

S3 Buckets Enumeration

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S3 Buckets are public cloud storage containers for objects stored in simple storage services (S3). S3 buckets can be linked to file folders and object storage. Each object stored by buckets has three main components: the object's content (data), the object's metadata (which includes object size, name, last modified date, and URL), and the object's unique identifier. Many websites use S3 buckets to save files on cloud

S3 bucket enumeration is a process of finding the S3 buckets and then listing objects in those buckets



lazys3

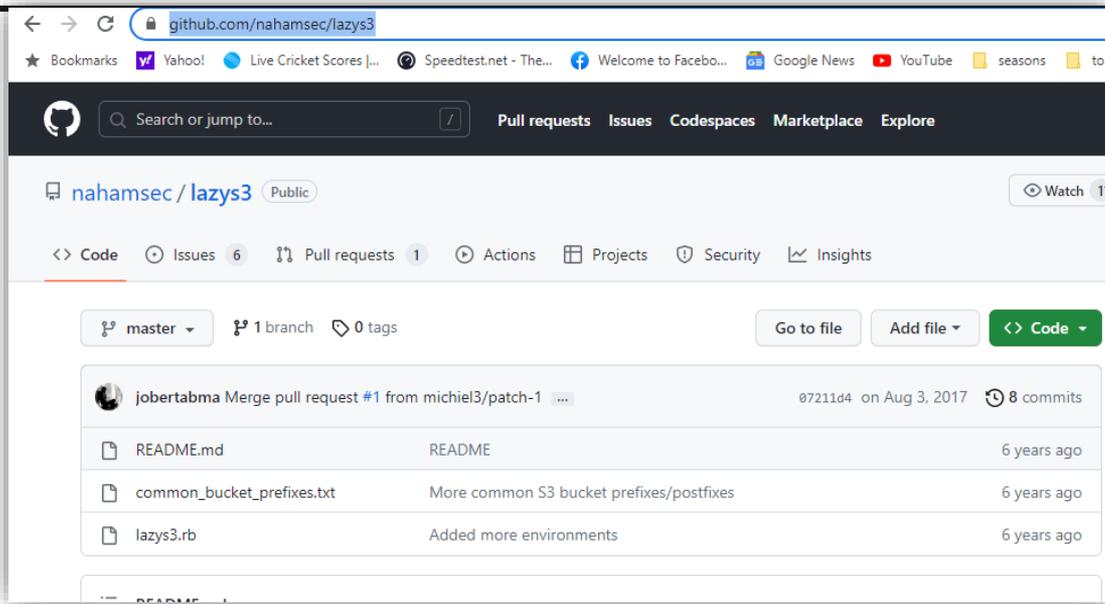
(Ruby Script)

Allows to search for public S3 buckets

Lazy S3

❖ Download the tool from Github

<https://github.com/nahamsec/lazys3>



Lazy S3

- ❖ Now run it to enumerate buckets

```
ruby lazys3.rb <COMPANY>
```

```
(kali@kali)-[~/lazys3]
└─$ ruby lazys3.rb pakwheels
Generated wordlist from file, 9013 items ...
Found bucket: pakwheels (403)
Found bucket: pakwheels-api-production (404)
Found bucket: pakwheels-apollo-prod (404)
Found bucket: pakwheels.attach.stage (404)
```



