

Advance AWS

AWS Assessment Project 3

Student:

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Teacher:

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Course:

Advance AWS Cloud Computing with DevOps
Fundamentals

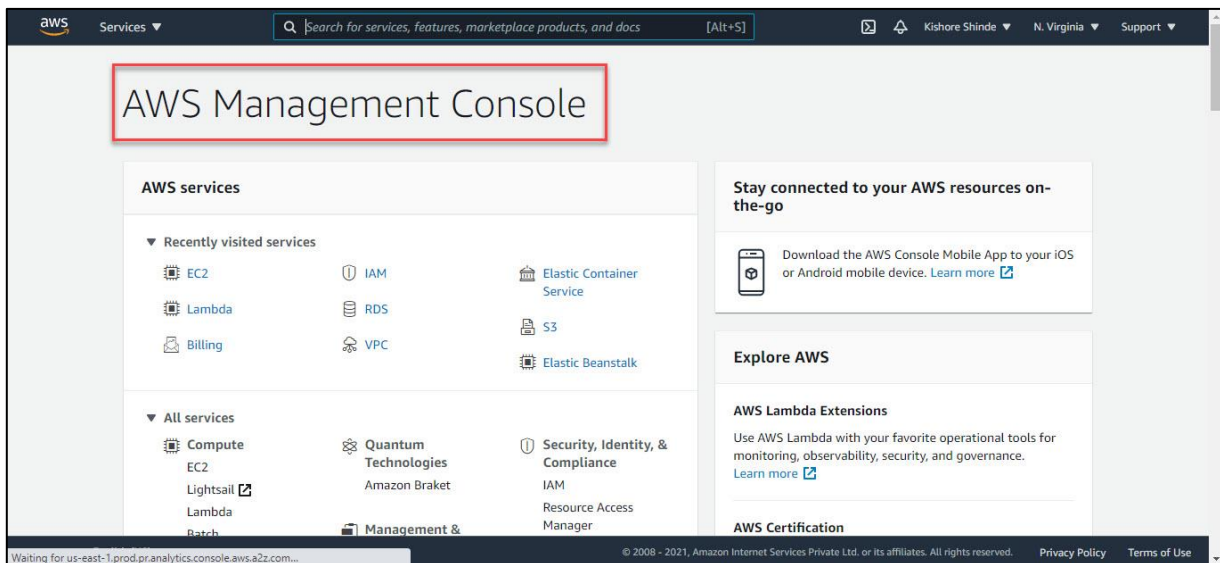
Institute:

Lets Upgrade

Project: Provision EC2 instance with Lambda

Task 1	Login to AWS Console
Task 2	Create an IAM Policy and an IAM Role
Task 3	Create a Lambda Function
Task 4	Configure Test Event
Task 5	Trigger the Lambda Function manually using the test event

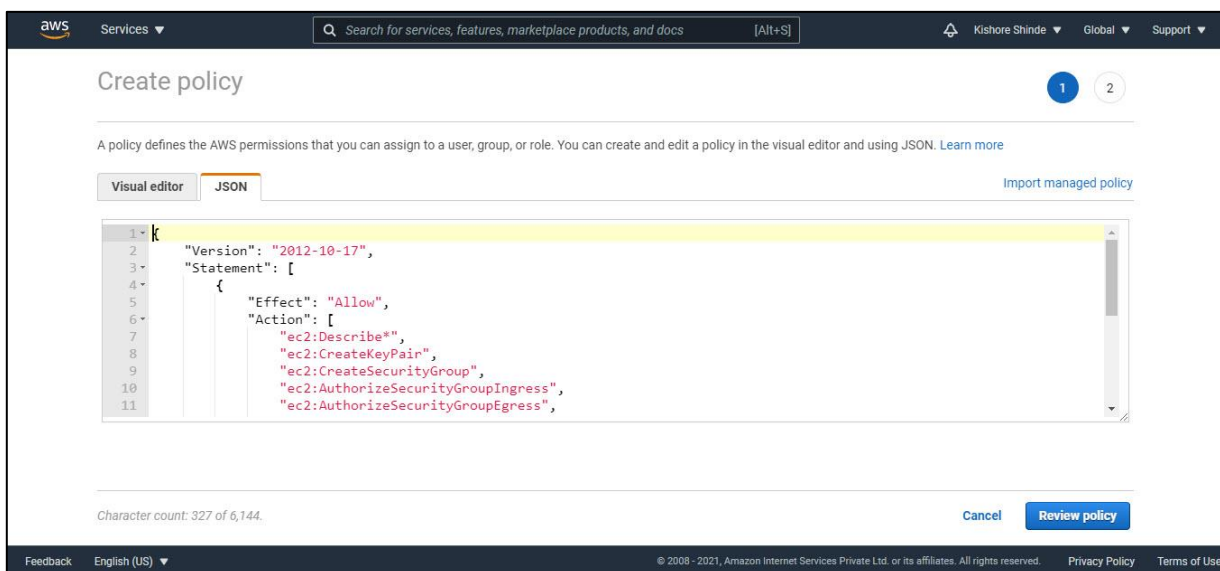
TASK 1: Log into the AWS Management Console



