```python
In [1]:   # Standard imports
          import pandas as pd

          # For web scraping
          import requests
          import urllib.request
          from bs4 import BeautifulSoup

          # For performing regex operations
          import re

          # Data visualization
          import seaborn as sns
          import matplotlib.pyplot as plt
```

```python
In [2]:   # Save the URL of the webpage we want to scrape to a variable
          url = 'https://docs.python.org/3/library/random.html#module-random'
```

```python
In [3]:   # Send a get request and assign the response to variable
          response= requests.get(url)
```

```python
In [4]:   response
```

```
Out[4]:   <Response [200]>
```

```python
In [5]:   response.content
```

Out[5]: b'\n<!DOCTYPE html>\n\n<html>\n <head>\n   <meta charset="utf-8" />\n   <meta name
="viewport" content="width=device-width, initial-scale=1.0" /><meta name="generator"
content="Docutils 0.17.1: http://docutils.sourceforge.net/" />\n<meta property="og:ti
tle" content="random \xe2\x80\x94 Generate pseudo-random numbers" />\n<meta property
="og:type" content="website" />\n<meta property="og:url" content="https://docs.pytho
n.org/3/library/random.html" />\n<meta property="og:site_name" content="Python docume
ntation" />\n<meta property="og:description" content="Source code: Lib/random.py This
module implements pseudo-random number generators for various distributions. For inte
gers, there is uniform selection from a range. For sequences, there is uniform s..."
/>\n<meta property="og:image" content="https://docs.python.org/3/_static/og-image.pn
g" />\n<meta property="og:image:alt" content="Python documentation" />\n<meta name="d
escription" content="Source code: Lib/random.py This module implements pseudo-random
number generators for various distributions. For integers, there is uniform selection
from a range. For sequences, there is uniform s..." />\n<meta property="og:image:widt
h" content="200" />\n<meta property="og:image:height" content="200" />\n<meta name="t
heme-color" content="#3776ab" />\n\n   <title>random \xe2\x80\x94 Generate pseudo-ra
ndom numbers — Python 3.12.0 documentation</title><meta name="viewport" content
="width=device-width, initial-scale=1.0">\n   \n   <link rel="stylesheet" type="tex
t/css" href="../_static/pygments.css" />\n   <link rel="stylesheet" type="text/css"
href="../_static/pydoctheme.css?digest=b37c26da2f7529d09fe70b41c4b2133fe4931a90" />\n
<link id="pygments_dark_css" media="(prefers-color-scheme: dark)" rel="stylesheet" ty
pe="text/css" href="../_static/pygments_dark.css" />\n   \n   <script data-url_root
="../" id="documentation_options" src="../_static/documentation_options.js"></script>
\n   <script src="../_static/jquery.js"></script>\n   <script src="../_static/under
score.js"></script>\n   <script src="../_static/doctools.js"></script>\n   \n   <s
cript src="../_static/sidebar.js"></script>\n   \n   <link rel="search" type="appli
cation/opensearchdescription+xml"\n   title="Search within Python 3.12.0 docum
entation"\n   href="../_static/opensearch.xml"/>\n   <link rel="author" title
="About these documents" href="../about.html" />\n   <link rel="index" title="Index"
href="../genindex.html" />\n   <link rel="search" title="Search" href="../search.htm
l" />\n   <link rel="copyright" title="Copyright" href="../copyright.html" />\n   <
link rel="next" title="statistics \xe2\x80\x94 Mathematical statistics functions" hre
f="statistics.html" />\n   <link rel="prev" title="fractions \xe2\x80\x94 Rational n
umbers" href="fractions.html" />\n   <link rel="canonical" href="https://docs.pytho
n.org/3/library/random.html" />\n   \n   \n   \n\n   \n   <style>\n   @medi
a only screen {\n   table.full-width-table {\n   width: 100%;\n
}\n   }\n   </style>\n<link rel="stylesheet" href="../_static/pydoctheme_dark.cs
s" media="(prefers-color-scheme: dark)" id="pydoctheme_dark_css">\n   <link rel="sho
rtcut icon" type="image/png" href="../_static/py.svg" />\n   <script type="t
ext/javascript" src="../_static/copybutton.js"></script>\n   <script type="t
ext/javascript" src="../_static/menu.js"></script>\n   <script type="text/ja
vascript" src="../_static/search-focus.js"></script>\n   <script type="text/
javascript" src="../_static/themetoggle.js"></script> \n\n </head>\n<body>\n<div cla
ss="mobile-nav">\n   <input type="checkbox" id="menuToggler" class="toggler__input"
aria-controls="navigation"\n   aria-pressed="false" aria-expanded="false" rol
e="button" aria-label="Menu" />\n   <nav class="nav-content" role="navigation">\n
<label for="menuToggler" class="toggler__label">\n   \n
</label>\n   \n   <a href="https://www.
