

## Amazon S3: Retrieving Root Access Keys

Last updated: September 28, 2021

### Purpose

Root Access Keys give you the ability to do many things with AWS.

For our purposes here, we will use the keys to work with file upload and download from Python using the *boto* package.

Boto3 is the Amazon Web Services (AWS) Software Development Kit (SDK)

<https://pypi.org/project/boto3/>

**Note:** Be very careful with your access keys, as they provide access to your AWS account. Do not share them with others.

The steps for retrieving access keys are based on this [tutorial](#).

- 1) Log in to the AWS Management Console
- 2) Go to user name at top right, select My Security Credentials

The screenshot shows the AWS Management Console interface. The top navigation bar includes the AWS logo, a search bar, and user account information. The left sidebar shows the 'Amazon S3' service selected. The main content area displays the 'web-host-test1' bucket, which is publicly accessible. Below the bucket name, there are tabs for 'Objects', 'Properties', 'Permissions', 'Metrics', 'Management', and 'Access Points'. The 'Objects' tab is active, showing a list of objects: 'bitbangers.png' (56.5 KB) and 'index.html' (277.0 B). At the bottom of the console, a link to 'My Security Credentials' is visible in the user menu. Below the console, a separate browser window shows the IAM console page for 'rootkey.csv', indicating the user is navigating to the IAM console to retrieve security credentials.

## 2) Click Access keys

The screenshot shows the AWS IAM console interface. The left sidebar contains the 'Identity and Access Management (IAM)' menu with options like Dashboard, Access management, Access reports, and Credential report. The main content area is titled 'Your Security Credentials' and provides instructions on managing credentials. Under the 'Access keys (access key ID and secret access key)' section, there is a table listing existing access keys. One key is shown with the ID 'AKIATBE6GTHWB73ETEPK', created on 'Sep 28th 2021', and is currently 'Active'. A 'Create New Access Key' button is visible below the table. A warning box states that root user access keys provide unrestricted access and recommends creating a new IAM user with limited permissions. The bottom of the console shows a taskbar with various application icons and system information like time and date.

Created	Access Key ID	Last Used	Last Used Region	Last Used Service	Status	Actions
Sep 28th 2021	AKIATBE6GTHWB73ETEPK	N/A	N/A	N/A	Active	<a href="#">Make Inactive</a>   <a href="#">Delete</a>

## 3) Create Access Key and then Download Key File.

This screenshot shows the same AWS IAM console page as the previous one, but with a 'Create Access Key' dialog box open in the center. The dialog box contains a green checkmark and the message: 'Your access key (access key ID and secret access key) has been created successfully. Download your key file now, which contains your new access key ID and secret access key. If you do not download the key file now, you will not be able to retrieve your secret access key again.' Below this message, there is a 'Show Access Key' link and two buttons: 'Download Key File' and 'Close'. The background of the console is dimmed. The taskbar at the bottom shows the system time as 1:39 PM on 9/28/2021.

4) This file contains *aws\_access\_key\_id* and *aws\_secret\_access\_key*

When you wish to use boto3 to connect to an S3 bucket, you submit this Python code.  
A separate tutorial will review S3 bucket upload and download operations.

```
import boto3
```

```
s3_client = boto3.client(  
    's3',  
    aws_access_key_id='YOUR_AWS_ACCESS_KEY_ID_AS_STRING',  
    aws_secret_access_key='YOUR_AWS_SECRET_ACCESS_KEY_AS_STRING'  
)
```