



Web Scraping

```
In [8]: import requests  
from bs4 import BeautifulSoup
```

1) Inspect the website's HTML source and identify the right URLs to download. 2) Download and save web pages locally using the requests library. 3) Create a function to automate downloading for different topics/search queries. 4) Use Beautiful Soup to parse and extract information 5) Parse and explore the structure of downloaded web pages using beautiful soup. 6) Use the right properties and methods to extract the required information. 7) Create functions to extract from the page into lists and dictionaries. 8) Create functions for the end-to-end process of downloading, parsing, and saving CSVs.

Send Request to Website

```
In [4]: web=requests.get("https://books.toscrape.com/")
```

```
In [5]: print(web)
```

<Response [200]>

Response 200 means our web page is loaded successfully

```
In [6]: web.content
```



```
ry/books/thriller_37/index.html">\n          \n      \n\n
```

Thriller\n \n \n\n

```
</li>\n          \n      \n\n
```

\n \n Contemporary\n\n

```
\n          \n      </a>\n          \n      \n\n
```

\n \n Spirituality\n\n

```
\n          \n      </a>\n          \n      \n\n
```

\n \n Academic\n\n

```
\n          \n      </a>\n          \n      \n\n
```

\n \n Self Help\n\n

```
</li>\n          \n      \n\n
```

\n \n Historical\n\n

```
\n          \n      </a>\n          \n      \n\n
```

\n \n Christian\n\n

```
</li>\n          \n      \n\n
```

\n \n Suspense\n\n

```
\n          \n      </a>\n          \n      \n\n
```

\n \n Short Stories\n\n

```
</li>\n          \n      \n\n
```

\n \n Novels\n\n

```
\n          \n      </a>\n          \n      \n\n
```

\n \n Health\n\n

```
</li>\n          \n      \n\n
```

\n \n Politics\n\n

```
\n          \n      </a>\n          \n      \n\n
```

\n \n Cultural\n\n

```
</li>\n          \n      \n\n
```

\n \n Erotica\n\n

```
\n          \n      </a>\n          \n      \n\n
```

\n \n Crime\n\n

```
</li>\n          \n      \n\n
```

```
\n          \n      </ul></li>\n          \n      \n\n
```

```
</div>\n          \n      \n\n
```



```
\n                <li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">\n\n            <article class="product_pod">\n                <div clas\ns="image_container">\n                    </a>\n                \n                <p class="star-rating One">\n                    <i class="icon-star"></i>\n                    <i class="icon-star"></i>\n                    <i class="icon-star"></i>\n                </p>\n                \n                <h3><a href="catalogue/the-requiem-red_995/index.html" title="T\nhe Requiem Red">The Requiem Red</a></h3>\n                \n                <div class="product_price">\n                    <p class="price_color">\xc2\xba322.65</p>\n                    <p class="instock availability">\n                        <i class="icon-ok"></i>\n                        In stock\n                    </p>\n                    \n                    <form>\n                        <button type="s\nubmit" class="btn btn-primary btn-block" data-loading-text="Adding...">Add to\nbasket</button>\n                    </form>\n                \n                </div>\n            </article>\n        <li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">\n            <article clas\ns="product_pod">\n                <div class="image_container">\n                    <a href="catalogue/the-dirty-litt\nle-secrets-of-getting-your-dream-job_994/index.html"></a>\n                \n                <div class="star-rating Four">\n                    <i class="icon-star"></i>\n                    <i class="icon-star"></i>\n                    <i class="icon-star"></i>\n                </p>\n                \n                <h3><a href="catalogue/\nthe-dirty-little-secrets-of-getting-your-dream-job_994/index.html" title="The\nDirty Little Secrets of Getting Your Dream Job">The Dirty Little Secrets\n...</a></h3>\n                \n                <div class="product_price">\n                    <p class="price_color">\xc2\xba333.34</p>\n                    \n                    <p class="instock availability">\n                        <i class="icon-ok"></i>\n                        In stock\n                    </p>\n                    \n                    <form>\n                        <button type="submit" class="btn btn-primary btn-block"\n                            data-loading-text="Adding...">Add to basket</button>\n                    </form>\n                \n                </div>\n            </article>\n        <li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">\n            <article class="product_pod">\n                <div clas\ns="image_container">\n                    </a>\n                    \n                    <div class="star-rating Three">\n                        <i class="icon-sta\nr"></i>\n                        <i class="icon-star"></i>\n                        <i class="icon-star"></i>\n                    </p>\n                    \n                    <h3><a href="catalogue/the-coming-woman-a-novel-based-on-the-li\nfe-of-the-infamous-feminist-victoria-woodhull_993/index.html" title="The Comi\nng Woman: A Novel Based on the Life of the Infamous Feminist, Victoria Woodhu
```


<article class="product_pod">\n

s="image_container">\n

\n

\n

<i class="icon-star"></i>\n

<i class="icon-star"></i>\n

<i class="icon-star"></i>\n

\n

<h3>Scott Pilgrim's Precious Little ...</h3>\n

\n

<div class="product_price">\n

<p class="price_color">\xc2\xa352.29</p>\n

class="instock availability">\n

<i class="icon-ok"></i>\n

In stock\n

</p>\n

<form>\n

<button type="submit" class="btn btn-primary btn-block" data-loading-text="Adding...">Add to basket</button>\n