python.org/" class="nav-logo">\n   <img src="../_static/py.svg" alt="Log
o"/>\n   \n   \n   <form role="search" class="search" action="../search.html" method="ge
t">\n   <svg xmlns="http://www.w3.org/2000/svg" width="20" height="20" v
iewBox="0 0 24 24" class="search-icon">\n   <path fill-rule="nonzer
o" fill="currentColor" d="M15.5 14h-.79l-.28-.27a6.5 6.5 0 001.48-5.34c-.47-2.78-2.79
-5-5.59-5.34a6.505 6.505 0 00-7.27 7.27c.34 2.8 2.56 5.12 5.34 5.59a6.5 6.5 0 005.34-
1.48l.27.28v.79l4.25 4.25c.41.41 1.08.41 1.49 0 .41-.41.41-1.08 0-1.49L15.5 14zm-6 0C
7.01 14 5 11.99 5 9.5S7.01 5 9.5 5 14 7.01 14 9.5 11.99 14 9.5 14z"></path>\n
</svg>\n   <input placeholder="Quick search" aria-label="Quick search" t
ype="search" name="q" />\n   <input type="submit" value="Go"/>\n
</form>\n   \n   </nav>\n   <div class="menu-wrapper">\n   <nav cl

```
rs</a><ul>
<li><a class="reference internal" href="#bookkeeping-functions">Bookkeeping functions
</a></li>
<li><a class="reference internal" href="#functions-for-bytes">Functions for bytes</a>
</li>
<li><a class="reference internal" href="#functions-for-integers">Functions for intege
rs</a></li>
<li><a class="reference internal" href="#functions-for-sequences">Functions for seque
nces</a></li>
<li><a class="reference internal" href="#discrete-distributions">Discrete distributio
ns</a></li>
<li><a class="reference internal" href="#real-valued-distributions">Real-valued distr
ibutions</a></li>
<li><a class="reference internal" href="#alternative-generator">Alternative Generator
</a></li>
<li><a class="reference internal" href="#notes-on-reproducibility">Notes on Reproduci
bility</a></li>
<li><a class="reference internal" href="#examples">Examples</a></li>
<li><a class="reference internal" href="#recipes">Recipes</a></li>
</ul>
</li>
</ul>
</div>
<div>
<h4>Previous topic</h4>
<p class="topless"><a href="fractions.html" title="previous chapter"><code class="xre
f py py-mod docutils literal notranslate"><span class="pre">fractions</span></code> —
Rational numbers</a></p>
</div>
<div>
<h4>Next topic</h4>
<p class="topless"><a href="statistics.html" title="next chapter"><code class="xref p
y py-mod docutils literal notranslate"><span class="pre">statistics</span></code> — M
athematical statistics functions</a></p>
</div>
<div aria-label="source link" role="note">
<h3>This Page</h3>
<ul class="this-page-menu">
<li><a href="../bugs.html">Report a Bug</a></li>
<li>
<a href="https://github.com/python/cpython/blob/main/Doc/library/random.rst" rel="nof
ollow">Show Source
        </a>
</li>
</ul>
</div>
</div>
</div>
<div class="clearer"></div>
</div>
<div aria-label="related navigation" class="related" role="navigation">
<h3>Navigation</h3>
<ul>
<li class="right" style="margin-right: 10px">
<a href="../genindex.html" title="General Index">index</a></li>
<li class="right">
<a href="../py-modindex.html" title="Python Module Index">modules</a> |</li>
<li class="right">
<a href="statistics.html" title="statistics — Mathematical statistics functions">next
</a> |</li>
```

```html
<li class="right">
<a href="fractions.html" title="fractions — Rational numbers">previous</a> |</li>
<li><img alt="python logo" src="../_static/py.svg" style="vertical-align: middle; mar
gin-top: -1px"/></li>
<li><a href="https://www.python.org/">Python</a> »</li>
<li class="switchers">
<div class="language_switcher_placeholder"></div>
<div class="version_switcher_placeholder"></div>
