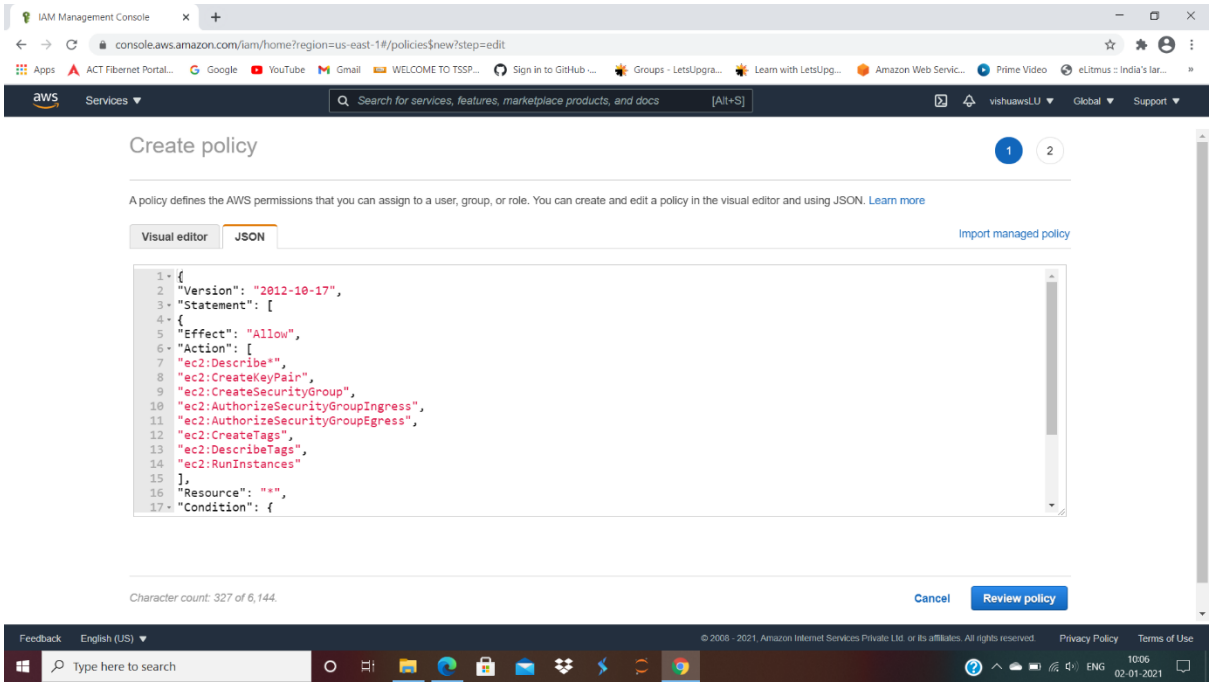
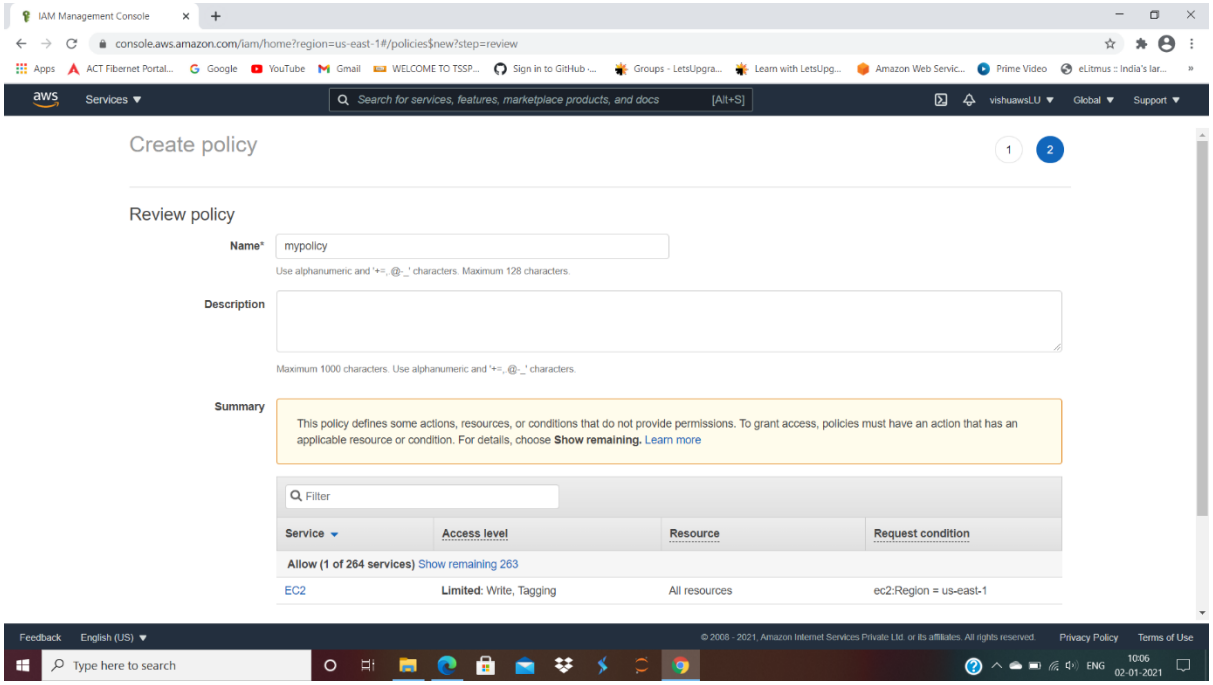
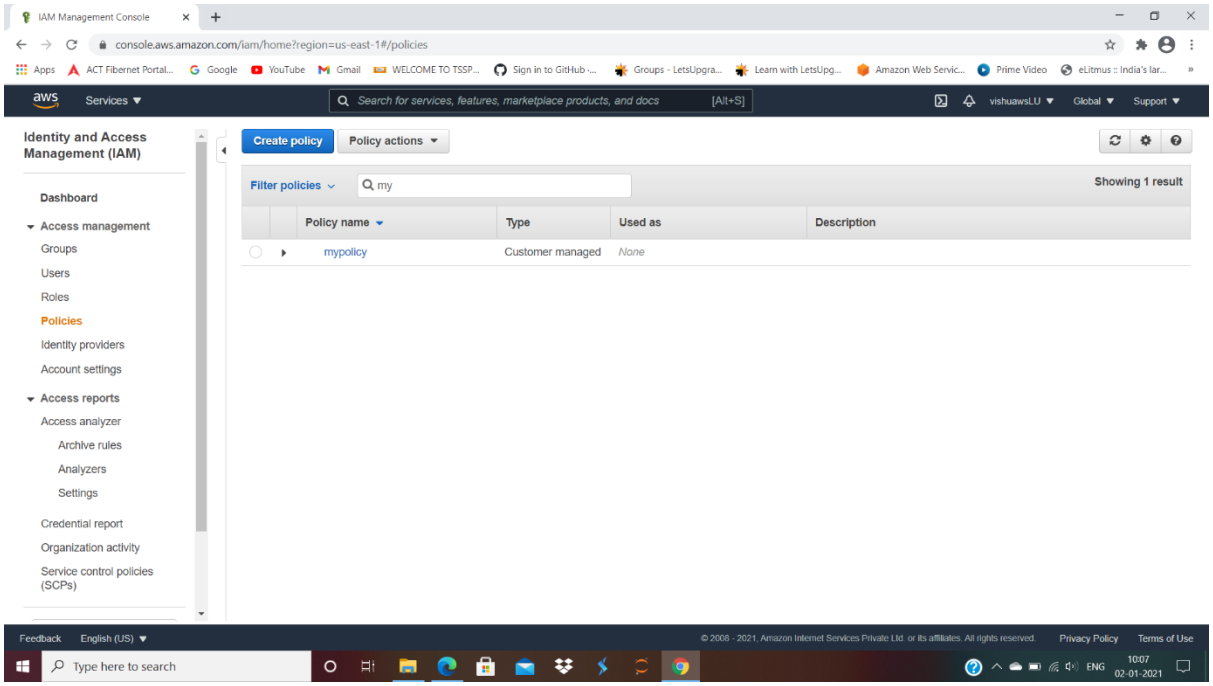
AWS PROJECT 3

Provision EC2 instance with Lambda

Create an IAM Policy






IAM Management Console
console.aws.amazon.com/iam/home?region=us-east-1#/policies
Services
Search for services, features, marketplace products, and docs [Alt+S]
vishuawsLU
Global
Support
Identity and Access Management (IAM)
Dashboard