</form>\n

</div>\n

</article>\n

<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">\n

<article class="product_pod">\n

s="image_container">\n

\n

\n

<p class="star-rating Five">\n

<i class="icon-star"></i>\n

<i class="icon-star"></i>\n

<i class="icon-star"></i>\n

</p>\n

<h3>Rip it Up and ...</h3>\n

<div class="product_price">\n

<p class="price_color">\xc2\xa335.02</p>\n

<div class="instock availability">\n

<i class="icon-ok"></i>\n

In stock\n

</div>\n

<form>\n

<button type="submit" class="btn btn-primary btn-block" data-loading-text="Adding...">Add to basket</button>\n

</form>\n

</div>\n

</article>\n

<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">\n

<article class="product_pod">\n

<div class="image_container">\n

\n

\n

<p class="star-rating Three">\n

<i class="icon-star"></i>\n

<i class="icon-star"></i>\n

<i class="icon-star"></i>\n

</p>\n

<h3>Our Ba

Parse HTML Content

```
In [10]: soup=BeautifulSoup(web.content,"html.parser")
```

```
In [11]: print(soup.prettify())
```

```
<!DOCTYPE html>
<!--[if lt IE 7]>      <html lang="en-us" class="no-js lt-ie9 lt-ie8 lt-ie7">
<![endif]-->
<!--[if IE 7]>      <html lang="en-us" class="no-js lt-ie9 lt-ie8"> <![endif]-->
<!--[if IE 8]>      <html lang="en-us" class="no-js lt-ie9"> <![endif]-->
<!--[if gt IE 8]><!-->
<html class="no-js" lang="en-us">
<!--<![endif]-->
<head>
<title>
    All products | Books to Scrape - Sandbox
</title>
<meta content="text/html; charset=utf-8" http-equiv="content-type"/>
<meta content="24th Jun 2016 09:29" name="created"/>
<meta content="" name="description"/>
<meta content="width=device-width" name="viewport"/>
<meta content="NOARCHIVE,NOCACHE" name="robots"/>
<!-- Le HTML5 shim, for IE6-8 support of HTML elements -->
<!--[if lt IE 9]>
    <script src="//html5shim.googlecode.com/svn/trunk/html5.js"></script>
    <![endif]-->
<link href="static/oscar/favicon.ico" rel="shortcut icon"/>
<link href="static/oscar/css/styles.css" rel="stylesheet" type="text/css"/>
<link href="static/oscar/js/bootstrap-datetimepicker/bootstrap-datetimepicker.css" rel="stylesheet"/>
    <link href="static/oscar/css/datetimepicker.css" rel="stylesheet" type="text/css"/>
</head>
<body class="default" id="default">
<header class="header container-fluid">
    <div class="page_inner">
        <div class="row">
            <div class="col-sm-8 h1">
                <a href="index.html">
                    Books to Scrape
                </a>
                <small>
                    We love being scraped!
                </small>
            </div>
        </div>
    </div>
</header>
<div class="container-fluid page">
    <div class="page_inner">
        <ul class="breadcrumb">
            <li>
                <a href="index.html">
                    Home
                </a>
            </li>
            <li class="active">
                All products
            </li>
        </ul>
    </div>
</div>
```

```
</li>
</ul>
<div class="row">
<aside class="sidebar col-sm-4 col-md-3">
<div id="promotions_left">
</div>
<div class="side_categories">
<ul class="nav nav-list">
<li>
<a href="catalogue/category/books_1/index.html">
    Books
</a>
<ul>
<li>
<a href="catalogue/category/books/travel_2/index.html">
    Travel
</a>
</li>
<li>
<a href="catalogue/category/books/mystery_3/index.html">
    Mystery
</a>
</li>
<li>
<a href="catalogue/category/books/historical-fiction_4/index.html">
    Historical Fiction
</a>
</li>
<li>
<a href="catalogue/category/books/sequential-art_5/index.html">
    Sequential Art
</a>
</li>
<li>
<a href="catalogue/category/books/classics_6/index.html">
    Classics
</a>
</li>
<li>
<a href="catalogue/category/books/philosophy_7/index.html">
    Philosophy
</a>
</li>
<li>
<a href="catalogue/category/books/romance_8/index.html">
    Romance
</a>
</li>
<li>
<a href="catalogue/category/books/womens-fiction_9/index.html">
    Womens Fiction
</a>
</li>
<li>
```

```
<a href="catalogue/category/books/fiction_10/index.html">
    Fiction
</a>
</li>
<li>
    <a href="catalogue/category/books/childrens_11/index.html">
        Childrens
    </a>
</li>
<li>
    <a href="catalogue/category/books/religion_12/index.html">
        Religion
    </a>
</li>
<li>
    <a href="catalogue/category/books/nonfiction_13/index.html">
        Nonfiction
    </a>
</li>
<li>
    <a href="catalogue/category/books/music_14/index.html">
        Music
    </a>
</li>
<li>
    <a href="catalogue/category/books/default_15/index.html">
        Default
    </a>
</li>
<li>
    <a href="catalogue/category/books/science-fiction_16/index.html">
        Science Fiction
    </a>
</li>
<li>
    <a href="catalogue/category/books/sports-and-games_17/index.html">
        Sports and Games
    </a>
</li>
<li>
    <a href="catalogue/category/books/add-a-comment_18/index.html">
        Add a comment
    </a>
</li>
<li>
    <a href="catalogue/category/books/fantasy_19/index.html">
        Fantasy
    </a>
</li>
<li>
    <a href="catalogue/category/books/new-adult_20/index.html">
        New Adult
    </a>
</li>
```

```
<li>
<a href="catalogue/category/books/young-adult_21/index.html">
    Young Adult
</a>
</li>
<li>
<a href="catalogue/category/books/science_22/index.html">
    Science
</a>
</li>
<li>
<a href="catalogue/category/books/poetry_23/index.html">
    Poetry
</a>
</li>
<li>
<a href="catalogue/category/books/paranormal_24/index.html">
    Paranormal
</a>
</li>
<li>
<a href="catalogue/category/books/art_25/index.html">
    Art
</a>
</li>
<li>
<a href="catalogue/category/books/psychology_26/index.html">
    Psychology
</a>
</li>
<li>
<a href="catalogue/category/books/autobiography_27/index.html">
    Autobiography
</a>
</li>
<li>
<a href="catalogue/category/books/parenting_28/index.html">
    Parenting
</a>
</li>
<li>
<a href="catalogue/category/books/adult-fiction_29/index.html">
    Adult Fiction
</a>
</li>
<li>
<a href="catalogue/category/books/humor_30/index.html">
    Humor
</a>
</li>
<li>
<a href="catalogue/category/books/horror_31/index.html">
    Horror
</a>
```

```
</li>
<li>
  <a href="catalogue/category/books/history_32/index.html">
    History
  </a>
</li>
<li>
  <a href="catalogue/category/books/food-and-drink_33/index.html">
    Food and Drink
  </a>
</li>
<li>
  <a href="catalogue/category/books/christian-fiction_34/index.html">
    Christian Fiction
  </a>
</li>
<li>
  <a href="catalogue/category/books/business_35/index.html">
    Business
  </a>
</li>
<li>
  <a href="catalogue/category/books/biography_36/index.html">
    Biography
  </a>
</li>
<li>
  <a href="catalogue/category/books/thriller_37/index.html">
    Thriller
  </a>
</li>
<li>
  <a href="catalogue/category/books/contemporary_38/index.html">
    Contemporary
  </a>
</li>
<li>
  <a href="catalogue/category/books/spirituality_39/index.html">
    Spirituality
  </a>
</li>
<li>
  <a href="catalogue/category/books/academic_40/index.html">
    Academic
  </a>
</li>
<li>
  <a href="catalogue/category/books/self-help_41/index.html">
    Self Help
  </a>
</li>
<li>
  <a href="catalogue/category/books/historical_42/index.html">
    Historical

