CLI Handson

AWS CLI: Services that can be managed

http://docs.aws.amazon.com/cli/latest/reference/

Hundreds services! Click on the specific service you are looking for to get the details of.

Available Services

- acm
- apigateway
- application-autoscaling
- appstream
- athena
- autoscaling
- batch
- budgets
- clouddirectory
- cloudformation
- cloudfront
- cloudhsm
- cloudhsmv2
- cloudsearch
- cloudsearchdomain
- cloudtrail
- cloudwatch
- codebuild
- codecommit
- codepipeline
- codestar
- cognito-identity
- cognito-idp
- cognito-sync
- configservice

EC2 – List all the instances (default cli region)

```
Sree>aws ec2 describe-instances
{
    "Reservations": [
        {
            "OwnerId": "504881750319",
            "ReservationId": "r-9a9fcb96",
            "Groups": [],
            "Instances": [
                {
                    "Monitoring": {
                        "State": "disabled"
                    },
                    "PublicDnsName": "ec2-52-24-50-191.us-west-2.compute.amazonaws.com",
                    "State": {
                        "Code": 16,
                        "Name": "running"
                    },
                    "EbsOptimized": false,
                    "LaunchTime": "2015-06-29T13:24:27.000Z",
                    "PublicIpAddress": "52.24.50.191",
                    "PrivateIpAddress": "15.0.0.81",
                    "ProductCodes": [],
```

CLI: Example: Describe an instance!

aws ec2 describe-instances --region ap-south-1 --instance-ids <INSTANCE ID> OR

<SPACE SEPARATED LIST OF INSTANCE IDS>

EC2 – Get the details of one instance

```
Sree>aws ec2 describe-instances --region=ap-south-1  --instance-ids=i-0766d76cd4aec2520
{
    "Reservations": [
        {
            "OwnerId": "504881750319",
            "ReservationId": "r-0805573284c42b53b",
            "Groups": [],
            "Instances": [
                {
                    "Monitoring": {
                        "State": "disabled"
                    },
                    "PublicDnsName": "ec2-13-126-230-199.ap-south-1.compute.amazonaws.com",
                    "State": {
                        "Code": 16,
                        "Name": "running"
                    },
                    "EbsOptimized": false,
                    "LaunchTime": "2017-10-01T02:07:45.000Z",
```

EC2 - Launching your first AWS instance (CLI)

```
aws ec2 run-instances \
--region ap-south-1 \
--image-id ami-099fe766 \
--count 1 \
--instance-type t2.micro \
--key-name MyDemoKey \
--security-groups My-Demo-SG-All-IP-Open
```

Remember: AMI is region specific. An AMI used in ap-south-1 cannot be used in any other region

EC2 - Launching your first AWS instance (CLI)

```
Sree>aws ec2 run-instances --region ap-south-1 --image-id ami-099fe766 --count 1 --instance-type t2.micro --key-name SreeDemoKey --security-gro
ups Sree-Demo-SG-All-IP-Open
{
    "OwnerId": "504881750319",
    "ReservationId": "r-03852a684574fabc1",
    "Groups": [],
    "Instances": [
        {
            "Monitoring": {
                "State": "disabled"
            },
            "PublicDnsName": "",
            "RootDeviceType": "ebs",
            "State": {
                "Code": 0,
                "Name": "pending"
            },
```

EC2 – Terminating AWS instance (CLI)

```
Sree>aws ec2 terminate-instances --region=ap-south-1 --instance-ids i-0766d76cd4aec2520 i-0bc40910ccb6d7400
{
    "TerminatingInstances": [
        {
            "InstanceId": "i-0766d76cd4aec2520",
            "CurrentState": {
                "Code": 32,
                "Name": "shutting-down"
            },
            "PreviousState": {
                "Code": 16,
                "Name": "running"
            }
        },
        {
            "InstanceId": "i-0bc40910ccb6d7400",
            "CurrentState": {
                "Code": 32,
                "Name": "shutting-down"
            },
            "PreviousState": {
                "Code": 16,
                "Name": "running"
            }
        }
    ]
}
Sree>
```

Instance Boot strapping

Bootstrapping: metadata and userdata

- Every EC2 Instance has access to local instance metadata and userdata service
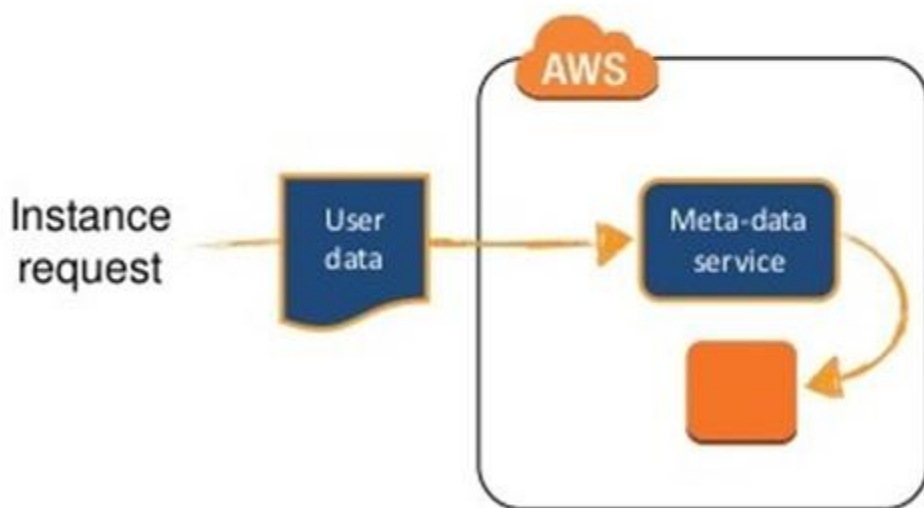
Example: Create an EC2 Instance with User-Data

```
ami="ami-099fe766"   aws
ec2 run-instances \
--region ap-south-1 \
--image-id $ami \
--count 1 \
--instance-type t2.micro \
```

```
--key-name SreeDemoKey \
--user-data file://./user-data1.txt\
--security-groups Sree-Demo-SG-All-IP-Open
```