</li>
<li>
</li>
<li id="cpython-language-and-version">
<a href="../index.html">3.12.0 Documentation</a> »
    </li>
<li class="nav-item nav-item-1"><a href="index.html">The Python Standard Library</a>
»</li>
<li class="nav-item nav-item-2"><a href="numeric.html">Numeric and Mathematical Modul
es</a> »</li>
<li class="nav-item nav-item-this"><a href=""><code class="xref py py-mod docutils li
teral notranslate"><span class="pre">random</span></code> — Generate pseudo-random nu
mbers</a></li>
<li class="right">
<div class="inline-search" role="search">
<form action="../search.html" class="inline-search" method="get">
<input aria-label="Quick search" id="search-box" name="q" placeholder="Quick search"
type="search"/>
<input type="submit" value="Go"/>
</form>
</div>
                 |
            </li>
<li class="right">
<label class="theme-selector-label">
    Theme
    <select class="theme-selector" oninput="activateTheme(this.value)">
<option selected="" value="auto">Auto</option>
<option value="light">Light</option>
<option value="dark">Dark</option>
</select>
</label> |</li>
</ul>
</div>
<div class="footer">
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<br/>
<br/>

    Last updated on Oct 12, 2023.
```

```html
    <a href="/bugs.html">Found a bug</a>?
    <br/>

    Created using <a href="https://www.sphinx-doc.org/">Sphinx</a> 4.5.0.
    </div>
<script src="../_static/switchers.js" type="text/javascript"></script>
</body>
</html>
```

In [10]:
```python
# Find all function names - we specify the name of the element in this case is 'dt'

names = soup.body.findAll('dt')

print(names)
```

```
[<dt class="sig sig-object py" id="random.seed">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">seed</span></span><span class="sig-pare
n">(</span><em class="sig-param"><span class="n"><span class="pre">a</span></span><sp
an class="o"><span class="pre">=</span></span><span class="default_value"><span class
="pre">None</span></span></em>, <em class="sig-param"><span class="n"><span class="pr
e">version</span></span><span class="o"><span class="pre">=</span></span><span class
="default_value"><span class="pre">2</span></span></em><span class="sig-paren">)</spa
n><a class="headerlink" href="#random.seed" title="Permalink to this definition">¶</a
></dt>, <dt class="sig sig-object py" id="random.getstate">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">getstate</span></span><span class="sig-pa
ren">(</span><span class="sig-paren">)</span><a class="headerlink" href="#random.gets
tate" title="Permalink to this definition">¶</a></dt>, <dt class="sig sig-object py"
id="random.setstate">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">setstate</span></span><span class="sig-pa
ren">(</span><em class="sig-param"><span class="n"><span class="pre">state</span></sp
an></em><span class="sig-paren">)</span><a class="headerlink" href="#random.setstate"
title="Permalink to this definition">¶</a></dt>, <dt class="sig sig-object py" id="ra
ndom.randbytes">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">randbytes</span></span><span class="sig-p
aren">(</span><em class="sig-param"><span class="n"><span class="pre">n</span></span>
</em><span class="sig-paren">)</span><a class="headerlink" href="#random.randbytes" t
itle="Permalink to this definition">¶</a></dt>, <dt class="sig sig-object py" id="ran
