

# Experiment 5 - Introduction to AWS Key Management Service(KMS)

Name – B Pravena  
SRN – PES2UG19CS076

Sec - B

us-west-2.console.aws.amazon.com/kms/home?region=us-west-2#/keys

Success  
Your AWS KMS key was created with alias **pes2ug19cs076** and key ID **ab8ba694-0821-4d76-a689-e638f8771f34**.

Key Management Service (KMS)

AWS managed keys  
Customer-managed keys  
Custom key stores

Customer-managed keys (1)

Filter keys by properties or tags

<input type="checkbox"/>	Aliases	Key ID	Status	Key spec	Key usage
<input type="checkbox"/>	pes2ug19cs076	ab8ba694-0821-4d76-a689-e638f8771f34	Enabled	SYMMETRIC_DEFAULT	Encrypt and decrypt

us-west-2.console.aws.amazon.com/cloudtrail/home?region=us-west-2#/trails

Introducing CloudTrail Lake  
CloudTrail Lake lets you query multiple event fields in your logs, across all regions, for auditing and analysis. [Learn more](#)

CloudTrail > Trails

Trails

<input type="radio"/>	Name	Home region	Log file prefix	CloudWatch Logs log group	Status
<input type="radio"/>	pes2ug19cs076-trail	US West (Oregon)			Logging
<input type="radio"/>	us-west-2-qltrail-lab-2481-1650890019	US West (Oregon)			Logging

← → ↻ s3.console.aws.amazon.com/s3/upload/mycloudtrailbucket0076?region=us-west-2

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Upload succeeded  
View details below.

### Upload: status Close

The information below will no longer be available after you navigate away from this page.

#### Summary

Destination s3://mycloudtrailbucket0076	Succeeded ✔ 1 file, 26.7 KB (100.00%)	Failed ✘ 0 files, 0 B (0%)
--	--	-------------------------------

Files and folders Configuration

#### Files and folders (1 Total, 26.7 KB)

Find by name

Name	Folder	Type	Size	Status	Error
flower.jpg	-	image/jpeg	26.7 KB	✔ Succeeded	-

Introduction to AWS Key Manage x mycloudtrailbucket0076 - S3 buc x https://mycloudtrailbucket0076.s x +

