TASK 1:
Task 1 : Have to create/launch Application using Terraform

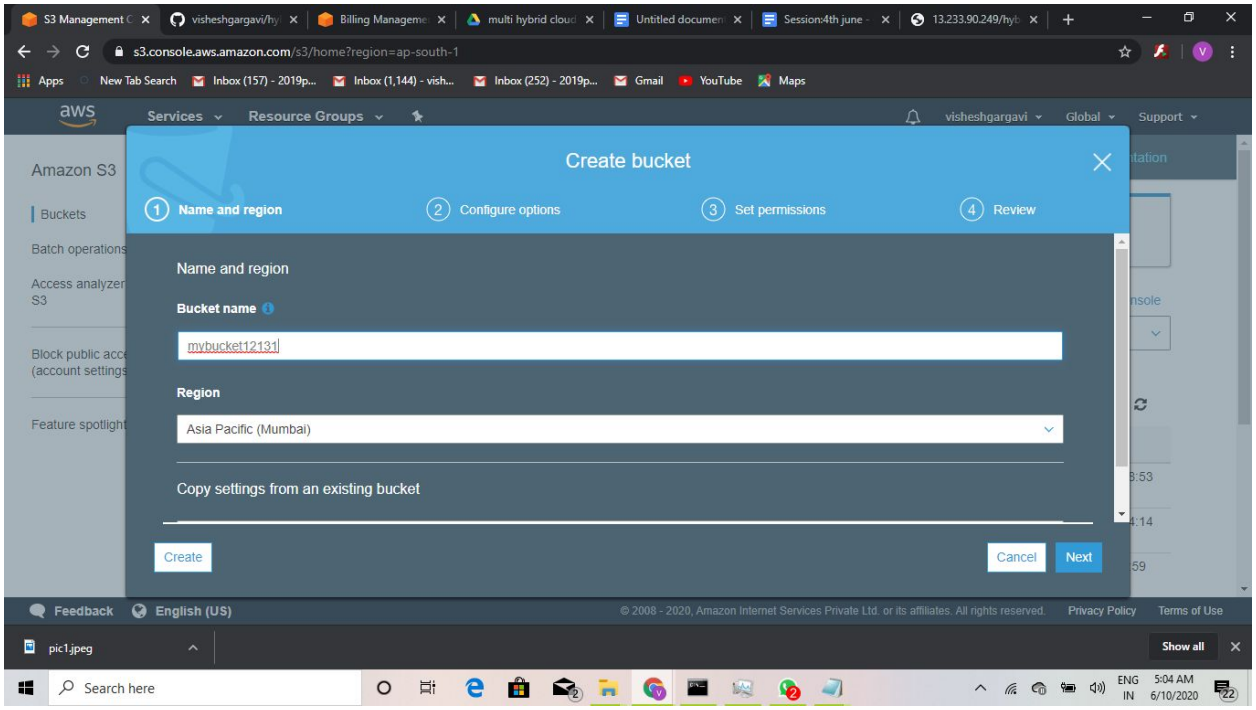
1. Create the key and security group which allow the port 80.
2. Launch EC2 instance.
3. In this Ec2 instance use the key and security group which we have created in step 1.
4. Launch one Volume (EBS) and mount that volume into /var/www/html
5. Developer have uploded the code into github repo also the repo has some images.
6. Copy the github repo code into /var/www/html
7. Create S3 bucket, and copy/deploy the images from github repo into the s3 bucket and change the permission to public readable.
8 Create a Cloudfront using s3 bucket(which contains images) and use the Cloudfront URL to update in code in /var/www/html

Notepad file:
Git link to download:https://github.com/visheshgargavi/hybrid-task1.git

```
provider "aws" {
  region   = "ap-south-1"
  profile  = "myvishesh"
}

resource "aws_key_pair" "task1-key" {
  key_name    = "task1-key"
  public_key  = "ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAABAQCzXD5tF1G5oF3StxzKbT3TvwtL2P/ZotKFARLsZr7
KEfaHU4ZPA3q3dcnkum67HpNV4p/v8EIIUFFsX2ZuxH2sN5UYKDm6WmPdII+vkc+JBE65/CiK
2m5RJ7mwclgJpQuNdYdREzA79FX+ZFTyBlt/KMwb06wcgWonYPpWcVxujpIot2rag+ZA5TcR5
KyZKSfdM7AlMLUHARPAKjo2ikmvccNSLxg2P6AJf7Epgb0rvfb3skv34w0EslQSZD/s/nSmNifcV
SVXTKeggAUIIMC17Od+YwfUM0dFgQNpF54WJzvaRF2tFv5pMQFRr6qLQBNFoe8ezvz2b26
m9gMAwX0l"
}

resource "aws_security_group" "task1-sg" {
  name        = "task1-sg"
  description = "Allow TLS inbound traffic"
  vpc_id      = "vpc-15f8e57d"


  ingress {
    description = "SSH"
    from_port   = 22
    to_port     = 22
```

```
    protocol    = "tcp"
    cidr_blocks = [ "0.0.0.0/0" ]
  }

  ingress {
    description = "HTTP"
    from_port   = 80
    to_port     = 80
    protocol    = "tcp"
    cidr_blocks = [ "0.0.0.0/0" ]
  }

  egress {
    from_port   = 0
    to_port     = 0
    protocol    = "-1"
    cidr_blocks = ["0.0.0.0/0"]
  }

  tags = {
    Name = "task1-sg"
  }
}

resource "aws_ebs_volume" "task1-ebs" {
  availability_zone = "ap-south-1a"
  size              = 1

  tags = {
    Name = "task1-ebs"
  }
}
resource "aws_volume_attachment" "task1-attach" {
 device_name = "/dev/sdf"
 volume_id = "${aws_ebs_volume.task1-ebs.id}"
 instance_id = "${aws_instance.task1-inst.id}"
}
resource "aws_instance" "task1-inst" {
  ami           = "ami-0447a12f28fddb066"
  instance_type = "t2.micro"
  availability_zone = "ap-south-1a"
  key_name      = "task1-key"
  security_groups = [ "task1-sg" ]
```

```
  user_data = <<-EOF
              #! /bin/bash
              sudo yum install httpd -y
              sudo systemctl start httpd
              sudo systemctl enable httpd
              sudo yum install git -y
              mkfs.ext4 /dev/xvdf1
              mount /dev/xvdf1 /var/www/html
              cd /var/www/html
              git clone https://github.com/visheshgargavi/hybrid-task1

  EOF

  tags = {
    Name = "task1-inst"
  }
}
```


S3 Management C
visheshgargavi/hy
Billing Manageme
multi hybrid cloud
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Session:4th june -
13.233.90.249/hyb
s3.console.aws.amazon.com/s3/home?region=ap-south-1
Apps
New Tab Search
Inbox (157) - 2019p...