```

```
</a>
</li>
<li>
  <a href="catalogue/category/books/christian_43/index.html">
    Christian
  </a>
</li>
<li>
  <a href="catalogue/category/books/suspense_44/index.html">
    Suspense
  </a>
</li>
<li>
  <a href="catalogue/category/books/short-stories_45/index.html">
    Short Stories
  </a>
</li>
<li>
  <a href="catalogue/category/books/novels_46/index.html">
    Novels
  </a>
</li>
<li>
  <a href="catalogue/category/books/health_47/index.html">
    Health
  </a>
</li>
<li>
  <a href="catalogue/category/books/politics_48/index.html">
    Politics
  </a>
</li>
<li>
  <a href="catalogue/category/books/cultural_49/index.html">
    Cultural
  </a>
</li>
<li>
  <a href="catalogue/category/books/erotica_50/index.html">
    Erotica
  </a>
</li>
<li>
  <a href="catalogue/category/books/crime_51/index.html">
    Crime
  </a>
</li>
</ul>
</li>
</ul>
</div>
</aside>
<div class="col-sm-8 col-md-9">
  <div class="page-header action">
```

```
<h1>
  All products
</h1>
</div>
<div id="messages">
</div>
<div id="promotions">
</div>
<form class="form-horizontal" method="get">
<div style="display:none">
</div>
<strong>
  1000
</strong>
results - showing
<strong>
  1
</strong>
to
<strong>
  20
</strong>
.
</form>
<section>
<div class="alert alert-warning" role="alert">
<strong>
  Warning!
</strong>
  This is a demo website for web scraping purposes. Prices and ratings here were randomly assigned and have no real meaning.
</div>
<div>
<ol class="row">
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
<article class="product_pod">
<div class="image_container">
<a href="catalogue/a-light-in-the-attic_1000/index.html">

</a>
</div>
<p class="star-rating Three">
<i class="icon-star">
</i>
</p>
```

```
<h3>
    <a href="catalogue/a-light-in-the-attic_1000/index.html" title="A Light in the Attic">
        A Light in the ...
    </a>
</h3>
<div class="product_price">
    <p class="price_color">
        £51.77
    </p>
    <p class="instock availability">
        <i class="icon-ok">
        </i>
        In stock
    </p>
    <form>
        <button class="btn btn-primary btn-block" data-loading-text="Adding..." type="submit">
            Add to basket
        </button>
    </form>
</div>
</article>
</li>
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
    <article class="product_pod">
        <div class="image_container">
            <a href="catalogue/tipping-the-velvet_999/index.html">
                
            </a>
        </div>
        <p class="star-rating One">
            <i class="icon-star">
            </i>
            <i class="icon-star">
            </i>
        </p>
        <h3>
            <a href="catalogue/tipping-the-velvet_999/index.html" title="Tipping the Velvet">
                Tipping the Velvet
            </a>
        </h3>
        <div class="product_price">
            <p class="price_color">
                £53.74
            </p>