Access management
Groups
Users
Roles
Policies
Identity providers
Account settings
Access reports
Access analyzer
Archive rules
Analyzers
Settings
Credential report
Organization activity
Service control policies (SCPs)
Create policy
Policy actions
Filter policies
my
Showing 1 result
Policy name
Type
Used as
Description
mypolicy
Customer managed
None
Feedback
English (US)
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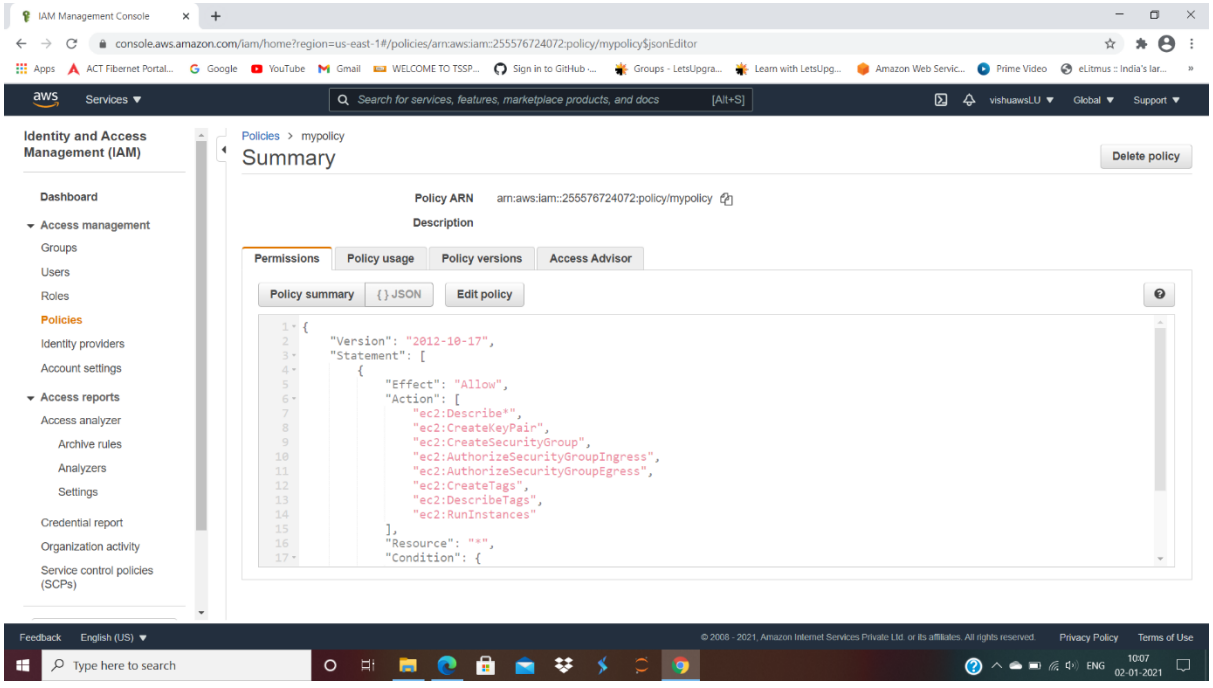
