, as I poured myself a drink. If something bad happens you drink in an attempt to forget; if something good happens you drink in order to celebrate; and if nothing happens you drink to make something happen."

Author: Charles Bukowski

Tags:

alcohol

Quote:

"You don't forget the face of the person who was your last hope."

Author: Suzanne Collins

Tags:

the-hunger-games

Quote:

"Remember, we're madly in love, so it's all right to kiss me anytime you feel like it."

Author: Suzanne Collins

Tags:

humor

Quote:

"To love at all is to be vulnerable. Love anything and your heart will be wrung and possibly broken. If you want to make sure of keeping it intact you must give it to no one, not even an animal. Wrap it carefully round with hobbies and little luxuries; avoid all entanglements. Lock it up safe in the casket or coffin of your selfishness. But in that casket, safe, dark, motionless, airless, it will change. It will not be broken; it will become unbreakable, impenetrable, irredeemable. To love is to be vulnerable."

Author: C.S. Lewis

Tags:

love

Quote:

"Not all those who wander are lost."

Author: J.R.R. Tolkien

Tags:

bilbo

journey

lost

quest

travel

wander

Quote:

"Do not pity the dead, Harry. Pity the living, and, above all those who live without love."

Author: J.K. Rowling

Tags:

live-death-love

Quote:

"There is nothing to writing. All you do is sit down at a typewriter and bleed."

Author: Ernest Hemingway

Tags:

good

writing

Quote:

"Finish each day and be done with it. You have done what you could. Some blunders and absurdities no doubt crept in; forget them as soon as you can. Tomorrow is a new day. You shall begin it serenely and with too high a spirit to be encumbered with your old nonsense."

Author: Ralph Waldo Emerson

Tags:

life

regrets

Quote:

"I have never let my schooling interfere with my education."

Author: Mark Twain

Tags:

education

Quote:

"I have heard there are troubles of more than one kind. Some come from ahead and some come from behind. But I've bought a big bat. I'm all ready you see. Now my troubles are going to have troubles with me!"

Author: Dr. Seuss

Tags:

troubles

Next Page Exists:

*****NOW SCRAPING LINKS FROM PRODUCT LISTING PAGE: <https://quotes.toscrape.com/page/8/>

Quote:

"If I had a flower for every time I thought of you...I could walk through my garden forever."

Author: Alfred Tennyson

Tags:

friendship

love

Quote:

"Some people never go crazy. What truly horrible lives they must lead."

Author: Charles Bukowski

Tags:

humor

Quote:

"The trouble with having an open mind, of course, is that people will insist on coming along and trying to put things in it."

Author: Terry Pratchett

Tags:

humor

open-mind

thinking

Quote:

"Think left and think right and think low and think high. Oh, the things you can think up if only you try!"

Author: Dr. Seuss

Tags:

humor

philosophy

Quote:

"What really knocks me out is a book that, when you're all done reading it, you wish the author that wrote it was a terrific friend of yours and you could call him up on the phone whenever you felt like it. That doesn't happen much, though."

Author: J.D. Salinger

Tags:

authors

books

literature
reading
writing

Quote:

"The reason I talk to myself is because I'm the only one whose answers I accept."

Author: George Carlin

Tags:

humor
insanity
lies
lying
self-indulgence
truth

Quote:

"You may say I'm a dreamer, but I'm not the only one. I hope someday you'll join us. And the world will live as one."

Author: John Lennon

Tags:

beatles
connection
dreamers
dreaming
dreams
hope
inspirational
peace

Quote:

"I am free of all prejudice. I hate everyone equally. "

Author: W.C. Fields

Tags:

humor
sinister

Quote:

"The question isn't who is going to let me; it's who is going to stop me."

Author: Ayn Rand

Quote:

“‘Classic’ – a book which people praise and don't read.”

Author: Mark Twain

Tags:

books

classic

reading

Next Page Exists:

*****NOW SCRAPING LINKS FROM PRODUCT LISTING PAGE: <https://quotes.toscrape.com/page/9/>

Quote:

“Anyone who has never made a mistake has never tried anything new.”