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Maps
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Resource Groups
visheshgargavi
Global
Support
Amazon S3
Buckets
Batch operations
Access analyzer S3
Block public acc (account settings
Feature spotlight
Create bucket
1 Name and region
2 Configure options
3 Set permissions
4 Review
Name and region
Bucket name
mybucket12131
Region
Asia Pacific (Mumbai)
Copy settings from an existing bucket
Create
Cancel
Next
Feedback
English (US)
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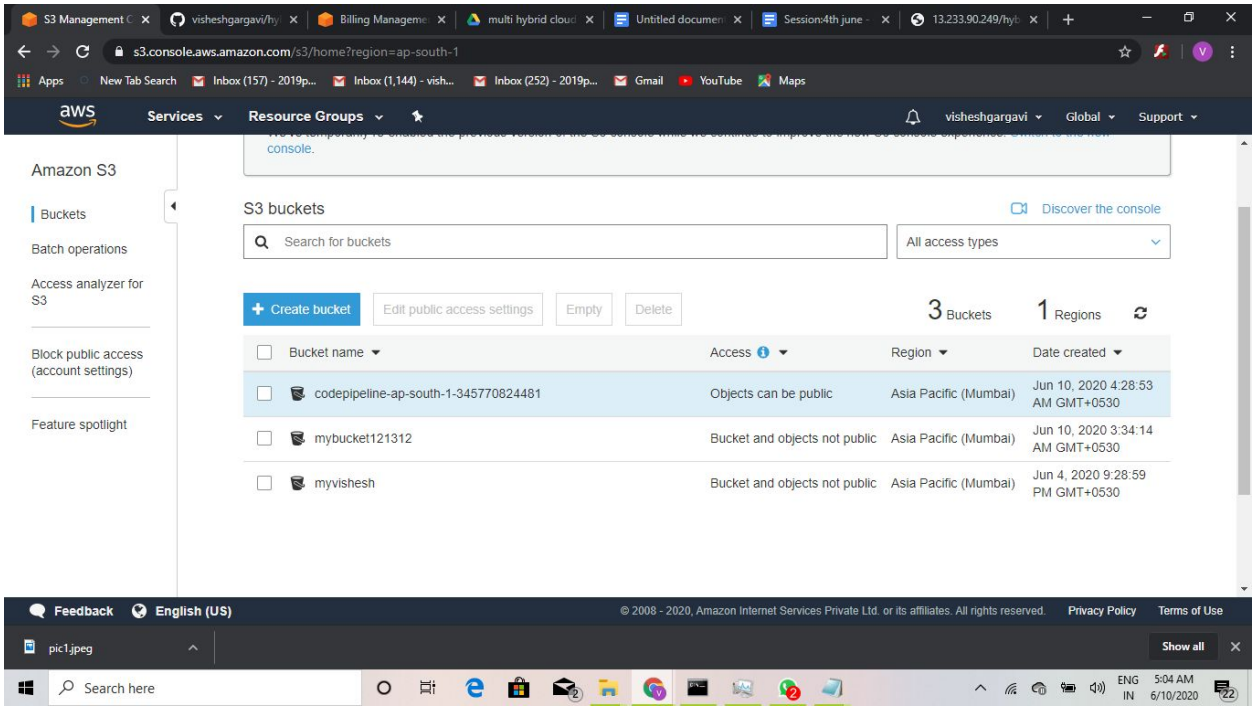
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Support
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Buckets
Batch operations
Access analyzer for S3
Block public access (account settings)
Feature spotlight
console.
