Load Librairies

```python
import pandas as pd
import numpy as np
import requests
from bs4 import BeautifulSoup as bs
import urllib.request
from urllib.request import urlopen
import os
from functools import lru_cache
```

In [93]:

Global variables

In [105…

```python
BASE_URL = "https://books.toscrape.com/"
CODE_STATUS = 200
NB_PAGES_TO_SCRAP = 3
## Informations to scrap
INFORMATIONS_TO_SCRAP =['Title',
                        "Category",
                         "Rating",
                        "string_price",
                        "price",
                        "availability_string",
                        "availability",
                         "url"]
## Path to save the result
PATH_TO_SAVE_RESULT = "/home/thiernosidy/Python/WebSraping"
```

Create Folder for to save result

In [116…

```python
def create_folder(path_to_create,
                  filname = ""):
    path_to_create = path_to_create+filname
    if not os.path.exists(path=path_to_create):
        # if the path_to_save_csv is not present
        # then create it.
        print("Create folder")
        return os.makedirs(path_to_create)
    else:
        print("The directory already exists")
        return path_to_create
## Call function and create folders
# folder to save the csv file
PATH_TO_SAVE_IMAGES = create_folder(path_to_create=os.path.join(PATH_TO_SAVE_RESULT,"Ima
PATH_TO_SAVE_DATA = create_folder(path_to_create=os.path.join(PATH_TO_SAVE_RESULT,"Data_
## show the result
print("\n")
print(PATH_TO_SAVE_IMAGES)
print(PATH_TO_SAVE_DATA)
```

```
The directory already exists
The directory already exists


/home/thiernosidy/Python/WebSraping/Images_books
/home/thiernosidy/Python/WebSraping/Data_csv
```

Get the link for earch book

In [97]:
```python
#Use decorators to accelerate execution time
@lru_cache
def web_scraping(link):
    page_get = requests.get(link)
    if page_get.status_code ==CODE_STATUS:
        print("The request was successful")
        print("\n")
        soup = bs(page_get.content, "html.parser")
        book_link = soup.find_all("h3")
        return book_link
    else:
        return "The request did not work"
```

Function to get the information about all the books for each page

In [122…
```python
#Use decorators to accelerate execution time
@lru_cache
def get_information(link):
    datas = []
    try:
        ## Call fonction for to get the information about earch book
        book_link = web_scraping(link)
        for element in book_link:
            url = element.find("a")["href"]
            specific_url_book = f"{BASE_URL}catalogue/{url}"
            page = requests.get(specific_url_book)
            #print(base_url+url)
            soup_book = bs(page.content, "html.parser")
            # Extract the price for earch book
            string_price = soup_book.find("p", class_ = "price_color").text.strip()
            ## Convert string price to float
            numbers = re.findall(r'[\d.e-]+', string_price)
            price = float("".join(numbers))
            # Extract the title
            ## Extract the title
            title = soup_book.find("h1").text
            ## Extract the rating
            rating = soup_book.find("p", class_ = "star-rating")["class"][1]
            # Extract the category
            category = soup_book.find("ul", class_ = "breadcrumb").find_all("li")[2].tex
            # The availability
            availability_string = soup_book.find("p", class_ = "instock availability").t
            ## Convert the availability to int
            availability = int(availability_string.replace("In stock (", "").replace("av
            datas.append([title,
                          category,
                          rating,
                          string_price,
                          price,
                          availability_string,
                          availability,
                          specific_url_book])
            ## show the informations
            #print(f"Number of extracted {number_book_extracted}")
            print(f"Title :{title}")
            print(f"Price : {string_price}")
            print(f"Rating : {rating}")
```

```
                print(f"Category: {category}")
                print(f"Availability : {availability}")
                print(f"URL : {specific_url_book}")
                print("-------------------------")
        print("Finish to scrap data")
        return datas
    except:
        print("Data Not Found")
```