Author: Albert Einstein

Tags:

mistakes

Quote:

“A lady's imagination is very rapid; it jumps from admiration to love, from love to matrimony in a moment.”

Author: Jane Austen

Tags:

humor

love

romantic

women

Quote:

“Remember, if the time should come when you have to make a choice between what is right and what is easy, remember what happened to a boy who was good, and kind, and brave, because he strayed across the path of Lord Voldemort. Remember Cedric Diggory.”

Author: J.K. Rowling

Tags:

integrity

Quote:

"I declare after all there is no enjoyment like reading! How much sooner one tires of any thing than of a book! -- When I have a house of my own, I shall be miserable if I have not an excellent library."

Author: Jane Austen

Tags:

books

library

reading

Quote:

"There are few people whom I really love, and still fewer of whom I think well. The more I see of the world, the more am I dissatisfied with it; and every day confirms my belief of the inconsistency of all human characters, and of the little dependence that can be placed on the appearance of merit or sense."

Author: Jane Austen

Tags:

elizabeth-bennet

jane-austen

Quote:

"Some day you will be old enough to start reading fairy tales again."

Author: C.S. Lewis

Tags:

age

fairytales

growing-up

Quote:

"We are not necessarily doubting that God will do the best for us; we are wondering how painful the best will turn out to be."

Author: C.S. Lewis

Tags:

god

Quote:

"The fear of death follows from the fear of life. A man who lives fully is prepared to die at any time."

Author: Mark Twain

Tags:

death

life

Quote:

"A lie can travel half way around the world while the truth is putting on its shoes."

Author: Mark Twain

Tags:

misattributed-mark-twain

truth

Quote:

"I believe in Christianity as I believe that the sun has risen: not only because I see it, but because by it I see everything else."

Author: C.S. Lewis

Tags:

christianity

faith

religion

sun

Next Page Exists:

*****NOW SCRAPING LINKS FROM PRODUCT LISTING PAGE: <https://quotes.toscrape.com/page/10/>

Quote:

"The truth." Dumbledore sighed. "It is a beautiful and terrible thing, and should therefore be treated with great caution."

Author: J.K. Rowling

Tags:

truth

Quote:

"I'm the one that's got to die when it's time for me to die, so let me live my life the way I want to."

Author: Jimi Hendrix

Tags:

death
life

Quote:
"To die will be an awfully big adventure."
Author: J.M. Barrie
Tags:

adventure
love

Quote:
"It takes courage to grow up and become who you really are."
Author: E.E. Cummings
Tags:

courage

Quote:
"But better to get hurt by the truth than comforted with a lie."
Author: Khaled Hosseini
Tags:

life

Quote:
"You never really understand a person until you consider things from his point of view... Until you climb inside of his skin and walk around in it."
Author: Harper Lee
Tags:

better-life-empathy

Quote:
"You have to write the book that wants to be written. And if the book will be too difficult for grown-ups, then you write it for children."
Author: Madeleine L'Engle
Tags:

books
 children
 difficult
 grown-ups
 write
 writers
 writing

Quote:

"Never tell the truth to people who are not worthy of it."

Author: Mark Twain

Tags:

truth

Quote:

"A person's a person, no matter how small."

Author: Dr. Seuss

Tags:

inspirational

Quote:

"... a mind needs books as a sword needs a whetstone, if it is to keep its edge."

Author: George R.R. Martin

Tags:

books
 mind

No More Pagination

	Quote	Author \
0	"The world as we have created it is a process ...	Albert Einstein
1	"It is our choices, Harry, that show what we t...	J.K. Rowling
2	"There are only two ways to live your life. On...	Albert Einstein
3	"The person, be it gentleman or lady, who has ...	Jane Austen
4	"Imperfection is beauty, madness is genius and...	Marilyn Monroe
..
95	"You never really understand a person until yo...	Harper Lee
96	"You have to write the book that wants to be w...	Madeleine L'Engle
97	"Never tell the truth to people who are not wo...	Mark Twain

```

98         "A person's a person, no matter how small."           Dr. Seuss
99     "... a mind needs books as a sword needs a whe...   George R.R. Martin