S3 buckets
Discover the console
Search for buckets
All access types
Create bucket
Edit public access settings
Empty
Delete
3 Buckets
1 Regions
Bucket name
Access
Region
Date created
codepipeline-ap-south-1-345770824481
Objects can be public
Asia Pacific (Mumbai)
Jun 10, 2020 4:28:53 AM GMT+0530
mybucket121312
Bucket and objects not public
Asia Pacific (Mumbai)
Jun 10, 2020 3:34:14 AM GMT+0530
myvishesh
Bucket and objects not public
Asia Pacific (Mumbai)
Jun 4, 2020 9:28:59 PM GMT+0530
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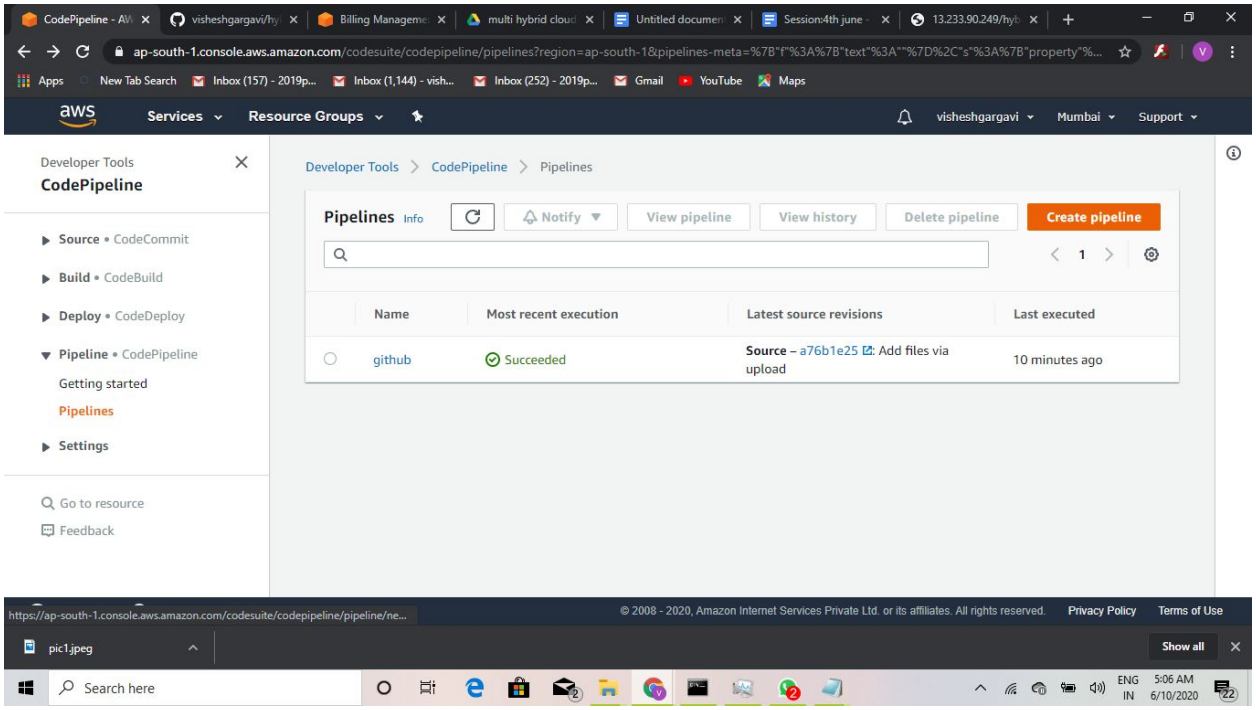
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Developer Tools
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Source • CodeCommit
Build • CodeBuild
Deploy • CodeDeploy
Pipeline • CodePipeline
Getting started
Pipelines
Settings
Go to resource
Feedback
Developer Tools > CodePipeline > Pipelines
Pipelines Info
Notify
View pipeline
View history
Delete pipeline
Create pipeline
1
Name
Most recent execution
Latest source revisions
Last executed
github
Succeeded
Source – a76b1e25: Add files via upload
10 minutes ago
https://ap-south-1.console.aws.amazon.com/codesuite/codepipeline/pipeline/ne...
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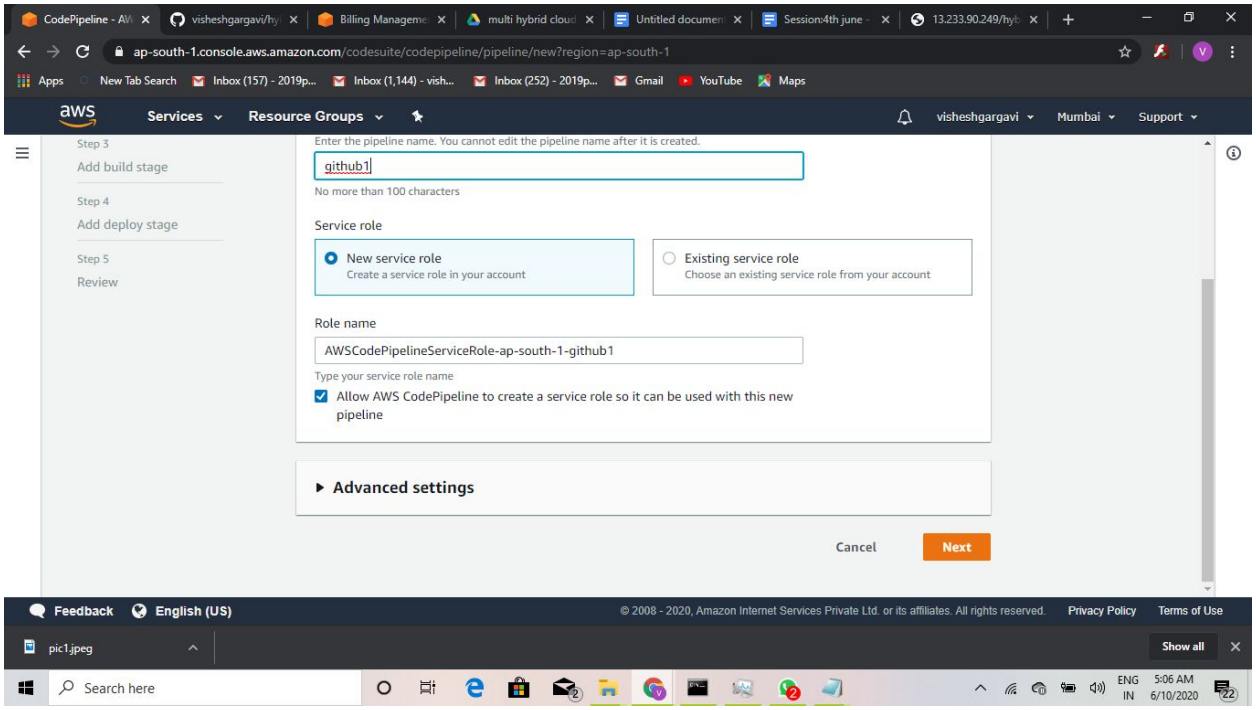
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Mumbai
Support
Step 3
Add build stage
Step 4
Add deploy stage
Step 5
Review
Enter the pipeline name. You cannot edit the pipeline name after it is created.
