

Python Intern Task - Web Crawler

Clarence got lost while surfing the internet. Help him find his way out by creating a map of the domain he is on.

Write a function `site_map(url)` that takes a site URL as an argument and creates a mapping of that domain as a Python dictionary.

The mapping should contain all the accessible pages within that domain. Every entry should consist of:

- * key: URL

- * value: dictionary with:

 - ** site title (HTML `<title>` tag)

 - ** links - set of all target URLs within the domain on the page but without anchor links

Example:

Confused? Worry not! Here is an example site with a map.

Unzip the `example.zip` file into some directory and enter it.

Run the following command `python3 -m http.server`. You are serving a website now!

Check if everything is okay by visiting the `http://0.0.0.0:8000` URL.

If everything works you can run your program with following parameter and verify if it gives the correct answer.

```
...
```

```
>>> site_map('http://0.0.0.0:8000')
```

```
...
```

```
...
```

```
{
  'http://0.0.0.0:8000': {
    'title': 'Index',
    'links': {'http://0.0.0.0:8000/example.html', 'http://0.0.0.0:8000/site.html'}
  },
  'http://0.0.0.0:8000/site.html': {
    'title': 'The Site',
    'links': {'http://0.0.0.0:8000/site/subsite.html'}
  },
  'http://0.0.0.0:8000/example.html': {
    'title': 'No links here',
    'links': set()
  },
  'http://0.0.0.0:8000/site/subsite.html': {
    'title': 'Looping',
    'links': {'http://0.0.0.0:8000/site/other_site.html', 'http://0.0.0.0:8000'}
  },
}
```

```
'http://0.0.0.0:8000/site/other_site.html': {  
  'title': 'Looped',  
  'links': {'http://0.0.0.0:8000/site/subsite.html'}  
}  
}  
...
```



Good luck!