IAM Management Console
console.aws.amazon.com/iam/home?region=us-east-1#/policies/arn:aws:iam::255576724072:policy/mypolicy$jsonEditor
Services
Search for services, features, marketplace products, and docs [Alt+S]
vishuawsLU
Global
Support
Identity and Access Management (IAM)
Dashboard
Access management
Groups
Users
Roles
Policies
Identity providers
Account settings
Access reports
Access analyzer
Archive rules
Analyzers
Settings
Credential report
Organization activity
Service control policies (SCPs)
Policies > mypolicy
Summary
Delete policy
Policy ARN
arn:aws:iam::255576724072:policy/mypolicy
Description
Permissions
Policy usage
Policy versions
Access Advisor
Policy summary
{ } JSON
Edit policy
{
"Version": "2012-10-17",
"Statement": [
{
"Effect": "Allow",
"Action": [
"ec2:Describe*",
"ec2:CreateKeyPair",
"ec2:CreateSecurityGroup",
"ec2:AuthorizeSecurityGroupIngress",
"ec2:AuthorizeSecurityGroupEgress",
"ec2:CreateTags",
"ec2:DescribeTags",
"ec2:RunInstances"
],
"Resource": "*",
"Condition": {
Feedback
English (US)
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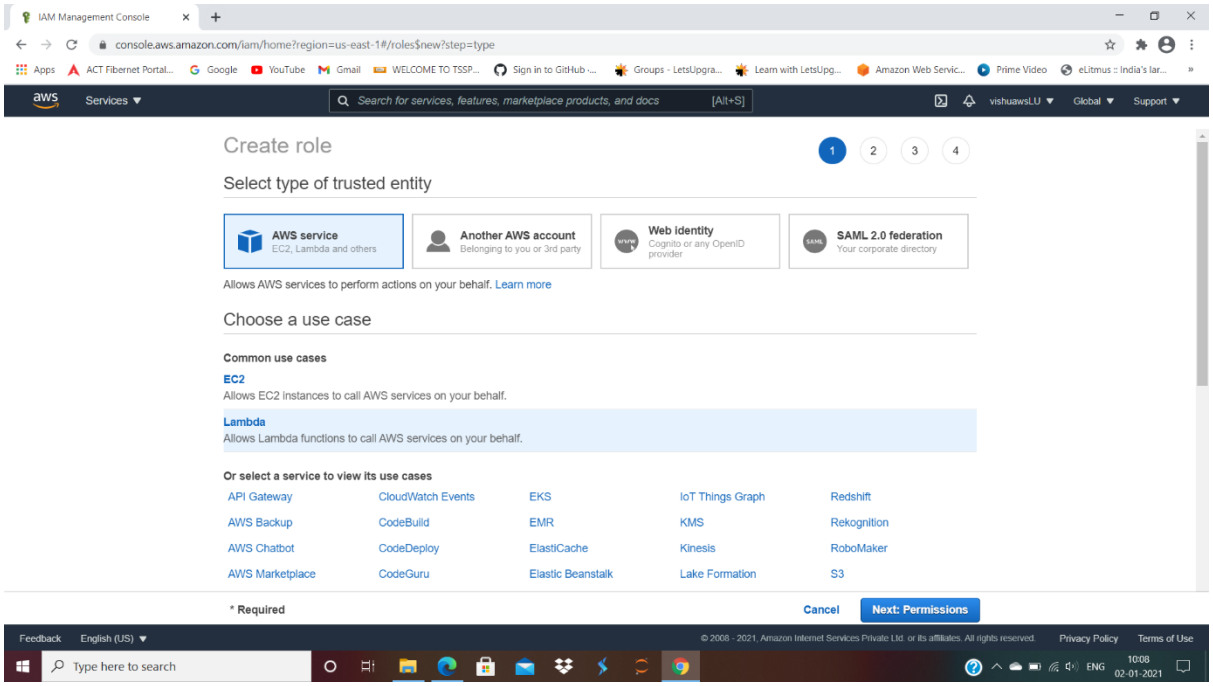
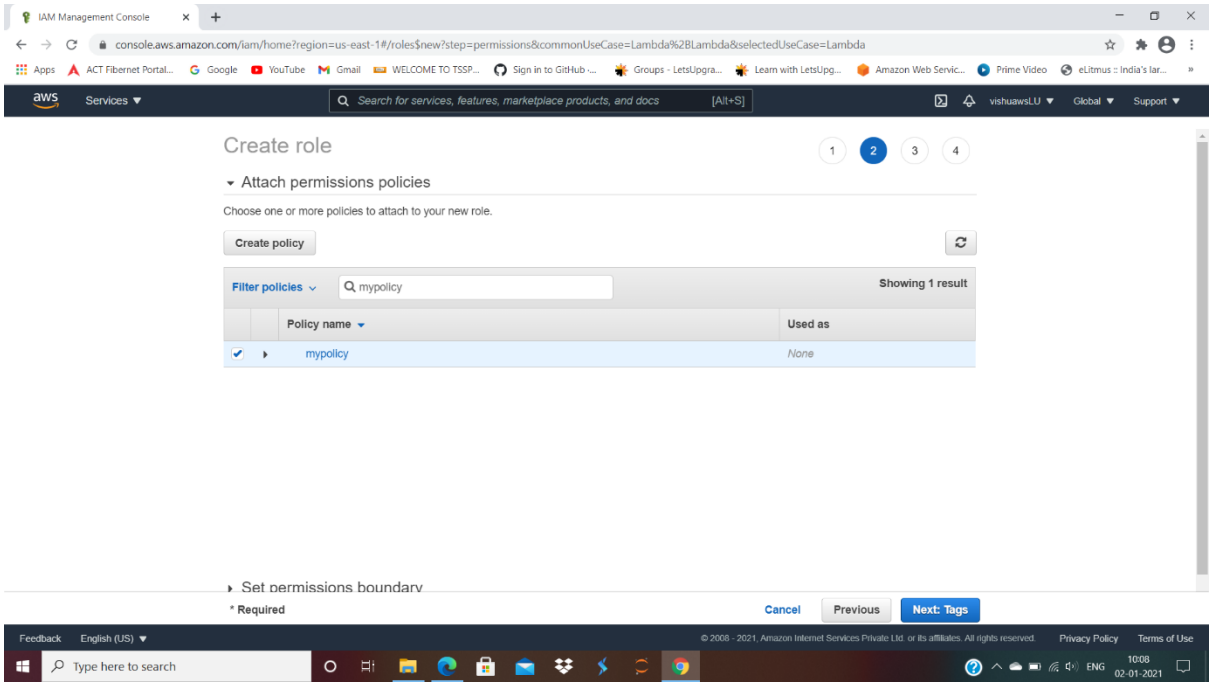
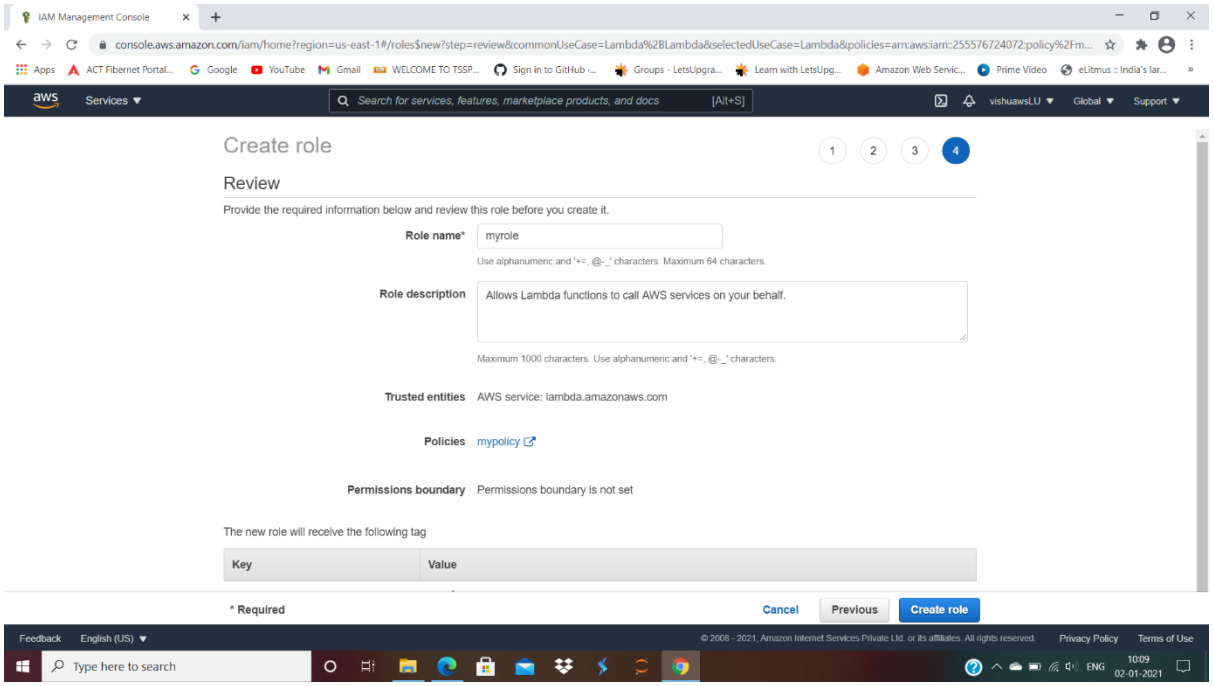
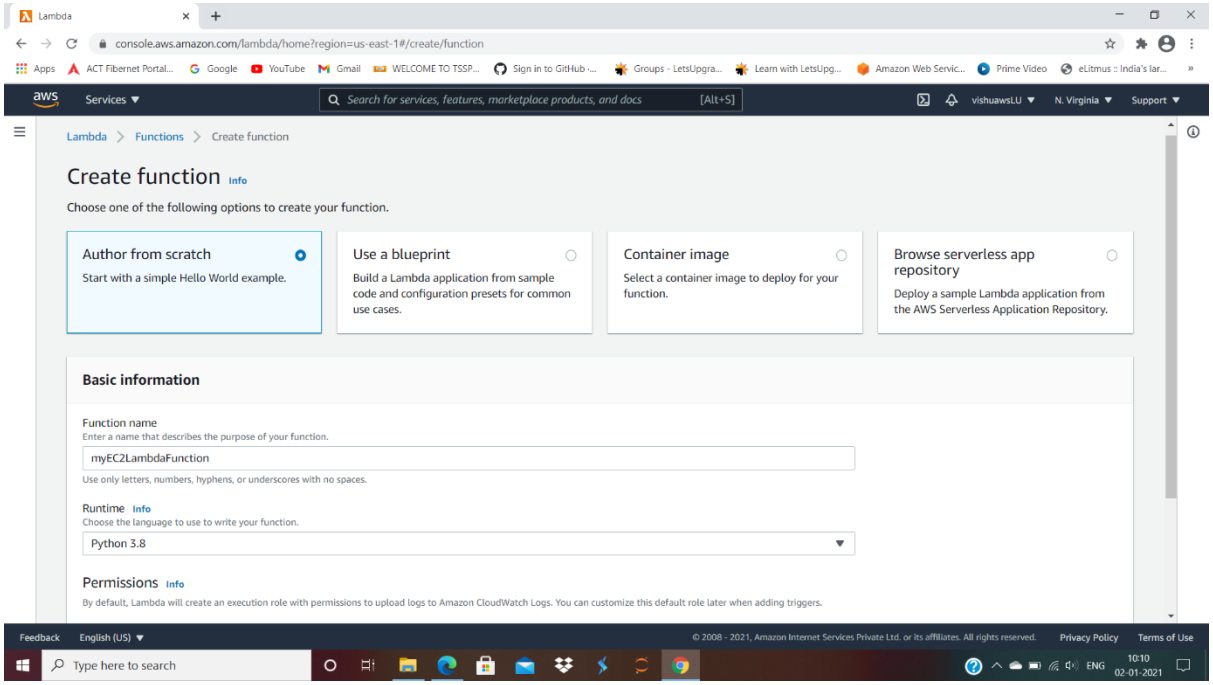
Create an IAM Role.