Cloud_enum

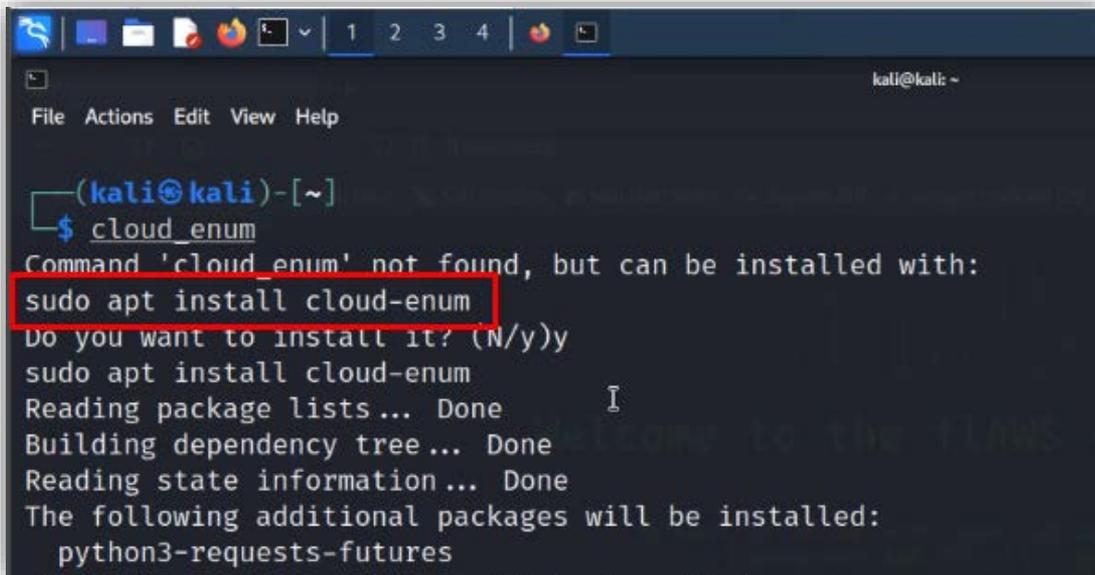
(Python Script – prebuilt in kali)

Allows to search for public S3 buckets and also list their contents

Cloud enum

- ❖ You can install the tool from Kali repositories with following command

```
Sudo apt install cloud-enum
```

A terminal window screenshot from Kali Linux. The window title is 'kali@kali: ~'. The terminal shows the command 'cloud_enum' being entered, which results in a message: 'Command 'cloud_enum' not found, but can be installed with: sudo apt install cloud-enum'. The user then enters 'y' to confirm installation. The terminal shows the progress of the installation, including 'Reading package lists... Done', 'Building dependency tree... Done', and 'Reading state information... Done'. Finally, it lists the additional packages to be installed: 'python3-requests-futures'.

```
kali@kali: ~  
File Actions Edit View Help  
  
(kali@kali)-[~]  
└─$ cloud_enum  
Command 'cloud_enum' not found, but can be installed with:  
sudo apt install cloud-enum  
Do you want to install it? (N/y)y  
sudo apt install cloud-enum  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
The following additional packages will be installed:  
python3-requests-futures
```

Cloud enum

- ❖ Use the cloud_enum tool to find and list down the contents of the buckets

```
cloud_enum -k flaws.cloud --disable-azure --disable-gcp
```

```
(kali@kali)-[~]
└─$ cloud_enum -k flaws.cloud --disable-azure --disable-gcp

#####
      cloud_enum
      github.com/initstring
#####
```