Create a file in the current folder called user-data1.txt before you run the above command
#!/bin/bash apt-get
update
apt-get install -y apache2 git; /etc/init.d/apache2restart
rm -fr /var/www/html
git clone https://github.com/schogini/customweb.git/var/www/html

S3 - CLI

S3: S3 and CLI Listing buckets and files

```
Sree>aws s3 --region ap-south-1 ls | grep demo
2017-10-24 11:42:05 demo-cdn-sree
2017-10-24 11:29:23 demo-cdn-sree2
2017-10-24 11:49:42 demo-cdn-sree3
Sree>
```

```
Sree>aws s3 --region ap-south-1 ls s3://demo-cdn-sree2
2017-10-24 11:30:18          174 error.html
2017-10-24 11:30:18          186 index.html
Sree>
```

S3: S3 and CLI – Copying to S3 and from S3

```
Sree>ls -l
total 16
-rw-r--r--@ 1 sree   staff   174 Oct 19 08:08 error.html
-rw-r--r--@ 1 sree   staff   186 Oct 19 07:58 index.html
Sree>echo "Test 123" > text.txt
Sree>aws s3 --region ap-south-1 cp text.txt s3://demo-cdn-sree2
upload: ./text.txt to s3://demo-cdn-sree2/text.txt
Sree>aws s3 --region ap-south-1 ls s3://demo-cdn-sree2
2017-10-24 11:30:18        174 error.html
2017-10-24 11:30:18        186 index.html
2017-10-28 06:52:23          9 text.txt
Sree>rm text.txt
Sree>aws s3 --region ap-south-1 cp s3://demo-cdn-sree2/text.txt .
download: s3://demo-cdn-sree2/text.txt to ./text.txt
Sree>ls -l
total 24
-rw-r--r--@ 1 sree   staff   174 Oct 19 08:08 error.html
-rw-r--r--@ 1 sree   staff   186 Oct 19 07:58 index.html
-rw-r--r--  1 sree   staff     9 Oct 28 06:52 text.txt
Sree>
```

S3: S3 and CLI – Deleting files from S3

```
Sree>aws s3 --region ap-south-1 ls s3://demo-cdn-sree2
2017-10-24 11:30:18          174 error.html
2017-10-24 11:30:18          186 index.html
2017-10-28 06:52:23            9 text.txt
Sree>aws s3 --region ap-south-1 rm s3://demo-cdn-sree2/text.txt
delete: s3://demo-cdn-sree2/text.txt
Sree>aws s3 --region ap-south-1 ls s3://demo-cdn-sree2
2017-10-24 11:30:18          174 error.html
2017-10-24 11:30:18          186 index.html
Sree>
```

S3: S3 and CLI – Creating and Deleting S3 Buckets

```
Sree>aws s3 --region ap-south-1 ls | grep demo
2017-10-24 11:42:05 demo-cdn-sree
2017-10-24 11:29:23 demo-cdn-sree2
2017-10-24 11:49:42 demo-cdn-sree3
Sree>aws s3 --region ap-south-1 mb s3://demo-cdn-sree4
make_bucket: s3://demo-cdn-sree4/
Sree>aws s3 --region ap-south-1 ls | grep demo
2017-10-24 11:42:05 demo-cdn-sree
2017-10-24 11:29:23 demo-cdn-sree2
2017-10-24 11:49:42 demo-cdn-sree3
2017-10-28 06:59:25 demo-cdn-sree4
Sree>aws s3 --region ap-south-1 rb s3://demo-cdn-sree4
remove_bucket: s3://demo-cdn-sree4/
Sree>aws s3 --region ap-south-1 ls | grep demo
2017-10-24 11:42:05 demo-cdn-sree
2017-10-24 11:29:23 demo-cdn-sree2
2017-10-24 11:49:42 demo-cdn-sree3
Sree>
```

S3 Extra: Access Control Lists: Viewing via CLI

```
Sree>aws s3api --region ap-south-1 get-object-acl --bucket demo-sree --key index.html
{
    "Owner": {
        "ID": "fc36420827ecc2197c2f5a4b7f8cd0d0ea13cbed97603a5154378805b237697f"
    },
    "Grants": [
        {
            "Grantee": {
                "Type": "CanonicalUser",
                "ID": "fc36420827ecc2197c2f5a4b7f8cd0d0ea13cbed97603a5154378805b237697f"
            },
            "Permission": "FULL_CONTROL"
        },
        {

            "Grantee": {
                "Type": "Group",
                "URI": "http://acs.amazonaws.com/groups/global/AllUsers"
            },
            "Permission": "READ"
        }
    ]
}
                    http://docs.aws.amazon.com/cli/latest/reference/s3api/index.html
Sree>
```

SNS: CLI List Topics

```
Sree>cat email.txt
Hello 1234
Sree>
```

```
Sree>aws sns --region=us-east-1 list-topics
{
    "Topics": [
        {
            "TopicArn": "arn:aws:sns:us-east-1:504881750319:SreeDemoEmailTopic"
        },
        {
            "TopicArn": "arn:aws:sns:us-east-1:504881750319:sree-email"
        },
        {
            "TopicArn": "arn:aws:sns:us-east-1:504881750319:sree-sms"
        }
    ]
}
Sree>
```

Thank You