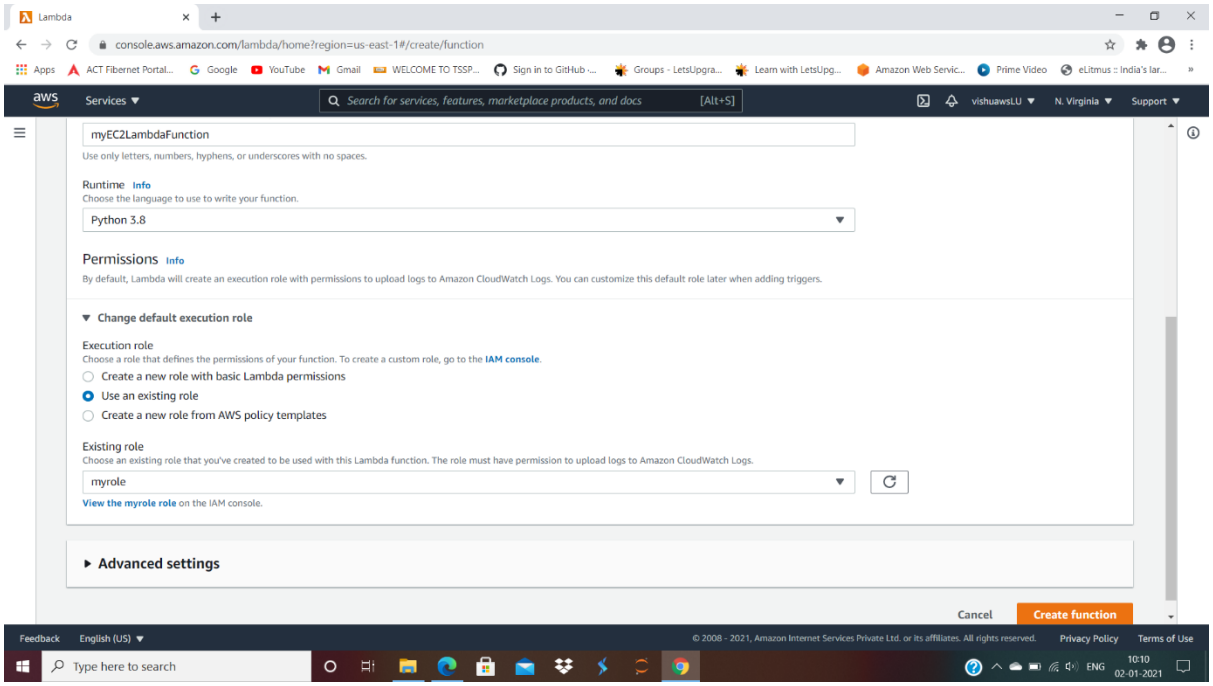






Creation of a Lambda Function




Lambda
console.aws.amazon.com/lambda/home?region=us-east-1#/create/function
Services
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N. Virginia
Support
myEC2LambdaFunction
Use only letters, numbers, hyphens, or underscores with no spaces.
Runtime Info
Choose the language to use to write your function.
Python 3.8
Permissions Info
By default, Lambda will create an execution role with permissions to upload logs to Amazon CloudWatch Logs. You can customize this default role later when adding triggers.
Change default execution role
Execution role
Choose a role that defines the permissions of your function. To create a custom role, go to the IAM console.
Create a new role with basic Lambda permissions
Use an existing role
Create a new role from AWS policy templates
Existing role
Choose an existing role that you've created to be used with this Lambda function. The role must have permission to upload logs to Amazon CloudWatch Logs.
myrole
View the myrole role on the IAM console.
Advanced settings
Cancel
Create function
Feedback
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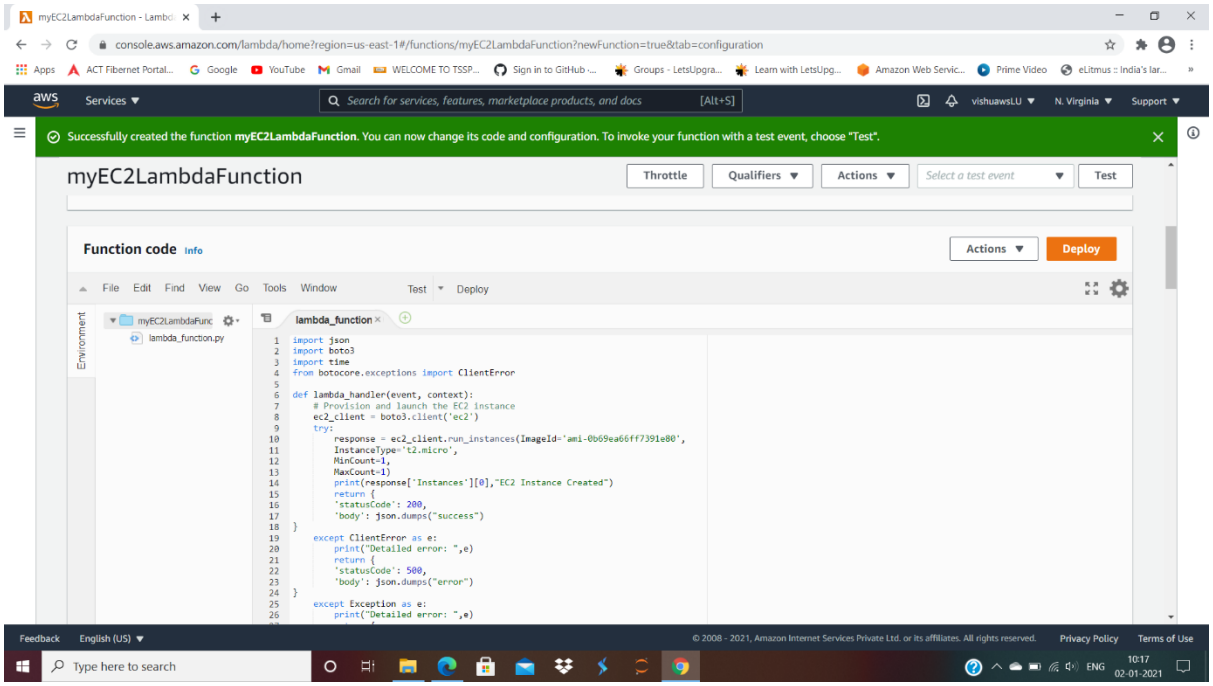
myEC2LambdaFunction - Lambda
console.aws.amazon.com/lambda/home?region=us-east-1#/functions/myEC2LambdaFunction?newFunction=true&tab=configuration
Services
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Support
Successfully created the function myEC2LambdaFunction. You can now change its code and configuration. To invoke your function with a test event, choose "Test".