Call Function

```
link_test= f"https://books.toscrape.com/catalogue/page-1{1}.html"
```

```
datas = get_information(link=link_test)
```

```
Title :Dark Notes
Price : £19.19
Rating : Five
Category: Erotica
Availability : 15
URL : https://books.toscrape.com/catalogue/dark-notes_800/index.html
-------------------------
Title :Daring Greatly: How the Courage to Be Vulnerable Transforms the Way We Live, Lov
e, Parent, and Lead
Price : £19.43
Rating : Three
Category: Nonfiction
Availability : 15
URL : https://books.toscrape.com/catalogue/daring-greatly-how-the-courage-to-be-vulnerab
le-transforms-the-way-we-live-love-parent-and-lead_799/index.html
-------------------------
Title :Close to You
Price : £49.46
Rating : Four
Category: Christian Fiction
Availability : 15
URL : https://books.toscrape.com/catalogue/close-to-you_798/index.html
-------------------------
Title :Chasing Heaven: What Dying Taught Me About Living
Price : £37.80
Rating : Two
Category: Spirituality
Availability : 15
URL : https://books.toscrape.com/catalogue/chasing-heaven-what-dying-taught-me-about-liv
ing_797/index.html
-------------------------
Title :Big Magic: Creative Living Beyond Fear
Price : £30.80
Rating : Three
Category: Nonfiction
Availability : 15
URL : https://books.toscrape.com/catalogue/big-magic-creative-living-beyond-fear_796/ind
ex.html
-------------------------
Title :Becoming Wise: An Inquiry into the Mystery and Art of Living
Price : £27.43
Rating : Two
Category: Nonfiction
Availability : 15
URL : https://books.toscrape.com/catalogue/becoming-wise-an-inquiry-into-the-mystery-and
-art-of-living_795/index.html
-------------------------
Title :Beauty Restored (Riley Family Legacy Novellas #3)
```

Price : £11.11
Rating : Two
Category: Default
Availability : 15
URL : https://books.toscrape.com/catalogue/beauty-restored-riley-family-legacy-novellas-3_794/index.html
----
Title :Batman: The Long Halloween (Batman)
Price : £36.50
Rating : Two
Category: Sequential Art
Availability : 15
URL : https://books.toscrape.com/catalogue/batman-the-long-halloween-batman_793/index.html
----
Title :Batman: The Dark Knight Returns (Batman)
Price : £15.38
Rating : Five
Category: Sequential Art
Availability : 15
URL : https://books.toscrape.com/catalogue/batman-the-dark-knight-returns-batman_792/index.html
----
Title :Ayumi's Violin
Price : £15.48
Rating : Two
Category: Default
Availability : 15
URL : https://books.toscrape.com/catalogue/ayumis-violin_791/index.html
----
Title :Anonymous
Price : £46.82
Rating : Four
Category: Default
Availability : 15
URL : https://books.toscrape.com/catalogue/anonymous_790/index.html
----
Title :Amy Meets the Saints and Sages
Price : £18.46
Rating : Three
Category: Default
Availability : 15
URL : https://books.toscrape.com/catalogue/amy-meets-the-saints-and-sages_789/index.html
----
Title :Amid the Chaos
Price : £36.58
Rating : One
Category: Cultural
Availability : 15
URL : https://books.toscrape.com/catalogue/amid-the-chaos_788/index.html
----
Title :Amatus
Price : £50.54
Rating : Five
Category: Default
Availability : 15
URL : https://books.toscrape.com/catalogue/amatus_787/index.html
----
Title :Agnostic: A Spirited Manifesto
Price : £12.51
Rating : Five
Category: Nonfiction
Availability : 15
URL : https://books.toscrape.com/catalogue/agnostic-a-spirited-manifesto_786/index.html
----
Title :Zealot: The Life and Times of Jesus of Nazareth

```
Price : £24.70
Rating : Three
Category: History
Availability : 14
URL : https://books.toscrape.com/catalogue/zealot-the-life-and-times-of-jesus-of-nazaret
h_785/index.html
--------------------------
Title :You (You #1)
Price : £43.61
Rating : Five
Category: Thriller
Availability : 14
URL : https://books.toscrape.com/catalogue/you-you-1_784/index.html
--------------------------
Title :Wonder Woman: Earth One, Volume One (Wonder Woman: Earth One #1)
Price : £37.34
Rating : Four
Category: Sequential Art
Availability : 14
URL : https://books.toscrape.com/catalogue/wonder-woman-earth-one-volume-one-wonder-woma
n-earth-one-1_783/index.html
--------------------------
Title :Wild Swans
Price : £14.36
Rating : Two
Category: Young Adult
Availability : 14
URL : https://books.toscrape.com/catalogue/wild-swans_782/index.html
--------------------------
Title :Why the Right Went Wrong: Conservatism--From Goldwater to the Tea Party and Beyon
d
Price : £52.65
Rating : Four
Category: Politics
Availability : 14
URL : https://books.toscrape.com/catalogue/why-the-right-went-wrong-conservatism-from-go
ldwater-to-the-tea-party-and-beyond_781/index.html
--------------------------
Finish to scrap data
```