github1
No more than 100 characters
Service role
New service role
Create a service role in your account
Existing service role
Choose an existing service role from your account
Role name
AWSCodePipelineServiceRole-ap-south-1-github1
Type your service role name
Allow AWS CodePipeline to create a service role so it can be used with this new pipeline
Advanced settings
Cancel
Next
Feedback
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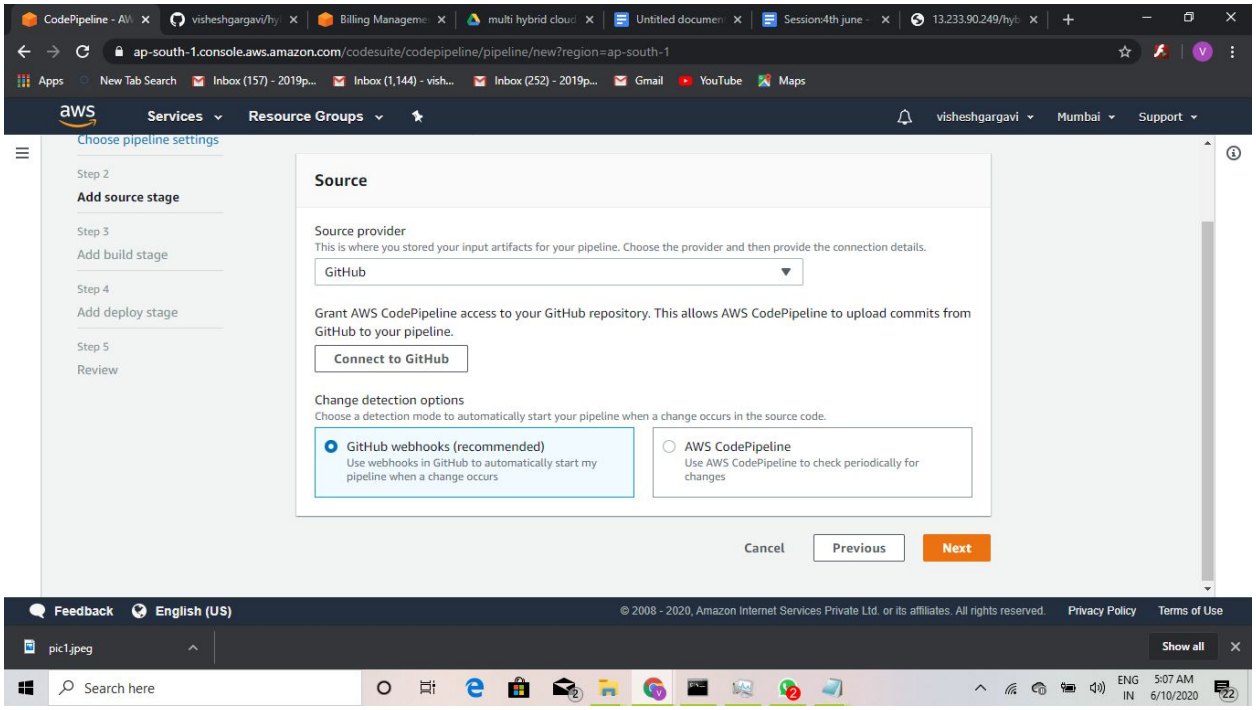
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Mumbai
Support
Choose pipeline settings
Step 2
Add source stage
Step 3
Add build stage
Step 4
Add deploy stage
Step 5
Review
Source
Source provider
This is where you stored your input artifacts for your pipeline. Choose the provider and then provide the connection details.
GitHub
Grant AWS CodePipeline access to your GitHub repository. This allows AWS CodePipeline to upload commits from GitHub to your pipeline.
Connect to GitHub
Change detection options
Choose a detection mode to automatically start your pipeline when a change occurs in the source code.