TASK 2: Create an IAM Policy

SS1: Create IAM policy with EC2 configuration

- IAM Policy



- Policy allowing access for running instances, create Security groups, creating Inbound & Outbound rules, create tags, create key pair in us-east-1 region (N. Virginia)

- EC2 Configuration

Create policy

Review policy

Name* MyPolicy
Use alphanumeric and '+, @, _' characters. Maximum 128 characters.

Description Custom Policy for EC2
Maximum 1000 characters. Use alphanumeric and '+, @, _' characters.

Summary
This policy defines some actions, resources, or conditions that do not provide permissions. To grant access, policies must have an action that has an applicable resource or condition. For details, choose [Show remaining](#). [Learn more](#)

Service	Access level	Resource	Request condition
Allow (1 of 264 services) Show remaining 263			
EC2	Limited: Write, Tagging	All resources	ec2:Region = us-east-1

* Required

[Cancel](#) [Previous](#) [Create policy](#)

Sr. No.	Name	Service	Access Level
1.	MyPolicy	EC2	Write, Tagging

SS2: Create Role

Create role

Select type of trusted entity

AWS service
EC2, Lambda and others

Another AWS account
Belonging to you or 3rd party

Web identity
Cognito or any OpenID provider

SAML 2.0 federation
Your corporate directory

Allows AWS services to perform actions on your behalf. [Learn more](#)

Choose a use case

Common use cases

EC2
Allows EC2 instances to call AWS services on your behalf.

Lambda
Allows Lambda functions to call AWS services on your behalf.

Or select a service to view its use cases

[API Gateway](#) [CloudWatch Events](#) [EKS](#) [IoT Things Graph](#) [Redshift](#)

* Required

[Cancel](#) [Next: Permissions](#)

- Entity Type : AWS Service
- Use Case : Lambda

Attach Permission Policies

The screenshot shows the AWS IAM console 'Create role' page, step 2: Attach permissions policies. The page title is 'Create role' with a progress indicator showing steps 1, 2, 3, and 4. Step 2 is active. Below the title, there's a section 'Attach permissions policies' with a sub-header 'Choose one or more policies to attach to your new role.' A 'Create policy' button is visible. A search bar contains 'my' and shows 'Showing 1 result'. A table lists policies, with 'MyPolicy' selected (checkbox checked) and highlighted by a red box. Below the table, the 'MyPolicy' details are shown, including a 'Policy summary' tab and a JSON snippet. At the bottom, there are 'Cancel', 'Previous', and 'Next: Tags' buttons, with 'Next: Tags' highlighted by a red box.

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Create role

1 2 3 4

▼ Attach permissions policies

Choose one or more policies to attach to your new role.

Create policy

Filter policies my Showing 1 result

Policy name	Used as
<input checked="" type="checkbox"/> MyPolicy	None

MyPolicy
Custom Policy for EC2

Policy summary {} JSON Edit policy

```
1 {  
2   "Version": "2012-10-17",  
3   "Statement": [  
4     {  
5       "Effect": "Allow",  
6       "Action": [  

```

* Required Cancel Previous Next: Tags

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- Policy Name : MyPolicy

Review

The screenshot shows the AWS IAM console 'Create role' page, step 4: Review. The page title is 'Create role' with a progress indicator showing steps 1, 2, 3, and 4. Step 4 is active. Below the title, there's a section 'Review' with a sub-header 'Provide the required information below and review this role before you create it.' The 'Role name*' field is filled with 'myrole' and highlighted by a red box. Below it, there's a 'Role description' field with the text 'Allows Lambda functions to call AWS services on your behalf.' and a 'Trusted entities' field with the text 'AWS service: lambda.amazonaws.com'. Below that, there's a 'Policies' field with a link to 'MyPolicy'. At the bottom, there's a 'Permissions boundary' field with the text 'Permissions boundary is not set'. At the bottom right, there are 'Cancel', 'Previous', and 'Create role' buttons, with 'Create role' highlighted by a red box.