In [86]: `datas`

Out[86]:
```
[['Dark Notes',
  'Erotica',
  'Five',
  '£19.19',
  19.19,
  'In stock (15 available)',
  15,
  'https://books.toscrape.com/catalogue/dark-notes_800/index.html'],
 ['Daring Greatly: How the Courage to Be Vulnerable Transforms the Way We Live, Love, Pa
rent, and Lead',
  'Nonfiction',
  'Three',
  '£19.43',
  19.43,
  'In stock (15 available)',
  15,
  'https://books.toscrape.com/catalogue/daring-greatly-how-the-courage-to-be-vulnerable-
transforms-the-way-we-live-love-parent-and-lead_799/index.html'],
 ['Close to You',
  'Christian Fiction',
  'Four',
  '£49.46',
  49.46,
  'In stock (15 available)',
```

```
      15,
      'https://books.toscrape.com/catalogue/close-to-you_798/index.html'],
     ['Chasing Heaven: What Dying Taught Me About Living',
      'Spirituality',
      'Two',
      '£37.80',
      37.8,
      'In stock (15 available)',
      15,
      'https://books.toscrape.com/catalogue/chasing-heaven-what-dying-taught-me-about-living
_797/index.html'],
     ['Big Magic: Creative Living Beyond Fear',
      'Nonfiction',
      'Three',
      '£30.80',
      30.8,
      'In stock (15 available)',
      15,
      'https://books.toscrape.com/catalogue/big-magic-creative-living-beyond-fear_796/index.
html'],
     ['Becoming Wise: An Inquiry into the Mystery and Art of Living',
      'Nonfiction',
      'Two',
      '£27.43',
      27.43,
      'In stock (15 available)',
      15,
      'https://books.toscrape.com/catalogue/becoming-wise-an-inquiry-into-the-mystery-and-ar
t-of-living_795/index.html'],
     ['Beauty Restored (Riley Family Legacy Novellas #3)',
      'Default',
      'Two',
      '£11.11',
      11.11,
      'In stock (15 available)',
      15,
      'https://books.toscrape.com/catalogue/beauty-restored-riley-family-legacy-novellas-3_7
94/index.html'],
     ['Batman: The Long Halloween (Batman)',
      'Sequential Art',
      'Two',
      '£36.50',
      36.5,
      'In stock (15 available)',
      15,
      'https://books.toscrape.com/catalogue/batman-the-long-halloween-batman_793/index.htm
l'],
     ['Batman: The Dark Knight Returns (Batman)',
      'Sequential Art',
      'Five',
      '£15.38',
      15.38,
      'In stock (15 available)',
      15,
      'https://books.toscrape.com/catalogue/batman-the-dark-knight-returns-batman_792/index.
html'],
     ["Ayumi's Violin",
      'Default',
      'Two',
      '£15.48',
      15.48,
      'In stock (15 available)',
      15,
      'https://books.toscrape.com/catalogue/ayumis-violin_791/index.html'],
     ['Anonymous',
      'Default',
```

```
     'Four',
     '£46.82',
     46.82,
     'In stock (15 available)',
     15,
     'https://books.toscrape.com/catalogue/anonymous_790/index.html'],
    ['Amy Meets the Saints and Sages',
     'Default',
     'Three',
     '£18.46',
     18.46,
     'In stock (15 available)',
     15,
     'https://books.toscrape.com/catalogue/amy-meets-the-saints-and-sages_789/index.html'],
    ['Amid the Chaos',
     'Cultural',
     'One',
     '£36.58',
     36.58,
     'In stock (15 available)',
     15,
     'https://books.toscrape.com/catalogue/amid-the-chaos_788/index.html'],
    ['Amatus',
     'Default',
     'Five',
     '£50.54',
     50.54,
     'In stock (15 available)',
     15,
     'https://books.toscrape.com/catalogue/amatus_787/index.html'],
    ['Agnostic: A Spirited Manifesto',
     'Nonfiction',
     'Five',
     '£12.51',
     12.51,
     'In stock (15 available)',
     15,
     'https://books.toscrape.com/catalogue/agnostic-a-spirited-manifesto_786/index.html'],
    ['Zealot: The Life and Times of Jesus of Nazareth',
     'History',
     'Three',
     '£24.70',
     24.7,
     'In stock (14 available)',
     14,
     'https://books.toscrape.com/catalogue/zealot-the-life-and-times-of-jesus-of-nazareth_7
85/index.html'],
    ['You (You #1)',
     'Thriller',
     'Five',
     '£43.61',
     43.61,
     'In stock (14 available)',
     14,
     'https://books.toscrape.com/catalogue/you-you-1_784/index.html'],
    ['Wonder Woman: Earth One, Volume One (Wonder Woman: Earth One #1)',
     'Sequential Art',
     'Four',
     '£37.34',
     37.34,
     'In stock (14 available)',
     14,
     'https://books.toscrape.com/catalogue/wonder-woman-earth-one-volume-one-wonder-woman-e
arth-one-1_783/index.html'],
    ['Wild Swans',
     'Young Adult',
```

```
     'Two',
     '£14.36',
     14.36,
     'In stock (14 available)',
     14,
     'https://books.toscrape.com/catalogue/wild-swans_782/index.html'],
    ['Why the Right Went Wrong: Conservatism--From Goldwater to the Tea Party and Beyond',
     'Politics',
     'Four',
     '£52.65',
     52.65,
     'In stock (14 available)',
     14,
     'https://books.toscrape.com/catalogue/why-the-right-went-wrong-conservatism-from-goldw
ater-to-the-tea-party-and-beyond_781/index.html']]
```