myEC2LambdaFunction
Throttle
Qualifiers
Actions
Select a test event
Test
Function code Info
Actions
Deploy
File Edit Find View Go Tools Window Test Deploy
Environment
myEC2LambdaFunc
lambda_function.py
lambda_function
import json
import boto3
import time
from botocore.exceptions import ClientError
def lambda_handler(event, context):
# Provision and launch the EC2 instance
ec2_client = boto3.client('ec2')
try:
response = ec2_client.run_instances(ImageId='ami-0b69ea66ff7391e80',
InstanceType='t2.micro',
MinCount=1,
MaxCount=1)
print(response['Instances'][0],"EC2 Instance Created")
return {
'statusCode': 200,
'body': json.dumps("success")
}
except ClientError as e:
print("Detailed error: ",e)
return {
'statusCode': 500,
'body': json.dumps("error")
}
except Exception as e:
print("Detailed error: ",e)
Feedback
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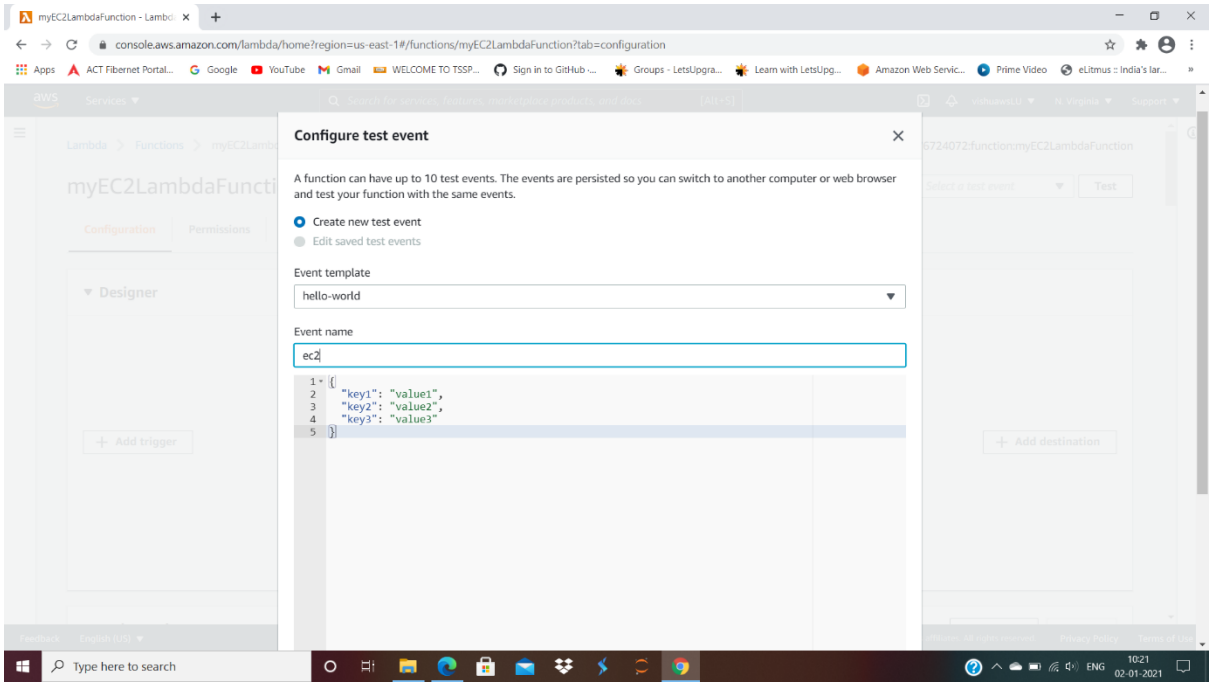