```

```
<p class="instock availability">
  <i class="icon-ok">
  </i>
  In stock
</p>
<form>
  <button class="btn btn-primary btn-block" data-loading-text="Addin
g..." type="submit">
    Add to basket
  </button>
</form>
</div>
</article>
</li>
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
  <article class="product_pod">
    <div class="image_container">
      <a href="catalogue/soumission_998/index.html">
        
      </a>
    </div>
    <p class="star-rating One">
      <i class="icon-star">
      </i>
      <i class="icon-star">
      </i>
      <i class="icon-star">
      </i>
      <i class="icon-star">
      </i>
      <i class="icon-star">
      </i>
    </p>
    <h3>
      <a href="catalogue/soumission_998/index.html" title="Soumission">
        Soumission
      </a>
    </h3>
    <div class="product_price">
      <p class="price_color">
        £50.10
      </p>
      <p class="instock availability">
        <i class="icon-ok">
        </i>
        In stock
      </p>
      <form>
        <button class="btn btn-primary btn-block" data-loading-text="Addin
g..." type="submit">
          Add to basket
        </button>
      </form>
    </div>
  </article>
</li>
```

```
        </div>
    </article>
</li>
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
    <article class="product_pod">
        <div class="image_container">
            <a href="catalogue/sharp-objects_997/index.html">
                
            </a>
        </div>
        <p class="star-rating Four">
            <i class="icon-star">
            </i>
            <i class="icon-star">
            </i>
        </p>
        <h3>
            <a href="catalogue/sharp-objects_997/index.html" title="Sharp Objec
ts">
                Sharp Objects
            </a>
        </h3>
        <div class="product_price">
            <p class="price_color">
                £47.82
            </p>
            <p class="instock availability">
                <i class="icon-ok">
                </i>
                In stock
            </p>
            <form>
                <button class="btn btn-primary btn-block" data-loading-text="Addin
g..." type="submit">
                    Add to basket
                </button>
            </form>
        </div>
    </article>
</li>
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
    <article class="product_pod">
        <div class="image_container">
            <a href="catalogue/sapiens-a-brief-history-of-humankind_996/index.h
tml">
                
            </a>
        </div>
    </article>
</li>
```

```
</a>
</div>
<p class="star-rating Five">
<i class="icon-star">
</i>
</p>
<h3>
<a href="catalogue/sapiens-a-brief-history-of-humankind_996/index.html" title="Sapiens: A Brief History of Humankind">
    Sapiens: A Brief History ...
</a>
</h3>
<div class="product_price">
<p class="price_color">
    £54.23
</p>
<p class="instock availability">
<i class="icon-ok">
</i>
    In stock
</p>
<form>
    <button class="btn btn-primary btn-block" data-loading-text="Adding..." type="submit">
        Add to basket
    </button>
</form>
</div>
</article>
</li>
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
<article class="product_pod">
<div class="image_container">
<a href="catalogue/the-requiem-red_995/index.html">
    
</a>
</div>
<p class="star-rating One">
<i class="icon-star">
</i>
<i class="icon-star">
</i>
<i class="icon-star">
</i>
<i class="icon-star">
</i>
</p>
```

```
</i>
<i class="icon-star">
</i>
</p>
<h3>
    <a href="catalogue/the-requiem-red_995/index.html" title="The Requiem Red">
        The Requiem Red
    </a>
</h3>
<div class="product_price">
    <p class="price_color">
        £22.65
    </p>
    <p class="instock availability">
        <i class="icon-ok">
        </i>
        In stock
    </p>
    <form>
        <button class="btn btn-primary btn-block" data-loading-text="Adding..." type="submit">
            Add to basket
        </button>
    </form>
</div>
</article>
</li>
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
    <article class="product_pod">
        <div class="image_container">
            <a href="catalogue/the-dirty-little-secrets-of-getting-your-dream-job_994/index.html">
                
            </a>
        </div>
        <p class="star-rating Four">
            <i class="icon-star">
            </i>
            <i class="icon-star">
            </i>
            <i class="icon-star">
            </i>
            <i class="icon-star">
            </i>
            <i class="icon-star">
            </i>
        </p>
        <h3>
            <a href="catalogue/the-dirty-little-secrets-of-getting-your-dream-job_994/index.html" title="The Dirty Little Secrets of Getting Your Dream Job">
                The Dirty Little Secrets ...
            </a>
```

```
</h3>
<div class="product_price">
    <p class="price_color">
        £33.34
    </p>
    <p class="instock availability">
        <i class="icon-ok">
        </i>
        In stock
    </p>
    <form>
        <button class="btn btn-primary btn-block" data-loading-text="Addin
g..." type="submit">
            Add to basket
        </button>
    </form>
</div>
</article>
</li>
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
    <article class="product_pod">
        <div class="image_container">
            <a href="catalogue/the-coming-woman-a-novel-based-on-the-life-of-th
e-infamous-feminist-victoria-woodhull_993/index.html">
                
            </a>
        </div>
        <p class="star-rating Three">
            <i class="icon-star">
            </i>
            <i class="icon-star">
            </i>
        </p>
        <h3>
            <a href="catalogue/the-coming-woman-a-novel-based-on-the-life-of-th
e-infamous-feminist-victoria-woodhull_993/index.html" title="The Coming Woman:
A Novel Based on the Life of the Infamous Feminist, Victoria Woodhull">
                The Coming Woman: A ...
            </a>
        </h3>
        <div class="product_price">
            <p class="price_color">
                £17.93
            </p>
            <p class="instock availability">
                <i class="icon-ok">