Create a dataframe

In [133…
```python
## Create data
dataset = pd.DataFrame(data=datas,
                       columns= INFORMATIONS_TO_SCRAP,
                       index = [element[0] for element in datas]
                       )
### Show the first five rows
display(dataset.head(4))
## Drop Title in dataset
dataset.drop("Title", axis = 1, inplace=True)
print("\n")
display(dataset.head(4))
```

	Title	Category	Rating	string_price	price	availability_string	availability	
Slow States of Collapse: Poems	Slow States of Collapse: Poems	Poetry	Three	£57.31	57.31	In stock (17 available)	17	https://books.to
Reasons to Stay Alive	Reasons to Stay Alive	Nonfiction	Two	£26.41	26.41	In stock (17 available)	17	https://books
Private Paris (Private #10)	Private Paris (Private #10)	Fiction	Five	£47.61	47.61	In stock (17 available)	17	https://books.to
#HigherSelfie: Wake Up Your Life. Free Your Soul. Find Your Tribe.	#HigherSelfie: Wake Up Your Life. Free Your So...	Nonfiction	Five	£23.11	23.11	In stock (17 available)	17	https://books.to

	Category	Rating	string_price	price	availability_string	availability	
Slow States of Collapse: Poems	Poetry	Three	£57.31	57.31	In stock (17 available)	17	https://books.toscrape.com/cata
Reasons to Stay Alive	Nonfiction	Two	£26.41	26.41	In stock (17 available)	17	https://books.toscrape.com/ca
Private Paris (Private #10)	Fiction	Five	£47.61	47.61	In stock (17 available)	17	https://books.toscrape.com/cata
#HigherSelfie: Wake Up Your Life. Free Your Soul. Find Your Tribe.	Nonfiction	Five	£23.11	23.11	In stock (17 available)	17	https://books.toscrape.com/cata

Download the image of each book

```python
#Use decorators to accelerate execution time
@lru_cache
def download_images(link):
    list_of_link = []
    ## Call fonction for to get the information about earch book
    try:
        book_link = web_scraping(link)
        for element in book_link:
            url = element.find("a")["href"]
            page = requests.get(f"{BASE_URL}catalogue/{url}")
            #print(base_url+url)
            soup_book = bs(page.content, "html.parser")
            ## Find the image link
            images = soup_book.find("div", class_="image_container").find("img")
            link_of_book =images.get("src")
            ## Clean the link of the images
            link_of_book = link_of_book.replace("../", "")
            # Concatenate result with the base of link
            complete_link = f'{BASE_URL}{link_of_book}'
            # Get the image name
            image_name = str(images.get("alt").strip()+".jpg")
            ## Remove the in the name
            image_name = image_name.replace(" ", "_")
            print(image_name)
            filename = os.path.join(PATH_TO_SAVE_IMAGES,
                                    image_name)

            ## Download the image
            urllib.request.urlretrieve(complete_link, filename)
    except:
            print("Link Not found")
```