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Create role

1 2 3 4

Review

Provide the required information below and review this role before you create it.

Role name* myrole
Use alphanumeric and '+', '@', '-' characters. Maximum 64 characters.

Role description Allows Lambda functions to call AWS services on your behalf.
Maximum 1000 characters. Use alphanumeric and '+', '@', '-' characters.

Trusted entities AWS service: lambda.amazonaws.com

Policies MyPolicy

Permissions boundary Permissions boundary is not set

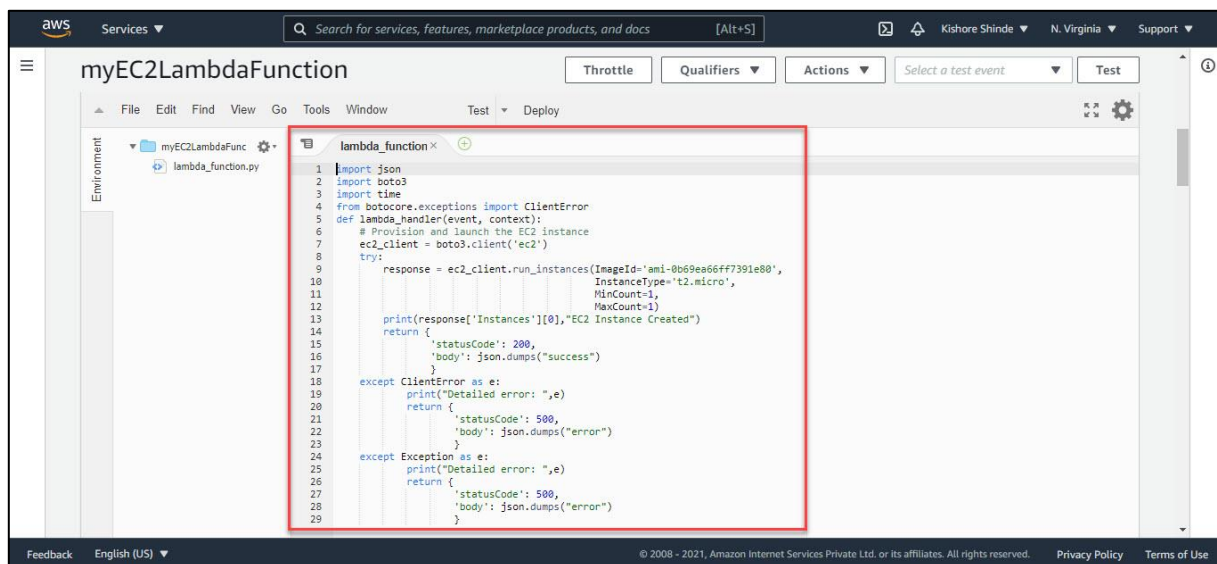
* Required Cancel Previous Create role

https://console.aws.amazon.com/iam/home?region=ap-south-1#/policies/arn%3Aaws%3Aiam%3A%3A391321345174%3Apolicy%2FMyPolicy 2021, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use