GitHub webhooks (recommended)
Use webhooks in GitHub to automatically start my pipeline when a change occurs
AWS CodePipeline
Use AWS CodePipeline to check periodically for changes
Cancel
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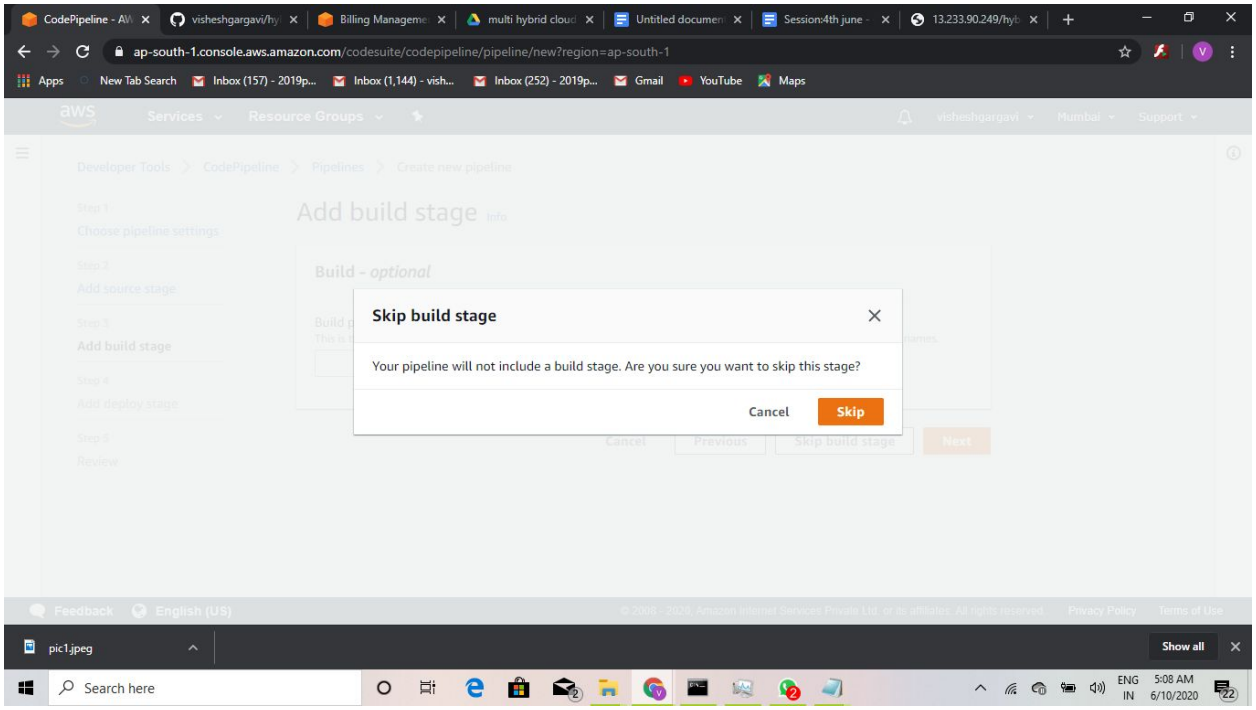
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Maps
Add build stage
Build - optional
Skip build stage
Your pipeline will not include a build stage. Are you sure you want to skip this stage?
Cancel
Skip
Feedback
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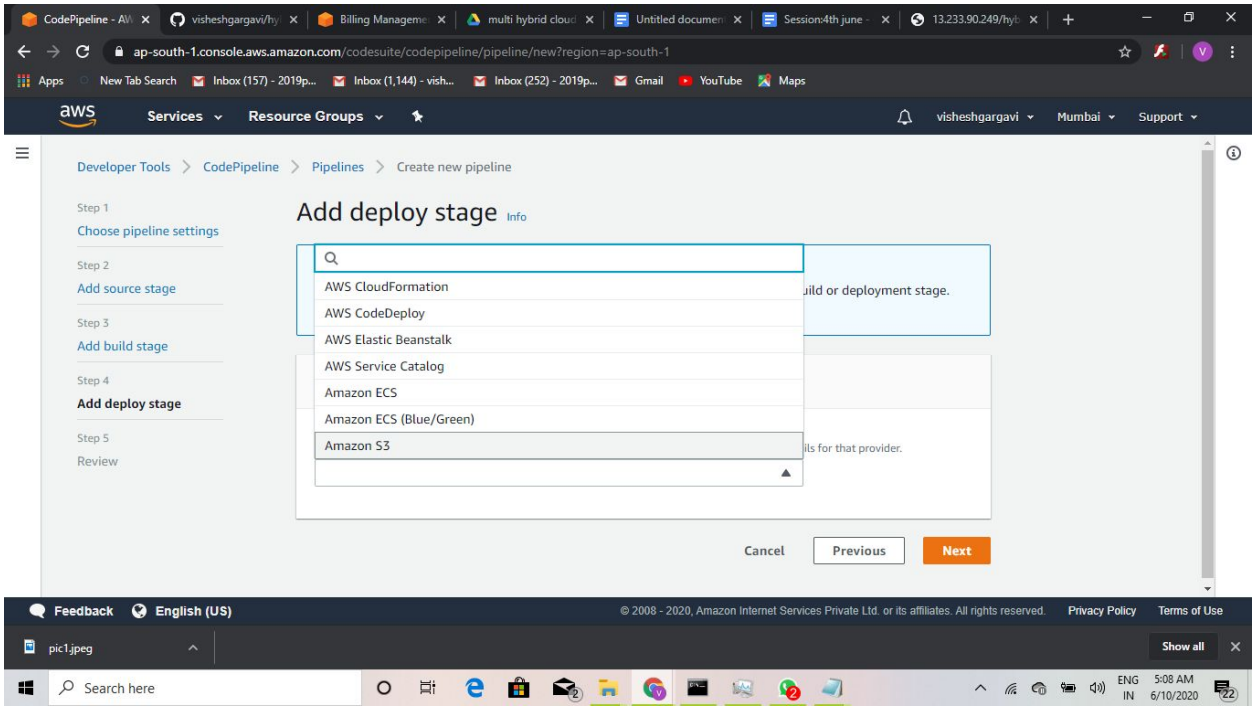
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Step 1
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Add deploy stage
Info
AWS CloudFormation
AWS CodeDeploy
AWS Elastic Beanstalk
AWS Service Catalog
Amazon ECS
Amazon ECS (Blue/Green)
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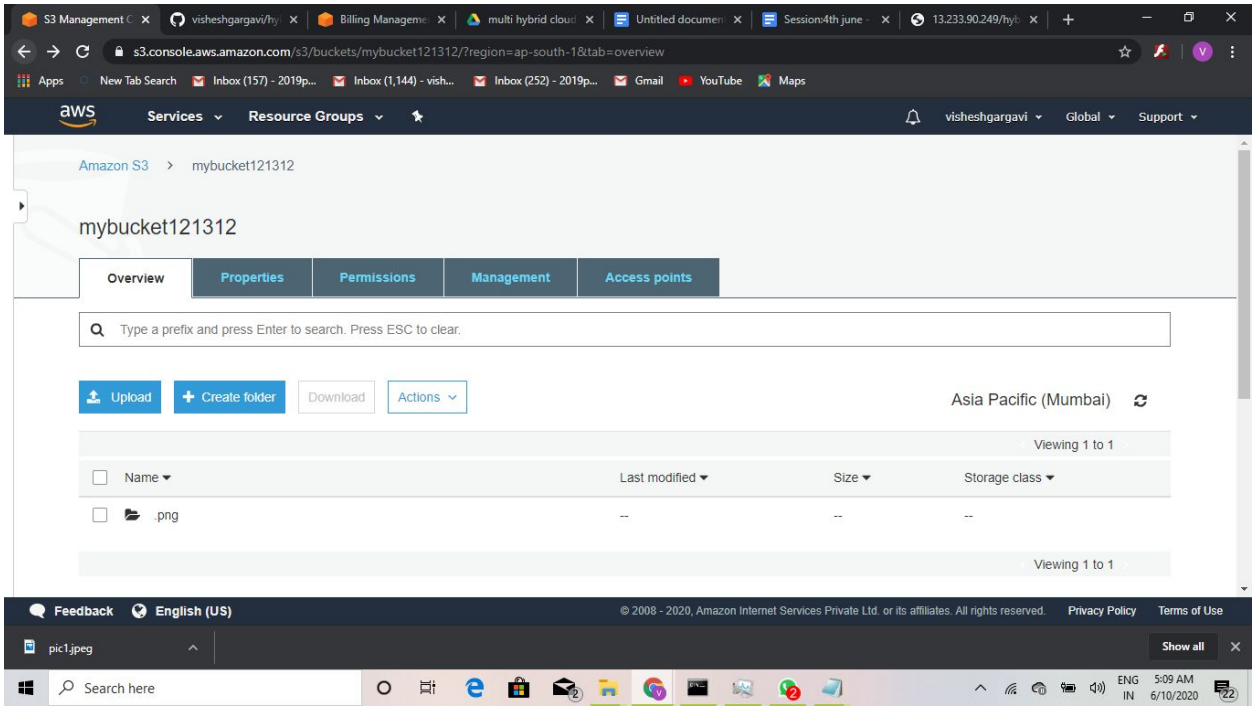
