

Start and Stop EC2 Instance using Lambda Function

Step-01 :

- Create an IAM role which can be attached to the Lambda
- Policy :

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "logs:CreateLogGroup",
        "logs:CreateLogStream",
        "logs:PutLogEvents"
      ],
      "Resource": "arn:aws:logs:*:*:*"
    },
    {
      "Effect": "Allow",
      "Action": [
        "ec2:Start*",
        "ec2:Stop*"
      ],
      "Resource": "*"
    }
  ]
}
```

Step-02 :

- Create a Lambda function to stop and select author from scratch and select runtime as Python 3.7
- Then select the role you created above and assign into it

- Then enter the below code : (Replace the instance-ID with your instance ID)
- Function :

```
import boto3

region = 'ap-south-1'

instances = ['i-12345', 'i-2345']

ec2 = boto3.client('ec2', region_name=region)

def lambda_handler(event, context):

    ec2.stop_instances(InstanceIds=instances)

    print('stopped your instances: ' + str(instances))
```

- Create a Lambda function to start and select author from scratch and select runtime as Python 3.7
- Then select the role you created above and assign into it
- Then enter the below code : (Replace the instance-ID with your instance ID)
- Function :

```
import boto3

region = 'ap-south-1'

instances = ['i-12345', 'i-2345']

ec2 = boto3.client('ec2', region_name=region)

def lambda_handler(event, context):

    ec2.start_instances(InstanceIds=instances)

    print('started your instances: ' + str(instances))
```

Step-03 :

- Then you can test it manually or schedule on a particular time

To automate using CloudWatch Events :

1. Go to Events and click on Rules
2. Then select Schedule
3. Select cron expression and enter the value as per you requirement you can follow the [link](#) to see examples and more details.
4. Then click on add target and select Lambda function you created (Stop function)
5. Optional : you can set SNS notification to get alert
6. You can repeat the above steps to create another schedule for start instance
- 7.