- Role Name: myrole

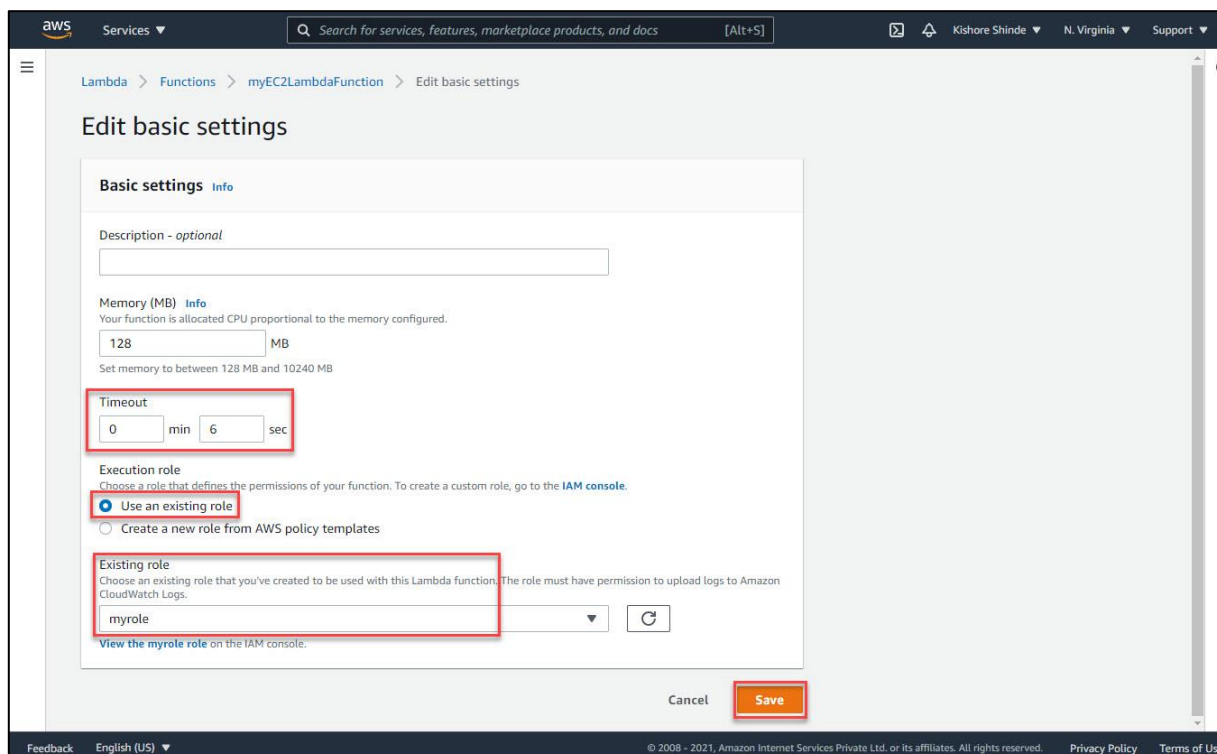
TASK 3: Create Lambda Function

SS3: Lambda Function – Code Configuration



- Function Name : myEC2LambdaFunction

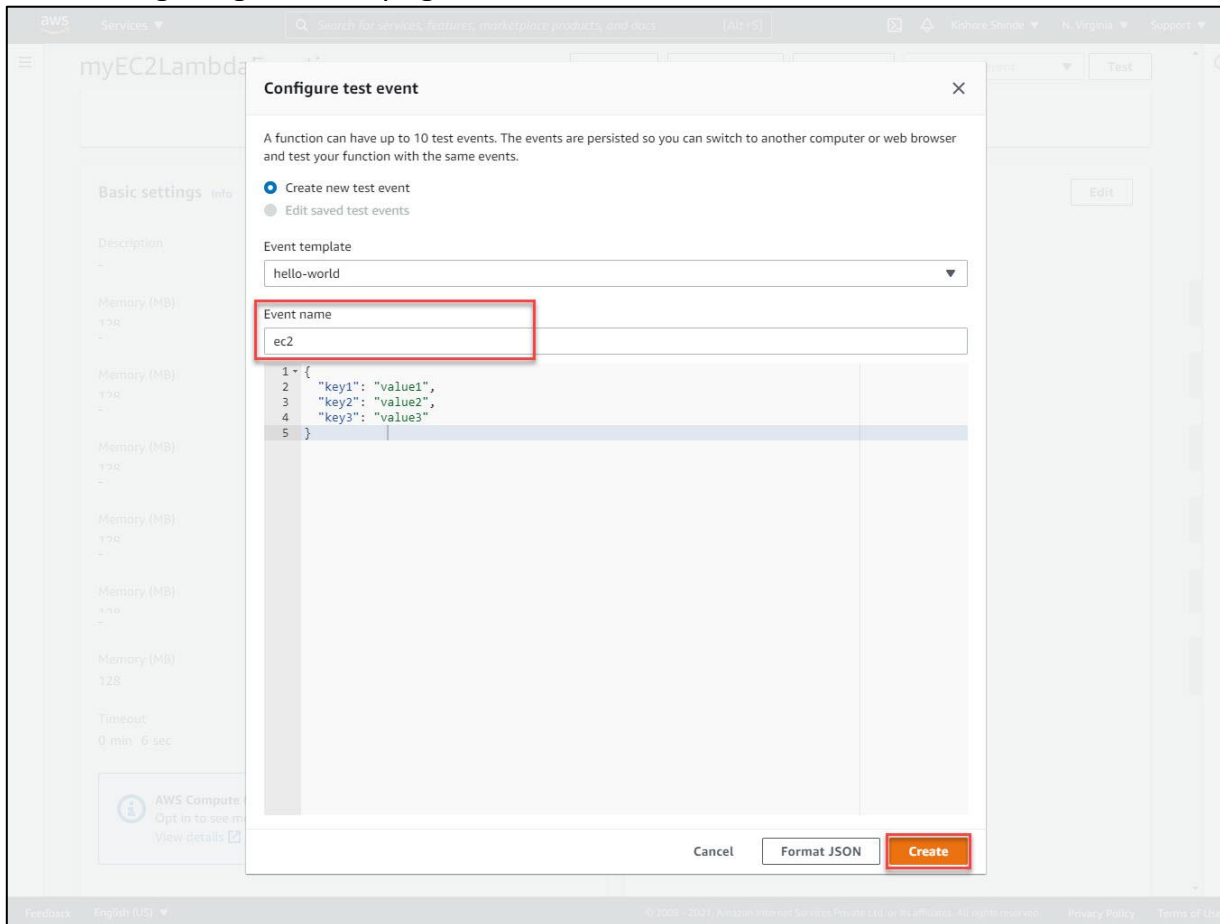
SS4: Timeout Setting



- Timeout: 6 Sec
- Execution Role: Existing role – *myrole*

TASK 4: Configure Test Event

SS5: Configuring the test page



- Event name: ec2

TASK 5: Trigger the lambda functionality using the test events

SS6: Details of instance deployed from lambda console

Execution result: succeeded (logs)

Details

The area below shows the result returned by your function execution. [Learn more](#) about returning results from your function.

```
{
  "statusCode": 200,
  "body": "\"success\""
}
```

Summary

Code SHA-256
qQ11GvnEceZmfjT8p278pJVg2v12O5sV5coosA8Bjmo=

Request ID
08d5480d-982d-49ac-b803-e8281fef77d3

Duration
3192.48 ms

Billed duration
3193 ms

Resources configured
128 MB

Max memory used
83 MB

Log output

The section below shows the logging calls in your code. These correspond to a single row within the CloudWatch log group corresponding to this Lambda function. [Click here](#) to view the CloudWatch log group.

```
START RequestId: 08d5480d-982d-49ac-b803-e8281fef77d3 Version: $LATEST
{"AmiLaunchIndex": 0, "ImageId": "ami-0b69ea66ff7391e80", "InstanceId": "i-02cb5d3494a140a4c", "InstanceType": "t2.micro", "LaunchTime":