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Session:4th june -
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s3.console.aws.amazon.com/s3/buckets/mybucket121312/?region=ap-south-1&tab=overview
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Global
Support
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mybucket121312
mybucket121312
Overview
Properties
Permissions
Management
Access points
Type a prefix and press Enter to search. Press ESC to clear.
Upload
Create folder
Download
Actions
Asia Pacific (Mumbai)
Viewing 1 to 1
Name
Last modified
Size
Storage class
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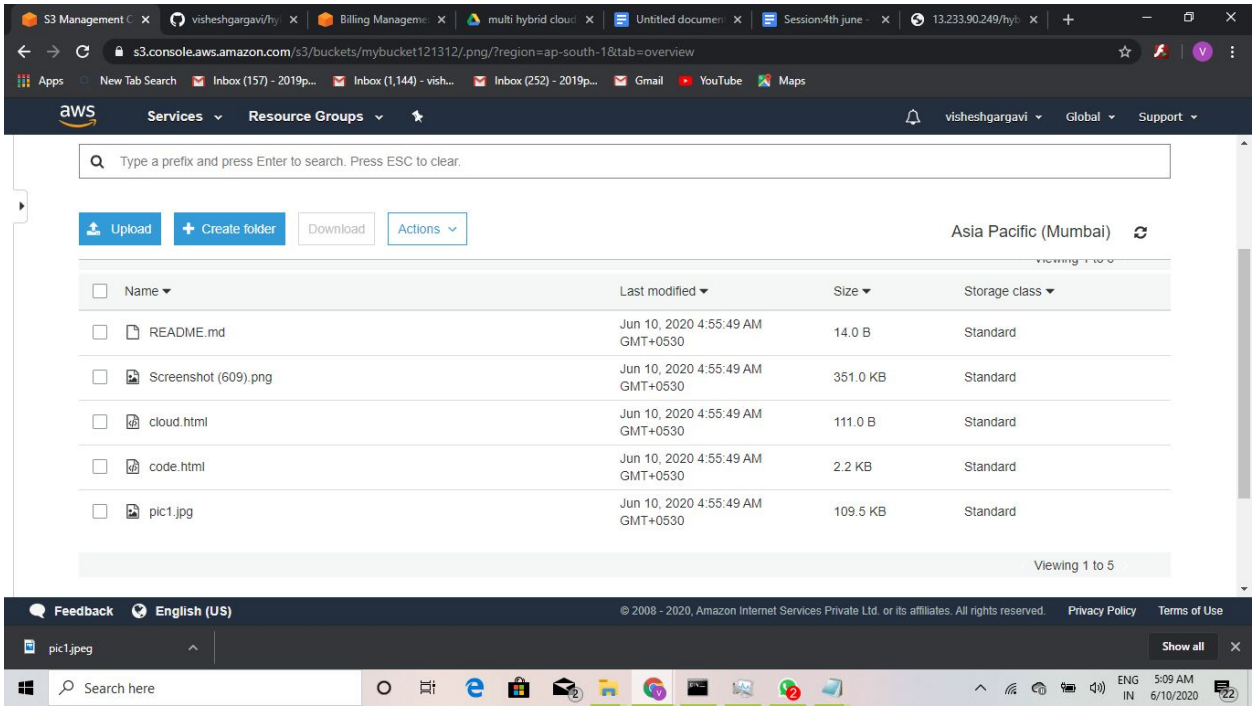
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s3.console.aws.amazon.com/s3/buckets/mybucket121312/.png/?region=ap-south-1&tab=overview
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Global
Support
Type a prefix and press Enter to search. Press ESC to clear.