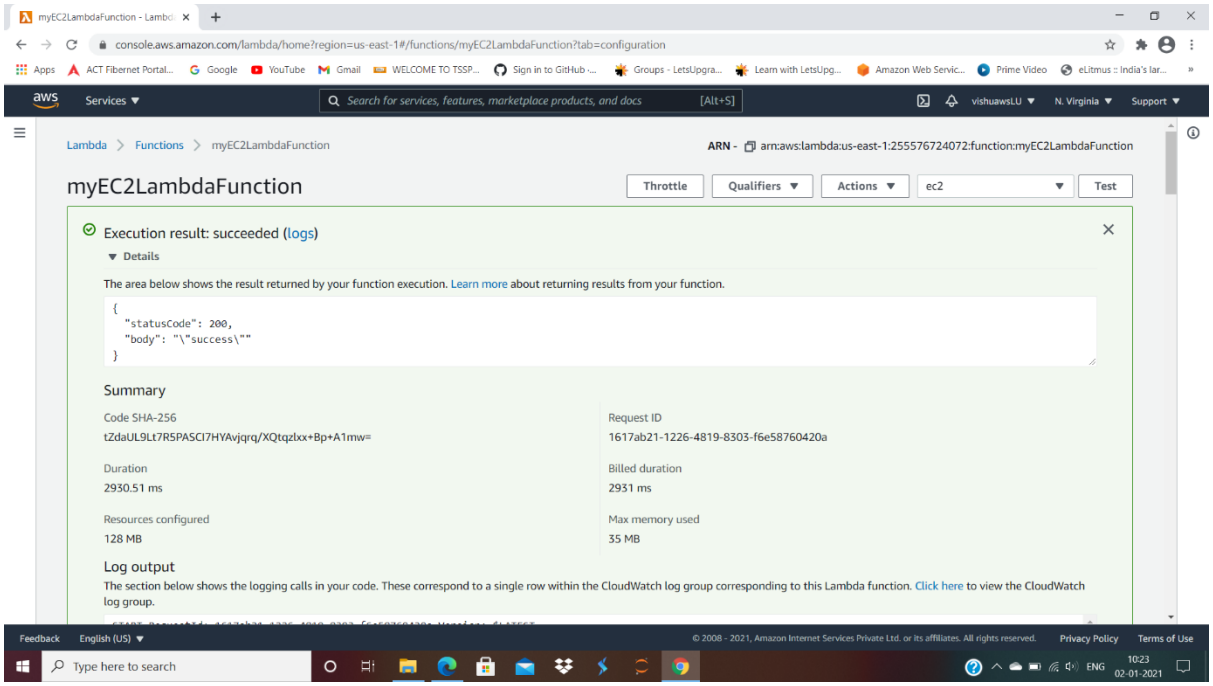
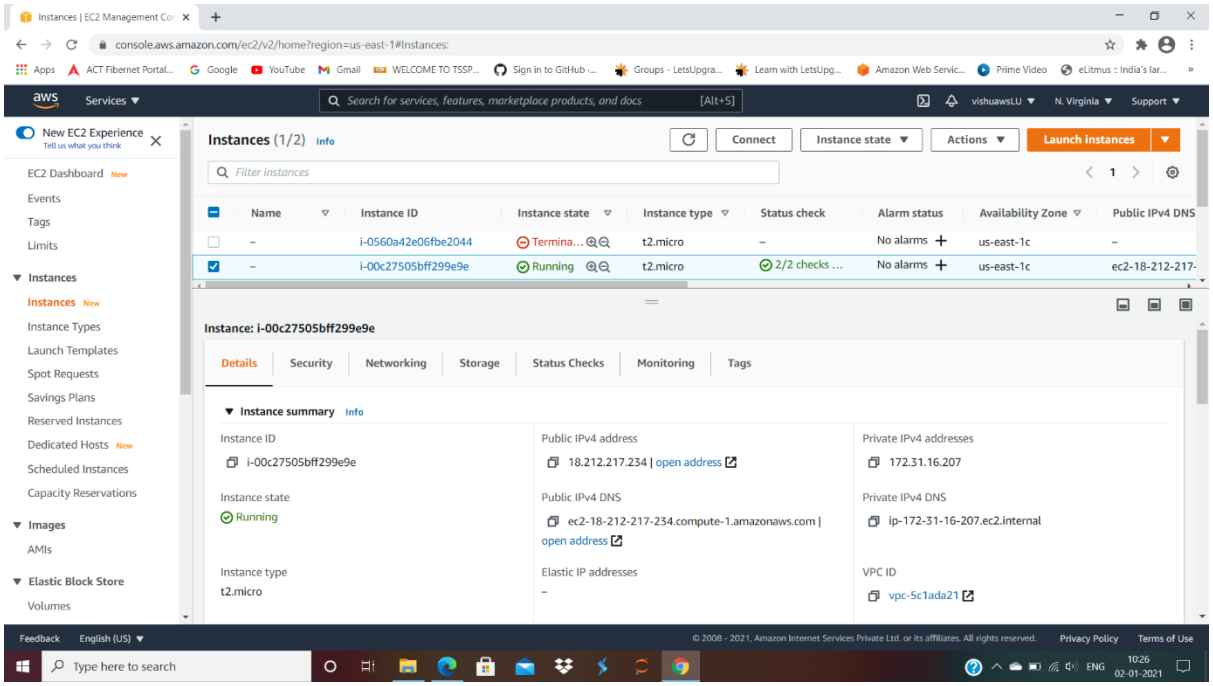

Configure test event
A function can have up to 10 test events. The events are persisted so you can switch to another computer or web browser and test your function with the same events.
Create new test event
Edit saved test events
Event template
hello-world
Event name
ec2
{
"key1": "value1",
"key2": "value2",
"key3": "value3"
}


Lambda > Functions > myEC2LambdaFunction
ARN - arn:aws:lambda:us-east-1:255576724072:function:myEC2LambdaFunction
myEC2LambdaFunction
Throttle
Qualifiers
Actions
ec2
Test
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
tZdaUL9Lt7R5PASCI7HYAvjqrq/XQtqzlxx+Bp+A1mw=
Request ID
1617ab21-1226-4819-8303-f6e58760420a
Duration
2930.51 ms
Billed duration
2931 ms
Resources configured
128 MB
Max memory used
35 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.

Details of instance that is created while testing Lamda function