dom.randrange">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">randrange</span></span><span class="sig-p
aren">(</span><em class="sig-param"><span class="n"><span class="pre">stop</span></sp
an></em><span class="sig-paren">)</span><a class="headerlink" href="#random.randrang
e" title="Permalink to this definition">¶</a></dt>, <dt class="sig sig-object py">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">randrange</span></span><span class="sig-p
aren">(</span><em class="sig-param"><span class="n"><span class="pre">start</span></s
pan></em>, <em class="sig-param"><span class="n"><span class="pre">stop</span></span>
</em><span class="optional">[</span>, <em class="sig-param"><span class="n"><span cla
ss="pre">step</span></span></em><span class="optional">]</span><span class="sig-pare
n">)</span></dt>, <dt class="sig sig-object py" id="random.randint">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">randint</span></span><span class="sig-par
en">(</span><em class="sig-param"><span class="n"><span class="pre">a</span></span></
em>, <em class="sig-param"><span class="n"><span class="pre">b</span></span></em><spa
n class="sig-paren">)</span><a class="headerlink" href="#random.randint" title="Perma
link to this definition">¶</a></dt>, <dt class="sig sig-object py" id="random.getrand
bits">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">getrandbits</span></span><span class="sig
-paren">(</span><em class="sig-param"><span class="n"><span class="pre">k</span></spa
n></em><span class="sig-paren">)</span><a class="headerlink" href="#random.getrandbit
s" title="Permalink to this definition">¶</a></dt>, <dt class="sig sig-object py" id
="random.choice">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">choice</span></span><span class="sig-pare
n">(</span><em class="sig-param"><span class="n"><span class="pre">seq</span></span>
</em><span class="sig-paren">)</span><a class="headerlink" href="#random.choice" titl
e="Permalink to this definition">¶</a></dt>, <dt class="sig sig-object py" id="rando
m.choices">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">choices</span></span><span class="sig-par
```

```
en">(</span><em class="sig-param"><span class="n"><span class="pre">population</span>
</span></em>, <em class="sig-param"><span class="n"><span class="pre">weights</span>
</span><span class="o"><span class="pre">=</span></span><span class="default_value"><
span class="pre">None</span></span></em>, <em class="sig-param"><span class="o"><span
class="pre">*</span></span></em>, <em class="sig-param"><span class="n"><span class
="pre">cum_weights</span></span><span class="o"><span class="pre">=</span></span><spa
n class="default_value"><span class="pre">None</span></span></em>, <em class="sig-par
am"><span class="n"><span class="pre">k</span></span><span class="o"><span class="pr
e">=</span></span><span class="default_value"><span class="pre">1</span></span></em><
span class="sig-paren">)</span><a class="headerlink" href="#random.choices" title="Pe
rmalink to this definition">¶</a></dt>, <dt class="sig sig-object py" id="random.shuf
fle">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">shuffle</span></span><span class="sig-par
en">(</span><em class="sig-param"><span class="n"><span class="pre">x</span></span></
em><span class="sig-paren">)</span><a class="headerlink" href="#random.shuffle" title
="Permalink to this definition">¶</a></dt>, <dt class="sig sig-object py" id="random.