```

```
</i>
In stock
</p>
<form>
    <button class="btn btn-primary btn-block" data-loading-text="Addin
g..." type="submit">
        Add to basket
    </button>
</form>
</div>
</article>
</li>
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
    <article class="product_pod">
        <div class="image_container">
            <a href="catalogue/the-boys-in-the-boat-nine-americans-and-their-ep
ic-quest-for-gold-at-the-1936-berlin-olympics_992/index.html">
                
            </a>
        </div>
        <p class="star-rating Four">
            <i class="icon-star">
            </i>
            <i class="icon-star">
            </i>
        </p>
        <h3>
            <a href="catalogue/the-boys-in-the-boat-nine-americans-and-their-ep
ic-quest-for-gold-at-the-1936-berlin-olympics_992/index.html" title="The Boys i
n the Boat: Nine Americans and Their Epic Quest for Gold at the 1936 Berlin Oly
mpics">
                The Boys in the ...
            </a>
        </h3>
        <div class="product_price">
            <p class="price_color">
                £22.60
            </p>
            <p class="instock availability">
                <i class="icon-ok">
                </i>
                In stock
            </p>
            <form>
                <button class="btn btn-primary btn-block" data-loading-text="Addin
g..." type="submit">
```

```
        Add to basket
    </button>
</form>
</div>
</article>
</li>
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
    <article class="product_pod">
        <div class="image_container">
            <a href="catalogue/the-black-maria_991/index.html">
                
            </a>
        </div>
        <p class="star-rating One">
            <i class="icon-star">
            </i>
            <i class="icon-star">
            </i>
        </p>
        <h3>
            <a href="catalogue/the-black-maria_991/index.html" title="The Black
Maria">
                The Black Maria
            </a>
        </h3>
        <div class="product_price">
            <p class="price_color">
                £52.15
            </p>
            <p class="instock availability">
                <i class="icon-ok">
                </i>
                In stock
            </p>
        <form>
            <button class="btn btn-primary btn-block" data-loading-text="Addin
g..." type="submit">
                Add to basket
            </button>
        </form>
    </div>
</article>
</li>
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
    <article class="product_pod">
        <div class="image_container">
            <a href="catalogue/starving-hearts-triangular-trade-trilogy-1_990/i
```

```
ndex.html">
    
    </a>
</div>
<p class="star-rating Two">
    <i class="icon-star">
    </i>
    <i class="icon-star">
    </i>
</p>
<h3>
    <a href="catalogue/starving-hearts-triangular-trade-trilogy-1_990/i
ndex.html" title="Starving Hearts (Triangular Trade Trilogy, #1)">
        Starving Hearts (Triangular Trade ...
    </a>
</h3>
<div class="product_price">
    <p class="price_color">
        £13.99
    </p>
    <p class="instock availability">
        <i class="icon-ok">
        </i>
        In stock
    </p>
    <form>
        <button class="btn btn-primary btn-block" data-loading-text="Addin
g..." type="submit">
            Add to basket
        </button>
    </form>
</div>
</article>
</li>
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
    <article class="product_pod">
        <div class="image_container">
            <a href="catalogue/shakespeares-sonnets_989/index.html">
                
            </a>
        </div>
        <p class="star-rating Four">
            <i class="icon-star">
            </i>
            <i class="icon-star">
            </i>