Scrap a Several Pages

```python
# Create an empty data
data_all = pd.DataFrame(columns=INFORMATIONS_TO_SCRAP)
print(f"The are {len(INFORMATIONS_TO_SCRAP)} columns in dataset")
```

```
The are 8 columns in dataset
```

```python
for num_page in range(1, NB_PAGES_TO_SCRAP+1):
    url_book= f"{BASE_URL}catalogue/page-{num_page}.html"
    ## Call function get_informations
    datas= get_information(url_book)
    ## Call function and all images
    download_images(url_book)
    ## Create a dataframe
    data = pd.DataFrame(datas, columns=INFORMATIONS_TO_SCRAP)
    ## Concatenate the pages data
    data_all = pd.concat([data_all, data], ignore_index=True)
```

```
Title :A Light in the Attic
Price : £51.77
Rating : Three
Category: Poetry
Availability : 22
URL : https://books.toscrape.com/catalogue/a-light-in-the-attic_1000/index.html
---------------------------
Title :Tipping the Velvet
```

Price : £53.74
Rating : One
Category: Historical Fiction
Availability : 20
URL : https://books.toscrape.com/catalogue/tipping-the-velvet_999/index.html
----
Title :Soumission
Price : £50.10
Rating : One
Category: Fiction
Availability : 20
URL : https://books.toscrape.com/catalogue/soumission_998/index.html
----
Title :Sharp Objects
Price : £47.82
Rating : Four
Category: Mystery
Availability : 20
URL : https://books.toscrape.com/catalogue/sharp-objects_997/index.html
----
Title :Sapiens: A Brief History of Humankind
Price : £54.23
Rating : Five
Category: History
Availability : 20
URL : https://books.toscrape.com/catalogue/sapiens-a-brief-history-of-humankind_996/index.html
----
Title :The Requiem Red
Price : £22.65
Rating : One
Category: Young Adult
Availability : 19
URL : https://books.toscrape.com/catalogue/the-requiem-red_995/index.html
----
Title :The Dirty Little Secrets of Getting Your Dream Job
Price : £33.34
Rating : Four
Category: Business
Availability : 19
URL : https://books.toscrape.com/catalogue/the-dirty-little-secrets-of-getting-your-dream-job_994/index.html
----
Title :The Coming Woman: A Novel Based on the Life of the Infamous Feminist, Victoria Woodhull
Price : £17.93
Rating : Three
Category: Default
Availability : 19
URL : https://books.toscrape.com/catalogue/the-coming-woman-a-novel-based-on-the-life-of-the-infamous-feminist-victoria-woodhull_993/index.html
----
Title :The Boys in the Boat: Nine Americans and Their Epic Quest for Gold at the 1936 Berlin Olympics
Price : £22.60
Rating : Four
Category: Default
Availability : 19
URL : https://books.toscrape.com/catalogue/the-boys-in-the-boat-nine-americans-and-their-epic-quest-for-gold-at-the-1936-berlin-olympics_992/index.html
----
Title :The Black Maria
Price : £52.15
Rating : One
Category: Poetry
Availability : 19

URL : https://books.toscrape.com/catalogue/the-black-maria_991/index.html
----
Title :Starving Hearts (Triangular Trade Trilogy, #1)
Price : £13.99
Rating : Two
Category: Default
Availability : 19
URL : https://books.toscrape.com/catalogue/starving-hearts-triangular-trade-trilogy-1_99
0/index.html

Title :Shakespeare's Sonnets
Price : £20.66
Rating : Four
Category: Poetry
Availability : 19
URL : https://books.toscrape.com/catalogue/shakespeares-sonnets_989/index.html
----
Title :Set Me Free
Price : £17.46
Rating : Five
Category: Young Adult
Availability : 19
URL : https://books.toscrape.com/catalogue/set-me-free_988/index.html
----
Title :Scott Pilgrim's Precious Little Life (Scott Pilgrim #1)
Price : £52.29
Rating : Five
Category: Sequential Art
Availability : 19
URL : https://books.toscrape.com/catalogue/scott-pilgrims-precious-little-life-scott-pil
grim-1_987/index.html