```

```

                                Tags
0   Tags:\n                \nchange\ndeep-thoughts\nth...
1               Tags:\n                \nabilities\nchoices
2   Tags:\n                \ninspirational\nlife\nlive...
3   Tags:\n                \naliteracy\nbooks\nclassic...
4       Tags:\n                \nbe-yourself\ninspirational
..
95               Tags:\n                \nbetter-life-empathy
96   Tags:\n                \nbooks\nchildren\ndifficul...
97               Tags:\n                \ntruth
98               Tags:\n                \ninspirational
99               Tags:\n                \nbooks\nmind

```

```
[100 rows x 3 columns]
```

In [7]:

```

'''
Use pagination approach 2 to answer to question 6 above. Save the data as
a .csv file named question6b.csv. But, you should not attach the question6b.csv
file when you submit your assignment.
'''
main_page_list = []

for i in range(1,11):
    #print(i)
    each_pagination_link = "https://quotes.toscrape.com/page/"+str(i)+"/"
    #print(each_pagination_link)
    main_page_list.append(each_pagination_link)

data = []

for current_listingpage_link in main_page_list:

    print("*****NOW SCRAPING LINKS FROM PRODUCT LISTING PAGE:",current_listingpage_link)

    current_listingpage_resp = requests.get(current_listingpage_link)

    current_listingpage_soup = BeautifulSoup(current_listingpage_resp.content, "html.parser")

    quotes = current_listingpage_soup.find_all('div', class_ = 'quote')
    for block in quotes:
        print("Quote:")

```

```
    try:
        text = block.find('span', class_ = "text").get_text().strip()
    except:
        text = "NA"
    print(text)
    try:
        author = block.find('small', class_ = "author").get_text().strip()
    except:
        author = "NA"
    print("Author:", author)
    try:
        tags = block.find('div', class_ = "tags").get_text().strip()
    except:
        tags = "NA"
    print(tags)
    print("\n")
    data.append((text, author, tags))
    time.sleep(2)

df = pd.DataFrame(np.array(data))

df.columns = ['Quote', 'Author', 'Tags']

print(df)

df.to_csv('question6b.csv')
```

*****NOW SCRAPING LINKS FROM PRODUCT LISTING PAGE: <https://quotes.toscrape.com/page/1/>

Quote:

"The world as we have created it is a process of our thinking. It cannot be changed without changing our thinking."

Author: Albert Einstein

Tags:

change
deep-thoughts
thinking
world

Quote:

"It is our choices, Harry, that show what we truly are, far more than our abilities."

Author: J.K. Rowling

Tags:

abilities
choices

Quote:

"There are only two ways to live your life. One is as though nothing is a miracle. The other is as though everything is a miracle."

Author: Albert Einstein

Tags:

inspirational
life
live
miracle
miracles

Quote:

"The person, be it gentleman or lady, who has not pleasure in a good novel, must be intolerably stupid."

Author: Jane Austen

Tags:

aliteracy
books
classic
humor

Quote:

"Imperfection is beauty, madness is genius and it's better to be absolutely ridiculous than absolutely boring."

Author: Marilyn Monroe

Tags:

be-yourself
inspirational

Quote:

"Try not to become a man of success. Rather become a man of value."

Author: Albert Einstein

Tags:

adulthood
success
value

Quote:

"It is better to be hated for what you are than to be loved for what you are not."

Author: André Gide

Tags:

life
love

Quote:

"I have not failed. I've just found 10,000 ways that won't work."

Author: Thomas A. Edison

Tags:

edison
failure
inspirational
paraphrased

Quote:

"A woman is like a tea bag; you never know how strong it is until it's in hot water."

Author: Eleanor Roosevelt

Tags:

misattributed-eleanor-roosevelt

Quote:

"A day without sunshine is like, you know, night."

