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100 Days of DevOps — Day 13- How to stop/start EC2 Instance on a scheduled basis to save cost

Check the updated 101 Days of DevOps Course

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The updated version of this blog

Welcome to Day 13 of 100 Days of DevOps, Let continue our journey and focus on Linux, today is a daily DevOps task, to run the business and save money. This is one of the ask I came across in Dev ops in terms of saving money where I need to shut down all the EC2 instance at 6 pm and bring it back next day at 9 am.

Problem: *Shutdown all EC2 instance in AWS DEV account at 6pm and bring it back next day at 9am(Monday to Friday)*

Solution: Using Lambda function in combination of CloudWatch events.

- *One of the major challenge in implementing this what would be the case if Developer is working late and he/she has instance to be run beyond 6 pm or if there is an urgent patch he needs to implement and need to work on the weekend?*
- *One common solution we come out is manually specifying the list of an instance in Python Cloudwatch Lambda Function) and in case of exception it goes through change management process where we need to remove developer instance manually(Ignore list and schedule tool so far works great)*

Step1: Create IAM Role so that Lambda can interact with CloudWatch Events

Create role
Select type of trusted entity
AWS service
Lambda
Allows AWS services to perform actions on your behalf.
Choose the service that will use this role
Lambda
Allows Lambda to call one or more services on your behalf.
AWS Machine Learning
AWS Marketplace
AWS Support
Alexa for Business
Amplify
Application Auto Scaling
Application Discovery Service
Application Integration
Appstream 2.0
Appsync
Athena
Auditmanager
Autoscaling
Autoscaling plans
Backup
Batch
Billing
Blockchain
Boundaryless Identity
Budgets
Cloud9
Cloudcontrolapi
Cloudformation
Cloudfront
Cloudhsm
Cloudsearch
Cloudsearchdomain
Cloudtrail
Codebuild
Codecommit
Codedeploy
Codeguru
Codeguruprofiler
Codepipeline
Codestar
Cognito Identity
Cognito Sync
Comprehend
Comprehendmedical
Connect
Contactlens
Cost Explorer
Cost and Usage Reports
Cost Optimization
Customer Profiles
Data Exchange
Data Lifecycle Manager
Data Pipeline
Datasync
Dax
Dbqm
Dbr
Dbs
Dc2
Ddb
Deepcomposer
Deepdive
Deepracer
Detective
Devicefarm
Devices
Directconnect
Discovery
Dms
Docdb
Ec2
Ec2 Auto Scaling
Ec2 Image Builder
Ecr
Ecs
Efs
Eks
Elasticache
Elasticbeanstalk
Elastic Load Balancing
Elasticsearch Service
Elastictranscoder
Elb
Emr
Entitlement
Entitlements
Events
Evidently
Evs
Fargate
Fbm
Fbs
Finspace
Firehose
Fis
Fms
Forecast
Frauddetector
Fsx
Gamelift
Glacier
Global Accelerator
Glue
Grafana
Greengrass
Greengrass Nucleus
Groundstation
Guardduty
Health
Healthlake
Histoindex
Honeycode
Iam
Identitystore
Imagebuilder
Importexport
Inspector
Inspector2
Internetmonitor
Iot
Iot1clickdevicesservice
Iot1clickprojects
Iotanalytics
Iotdeviceadvisor
Iotevents
Ioteventsdata
Iotfleetwatch
Iotfleetwizard
Iotsecuretunneling
Iotsitewise
Iotthingsgraph
Iotwireless
Ivs
Ivschat
Kafka
Kafkaconnect
Kendra
Kendraranking
Kinesis
Kinesis Analytics
Kinesis Analytics V2
Kinesis Video Streams
Kms
Lambda
Lambda Preview
Lex
Lexmodelbuildingservice
Lexmodelsv2
Lexrunteamsv2
Lexrunteamsv2streaming
Lexrunteamsv2streamingsessions
Lexrunteamsv2sessions
Lightsail
Location
Lookout for Metrics
Lookout for Vision
Lookoutequipment
Machine Learning
Macie
Macie2
Mailmanager
Managedblockchain
Marketplace Catalog
Marketplace Commerce Analytics
Marketplace Entitlement Service
Marketplace Metering
Mediaconnect
Mediaconvert
Medialive
Mediapackage
Mediapackagevod
Mediastore
Mediastoredata
Mediatailor
Memorydb
Meteringmarketplace
Mfa
Mgh
Mgn
Mobileanalytics
Mobilehub
Monitron
Mq
Mqdirectconnect
Mqtt
Mturk
Mwaa
Neptune
Network Firewall
Networkmanager
Nimble
Nlb
Nlbdirectconnect
Nlbmqtt
Nlbtcp
Nlbtls
Nlbudp
Nlbvpc
Nlbvpcendpoints
Nlbvpcendpoints
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