

**Your environments**

Shared with you

Account environments

How-to guide

AWS Cloud9 > Your environments

Your environments (1)

Open IDE

View details

Edit

Delete

Create environment

< 1 >

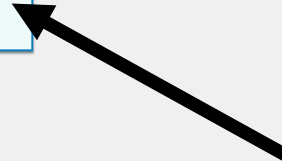
workshop-environment Type
EC2Permissions
Owner

Description

Cloud9 environment for the crypto builders
python modules

Open IDE

1. Navigate to Cloud9
 - Open IDE



▲

AWS Cloud9

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Go to Anything (⌘ P)

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revoke-certs.py

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usecase-8

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environment-setup.sh

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ok

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environment-seti ×

create-certs.py ×

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New File ^ N

New Terminal ⌘ T

New Run Configuration

Open Preferences ⌘ ,

Recently Closed Tabs

New Immediate Window

bash - "ip-10-0-0-188"

Welcome

Immediate

```
1 #!/usr/bin/bash
2
3 alias python='python3'
4 PIP3=pip-3.6
5 alias pip='${PIP3}'
6 T=$(date)
7
8 PACKAGE_NAMES="boto3 aws-encryption-sdk
9 if [ -z ${TEST_ENVIRONMENT+x} ] || [ "${
10     PACKAGE_NAMES="${PACKAGE_NAMES} ikp
11 fi
12
13 echo installing python dependencies: $P
14 echo $T > setup.log
15
16 PIPOK=0
17 OUT=$(sudo /usr/bin/${PIP3} install -U pip 2>&1) # FIX!
18 if [ "$?" = "0" ]; then
19     PIPOK=1
20 else
21     echo $OUT >> setup.log
22     OUT=$(pip install -U pip 2>&1)
23     if [ "$?" = "0" ]; then
24         PIPOK=1
25     else
26         echo $OUT >> setup.log
27     fi
28 fi
29
30 if [ "$PIPOK" = "1" ]; then
31     OUT=$(pip install --user ${PACKAGE_NAMES})
```

data-protection/u ×

+

▶ Run

🔄

Command: data-protection/usecase-7/code/create-certs.py

⚙️

Runner: Python 3

CWD

ENV

Process exited with code: 0
Pane is dead

Collaborate

Outline

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Debugger

2. Click Green '+'

• New Terminal

17:54

SH

Spaces: 4

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Developer Tools

AWS Cloud9

Welcome to your development environment

bash - "ip-10-0-0" × +

```
/tmp/git-cloning-runner-1571169960270-079154701932.sh
AppDevRole:~/environment $ /tmp/git-cloning-runner-1571169960270-079154701932.sh
Cloning into '/home/ec2-user/environment/data-protection'...
remote: Enumerating objects: 212, done.
remote: Counting objects: 100% (212/212), done.
remote: Compressing objects: 100% (171/171), done.
remote: Total 2074 (delta 136), reused 63 (delta 36), pack-reused 1862
Receiving objects: 100% (2074/2074), 23.34 MiB | 34.83 MiB/s, done.
Resolving deltas: 100% (1239/1239), done.

Navigate to your cloned repository by typing "cd /home/ec2-user/environment/data-protection" to start working with "https://github.com/aws-samples/data-protect
ion"

To set your display name run "git config --global user.name YOUR_USER_NAME"
To set your display email run "git config --global user.email YOUR_EMAIL_ADDRESS"

AppDevRole:~/environment $
```

Collaborate




Outline

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3. Open usecase-9

- Data-protection/ usecase-9-code
- Double click on 'create-certs.py'

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Go to Anything (% P)