Author: Steve Martin

Tags:

humor

obvious

simile

*****NOW SCRAPING LINKS FROM PRODUCT LISTING PAGE: <https://quotes.toscrape.com/page/2/>

Quote:

"This life is what you make it. No matter what, you're going to mess up sometimes, it's a universal truth. But the good part is you get to decide how you're going to mess it up. Girls will be your friends - they'll act like it anyway. But just remember, some come, some go. The ones that stay with you through everything - they're your true best friends. Don't let go of them. Also remember, sisters make the best friends in the world. As for lovers, well, they'll come and go too. And baby, I hate to say it, most of them - actually pretty much all of them are going to break your heart, but you can't give up because if you give up, you'll never find your soulmate. You'll never find that half who makes you whole and that goes for everything. Just because you fail once, doesn't mean you're gonna fail at everything. Keep trying, hold on, and always, always, always believe in yourself, because if you don't, then who will, sweetie? So keep your head high, keep your chin up, and most importantly, keep smiling, because life's a beautiful thing and there's so much to smile about."

Author: Marilyn Monroe

Tags:

friends

heartbreak

inspirational

life

love

sisters

Quote:

"It takes a great deal of bravery to stand up to our enemies, but just as much to stand up to our friends."

Author: J.K. Rowling

Tags:

courage

friends

Quote:

"If you can't explain it to a six year old, you don't understand it yourself."

Author: Albert Einstein

Tags:

simplicity

understand

Quote:

"You may not be her first, her last, or her only. She loved before she may love again. But if she loves you now, what else matters? She's not perfect—you aren't either, and the two of you may never be perfect together but if she can make you laugh, cause you to think twice, and admit to being human and making mistakes, hold onto her and give her the most you can. She may not be thinking about you every second of the day, but she will give you a part of her that she knows you can break—her heart. So don't hurt her, don't change her, don't analyze and don't expect more than she can give. Smile when she makes you happy, let her know when she makes you mad, and miss her when she's not there."

Author: Bob Marley

Tags:

love

Quote:

"I like nonsense, it wakes up the brain cells. Fantasy is a necessary ingredient in living."

Author: Dr. Seuss

Tags:

fantasy

Quote:

"I may not have gone where I intended to go, but I think I have ended up where I needed to be."

Author: Douglas Adams

Tags:

life

navigation

Quote:

"The opposite of love is not hate, it's indifference. The opposite of art is not ugliness, it's indifference. The opposite of faith is not heresy, it's indifference. And the opposite of life is not death, it's indifference."

Author: Elie Wiesel

Tags:

activism
apathy
hate
indifference
inspirational
love
opposite
philosophy

Quote:

"It is not a lack of love, but a lack of friendship that makes unhappy marriages."

Author: Friedrich Nietzsche

Tags:

friendship
lack-of-friendship
lack-of-love
love
marriage
unhappy-marriage

Quote:

"Good friends, good books, and a sleepy conscience: this is the ideal life."

Author: Mark Twain

Tags:

books
contentment
friends
friendship
life

Quote:

"Life is what happens to us while we are making other plans."

Author: Allen Saunders

Tags:

fate
life

misattributed-john-lennon
 planning
 plans

*****NOW SCRAPING LINKS FROM PRODUCT LISTING PAGE: <https://quotes.toscrape.com/page/3/>

Quote:

"I love you without knowing how, or when, or from where. I love you simply, without problems or pride: I love you in this way because I do not know any other way of loving but this, in which there is no I or you, so intimate that your hand upon my chest is my hand, so intimate that when I fall asleep your eyes close."

Author: Pablo Neruda

Tags:

love
 poetry

Quote:

"For every minute you are angry you lose sixty seconds of happiness."

Author: Ralph Waldo Emerson

Tags:

happiness

```
-----
KeyboardInterrupt                                Traceback (most recent call last)
/var/folders/9j/q02wld0xlwzf812zy9kp9vrc0000gn/T/ipykernel_55594/1529016690.py in <module>
    43         print("\n")
    44         data.append((text, author, tags))
---> 45         time.sleep(2)
    46
    47 df = pd.DataFrame(np.array(data))

KeyboardInterrupt:
```

In [8]: '''

Imagine that you want to write a script that searches indeed.com for different roles and extract the job listings that result from the search.