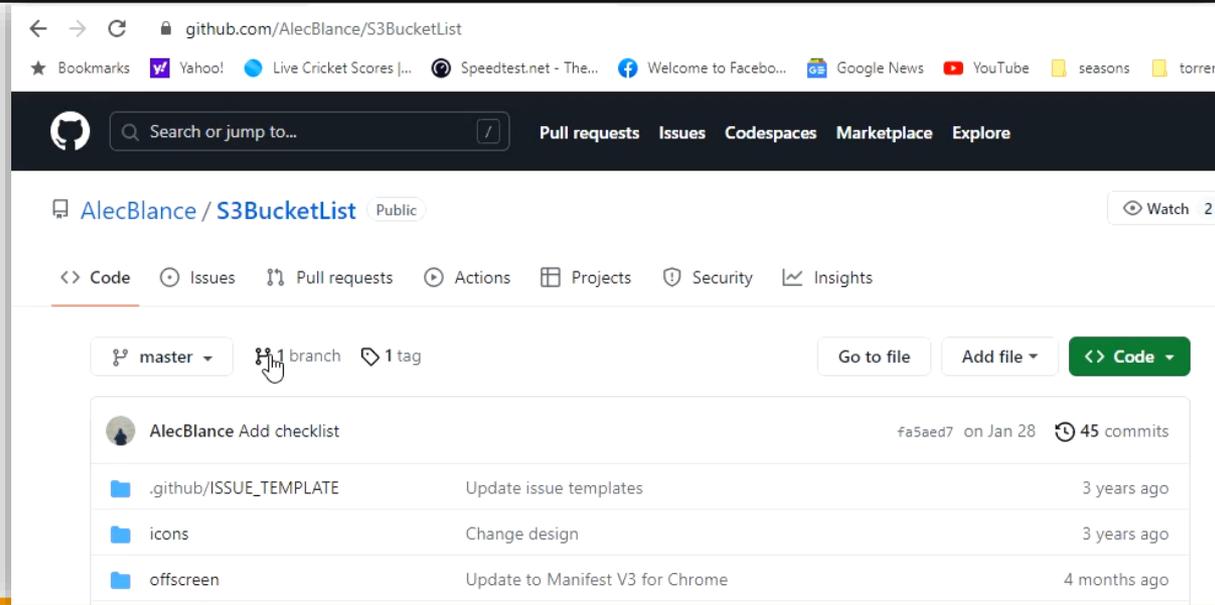
Browser extension

(chrome)

Browser extension

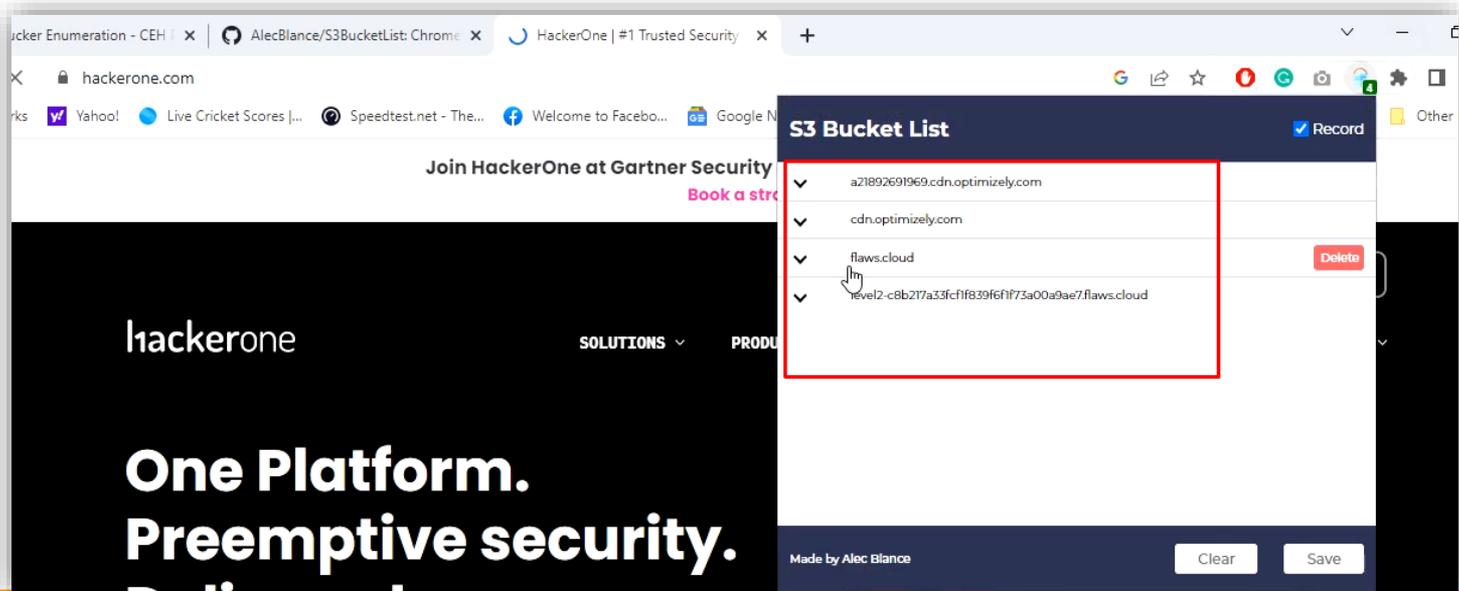
❖ Download the extension from the Github Repo

<https://github.com/AlecBlance/S3BucketList>



Browser extension

- ❖ Install the extension as per instructions and whenever you will visit any website using s3 buckets, it will enumerate them



DEMO



THANKS