

Making WHOIS In Python



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A domain name is a string identifying a network domain, it represents an IP resource, such as a server hosting a website or just a computer that has access to the Internet.

In simple terms, what we know as the domain name is the address of your website that people type in the browser URL to visit.

In this tutorial, we will use the [whois](#) library in Python to validate domain names and retrieve various domain information such as creation and

expiration date, domain registrar, address and country of the owner, and more.

To get started, let's install the library:

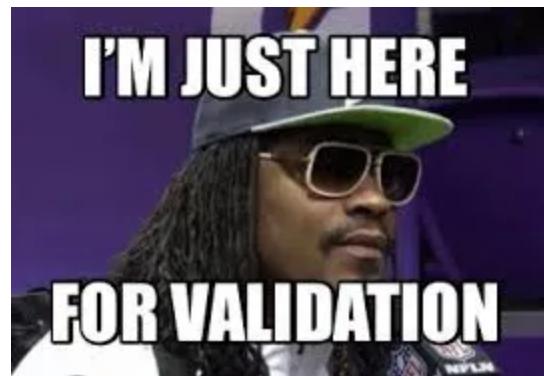
```
pip3 install python-whois
```



WHOIS is a query and response protocol that is often used for querying databases that store registered domain names. It stores and delivers the content in a human-readable format. `whois` library simply queries a WHOIS server directly instead of going through an intermediate web service.

There is also a simple `whois` command in Linux to extract domain info, but since we're Python developers, then we'll be using Python for this.

Validating Domain Names



In this section, we'll use `whois` to tell whether a domain name exists and is registered, the below function does that:

```
import whois # pip install python-whois

def is_registered(domain_name):
    """
    A function that returns a boolean indicating
    whether a `domain_name` is registered
    """
    try:
        w = whois.whois(domain_name)
    except Exception:
        return False
    else:
        return bool(w.domain_name)
```

`whois.whois()` the function raises an exception for domains that don't exist and may return without raising any exception even if the domain isn't registered, that is why we check whether `domain_name` exists, let's test this function:

```
# list of registered & non registered domains to test our function
domains = [
    "thepythoncode.com",
    "google.com",
    "github.com",
    "unknownrandomdomain.com",
```

```
        "notregistered.co"
    ]
# iterate over domains
for domain in domains:
    print(domain, "is registered" if is_registered(domain) else "is
not registered")
```

We have defined some known domains and others that don't exist, here is the output:

```
thepythoncode.com is registered
google.com is registered
github.com is registered
unknownrandomdomain.com is not registered
notregistered.co is not registered
```

Awesome, in the next section, we'll see how to get various useful information about domain names.

Getting Domain WHOIS Information



It is pretty straightforward to use this library, we just pass the domain name to the `whois.whois()` function:

```
import whois

# test with Google domain name
domain_name = "google.com"
if is_registered(domain_name):
    whois_info = whois.whois(domain_name)
```

Now to get the domain registrar (the company that manages the reservation of domain names), we simply access the attribute `registrar`:

```
# print the registrar
print("Domain registrar:", whois_info.registrar)
```

Getting the WHOIS server:

```
# print the WHOIS server
print("WHOIS server:", whois_info.whois_server)
```

Domain creation and expiration date:

```
# get the creation time
print("Domain creation date:", whois_info.creation_date)
# get expiration date
```

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Output:

```
Domain registrar: MarkMonitor Inc.  
WHOIS server: whois.markmonitor.com  
Domain creation date: 1997-09-15 04:00:00  
Expiration date: 2028-09-14 04:00:00
```

To see other various WHOIS information such as name servers, country, city, state, address, etc, just print `whois_info`:

```
# print all other info  
print(whois_info)
```

Conclusion



Here is the source code of the article:-

<https://github.com/KoderKumar/WHOIS>

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```
(kali㉿kali)-[~]
$ subfinder -d tesla.com
[!] Current subfinder version v2.6.0 (outdated)
[!] Loading provider config from /home/kali/.config/subfinder/provider-config.yaml
[!] Enumerating subdomains for tesla.com
cryptopay4.tesla.com
akamai-apigateway-qa-captiveunderwriting.tesla.com
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other.tesla.com
trt.tesla.com
integration.kronos.tesla.com
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[INF] Current subfinder version v2.6.0 (outdated)
[INF] Loading provider config from /home/kali/.config/subfinder/provider-config.yaml
[INF] Enumerating subdomains for tesla.com
cryptopay4.tesla.com
akamai-apigateway-qa-captiveunderwriting.tesla.com
akamai-apigateway-vendorpartsapi.tesla.com
other.tesla.com
trt.tesla.com
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