← → ↻ mycloudtrailbucket0076.s3.us-west-2.amazonaws.com/flower.jpg

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<?xml version="1.0" encoding="UTF-8" ?>
<Error>
  <Code>AccessDenied</Code>
  <Message>Access Denied</Message>
  <RequestId>5206C5AZRWWC4149</RequestId>
  <HostId>zbNnI6k1KFmqj6/iyGiFcADA3tquXmSkFXeL/H0hUet/7Q8VFHvMpPkv8w0+T2jaw+2XnXB+Uc=</HostId>
</Error>
```

Introduction to AWS Key Manage x mycloudtrailbucket0076 - S3 buc x https://mycloudtrailbucket0076.s x +

← → ↻ mycloudtrailbucket0076.s3.us-west-2.amazonaws.com/flower.jpg

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<?xml version="1.0" encoding="UTF-8" ?>
<Error>
  <Code>InvalidArgument</Code>
  <Message>Requests specifying Server Side Encryption with AWS KMS managed keys require AWS Signature Version 4.</Message>
  <ArgumentName>Authorization</ArgumentName>
  <ArgumentValue>null</ArgumentValue>
  <RequestId>NMA6YNAAGCD7NMB9P</RequestId>
  <HostId>fjD+xwzJze773rh1ajRcGdftOwemwOSwNFvYt3tZxkqyD2KYUmBuq52H0Qd1p+iRiQzCtjx1VEM=</HostId>
</Error>
```

```
Introduction to AWS Key Manag... mycloudtrailbucket0076 - S3 buc... https://mycloudtrailbucket0076.s3.us-west-2.amazonaws.com/AWSLogs/621688747910/CloudTrail/us-west-2/2022/04/25/621688747910_CloudTrail_us-west-2_20220425T1250Z_Y17AgNraYGU...
{"type": "IAMUser", "principalId": "AIDAIKQCGWZUCCALX3KIG", "arn": "arn:aws:iam::621688747910:user/awssstudent", "accountId": "621688747910", "userName": "aws...", "eventTime": "2022-04-25T12:45:29Z", "eventSource": "s3.amazonaws.com", "eventName": "ListObjects", "awsRegion": "us-west-2", "requestParameters": {"list-type": "2", "bucketName": "mycloudtrailbucket0076", "encoding-type": "url", "max-keys": "1000", "fetch-owner": "true", "prefix": "", "delimiter": "/", "Host": "s3.us-west-2.amazonaws.com"}, "responseElements": null, "additionalEventData": {"SignatureVersion": "SigV4", "CipherSuite": "ECDHE-RSA-AES128-GCM-SHA256", "bytesTransferredIn": 0.0, "AuthenticationMethod": "AuthHeader", "x-amz-id-2": "KCGM9PLxslH5oe14u/f36kj2Uk2BDHjXHU104yLTzoFbgT737BAU1XAbLoobounLnRUQ=", "bytesTransferredOut": 367.0}, "requestID": "3EAS5HDB3EEC433", "eventID": "d568db27-4710-4b69-8e35-610a929fe997", "readOnly": true, "resources": [{"type": "AWS::S3::Object", "ARN": "arn:aws:s3:::mycloudtrailbucket0076/flower.jpg"}], "accountId": "621688747910", "type": "AWS::S3::Bucket", "ARN": "arn:aws:s3:::mycloudtrailbucket0076", "event": "AwsApiCall", "managementEvent": false, "recipientAccount": "621688747910", "vpceEndpoint": "vpce-a00039c9", "eventCategory": "Data", "tlsDetails": {"tlsVersion": "TLSv1.2", "cipherSuite": "ECDHE-RSA-AES128-GCM-SHA256", "clientProvidedHostHeader": "s3.us-west-2.amazonaws.com"}, {"eventVersion": "1.08", "userIdentity": {"type": "AWSAccount", "principalId": "AMOMYMOUS_PRINCIPAL", "eventTime": "2022-04-25T12:48:00Z", "eventSource": "s3.amazonaws.com", "eventName": "PutFlightRequest", "awsRegion": "us-west-2", "sourceIPAddress": "103.16.69.144", "userAgent": "[Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/100.0.4896.127 Safari/537.36]", "requestParameters": {"X-Amz-Date": "20220425T124759Z", "bucketName": "mycloudtrailbucket0076", "X-Amz-Algorithm": "AWS4-HMAC-SHA256", "X-Amz-SignedHeaders": "content-md5;content-type;host;x-amz-acl;x-amz-server-side-encryption;x-amz-server-side-encryption-aws-kms-key-id;x-amz-storage-class", "Host": "mycloudtrailbucket0076.s3.us-west-2.amazonaws.com", "X-Amz-Expires": "300", "key": "flower.jpg"}, "responseElements": {"CipherSuite": "ECDHE-RSA-AES128-GCM-SHA256", "bytesTransferredIn": 