Imagine that you want to search the following roles:

```
--> data scientist
--> marketing
```

```
--> information systems
```

Each of these search strings need to be scraped from the following locations:

```
--> chicago
```

```
--> manhattan
```

```
--> san diego
```

Note that the roles and locations should not be searched in isolation. Instead, a role should be paired with a location. For example, one of the searches would be searching for data scientist in chicago.

Implement the Following Steps:

- (1) Create an empty list that will eventually hold all the created links.
- (2) Create lists for roles and locations.
- (3) The first step in scraping through search is to create links for each search. Use a "for" loop to create links for each search (given above).
- (4) Add each link from step 3 above to the list you created in step 1.
- (5) Print each link.
- (6) Print the list with all the created links

You DO NOT NEED to scrape this web page.

```
'''
```

```
# Step 1
```

```
urls = []
```

```
# Step 2
```

```
roles = ['data+scientist', 'marketing', 'information+systems']
```

```
locations = ['Chicago', 'Manhattan', 'San+Diego']
```

```
#Steps 3-5
```

```
for role in roles:
```

```
    for location in locations:
```

```
        created_link = 'https://www.indeed.com/jobs?q='+role+'&l='+location+'&from=searchOnHP&vjk=d4f7ddfdaba'
```

```
        print(created_link)
```

```
        urls.append(created_link)
```

```
# Step 6
```

```
print(urls)
```

```

https://www.indeed.com/jobs?q=data+scientist&l=Chicago&from=searchOnHP&vjk=d4f7ddfdababc3e4
https://www.indeed.com/jobs?q=data+scientist&l=Manhattan&from=searchOnHP&vjk=d4f7ddfdababc3e4
https://www.indeed.com/jobs?q=data+scientist&l=San+Diego&from=searchOnHP&vjk=d4f7ddfdababc3e4
https://www.indeed.com/jobs?q=marketing&l=Chicago&from=searchOnHP&vjk=d4f7ddfdababc3e4
https://www.indeed.com/jobs?q=marketing&l=Manhattan&from=searchOnHP&vjk=d4f7ddfdababc3e4
https://www.indeed.com/jobs?q=marketing&l=San+Diego&from=searchOnHP&vjk=d4f7ddfdababc3e4
https://www.indeed.com/jobs?q=information+systems&l=Chicago&from=searchOnHP&vjk=d4f7ddfdababc3e4
https://www.indeed.com/jobs?q=information+systems&l=Manhattan&from=searchOnHP&vjk=d4f7ddfdababc3e4
https://www.indeed.com/jobs?q=information+systems&l=San+Diego&from=searchOnHP&vjk=d4f7ddfdababc3e4
[ 'https://www.indeed.com/jobs?q=data+scientist&l=Chicago&from=searchOnHP&vjk=d4f7ddfdababc3e4', 'https://www.indeed.com/jobs?q=data+scientist&l=Manhattan&from=searchOnHP&vjk=d4f7ddfdababc3e4', 'https://www.indeed.com/jobs?q=data+scientist&l=San+Diego&from=searchOnHP&vjk=d4f7ddfdababc3e4', 'https://www.indeed.com/jobs?q=marketing&l=Chicago&from=searchOnHP&vjk=d4f7ddfdababc3e4', 'https://www.indeed.com/jobs?q=marketing&l=Manhattan&from=searchOnHP&vjk=d4f7ddfdababc3e4', 'https://www.indeed.com/jobs?q=marketing&l=San+Diego&from=searchOnHP&vjk=d4f7ddfdababc3e4', 'https://www.indeed.com/jobs?q=information+systems&l=Chicago&from=searchOnHP&vjk=d4f7ddfdababc3e4', 'https://www.indeed.com/jobs?q=information+systems&l=Manhattan&from=searchOnHP&vjk=d4f7ddfdababc3e4', 'https://www.indeed.com/jobs?q=information+systems&l=San+Diego&from=searchOnHP&vjk=d4f7ddfdababc3e4' ]