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 - README.md

environment-setu x create-certs.py x bash - "ip-10-0-0 x

```
1 import sys
2 import boto3
3
4 def main():
5
6     try:
7         #boto3 Setups
8         client = boto3.client('acm-pca')
9         acmClient = boto3.client('acm')
10
11        #Variables
12        domainNames = ['hr.testdomain.com', 'dev.testdomain.com', 'prod.testdomain.com', 'finance.testdomain.com', 'intra.testdomain.com']
13        numCerts = len(domainNames)
14        #Get Subordinate CA information
15        response = client.list_certificate_authorities(
16            MaxResults=20
17        )
```

2:11 Python Spaces: 4 

data-protection/u x 

 Run  Command: data-protection/usecase-7/code/create-certs.py  Runner: Python 3 CWD ENV

arn:aws:acm:us-west-2:313327970627:certificate/97d23711-c2a5-4d72-b4fb-60861727a1ac
arn:aws:acm:us-west-2:313327970627:certificate/7f87788e-1e64-46a2-a6c2-566593918baa
arn:aws:acm:us-west-2:313327970627:certificate/08136bd4-f47c-495a-8cbb-eac62462adcc
arn:aws:acm:us-west-2:313327970627:certificate/25673dc4-d11e-407e-968c-b6aeeabf1d2b
arn:aws:acm:us-west-2:313327970627:certificate/bde96f59-9d53-4f9b-b507-3d9fc6e048d9
Certificates created. Navigate to ACM Console.

Process exited with code: 0

4. Click Run to generate certificates

- In new tab:
- Navigate to ACM to verify certificates

5. Back on AWS Console

- Navigate to Certificate Manager service
- See all the certificates generated

Certificates

Certificate Manager

Private certificate authority

Private CAs

Certificates

AWS Certificate Manager logs domain names from your certificates into public certificate transparency (CT) logs when renewing certificates. You can opt out of CT logging. [Learn more](#)

Request a certificate

Import a certificate

Actions



Viewing certificates 1 to 8								
<input type="checkbox"/>		Name	Domain name	Additional names	Status	Type	In use?	Renewal eligibility
<input type="checkbox"/>	▶	-	intra.testdomain.com	-	Issued	Private	No	Ineligible
<input type="checkbox"/>	▶	-	finance.testdomain.com	-	Issued	Private	No	Ineligible
<input type="checkbox"/>	▶	-	prod.testdomain.com	-	Issued	Private	No	Ineligible
<input type="checkbox"/>	▶	-	dev.testdomain.com	-	Issued	Private	No	Ineligible
<input type="checkbox"/>	▶	-	hr.testdomain.com	-	Issued	Private	No	Ineligible

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 - create-certs.py
 - revoke-certs.py

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Developer Tools

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/tmp/git-cloning-runner-1571169960270-079154701932.sh
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Cloning into '/home/ec2-user/environment/data-protection'...
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remote: Counting objects: 100% (212/212), done.
remote: Compressing objects: 100% (171/171), done.
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ion"

To set your display name run "git config --global user.name YOUR_USER_NAME"
To set your display email run "git config --global user.email YOUR_EMAIL_ADDRESS"

AppDevRole:~/environment $
```

6. Double click 'revoke-certs.py'

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revoke-certs.py

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1 import sys

2 import boto3

3 import time

4

5 def main():

6

7 try:

8 #boto3 Setups

9 pcaClient = boto3.client('acm-pca')

10 acmClient = boto3.client('acm')

11

12 #Variables

13 domainNames = ['hr.testdomain.com', 'dev.testdomain.com', 'prod.testdomain.com', 'finance.testdomain.com', 'intra.testdomain.com']

14 numCerts = len(domainNames)

15 #Get Subordinate CA information

16 response = pcaClient.list_certificate_authorities(

17 MaxResults=20

13:59 Python Spaces: 4 ⚙

data-protection/u

+

×

▶ Run

🔄

Command: data-protection/usecase-7/code/revoke-certs.py

⚙

Runner: Python 3

CWD

ENV

Certificate revoked.

Certificate revoked.

Certificate revoked.

Certificate revoked.

Certificate revoked.

Process exited with code: 0

Collaborate

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7. Run to revoke all certificates at once