0.0, "X-amz-id-2": "Kvxt3teM8/P7ioXtyK0z/psKd7H4JocZ6nxKHjQ0x+HwdWf4H2D5qjkhkeLq01luA+enuqKvcM=", "bytesTransferredOut": 0.0}, "requestID": "0RP6M6CE5CG99H64", "eventID": "522956f6-0cbe-4329-9783-7069d43e4eed", "readOnly": true, "resources": [{"type": "AWS::S3::Object", "ARN": "arn:aws:s3:::mycloudtrailbucket0076/flower.jpg"}], "accountId": "621688747910", "type": "AWS::S3::Bucket", "ARN": "arn:aws:s3:::mycloudtrailbucket0076", "event": "AwsApiCall", "managementEvent": false, "recipientAccount": "621688747910", "sharedEventID": "603f8ac6-cbb3-4db4-8828-a965d896475", "eventCategory": "Data", "tlsDetails": {"tlsVersion": "TLSv1.2", "cipherSuite": "ECDHE-RSA-AES128-GCM-SHA256", "clientProvidedHostHeader": "mycloudtrailbucket0076.s3.us-west-2.amazonaws.com"}, {"eventVersion": "1.08", "userIdentity": {"type": "FederatedUser", "principalId": "621688747910", "eventTime": "2022-04-25T12:48:00Z", "eventSource": "s3.amazonaws.com", "eventName": "PutObject", "awsRegion": "us-west-2", "sourceIPAddress": "103.16.69.144", "userAgent": "user/awssstudent", "accountId": "621688747910", "accessKeyId": "ASIABP4J06DAQUCCN7", "sessionContext": {"sessionIssuer": {"type": "IAMUser", "principalId": "AIDAIKQCGWZUCCALX3KIG", "arn": "arn:aws:iam::621688747910:user/awssstudent", "accountId": "621688747910", "userName": "awssstudent", "attributes": {"creationDate": "2022-04-25T12:33:48Z", "mfaAuthenticated": "false"}}, "eventTime": "2022-04-25T12:48:00Z", "eventSource": "s3.amazonaws.com", "eventName": "PutObject", "awsRegion": "us-west-2", "sourceIPAddress": "103.16.69.144", "userAgent": "[Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/100.0.4896.127 Safari/537.36]", "requestParameters": {"X-Amz-Date": "20220425T124759Z", "bucketName": "mycloudtrailbucket0076", "X-Amz-Algorithm": "AWS4-HMAC-SHA256", "X-amz-acl": "private", "X-Amz-SignedHeaders": "content-md5;content-type;host;x-amz-acl;x-amz-server-side-encryption;x-amz-server-side-encryption-aws-kms-key-id;x-amz-storage-class", "Host": "mycloudtrailbucket0076.s3.us-west-2.amazonaws.com", "X-Amz-Expires": "300", "X-amz-server-side-encryption": "aws:kms", "key": "flower.jpg", "X-amz-storage-class": "STANDARD"}, "responseElements": {"X-amz-server-side-encryption": "aws:kms", "X-amz-server-side-encryption-aws-kms-key-id": "arn:aws:kms:us-west-2:621688747910:key/ab8ba694-0821-4d76-a689-e638f8771f34", "additionalEventData": {"SignatureVersion": "SigV4", "CipherSuite": "ECDHE-RSA-AES128-GCM-SHA256", "bytesTransferredIn": 27384.0, "SSEApplied": "SSE_KMS", "AuthenticationMethod": "QueryString", "X-amz-id-2": "Tqs3t4cuYshw/L5bcnqfRCqC8eUSCKEgVj5l3Gh4dVbmQfhi+S4e0gr3K5NvqIZ+fZqPKryRX8g=", "bytesTransferredOut": 