Upload
Create folder
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Actions
Asia Pacific (Mumbai)
Name
Last modified
Size
Storage class
README.md
Jun 10, 2020 4:55:49 AM GMT+0530
14.0 B
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Screenshot (609).png
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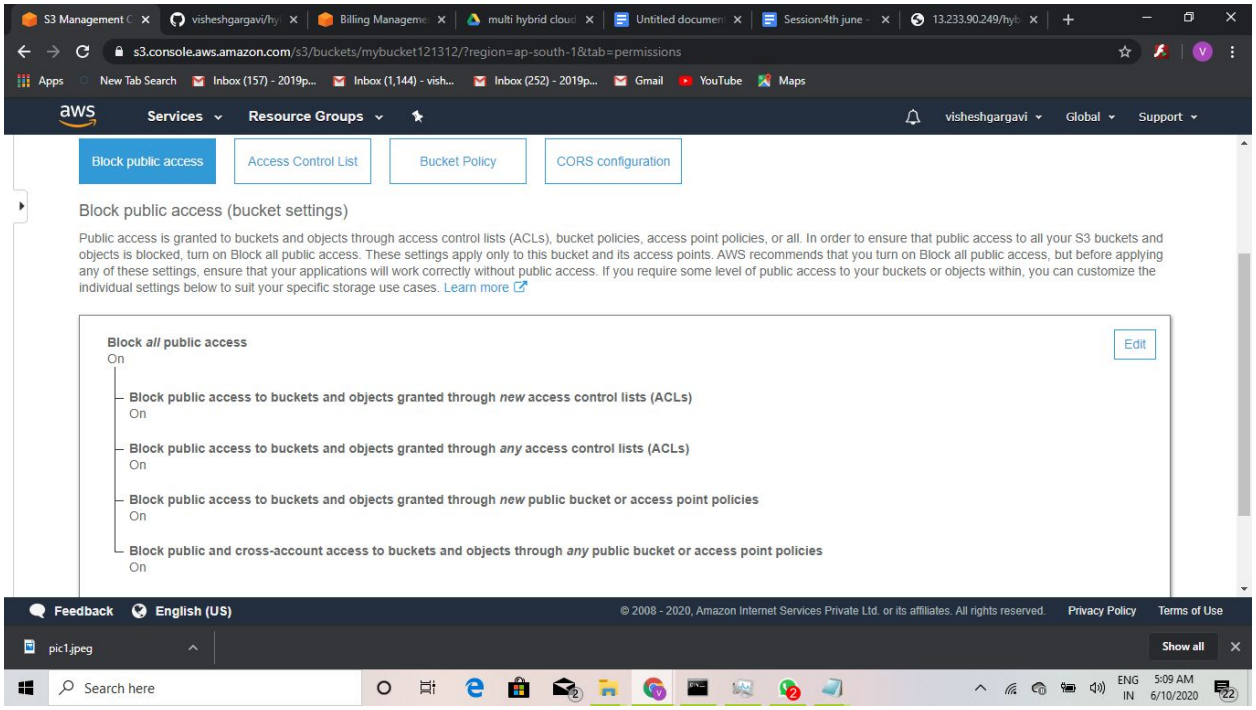
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s3.console.aws.amazon.com/s3/buckets/mybucket121312/?region=ap-south-1&tab=permissions
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Block public access
Access Control List
Bucket Policy
CORS configuration
Block public access (bucket settings)
Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to all your S3 buckets and objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to your buckets or objects within, you can customize the individual settings below to suit your specific storage use cases. Learn more
Block all public access
On
Edit
Block public access to buckets and objects granted through new access control lists (ACLs)
On
Block public access to buckets and objects granted through any access control lists (ACLs)
On
Block public access to buckets and objects granted through new public bucket or access point policies
On
Block public and cross-account access to buckets and objects through any public bucket or access point policies
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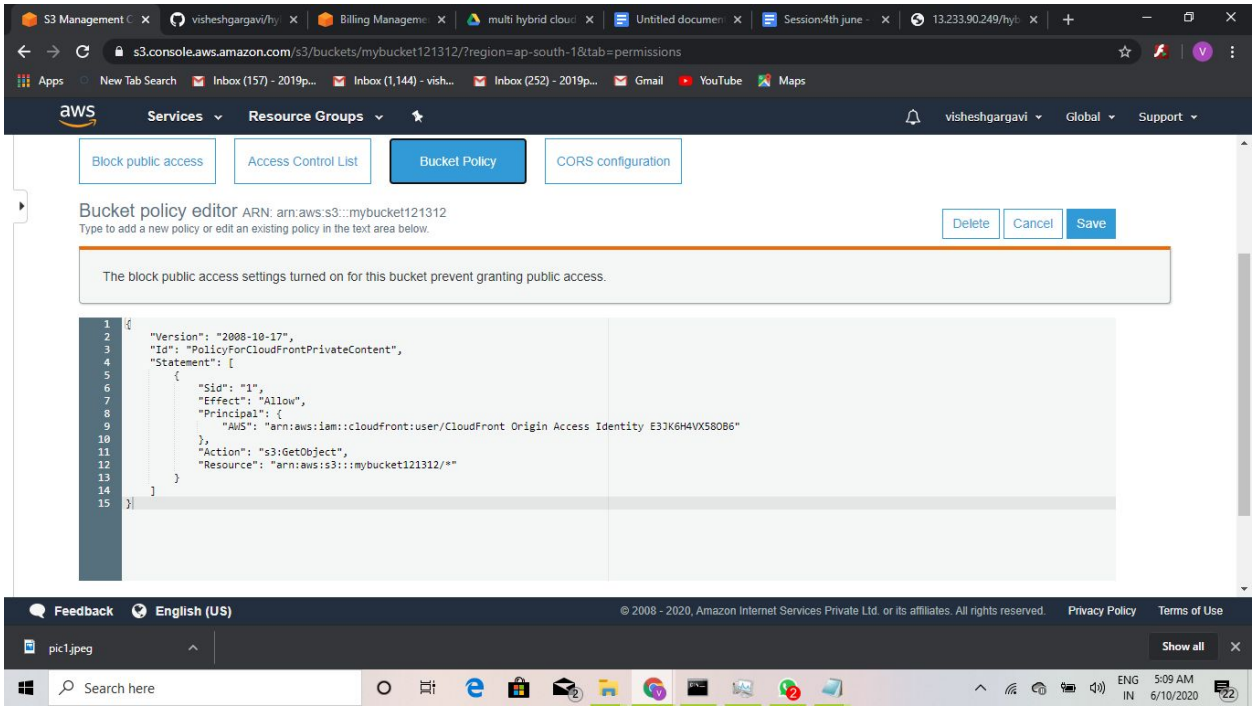