Title :Rip it Up and Start Again
Price : £35.02
Rating : Five
Category: Music
Availability : 19
URL : https://books.toscrape.com/catalogue/rip-it-up-and-start-again_986/index.html
----
Title :Our Band Could Be Your Life: Scenes from the American Indie Underground, 1981-199
1
Price : £57.25
Rating : Three
Category: Music
Availability : 19
URL : https://books.toscrape.com/catalogue/our-band-could-be-your-life-scenes-from-the-a
merican-indie-underground-1981-1991_985/index.html

Title :Olio
Price : £23.88
Rating : One
Category: Poetry
Availability : 19
URL : https://books.toscrape.com/catalogue/olio_984/index.html
----
Title :Mesaerion: The Best Science Fiction Stories 1800-1849
Price : £37.59
Rating : One
Category: Science Fiction
Availability : 19
URL : https://books.toscrape.com/catalogue/mesaerion-the-best-science-fiction-stories-18
00-1849_983/index.html

Title :Libertarianism for Beginners
Price : £51.33
Rating : Two

```
Category: Politics
Availability : 19
URL : https://books.toscrape.com/catalogue/libertarianism-for-beginners_982/index.html
---------------------------
Title :It's Only the Himalayas
Price : £45.17
Rating : Two
Category: Travel
Availability : 19
URL : https://books.toscrape.com/catalogue/its-only-the-himalayas_981/index.html
---------------------------
Finish to scrap data
Title :In Her Wake
Price : £12.84
Rating : One
Category: Thriller
Availability : 19
URL : https://books.toscrape.com/catalogue/in-her-wake_980/index.html
---------------------------
Title :How Music Works
Price : £37.32
Rating : Two
Category: Music
Availability : 19
URL : https://books.toscrape.com/catalogue/how-music-works_979/index.html
---------------------------
Title :Foolproof Preserving: A Guide to Small Batch Jams, Jellies, Pickles, Condiments,
and More: A Foolproof Guide to Making Small Batch Jams, Jellies, Pickles, Condiments, an
d More
Price : £30.52
Rating : Three
Category: Food and Drink
Availability : 19
URL : https://books.toscrape.com/catalogue/foolproof-preserving-a-guide-to-small-batch-j
ams-jellies-pickles-condiments-and-more-a-foolproof-guide-to-making-small-batch-jams-jel
lies-pickles-condiments-and-more_978/index.html
---------------------------
Title :Chase Me (Paris Nights #2)
Price : £25.27
Rating : Five
Category: Romance
Availability : 19
URL : https://books.toscrape.com/catalogue/chase-me-paris-nights-2_977/index.html
---------------------------
Title :Black Dust
Price : £34.53
Rating : Five
Category: Romance
Availability : 19
URL : https://books.toscrape.com/catalogue/black-dust_976/index.html
---------------------------
Title :Birdsong: A Story in Pictures
Price : £54.64
Rating : Three
Category: Childrens
Availability : 19
URL : https://books.toscrape.com/catalogue/birdsong-a-story-in-pictures_975/index.html
---------------------------
Title :America's Cradle of Quarterbacks: Western Pennsylvania's Football Factory from Jo
hnny Unitas to Joe Montana
Price : £22.50
Rating : Three
Category: Default
Availability : 19
URL : https://books.toscrape.com/catalogue/americas-cradle-of-quarterbacks-western-penns
ylvanias-football-factory-from-johnny-unitas-to-joe-montana_974/index.html
```

```
---------------------------
Title :Aladdin and His Wonderful Lamp
Price : £53.13
Rating : Three
Category: Default
Availability : 19
URL : https://books.toscrape.com/catalogue/aladdin-and-his-wonderful-lamp_973/index.html
---------------------------
Title :Worlds Elsewhere: Journeys Around Shakespeare's Globe
Price : £40.30
Rating : Five
Category: Nonfiction
Availability : 18
URL : https://books.toscrape.com/catalogue/worlds-elsewhere-journeys-around-shakespeares
-globe_972/index.html
---------------------------
Title :Wall and Piece
Price : £44.18
Rating : Four
Category: Art
Availability : 18
URL : https://books.toscrape.com/catalogue/wall-and-piece_971/index.html
---------------------------
Title :The Four Agreements: A Practical Guide to Personal Freedom
Price : £17.66
Rating : Five
Category: Spirituality
Availability : 18
URL : https://books.toscrape.com/catalogue/the-four-agreements-a-practical-guide-to-pers
onal-freedom_970/index.html
---------------------------
Title :The Five Love Languages: How to Express Heartfelt Commitment to Your Mate
Price : £31.05
Rating : Three
Category: Nonfiction
Availability : 18
URL : https://books.toscrape.com/catalogue/the-five-love-languages-how-to-express-heartf
elt-commitment-to-your-mate_969/index.html
---------------------------
Title :The Elephant Tree
Price : £23.82
Rating : Five
Category: Thriller
Availability : 18
URL : https://books.toscrape.com/catalogue/the-elephant-tree_968/index.html
---------------------------
Title :The Bear and the Piano
Price : £36.89
Rating : One
Category: Childrens
Availability : 18
URL : https://books.toscrape.com/catalogue/the-bear-and-the-piano_967/index.html
---------------------------
Title :Sophie's World
Price : £15.94
Rating : Five
Category: Philosophy
Availability : 18
URL : https://books.toscrape.com/catalogue/sophies-world_966/index.html
---------------------------
Title :Penny Maybe
Price : £33.29
Rating : Three
Category: Default
Availability : 18
URL : https://books.toscrape.com/catalogue/penny-maybe_965/index.html
```

```
--------------------------
Title :Maude (1883-1993):She Grew Up with the country
Price : £18.02
Rating : Two
Category: Default
Availability : 18
URL : https://books.toscrape.com/catalogue/maude-1883-1993she-grew-up-with-the-country_9
64/index.html
--------------------------
Title :In a Dark, Dark Wood
Price : £19.63
Rating : One
Category: Mystery
Availability : 18
URL : https://books.toscrape.com/catalogue/in-a-dark-dark-wood_963/index.html
--------------------------
Title :Behind Closed Doors
Price : £52.22
Rating : Four
Category: Thriller
Availability : 18
URL : https://books.toscrape.com/catalogue/behind-closed-doors_962/index.html
--------------------------
Title :You can't bury them all: Poems
Price : £33.63
Rating : Two
Category: Poetry
Availability : 17
URL : https://books.toscrape.com/catalogue/you-cant-bury-them-all-poems_961/index.html
--------------------------
Finish to scrap data
Title :Slow States of Collapse: Poems
Price : £57.31
Rating : Three
Category: Poetry
Availability : 17
URL : https://books.toscrape.com/catalogue/slow-states-of-collapse-poems_960/index.html
--------------------------
Title :Reasons to Stay Alive
Price : £26.41
Rating : Two
Category: Nonfiction
Availability : 17
URL : https://books.toscrape.com/catalogue/reasons-to-stay-alive_959/index.html
--------------------------
Title :Private Paris (Private #10)
Price : £47.61
Rating : Five
Category: Fiction
Availability : 17
URL : https://books.toscrape.com/catalogue/private-paris-private-10_958/index.html
--------------------------
Title :#HigherSelfie: Wake Up Your Life. Free Your Soul. Find Your Tribe.
Price : £23.11
Rating : Five
Category: Nonfiction
Availability : 17
URL : https://books.toscrape.com/catalogue/higherselfie-wake-up-your-life-free-your-soul
-find-your-tribe_957/index.html
--------------------------
Title :Without Borders (Wanderlove #1)
Price : £45.07
Rating : Two
Category: New Adult
Availability : 16
URL : https://books.toscrape.com/catalogue/without-borders-wanderlove-1_956/index.html
```