0.0}, "requestID": "0RPGGRPH43XAXS3E", "eventID": "c9b980a2-d852-4275-8cad-11fcb0050f4", "readOnly": false, "resources": [{"type": "AWS::S3::Object", "ARN": "arn:aws:s3:::mycloudtrailbucket0076/flower.jpg"}], "accountId": "621688747910", "type": "AWS::S3::Bucket", "ARN": "arn:aws:s3:::mycloudtrailbucket0076", "event": "AwsApiCall", "managementEvent": false, "recipientAccount": "621688747910", "eventCategory": "Data", "tlsDetails": {"tlsVersion": "TLSv1.2", "cipherSuite": "ECDHE-RSA-AES128-GCM-SHA256", "clientProvidedHostHeader": "mycloudtrailbucket0076.s3.us-west-2.amazonaws.com"}, {"eventVersion": "1.08", "userIdentity": {"type": "FederatedUser", "principalId": "621688747910:awssstudent", "arn": "arn:aws:sts::621688747910:federated-user/awssstudent", "accountId": "621688747910", "accessKeyId": "ASIABP4J06DAQUCCN7", "sessionContext": {"sessionIssuer": {"type": "IAMUser", "principalId": "AIDAIKQCGWZUCCALX3KIG", "arn": "arn:aws:iam::621688747910:user/awssstudent", "accountId": "621688747910", "userName": "awssstudent", "attributes": {"creationDate": "2022-04-25T12:33:48Z", "mfaAuthenticated": "false"}}, "eventTime": "2022-04-25T12:48:39Z", "eventSource": "s3.amazonaws.com", "eventName": "ListObjectVersions", "awsRegion": "us-west-2", "sourceIPAddress": "103.16.69.144", "userAgent": "[S3Console/0.4, aws-internal/3 aws-sdk-java/1.11.1030 Linux/5.4.186-113.361.amzn2int.x86_64 OpenJDK_64-Bit_Server_VM/25.302-b08 java/1.8.0_302 vendor/Oracle_Corporation_cfg/retry-mode/standard]", "requestParameters": {"bucketName": "mycloudtrailbucket0076", "Host": "mycloudtrailbucket0076.s3.us-west-2.amazonaws.com", "max-keys": "1", "encoding-type": "url", "versions": ""}, "responseElements": null, "additionalEventData": {"SignatureVersion": "SigV4", "CipherSuite": "ECDHE-RSA-AES128-GCM-SHA256", "bytesTransferredIn": 859.0, "AuthenticationMethod": "AuthHeader", "X-amz-id-2": "06WkheEx8c5Co+ECL6g+04ZsxFZ8PrIRtUGrFu4WrgG0d49jPuJlZStv2DXXak9m7Tb+kyo0=", "bytesTransferredOut": 859.0}, "requestID": "F8ABK8BPBJfN9F8j", "eventID": "adc09efd-dce7-46b7-9484-5b4836584744", "readOnly": true, "resources": [{"type": "AWS::S3::Object", "ARN": "arn:aws:s3:::mycloudtrailbucket0076/flower.jpg"}], "accountId": "621688747910", "type": "AWS::S3::Bucket", "ARN": "arn:aws:s3:::mycloudtrailbucket0076", "event": "AwsApiCall", "managementEvent": false, "recipientAccount": "621688747910", "vpceEndpoint": "vpce-a00039c9", "eventCategory": "Data", "tlsDetails": {"tlsVersion": "TLSv1.2", "cipherSuite": "ECDHE-RSA-AES128-GCM-SHA256", "clientProvidedHostHeader": "mycloudtrailbucket0076.s3.us-west-2.amazonaws.com"}, {"eventVersion": "1.08", "userIdentity": {"type": "FederatedUser", "principalId": "621688747910:awssstudent", "arn": "arn:aws:sts::621688747910:federated-...}}
```

Introduction to AWS Key Manag... KMS Console

us-west-2.console.aws.amazon.com/kms/home?region=us-west-2#/kms/keys/ab8ba694-0821-4d76-a689-e638f8771f34

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Key Management Service (KMS)

AWS managed keys

Customer-managed keys

Custom key stores

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Key deletion

Allow key administrators to delete this key

Key users

The following IAM users and roles can use this key for cryptographic operations. They can also allow AWS services that are integrated with KMS to use the key on their behalf. [Learn more](#)

Add Remove

Q

< 1 >

Name	Path	Type
Empty resources		
No resources to display		

Introduction to AWS Key Manag

KMS Console

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Key Management Service (KMS)

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AddRemove

< 1 >

<input type="checkbox"/>	Name	Path	Type
<input type="checkbox"/>	awsstudent	/	User