sample">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">sample</span></span><span class="sig-pare
n">(</span><em class="sig-param"><span class="n"><span class="pre">population</span>
</span></em>, <em class="sig-param"><span class="n"><span class="pre">k</span></span>
</em>, <em class="sig-param"><span class="o"><span class="pre">*</span></span></em>,
<em class="sig-param"><span class="n"><span class="pre">counts</span></span><span cla
ss="o"><span class="pre">=</span></span><span class="default_value"><span class="pr
e">None</span></span></em><span class="sig-paren">)</span><a class="headerlink" href
="#random.sample" title="Permalink to this definition">¶</a></dt>, <dt class="sig sig
-object py" id="random.binomialvariate">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">binomialvariate</span></span><span class
="sig-paren">(</span><em class="sig-param"><span class="n"><span class="pre">n</span>
</span><span class="o"><span class="pre">=</span></span><span class="default_value"><
span class="pre">1</span></span></em>, <em class="sig-param"><span class="n"><span cl
ass="pre">p</span></span><span class="o"><span class="pre">=</span></span><span class
="default_value"><span class="pre">0.5</span></span></em><span class="sig-paren">)</s
pan><a class="headerlink" href="#random.binomialvariate" title="Permalink to this def
inition">¶</a></dt>, <dt class="sig sig-object py" id="random.random">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">random</span></span><span class="sig-pare
n">(</span><span class="sig-paren">)</span><a class="headerlink" href="#random.rando
m" title="Permalink to this definition">¶</a></dt>, <dt class="sig sig-object py" id
="random.uniform">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">uniform</span></span><span class="sig-par
en">(</span><em class="sig-param"><span class="n"><span class="pre">a</span></span></
em>, <em class="sig-param"><span class="n"><span class="pre">b</span></span></em><spa
n class="sig-paren">)</span><a class="headerlink" href="#random.uniform" title="Perma
link to this definition">¶</a></dt>, <dt class="sig sig-object py" id="random.triangu
lar">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">triangular</span></span><span class="sig-
paren">(</span><em class="sig-param"><span class="n"><span class="pre">low</span></sp
an></em>, <em class="sig-param"><span class="n"><span class="pre">high</span></span>
</em>, <em class="sig-param"><span class="n"><span class="pre">mode</span></span></em
><span class="sig-paren">)</span><a class="headerlink" href="#random.triangular" titl
e="Permalink to this definition">¶</a></dt>, <dt class="sig sig-object py" id="rando
m.betavariate">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">betavariate</span></span><span class="sig
-paren">(</span><em class="sig-param"><span class="n"><span class="pre">alpha</span>
```

```
</span></em>, <em class="sig-param"><span class="n"><span class="pre">beta</span></sp
an></em><span class="sig-paren">)</span><a class="headerlink" href="#random.betavaria
te" title="Permalink to this definition">¶</a></dt>, <dt class="sig sig-object py" id
="random.expovariate">
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class="sig-name descname"><span class="pre">expovariate</span></span><span class="sig
-paren">(</span><em class="sig-param"><span class="n"><span class="pre">lambd</span>
</span><span class="o"><span class="pre">=</span></span><span class="default_value"><
span class="pre">1.0</span></span></em><span class="sig-paren">)</span><a class="head
erlink" href="#random.expovariate" title="Permalink to this definition">¶</a></dt>, <
dt class="sig sig-object py" id="random.gammavariate">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">gammavariate</span></span><span class="si
g-paren">(</span><em class="sig-param"><span class="n"><span class="pre">alpha</span>
</span></em>, <em class="sig-param"><span class="n"><span class="pre">beta</span></sp
an></em><span class="sig-paren">)</span><a class="headerlink" href="#random.gammavari
ate" title="Permalink to this definition">¶</a></dt>, <dt class="sig sig-object py" i
d="random.gauss">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">gauss</span></span><span class="sig-pare
n">(</span><em class="sig-param"><span class="n"><span class="pre">mu</span></span><s
pan class="o"><span class="pre">=</span></span><span class="default_value"><span clas
s="pre">0.0</span></span></em>, <em class="sig-param"><span class="n"><span class="pr
e">sigma</span></span><span class="o"><span class="pre">=</span></span><span class="d
efault_value"><span class="pre">1.0</span></span></em><span class="sig-paren">)</span
><a class="headerlink" href="#random.gauss" title="Permalink to this definition">¶</a
></dt>, <dt class="sig sig-object py" id="random.lognormvariate">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">lognormvariate</span></span><span class
