

Boto3 Environment setup on Windows Server



The screenshot shows the AWS IAM console interface. A modal dialog box titled "Create Access Key" is open, displaying a success message: "Your access key (access key ID and secret access key) has been created successfully." Below the message, it instructs the user to download the key file immediately, as the secret access key will not be retrievable later. A warning advises storing the secret key securely. The dialog shows the "Access Key ID" and "Secret Access Key" fields, both of which are partially obscured by a redaction box. A "Download Key File" button and a "Close" button are visible at the bottom of the dialog. In the background, a table lists IAM users with columns for "Last Used Service" and "Status".

Last Used Service	Status
ec2	Active

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- You've got the Python-3.x and boto3.
- But, you won't be able to use it right now, because it doesn't know which AWS account it should connect to.
- Then how about programmatic access when we want to manage AWS Services using our popular python scripting language ?
- You'll need to provide/ configure some valid credentials(programmatic access keys)
- You can use either root or any IAM user programmatic access keys.

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Programmatic Keys



- AWS requires **different types of security credentials, depending on how you access AWS and what type of AWS user** you are.
- For example, you need a username and password to sign into the **AWS Management Console**, and you **need access keys to make programmatic calls to AWS**.
- Also, **you can be an account root user, an AWS Identity and Access Management (IAM) user, an AWS IAM Identity Center (successor to AWS Single Sign-On) user, or a federated identity.**

```
AWS_ACCESS_KEY_ID AKIAIOSFODNN7EXAMPLE
```

```
AWS_SECRET_ACCESS_KEY wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY
```

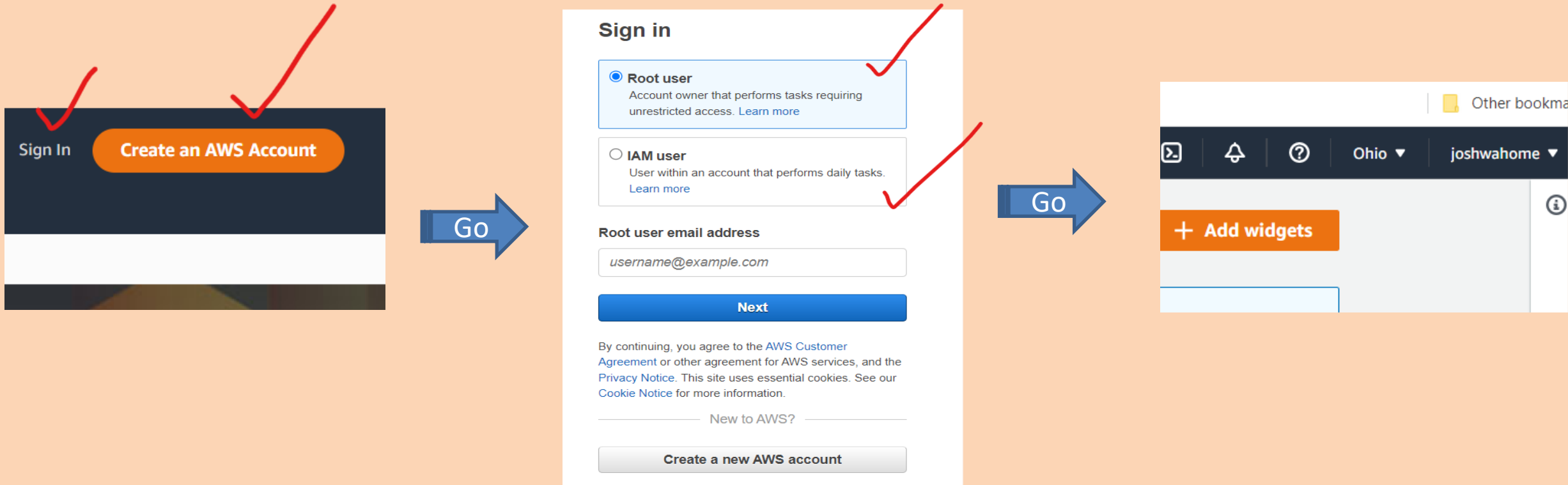
```
AWS_DEFAULT_REGION us-west-2
```

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Programmatic Keys in your AWS Account



- Sign into your AWS management Free Tier Account as the **root user** or Identity and Access Management (IAM) user.

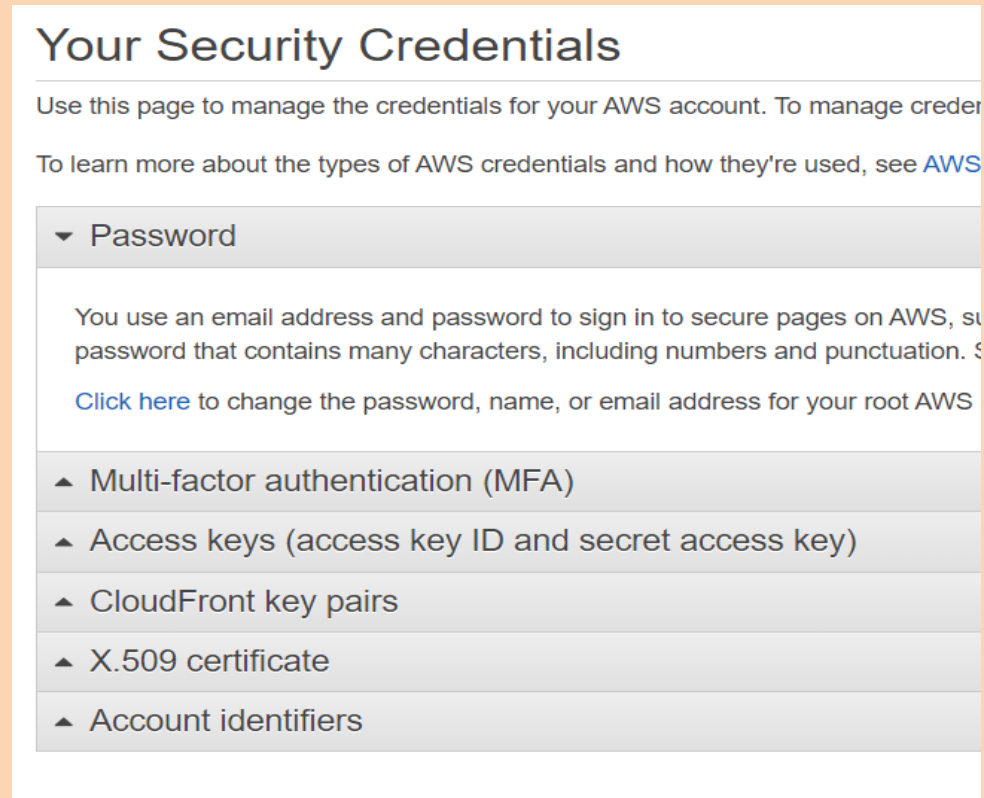
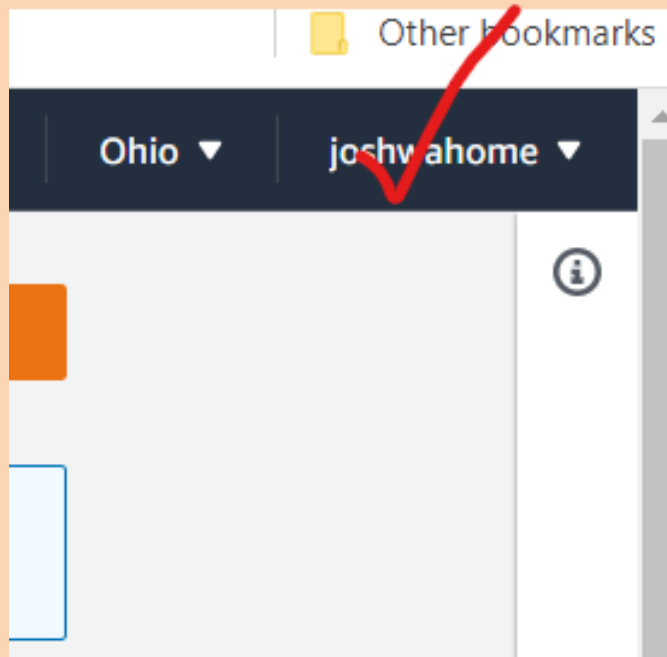


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Programmatic Keys in your AWS Account



- Click on name of your account and select security credentials.



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Programmatic Keys in your AWS Account



➤ Click on Access keys

Your Security Credentials

Use this page to manage the credentials for your AWS account. To manage creden

To learn more about the types of AWS credentials and how they're used, see [AWS](#)

▼ Password

You use an email address and password to sign in to secure pages on AWS, su
password that contains many characters, including numbers and punctuation. S

[Click here](#) to change the password, name, or email address for your root AWS

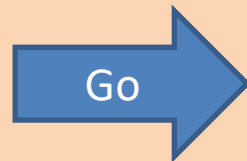
▲ Multi-factor authentication (MFA)

▲ Access keys (access key ID and secret access key) ✓

▲ CloudFront key pairs

▲ X.509 certificate

▲ Account identifiers



For your protection, you should never share your secret keys with anyone. As a best practice, we rec
If you lose or forget your secret key, you cannot retrieve it. Instead, create a new access key a

Created	Access Key ID	Last Used
Sep 23rd 2022	AKIAUXXYDPHZ5CKXQOF4	2022-11-22 09:14 EST

[Create New Access Key](#) ✓

Root user access keys provide unrestricted access to your entire AWS account. If you need long-
permissions and generating access keys for that user instead. [Learn more](#)

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Programmatic Keys in your AWS Account



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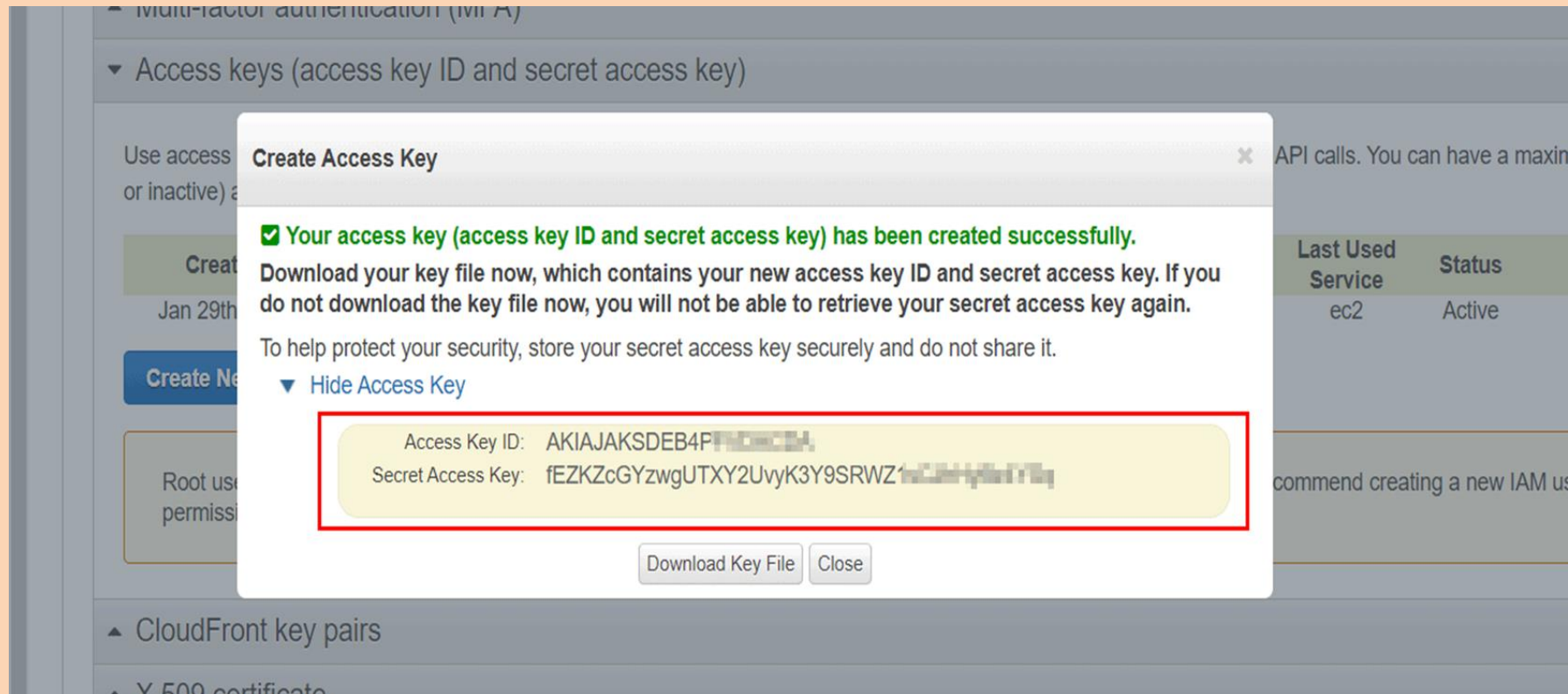
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Programmatic Keys in your AWS Account



- Copy your **ID and Secret Key** and store them in a safe place you can always access.
- You can always download the keys and save them in your favorite location on your server.



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- You must have **AWS CLI installed** in your terminal.
- AWS CLI is **the command line interface** for AWS.
- AWS CLI **creates, modifies, and destroys resources** on the AWS production environment using the command line.
- **Configure credentials of your AWS account on windows server using awscli commands.**
 - **Install awscli**
 - `pip3 install awscli`
 - **Configure root/IAM user access-keys/credentials using:**
 - `aws configure --profile root`
 - `aws configure --profile non_prod`

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Default User



- Go to your terminal and run the following command to configure your profile.
- Run the command → **aws configure** on your Git Bash CLI.
- This command will configure the AWS CLI default user.
- Copy and paste the downloaded security credentials when tempted, as shown below.
- For the output, leave it empty or add JSON.

```
Forex@LAPTOP-4C614INS MINGW64 ~ (main)
$ aws configure
AWS Access Key ID [*****Q0F4]:
AWS Secret Access Key [*****D5QH]:
Default region name [us-east-2]:
Default output format [json]:
```

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RootUser

- Go to your terminal and run the following command to configure your profile.
- Run the command → **aws configure --profile root** on your Git Bash CLI.
- This command will configure the AWS CLI root user.
- Copy and paste the downloaded security credentials when tempted, as shown below.
- For the output, leave it empty or add JSON.

```
Forex@LAPTOP-4C614INS MINGW64 ~ (main)
$ aws configure --profile root
AWS Access Key ID [*****Q0F4]:
AWS Secret Access Key [*****D5QH]:
Default region name [us-east-2]:
Default output format [json]:
```

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IAM(Identity AccessManagement)



- Go to your terminal and run the following command to configure your profile.
- Run the command → **aws configure --profile developer/josh** on your Git Bash CLI.
- This command will configure the AWS CLI IAM user.
- Copy and paste the **downloaded security credentials** when tempted, as shown below.
- For the output, leave it empty or add JSON.
- Use enter to get the next input value.

```
Forex@LAPTOP-4C614INS MINGW64 ~ (main)
```

```
$ aws configure --profile developer/josh
```

```
AWS Access Key ID [None]: AKIAUXXYDPHZ4SSZ7UNH
```

→ Enter

```
AWS Secret Access Key [None]: wPSyi2YozAr+r3QZQEwPidOSGzSYHWARMRWZbbHi
```

→ Enter

```
Default region name [None]: us-east-2
```

→ Enter

```
Default output format [None]: json
```

→ Enter

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IAM(Identity AccessManagement)



- Go to your terminal and run the following command to configure your profile.
- Run the command → **aws configure --profile developer/josh** on your Git Bash CLI.
- This command will configure the AWS CLI IAM user.
- Copy and paste the **downloaded security credentials** when tempted, as shown below.
- For the output, leave it empty or add JSON.
- Use enter to get the next input value.

```
Forex@LAPTOP-4C614INS MINGW64 ~ (main)
$ aws configure --profile developer/josh
AWS Access Key ID [None]: AKIAUXXYDPHZ4SSZ7UNH → Enter
AWS Secret Access Key [None]: wPSyi2YozAr+r3QZQEwPidOSGzSYHWARMRWZbbHi → Enter
Default region name [None]: us-east-2 → Enter
Default output format [None]: json → Enter
```

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Access Credentials file in .aws Folder to view the added users



- Go to Git Bash CLI
- Run the command ==> pwd
- Ensure you are **inside the root directory of the user of the system.**

```
Forex@LAPTOP-4C614INS MINGW64 ~ (main)
$ pwd
/c/Users/Forex ✓
```

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Access Credentials file in .aws Folder to view the added users



- Go to Git Bash CLI
- Run the command ==> `cd .aws`
- When inside .aws run the command ==> `ls`

```
Forex@LAPTOP-4C614INS MINGW64 ~ (main)
```

```
$ cd .aws ✓
```

```
Forex@LAPTOP-4C614INS MINGW64 ~/.aws (main)
```

```
$ ls
```

```
config create, credentials it ✓
```

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Access Credentials file in .aws Folder to view the added users



- Go to Git Bash CLI
- Run the command ==> `cd .aws`
- When inside `.aws` run the command ==> `ls`
- Run the command ==> **cat credentials** to see the content inside the file.
- All the users with their respective programmatic keys will be available in the credentials file.

```
Forex@LAPTOP-4C614INS MINGW64 ~/.aws (main)
$ cat credentials
[default]
aws_access_key_id = AKIAUXXYDPHZ5CKXQ0F4
aws_secret_access_key = H7WJyu7nVd99eLwKz7Tp3wsqW/NdBShuDte4D5QH
[root]
```

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Thank you
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