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Block public access
Access Control List
Bucket Policy
CORS configuration
Bucket policy editor ARN: arn:aws:s3:::mybucket121312
Type to add a new policy or edit an existing policy in the text area below.
Delete
Cancel
Save
The block public access settings turned on for this bucket prevent granting public access.
{
"Version": "2008-10-17",
"Id": "PolicyForCloudFrontPrivateContent",
"Statement": [
{
"Sid": "1",
"Effect": "Allow",
"Principal": {
"AWS": "arn:aws:iam::cloudfront:user/CloudFront Origin Access Identity E3JK6H4VX58OB6"
},
"Action": "s3:GetObject",
"Resource": "arn:aws:s3:::mybucket121312/*"
}
]
}
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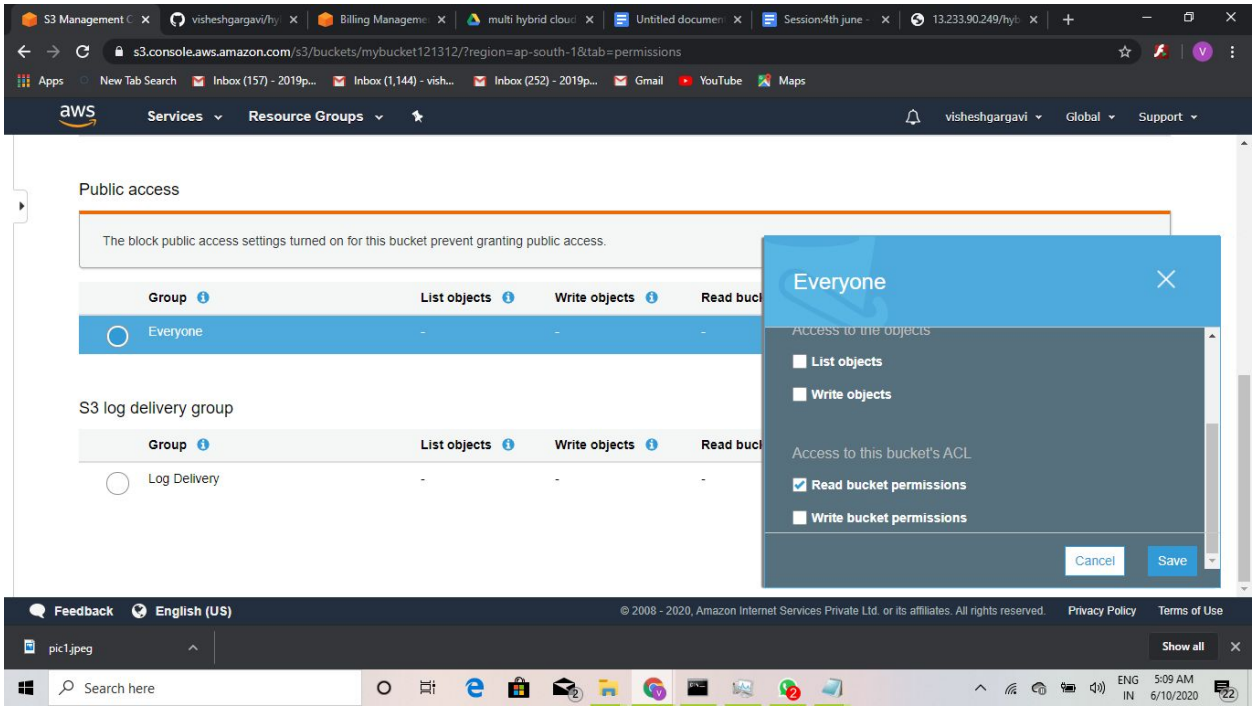
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s3.console.aws.amazon.com/s3/buckets/mybucket121312/?region=ap-south-1&tab=permissions
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Support
Public access
The block public access settings turned on for this bucket prevent granting public access.
Group
List objects
Write objects
Read bucl
Everyone
S3 log delivery group
Group
List objects
Write objects
Read bucl
Log Delivery
Everyone
Access to the objects
List objects
Write objects
Access to this bucket's ACL
Read bucket permissions
Write bucket permissions
Cancel
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