="sig-paren">(</span><em class="sig-param"><span class="n"><span class="pre">mu</span
></span></em>, <em class="sig-param"><span class="n"><span class="pre">sigma</span></
span></em><span class="sig-paren">)</span><a class="headerlink" href="#random.lognorm
variate" title="Permalink to this definition">¶</a></dt>, <dt class="sig sig-object p
y" id="random.normalvariate">
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class="sig-name descname"><span class="pre">normalvariate</span></span><span class="s
ig-paren">(</span><em class="sig-param"><span class="n"><span class="pre">mu</span></
span><span class="o"><span class="pre">=</span></span><span class="default_value"><sp
an class="pre">0.0</span></span></em>, <em class="sig-param"><span class="n"><span cl
ass="pre">sigma</span></span><span class="o"><span class="pre">=</span></span><span c
lass="default_value"><span class="pre">1.0</span></span></em><span class="sig-pare
n">)</span><a class="headerlink" href="#random.normalvariate" title="Permalink to thi
s definition">¶</a></dt>, <dt class="sig sig-object py" id="random.vonmisesvariate">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">vonmisesvariate</span></span><span class
="sig-paren">(</span><em class="sig-param"><span class="n"><span class="pre">mu</span
></span></em>, <em class="sig-param"><span class="n"><span class="pre">kappa</span></
span></em><span class="sig-paren">)</span><a class="headerlink" href="#random.vonmise
svariate" title="Permalink to this definition">¶</a></dt>, <dt class="sig sig-object
py" id="random.paretovariate">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">paretovariate</span></span><span class="s
ig-paren">(</span><em class="sig-param"><span class="n"><span class="pre">alpha</span
></span></em><span class="sig-paren">)</span><a class="headerlink" href="#random.pare
tovariate" title="Permalink to this definition">¶</a></dt>, <dt class="sig sig-object
py" id="random.weibullvariate">
<span class="sig-prename descclassname"><span class="pre">random.</span></span><span
class="sig-name descname"><span class="pre">weibullvariate</span></span><span class
="sig-paren">(</span><em class="sig-param"><span class="n"><span class="pre">alpha</s
pan></span></em>, <em class="sig-param"><span class="n"><span class="pre">beta</span>
```

```
</span></em><span class="sig-paren">)</span><a class="headerlink" href="#random.weibu
llvariate" title="Permalink to this definition">¶</a></dt>, <dt class="sig sig-object
py" id="random.Random">
<em class="property"><span class="pre">class</span><span class="w"> </span></em><span
class="sig-prename descclassname"><span class="pre">random.</span></span><span class
="sig-name descname"><span class="pre">Random</span></span><span class="sig-paren">
(</span><span class="optional">[</span><em class="sig-param"><span class="n"><span cl
ass="pre">seed</span></span></em><span class="optional">]</span><span class="sig-pare
n">)</span><a class="headerlink" href="#random.Random" title="Permalink to this defin
ition">¶</a></dt>, <dt class="sig sig-object py" id="random.SystemRandom">
<em class="property"><span class="pre">class</span><span class="w"> </span></em><span
class="sig-prename descclassname"><span class="pre">random.</span></span><span class
="sig-name descname"><span class="pre">SystemRandom</span></span><span class="sig-par
en">(</span><span class="optional">[</span><em class="sig-param"><span class="n"><spa
n class="pre">seed</span></span></em><span class="optional">]</span><span class="sig-
paren">)</span><a class="headerlink" href="#random.SystemRandom" title="Permalink to
this definition">¶</a></dt>]
```

In [11]:
```python
# Find all the information we're looking for with regex
# In this case, it would be every string at starts with id='random.'

function_names = re.findall('id="random.\w+' , str(names)) # '\w+' which means the str

# Let print the results
print(function_names)
```

```
['id="random.seed', 'id="random.getstate', 'id="random.setstate', 'id="random.randbyt
es', 'id="random.randrange', 'id="random.randint', 'id="random.getrandbits', 'id="ran
dom.choice', 'id="random.choices', 'id="random.shuffle', 'id="random.sample', 'id="ra
ndom.binomialvariate', 'id="random.random', 'id="random.uniform', 'id="random.triangu
lar', 'id="random.betavariate', 'id="random.expovariate', 'id="random.gammavariate',
'id="random.gauss', 'id="random.lognormvariate', 'id="random.normalvariate', 'id="ran
dom.vonmisesvariate', 'id="random.paretovariate', 'id="random.weibullvariate', 'id="r
andom.Random', 'id="random.SystemRandom']
```

In [12]:
```python
# remove id from the extracted data
lst=[]
for i in function_names:
    lst.append(i[4 : ])
```

In [13]:
```python
#print the list
lst
```

```
Out[13]:  ['random.seed',
          'random.getstate',
          'random.setstate',
          'random.randbytes',
          'random.randrange',