```

```

In [9]: import requests
        from bs4 import BeautifulSoup
        import time
        import pandas as pd
        import numpy as np

        data = []

        search_strings = ['social+media', 'golf', 'hockey', 'the+world+cup', 'USA', 'NFL', 'MLB', 'NBA', 'twitter', 'Yankees']

        search_string_links = []

        for string in search_strings:
            created_link = 'https://www.reuters.com/search/news?sortBy=&dateRange=&blob='+string
            #print(created_link)
            search_string_links.append(created_link)

        for current_page_link in search_string_links:
            print("Now Scraping:", current_page_link)

            current_page_resp = requests.get(current_page_link)

            soup = BeautifulSoup(current_page_resp.content, "html.parser")

            articles = soup.find_all('div', class_='search-result-content')

            if articles != []:

```

```
for article in articles:

    try:
        headline = article.find('h3', class_='search-result-title').get_text().strip()
    except:
        headline = "NA"

    try:
        datetime = article.find('h5', class_='search-result-timestamp').get_text().strip()
    except:
        datetime = "NA"

    try:
        hyperlink = 'https://www.reuters.com'+article.find('a').get('href')
    except:
        hyperlink = "NA"

    data.append((headline, datetime, hyperlink))

time.sleep(3)

if data != []:

    df = pd.DataFrame(np.array(data))

    df.columns = ['Headline', 'Date & Time', 'Hyperlink']

    df.to_csv('question9.csv')

print(df)
```

```

Now Scraping: https://www.reuters.com/search/news?sortBy=&dateRange=&blob=social+media
Now Scraping: https://www.reuters.com/search/news?sortBy=&dateRange=&blob=golf
Now Scraping: https://www.reuters.com/search/news?sortBy=&dateRange=&blob=hockey
Now Scraping: https://www.reuters.com/search/news?sortBy=&dateRange=&blob=the+world+cup
Now Scraping: https://www.reuters.com/search/news?sortBy=&dateRange=&blob=USA
Now Scraping: https://www.reuters.com/search/news?sortBy=&dateRange=&blob=NFL
Now Scraping: https://www.reuters.com/search/news?sortBy=&dateRange=&blob=MLB
Now Scraping: https://www.reuters.com/search/news?sortBy=&dateRange=&blob=NBA
Now Scraping: https://www.reuters.com/search/news?sortBy=&dateRange=&blob=twitter
Now Scraping: https://www.reuters.com/search/news?sortBy=&dateRange=&blob=Yankees

```

Headline \

```

0 Biden administration appeals ban on social med...
1 Utah governor signs laws curbing social media ...
2 Utah governor signs laws curbing social media ...
3 Biden administration appeals ban on social med...
4 US banks rethink social media as a threat, not...
.. ...
95 Harrison Bader powers Yankees to sweep of A's
96 Shane Bieber, Guardians stifle Yankees
97 Yankees rally, down Orioles in 10th
98 Pete Alonso, Mets slam Yankees
99 Aaron Judge returns, Yankees throttle A's

```

Date & Time \

```

0 July 05, 2023 08:53pm EDT
1 March 24, 2023 04:23am EDT
2 March 23, 2023 06:27pm EDT
3 July 05, 2023 06:59pm EDT
4 May 19, 2023 10:43am EDT
.. ...
95 May 10, 2023 06:15pm EDT
96 April 10, 2023 08:57pm EDT
97 May 23, 2023 11:03pm EDT
98 July 25, 2023 10:40pm EDT
99 May 09, 2023 10:29pm EDT

```

Hyperlink

```

0 https://www.reuters.com/article/idUSKBN2YL1SU
1 https://www.reuters.com/article/idUSKBN2VP1XK
2 https://www.reuters.com/article/idUSL1N35V2YI
3 https://www.reuters.com/article/idUSL1N38R2Z5
4 https://www.reuters.com/article/idUSKBN2X90A4
.. ...
95 https://www.reuters.com/article/idUSMTZXEJ5AGK...
96 https://www.reuters.com/article/idUSMTZXEJ4BXE...

```



```
97 https://www.reuters.com/article/idUSMTZXEJ5O55...
98 https://www.reuters.com/article/idUSMTZXEJ7QDU...
99 https://www.reuters.com/article/idUSMTZXEJ5AF7...
```

```
[100 rows x 3 columns]
```

In []: