**Steps:**

1. Created IAM user with name aws\_admin and assigned polices for the terraform deployment. Copied the Access and Secret keys and those will be used in following steps. (I have done this step)

IAM user to create AWS resources (root user is not recommended):

User: aws\_admin

Password: Aembassy12

Account ID: 557587840296

Access Key: AKIAYDUWTHUULF3JJ4WD

Secret Key: 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

Attach Policies: AWSTransferFullAccess, AmazonS3FullAccess, AWSKeyManagementServerPoweruser

2. Setup Ubuntu 20.04 server for deployments (you may setup any other OS machine with terraform and AWS CLI)

* Install terraform, using instructions given on this link for ubuntu <https://learn.hashicorp.com/collections/terraform/aws-get-started>
* Install AWS cli using this link <https://docs.aws.amazon.com/cli/latest/userguide/install-cliv2-linux.html>

Before installing AWS cli using curl command given in above link, please install unzip command.

*sudo apt install unzip*

4. login to AWS cli using below command and provide following variables

*aws configure*

Access Key: AKIAYDUWTHUULF3JJ4WD

Secret Key: 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

Default region: us-east-1

Default output format: json

5. Create SSH private/public key using puttygen and put public key inside file sftp.tf and save private key. (I have done this step)

6. Create bucket with name “terraform-state-bucket” to store terraform state (this is used in dev-env.tf for dev environment). Enable versioning for this bucket. (I have done this)

7. Copy the folder “aws-transfer-sftp” which is provided in Deliverables to the machine (where terraform and aws CLI is installed and you logged in using step 4). Run below commands to create SFTP resources on AWS,

1. cd aws-transfer-sftp-master
2. terraform init -backend-config=backends/dev-env.tf
3. terraform workspace new "dev"

# plan and apply

1. terraform plan
2. terraform apply

if you want to destroy the resources created by above commands, simply use below command to delete the resources from AWS.

*terraform destroy*

8. Below resources will be created on AWS.

S3 bucket with name = sftp-bucket-01-us-east-1

SFTP user with name = "sftp-user-dev"

AWS Transfer for SFTP

SSH key associated with sftp user account

**SFTP Upload/Download using filezilla:**

Go to below URL to find out End Point and sftp username:

Login using aws\_admin IAM account.

<https://console.aws.amazon.com/transfer/>

Under servers click the Server ID and find the server end point under section **“Endpoint details”**

Hostname/End Point: **s-723ac98c0f1a44dd8.server.transfer.us-east-1.amazonaws.com**

Username: **sftp-user-dev**

SSH key: **sftp\_ssh\_key.ppk** (this SSH key for sftp is provided in resources folder)

Note: with WinSCP it gives error “upload of file successful but error occurred while setting permission or timestamp”

It uploads files and downloads, but this error is related to WinSCP and need to change WinSCP settings to remove this error as given in below stack overflow thread.

<https://stackoverflow.com/questions/57164832/upload-of-file-was-successful-but-error-occurred-while-setting-the-permi>