datetime.datetime(2021, 1, 7, 14, 51, 56, tzinfo=tzlocal()), "Monitoring": {"State": "disabled"}, "Placement": {"AvailabilityZone": "us-
east-1a", "GroupName": "", "Tenancy": "default"}, "PrivateDnsName": "ip-172-31-16-7.ec2.internal", "PrivateIpAddress": "172.31.16.7",
"ProductCodes": [], "PublicDnsName": "", "State": {"Code": 0, "Name": "pending"}, "StateTransitionReason": "", "SubnetId": "subnet-
09a7d244", "VpcId": "vpc-4514e238", "Architecture": "x86_64", "BlockDeviceMappings": [], "ClientToken": "72a469e4-8713-4919-86a9-
0ef1af7167bb", "EbsOptimized": False, "EnaSupport": True, "Hypervisor": "xen", "NetworkInterfaces": [{"Attachment": {"AttachTime":
datetime.datetime(2021, 1, 7, 14, 51, 56, tzinfo=tzlocal()), "AttachmentId": "eni-attach-00bb4548aee1c2a7f", "DeleteOnTermination": True,
"DeviceIndex": 0, "Status": "attaching"}, "Description": "", "Groups": [{"GroupName": "default", "GroupId": "sg-50f3c968"}]},
"Ipv6Addresses": [], "MacAddress": "0a:04:13:05:72:a5", "NetworkInterfaceId": "eni-00789502328139031", "OwnerId": "391321345174",
```

Sr. No.	Instance Id	VPC Id	Private IP
1.	i-02cb5d3494a140a4c	vpc-4514e238	172.31.16.7

SS7: EC2 Dashboard with instance details

Sr. No.	Instance Id	VPC Id	Private IP
1.	i-02cb5d3494a140a4c	vpc-4514e238	172.31.16.7

xxx---AWS Assessment Project 3 Ends Here---xxx