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--------------------------
Title :When We Collided
Price : £31.77
Rating : One
Category: Contemporary
Availability : 16
URL : https://books.toscrape.com/catalogue/when-we-collided_955/index.html
--------------------------
Title :We Love You, Charlie Freeman
Price : £50.27
Rating : Five
Category: Fiction
Availability : 16
URL : https://books.toscrape.com/catalogue/we-love-you-charlie-freeman_954/index.html
--------------------------
Title :Untitled Collection: Sabbath Poems 2014
Price : £14.27
Rating : Four
Category: Poetry
Availability : 16
URL : https://books.toscrape.com/catalogue/untitled-collection-sabbath-poems-2014_953/in
dex.html
--------------------------
Title :Unseen City: The Majesty of Pigeons, the Discreet Charm of Snails & Other Wonders
of the Urban Wilderness
Price : £44.18
Rating : Four
Category: Nonfiction
Availability : 16
URL : https://books.toscrape.com/catalogue/unseen-city-the-majesty-of-pigeons-the-discre
et-charm-of-snails-other-wonders-of-the-urban-wilderness_952/index.html
--------------------------
Title :Unicorn Tracks
Price : £18.78
Rating : Three
Category: Fantasy
Availability : 16
URL : https://books.toscrape.com/catalogue/unicorn-tracks_951/index.html
--------------------------
Title :Unbound: How Eight Technologies Made Us Human, Transformed Society, and Brought O
ur World to the Brink
Price : £25.52
Rating : One
Category: History
Availability : 16
URL : https://books.toscrape.com/catalogue/unbound-how-eight-technologies-made-us-human-
transformed-society-and-brought-our-world-to-the-brink_950/index.html
--------------------------
Title :Tsubasa: WoRLD CHRoNiCLE 2 (Tsubasa WoRLD CHRoNiCLE #2)
Price : £16.28
Rating : One
Category: Sequential Art
Availability : 16
URL : https://books.toscrape.com/catalogue/tsubasa-world-chronicle-2-tsubasa-world-chron
icle-2_949/index.html
--------------------------
Title :Throwing Rocks at the Google Bus: How Growth Became the Enemy of Prosperity
Price : £31.12
Rating : Three
Category: Nonfiction
Availability : 16
URL : https://books.toscrape.com/catalogue/throwing-rocks-at-the-google-bus-how-growth-b
ecame-the-enemy-of-prosperity_948/index.html
--------------------------
Title :This One Summer
Price : £19.49
```