```

```
<i class="icon-star">
</i>
<i class="icon-star">
</i>
<i class="icon-star">
</i>
</p>
<h3>
    <a href="catalogue/shakespeares-sonnets_989/index.html" title="Shak
espeare's Sonnets">
        Shakespeare's Sonnets
    </a>
</h3>
<div class="product_price">
    <p class="price_color">
        £20.66
    </p>
    <p class="instock availability">
        <i class="icon-ok">
        </i>
        In stock
    </p>
    <form>
        <button class="btn btn-primary btn-block" data-loading-text="Addin
g..." type="submit">
            Add to basket
        </button>
    </form>
</div>
</article>
</li>
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
    <article class="product_pod">
        <div class="image_container">
            <a href="catalogue/set-me-free_988/index.html">
                
            </a>
        </div>
        <p class="star-rating Five">
            <i class="icon-star">
            </i>
            <i class="icon-star">
            </i>
            <i class="icon-star">
            </i>
            <i class="icon-star">
            </i>
            <i class="icon-star">
            </i>
        </p>
        <h3>
            <a href="catalogue/set-me-free_988/index.html" title="Set Me Free">
                Set Me Free
            </a>
        </h3>
    </article>
</li>
```

```
</a>
</h3>
<div class="product_price">
  <p class="price_color">
    £17.46
  </p>
  <p class="instock availability">
    <i class="icon-ok">
    </i>
    In stock
  </p>
  <form>
    <button class="btn btn-primary btn-block" data-loading-text="Addin
g..." type="submit">
      Add to basket
    </button>
  </form>
</div>
</article>
</li>
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
  <article class="product_pod">
    <div class="image_container">
      <a href="catalogue/scott-pilgrims-precious-little-life-scott-pilgri
m-1_987/index.html">
        <img alt="Scott Pilgrim's Precious Little Life (Scott Pilgrim #1)">
        
      </a>
    </div>
    <p class="star-rating Five">
      <i class="icon-star">
      </i>
      <i class="icon-star">
      </i>
      <i class="icon-star">
      </i>
      <i class="icon-star">
      </i>
      <i class="icon-star">
      </i>
    </p>
    <h3>
      <a href="catalogue/scott-pilgrims-precious-little-life-scott-pilgri
m-1_987/index.html" title="Scott Pilgrim's Precious Little Life (Scott Pilgrim
#1)">
        Scott Pilgrim's Precious Little ...
      </a>
    </h3>
    <div class="product_price">
      <p class="price_color">
        £52.29
      </p>
      <p class="instock availability">
```

```
<i class="icon-ok">
</i>
In stock
</p>
<form>
<button class="btn btn-primary btn-block" data-loading-text="Addin
g..." type="submit">
    Add to basket
</button>
</form>
</div>
</article>
</li>
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
<article class="product_pod">
<div class="image_container">
<a href="catalogue/rip-it-up-and-start-again_986/index.html">
    
</a>
</div>
<p class="star-rating Five">
    <i class="icon-star">
    </i>
    </p>
<h3>
    <a href="catalogue/rip-it-up-and-start-again_986/index.html" titl
e="Rip it Up and Start Again">
        Rip it Up and ...
    </a>
</h3>
<div class="product_price">
<p class="price_color">
    £35.02
</p>
<p class="instock availability">
    <i class="icon-ok">
    </i>
    In stock
</p>
<form>
<button class="btn btn-primary btn-block" data-loading-text="Addin
g..." type="submit">
    Add to basket
</button>
</form>
```

```
        </div>
    </article>
</li>
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
    <article class="product_pod">
        <div class="image_container">
            <a href="catalogue/our-band-could-be-your-life-scenes-from-the-american-indie-underground-1981-1991_985/index.html">
                
            </a>
        </div>
        <p class="star-rating Three">
            <i class="icon-star">
            </i>
            <i class="icon-star">
            </i>
        </p>
        <h3>
            <a href="catalogue/our-band-could-be-your-life-scenes-from-the-american-indie-underground-1981-1991_985/index.html" title="Our Band Could Be Your Life: Scenes from the American Indie Underground, 1981-1991">
                Our Band Could Be ...
            </a>
        </h3>
        <div class="product_price">
            <p class="price_color">
                £57.25
            </p>
            <p class="instock availability">
                <i class="icon-ok">
                </i>
                In stock
            </p>
            <form>
                <button class="btn btn-primary btn-block" data-loading-text="Adding..." type="submit">
                    Add to basket
                </button>
            </form>
        </div>
    </article>
</li>
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
    <article class="product_pod">
        <div class="image_container">
            <a href="catalogue/olio_984/index.html">
```

```
  
</a>  
</div>  
<p class="star-rating One">  
    <i class="icon-star">  
    </i>  
    <i class="icon-star">  
    </i>  
</p>  
<h3>  
    <a href="catalogue/olio_984/index.html" title="Olio">  
        Olio  
    </a>  
</h3>  
<div class="product_price">  
    <p class="price_color">  
        £23.88  
    </p>  
    <p class="instock availability">  
        <i class="icon-ok">  
        </i>  
        In stock  
    </p>  
    <form>  
        <button class="btn btn-primary btn-block" data-loading-text="Addin  
g..." type="submit">  
            Add to basket  
        </button>  
    </form>  
</div>  
</article>  
</li>  
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">  
    <article class="product_pod">  
        <div class="image_container">  
            <a href="catalogue/mesaerion-the-best-science-fiction-stories-180  
0-1849_983/index.html">  
                  
            </a>  
        </div>  
        <p class="star-rating One">  
            <i class="icon-star">  
            </i>  
            <i class="icon-star">  
            </i>  
            <i class="icon-star">  
            </i>
```

```
</i>
<i class="icon-star">
</i>
<i class="icon-star">
</i>
</p>
<h3>
<a href="catalogue/mesaerion-the-best-science-fiction-stories-180
0-1849_983/index.html" title="Mesaerion: The Best Science Fiction Stories 180
0-1849">
    Mesaerion: The Best Science ...
</a>
</h3>
<div class="product_price">
<p class="price_color">
    £37.59
</p>
<p class="instock availability">
    <i class="icon-ok">
    </i>
    In stock
</p>
<form>
    <button class="btn btn-primary btn-block" data-loading-text="Addin
g..." type="submit">
        Add to basket
    </button>
</form>
</div>
</article>
</li>
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
<article class="product_pod">
<div class="image_container">
<a href="catalogue/libertarianism-for-beginners_982/index.html">
    
</a>
</div>
<p class="star-rating Two">
    <i class="icon-star">
    </i>
    </p>
<h3>
    <a href="catalogue/libertarianism-for-beginners_982/index.html" tit
le="Libertarianism for Beginners">
```

```
    Libertarianism for Beginners
    </a>
</h3>
<div class="product_price">
    <p class="price_color">
        £51.33
    </p>
    <p class="instock availability">
        <i class="icon-ok">
        </i>
        In stock
    </p>
    <form>
        <button class="btn btn-primary btn-block" data-loading-text="Addin
g..." type="submit">
            Add to basket
        </button>
    </form>
</div>
</article>
</li>
<li class="col-xs-6 col-sm-4 col-md-3 col-lg-3">
    <article class="product_pod">
        <div class="image_container">
            <a href="catalogue/its-only-the-himalayas_981/index.html">
                
            </a>
        </div>
        <p class="star-rating Two">
            <i class="icon-star">
            </i>
            <i class="icon-star">
            </i>
        </p>
        <h3>
            <a href="catalogue/its-only-the-himalayas_981/index.html" title="I
t's Only the Himalayas">
                It's Only the Himalayas
            </a>
        </h3>
        <div class="product_price">
            <p class="price_color">
                £45.17
            </p>
            <p class="instock availability">
                <i class="icon-ok">
                </i>
            </p>
        </div>
    </article>
</li>
```

```
        In stock
    </p>
    <form>
        <button class="btn btn-primary btn-block" data-loading-text="Addin
g..." type="submit">
            Add to basket
        </button>
    </form>
</div>
</article>
</li>
</ol>
<div>
    <ul class="pager">
        <li class="current">
            Page 1 of 50
        </li>
        <li class="next">
            <a href="catalogue/page-2.html">
                next
            </a>
        </li>
    </ul>
</div>
</div>
</section>
</div>
</div>
<!-- /row -->
</div>
<!-- /page_inner -->
</div>
<!-- /container-fluid -->
<footer class="footer container-fluid">
</footer>
<!-- jQuery -->
<script src="http://ajax.googleapis.com/ajax/libs/jquery/1.9.1/jquery.min.j
s">
</script>
<script>
    window.jQuery || document.write('<script src="static/oscar/js/jquery/jquer
y-1.9.1.min.js"></script>')
</script>
<!-- Twitter Bootstrap -->
<script src="static/oscar/js/bootstrap3/bootstrap.min.js" type="text/javascri
pt">
</script>
<!-- Oscar -->
<script charset="utf-8" src="static/oscar/js/oscar/ui.js" type="text/javascri
pt">
</script>
<script charset="utf-8" src="static/oscar/js/bootstrap-datetimepicker/bootstr
ap-datetimepicker.js" type="text/javascript">
</script>
```

```
<script charset="utf-8" src="static/oscar/js/bootstrap-datetimepicker/locale  
s/bootstrap-datetimepicker.all.js" type="text/javascript">  
</script>  
<script type="text/javascript">  
$(function() {  
  
    oscar.init();  
  
    oscar.search.init();  
  
});  
</script>  
<!-- Version: N/A -->  
</body>  
</html>
```