          'random.randint',
          'random.getrandbits',
          'random.choice',
          'random.choices',
          'random.shuffle',
          'random.sample',
          'random.binomialvariate',
          'random.random',
          'random.uniform',
          'random.triangular',
          'random.betavariate',
          'random.expovariate',
          'random.gammavariate',
          'random.gauss',
          'random.lognormvariate',
          'random.normalvariate',
          'random.vonmisesvariate',
          'random.paretovariate',
          'random.weibullvariate',
          'random.Random',
          'random.SystemRandom']
```

```python
In [14]:  # assign funtion name to list
          function_names=lst
```

```python
In [15]:  function_names
```

```
Out[15]:  ['random.seed',
          'random.getstate',
          'random.setstate',
          'random.randbytes',
          'random.randrange',
          'random.randint',
          'random.getrandbits',
          'random.choice',
          'random.choices',
          'random.shuffle',
          'random.sample',
          'random.binomialvariate',
          'random.random',
          'random.uniform',
          'random.triangular',
          'random.betavariate',
          'random.expovariate',
          'random.gammavariate',
          'random.gauss',
          'random.lognormvariate',
          'random.normalvariate',
          'random.vonmisesvariate',
          'random.paretovariate',
          'random.weibullvariate',
          'random.Random',
          'random.SystemRandom']
```

```
In [22]:  # Find all the function description

          description = soup.body.findAll('dd')
```

```
In [17]:  # create list
          function_usage = []

          # Create a loop

          for item in description:
              item = item.text      #  Save the extracted text to a variable
              item = item.replace('\n', ' ')      # to get rid of the next line operator which is
              function_usage.append(item)
```

```
In [18]:  item
```

Out[18]: 'Class that uses the os.urandom() function for generating random numbers from sources provided by the operating system. Not available on all systems. Does not rely on soft ware state, and sequences are not reproducible. Accordingly, the seed() method has no effect and is ignored. The getstate() and setstate() methods raise NotImplementedErro r if called. '

```
In [19]:  # Let's check the length of the function_names and function_usage

          print(f' Length of function_names: {len(function_names)}')
          print(f' Length of function_usage: {len(function_usage)}')
```

```
          Length of function_names: 26
          Length of function_usage: 26
```

```
In [20]:  # Create a dataframe since the length of both variables are equal!

          data = pd.DataFrame( { 'function name':function_names,'function usage':function_usage]

          data
```

	function name	function usage
0	random.seed	Initialize the random number generator. If a i...
1	random.getstate	Return an object capturing the current interna...
2	random.setstate	state should have been obtained from a previou...
3	random.randbytes	Generate n random bytes. This method should no...
4	random.randrange	Return a randomly selected element from range(...
5	random.randint	Return a random integer N such that a <= N <= ...
6	random.getrandbits	Returns a non-negative Python integer with k r...
7	random.choice	Return a random element from the non-empty seq...
8	random.choices	Return a k sized list of elements chosen from ...
9	random.shuffle	Shuffle the sequence x in place. To shuffle an...
10	random.sample	Return a k length list of unique elements chos...
11	random.binomialvariate	Binomial distribution. Return the number of su...
12	random.random	Return the next random floating point number i...
13	random.uniform	Return a random floating point number N such t...
14	random.triangular	Return a random floating point number N such t...
15	random.betavariate	Beta distribution. Conditions on the paramete...
16	random.expovariate	Exponential distribution. lambd is 1.0 divide...
17	random.gammavariate	Gamma distribution. (Not the gamma function!)...
18	random.gauss	Normal distribution, also called the Gaussian ...
19	random.lognormvariate	Log normal distribution. If you take the natu...
20	random.normalvariate	Normal distribution. mu is the mean, and sigm...
21	random.vonmisesvariate	mu is the mean angle, expressed in radians bet...
22	random.paretovariate	Pareto distribution. alpha is the shape param...
23	random.weibullvariate	Weibull distribution. alpha is the scale para...
24	random.Random	Class that implements the default pseudo-rando...
25	random.SystemRandom	Class that uses the os.urandom() function for ...

```
In [21]:  #save to system in excel format
          data.to_excel('E:/scrap/function.xlsx')
```

```
In [ ]:
```