```
Rating : Four
Category: Sequential Art
Availability : 16
URL : https://books.toscrape.com/catalogue/this-one-summer_947/index.html
---------------------------
Title :Thirst
Price : £17.27
Rating : Five
Category: Fiction
Availability : 16
URL : https://books.toscrape.com/catalogue/thirst_946/index.html
---------------------------
Title :The Torch Is Passed: A Harding Family Story
Price : £19.09
Rating : One
Category: Add a comment
Availability : 16
URL : https://books.toscrape.com/catalogue/the-torch-is-passed-a-harding-family-story_94
5/index.html
---------------------------
Title :The Secret of Dreadwillow Carse
Price : £56.13
Rating : One
Category: Childrens
Availability : 16
URL : https://books.toscrape.com/catalogue/the-secret-of-dreadwillow-carse_944/index.htm
l
---------------------------
Title :The Pioneer Woman Cooks: Dinnertime: Comfort Classics, Freezer Food, 16-Minute Me
als, and Other Delicious Ways to Solve Supper!
Price : £56.41
Rating : One
Category: Food and Drink
Availability : 16
URL : https://books.toscrape.com/catalogue/the-pioneer-woman-cooks-dinnertime-comfort-cl
assics-freezer-food-16-minute-meals-and-other-delicious-ways-to-solve-supper_943/index.h
tml
---------------------------
Title :The Past Never Ends
Price : £56.50
Rating : Four
Category: Mystery
Availability : 16
URL : https://books.toscrape.com/catalogue/the-past-never-ends_942/index.html
---------------------------
Title :The Natural History of Us (The Fine Art of Pretending #2)
Price : £45.22
Rating : Three
Category: Young Adult
Availability : 16
URL : https://books.toscrape.com/catalogue/the-natural-history-of-us-the-fine-art-of-pre
tending-2_941/index.html
---------------------------
Finish to scrap data
```

In [130… `data_all.head()`

Out[130]:

	Title	Category	Rating	string_price	price	availability_string	availability	
0	A Light in the Attic	Poetry	Three	£51.77	51.77	In stock (22 available)	22	https://books.toscrape.com/
1	Tipping the Velvet	Historical Fiction	One	£53.74	53.74	In stock (20 available)	20	https://books.toscrape.com/
2	Soumission	Fiction	One	£50.10	50.10	In stock (20 available)	20	https://books.toscrape.com/ca

3	Sharp Objects	Mystery	Four	£47.82	47.82	In stock (20 available)	20	https://books.toscrape.com/ca
4	Sapiens: A Brief History of Humankind	History	Five	£54.23	54.23	In stock (20 available)	20	https://books.toscrape.com/ca

In [131… `data_all.shape`

Out[131]: `(60, 8)`

Save data

In [132…
```
data_all.to_csv(os.path.join(PATH_TO_SAVE_DATA,
                             "data_books.csv"))
```