Find The Title

```
In [13]: soup.title
```

```
Out[13]: <title>  
          All products | Books to Scrape - Sandbox  
</title>
```

Find Title Tag

```
In [39]: print(soup.title.text)
```

```
All products | Books to Scrape - Sandbox
```

Find Heading (h1)

```
In [40]: print(soup.find("h1").text)
```

```
All products
```

Find Paragraph (p)

```
In [41]: para = soup.find("p")  
print(para.text)
```

FIND ELEMENT BY CLASS

Find Paragraph by Class

```
In [42]: price = soup.find("p", class_="price_color")  
print(price.text)
```

£51.77

Find All Paragraphs by Class

```
In [43]: prices = soup.find_all("p", class_="price_color")  
  
for p in prices:  
    print(p.text)
```

£51.77

£53.74

£50.10

£47.82

£54.23

£22.65

£33.34

£17.93

£22.60

£52.15

£13.99

£20.66

£17.46

£52.29

£35.02

£57.25

£23.88

£37.59

£51.33

£45.17

Find Element with Multiple Classes

```
In [44]: availability = soup.find("p", class_="instock availability")
print(availability.text.strip())
```

In stock

FIND ELEMENT INSIDE ANOTHER ELEMENT

Find Book Title Inside Book Container

```
In [45]: books = soup.find_all("article", class_="product_pod")

for book in books:
    title = book.h3.a["title"]
    print(title)
```

A Light in the Attic
Tipping the Velvet
Soumission
Sharp Objects
Sapiens: A Brief History of Humankind
The Requiem Red
The Dirty Little Secrets of Getting Your Dream Job
The Coming Woman: A Novel Based on the Life of the Infamous Feminist, Victoria Woodhull
The Boys in the Boat: Nine Americans and Their Epic Quest for Gold at the 1936 Berlin Olympics
The Black Maria
Starving Hearts (Triangular Trade Trilogy, #1)
Shakespeare's Sonnets
Set Me Free
Scott Pilgrim's Precious Little Life (Scott Pilgrim #1)
Rip it Up and Start Again
Our Band Could Be Your Life: Scenes from the American Indie Underground, 1981-1991
Olio
Mesaerion: The Best Science Fiction Stories 1800-1849
Libertarianism for Beginners
It's Only the Himalayas

FIND ELEMENT BY ATTRIBUTE

Find Link (a tag)

```
In [46]: link = soup.find("a")["href"]  
print(link)
```

index.html

Find Image Source

```
In [47]: img = soup.find("img")["src"]  
print(img)
```

media/cache/2c/da/2cdad67c44b002e7ead0cc35693c0e8b.jpg

In []:

In []:

In []:

In []:

```
In [14]: soup.title.name
```

Out[14]: 'title'

Find All Book Containers

```
In [32]: books = soup.find_all("article", class_="product_pod")  
print("Total books on page:", len(books))
```

Total books on page: 20

Extract Book Details (Title, Price, Rating, Availability)

```
In [33]: data = []  
  
for book in books:  
    title = book.h3.a["title"]  
    price = book.find("p", class_="price_color").text
```

```
rating = book.p["class"][1]
availability = book.find("p", class_="instock availability").text.strip()

data.append({
    "Title": title,
    "Price": price,
    "Rating": rating,
    "Availability": availability
})
```

In [34]: data

```
Out[34]: [ {'Title': 'A Light in the Attic',
    'Price': '£51.77',
    'Rating': 'Three',
    'Availability': 'In stock'},
{'Title': 'Tipping the Velvet',
    'Price': '£53.74',
    'Rating': 'One',
    'Availability': 'In stock'},
{'Title': 'Submission',
    'Price': '£50.10',
    'Rating': 'One',
    'Availability': 'In stock'},
{'Title': 'Sharp Objects',
    'Price': '£47.82',
    'Rating': 'Four',
    'Availability': 'In stock'},
{'Title': 'Sapiens: A Brief History of Humankind',
    'Price': '£54.23',
    'Rating': 'Five',
    'Availability': 'In stock'},
{'Title': 'The Requiem Red',
    'Price': '£22.65',
    'Rating': 'One',
    'Availability': 'In stock'},
{'Title': 'The Dirty Little Secrets of Getting Your Dream Job',
    'Price': '£33.34',
    'Rating': 'Four',
    'Availability': 'In stock'},
{'Title': 'The Coming Woman: A Novel Based on the Life of the Infamous Feminist, Victoria Woodhull',
    'Price': '£17.93',
    'Rating': 'Three',
    'Availability': 'In stock'},
{'Title': "The Boys in the Boat: Nine Americans and Their Epic Quest for Gold at the 1936 Berlin Olympics",
    'Price': '£22.60',
    'Rating': 'Four',
    'Availability': 'In stock'},
{'Title': 'The Black Maria',
    'Price': '£52.15',
    'Rating': 'One',
    'Availability': 'In stock'},
{'Title': 'Starving Hearts (Triangular Trade Trilogy, #1)',
    'Price': '£13.99',
    'Rating': 'Two',
    'Availability': 'In stock'},
{'Title': "Shakespeare's Sonnets",
    'Price': '£20.66',
    'Rating': 'Four',
    'Availability': 'In stock'},
{'Title': 'Set Me Free',
    'Price': '£17.46',
    'Rating': 'Five',
    'Availability': 'In stock'}]
```

```
{'Title': "Scott Pilgrim's Precious Little Life (Scott Pilgrim #1)",  
 'Price': '£52.29',  
 'Rating': 'Five',  
 'Availability': 'In stock'},  
{'Title': 'Rip it Up and Start Again',  
 'Price': '£35.02',  
 'Rating': 'Five',  
 'Availability': 'In stock'},  
{'Title': 'Our Band Could Be Your Life: Scenes from the American Indie Underground, 1981-1991',  
 'Price': '£57.25',  
 'Rating': 'Three',  
 'Availability': 'In stock'},  
{'Title': 'Olio',  
 'Price': '£23.88',  
 'Rating': 'One',  
 'Availability': 'In stock'},  
{'Title': 'Mesaerion: The Best Science Fiction Stories 1800-1849',  
 'Price': '£37.59',  
 'Rating': 'One',  
 'Availability': 'In stock'},  
{'Title': 'Libertarianism for Beginners',  
 'Price': '£51.33',  
 'Rating': 'Two',  
 'Availability': 'In stock'},  
{'Title': "It's Only the Himalayas",  
 'Price': '£45.17',  
 'Rating': 'Two',  
 'Availability': 'In stock'}]
```

```
In [37]: df = pd.DataFrame(data)  
df.head()
```

Out[37]:

| | Title | Price | Rating | Availability |
|---|---------------------------------------|--------|--------|--------------|
| 0 | A Light in the Attic | £51.77 | Three | In stock |
| 1 | Tipping the Velvet | £53.74 | One | In stock |
| 2 | Soumission | £50.10 | One | In stock |
| 3 | Sharp Objects | £47.82 | Four | In stock |
| 4 | Sapiens: A Brief History of Humankind | £54.23 | Five | In stock |

```
In [36]: import pandas as pd
```

```
In [38]: df.to_csv("books_page1_data.csv", index=False)  
print("CSV file saved successfully")
```

CSV file saved successfully

```
In [ ]:
```