Task 4: IAM Policies, Secure Storage, and Data Encryption

✅Objective:

Implement and demonstrate key AWS security features including:

- IAM policy creation and enforcement
- S3 bucket-level access control
- Server-side data encryption

IAM Policy:

- Created an IAM user: `IAM-user`
- Attached custom policy allowing limited access to `abdul2000.bucket`
- User can only perform `GetObject` and `PutObject` on that bucket

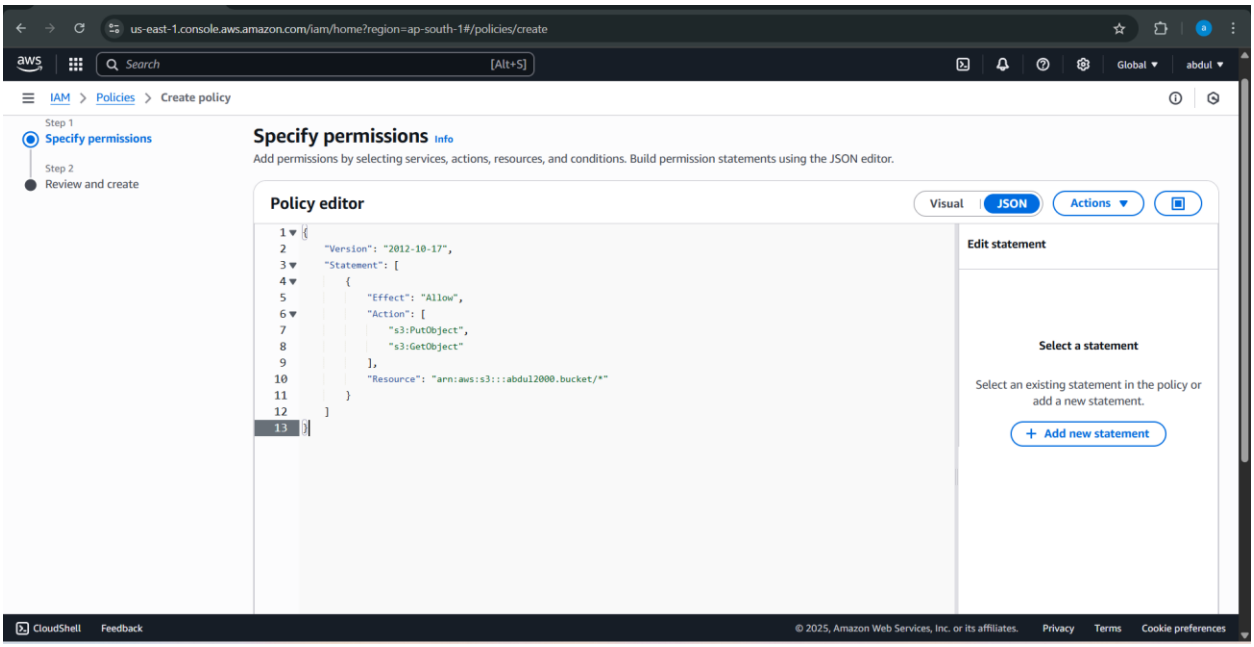
Secure Storage Setup (S3):

- Created a private S3 bucket: `abdul2000.bucket`
- Blocked all public access
- Uploaded sample file: `document.txt`

Data Encryption:

- Enabled **AES-256 encryption** at rest for all objects
- Verified encryption in the object metadata

Screenshots:


us-east-1.console.aws.amazon.com/iam/home?region=ap-south-1#/policies/create
Search
[Alt+S]
Global
abdul
IAM > Policies > Create policy
Step 1
Specify permissions
Step 2
Review and create
Specify permissions Info
Add permissions by selecting services, actions, resources, and conditions. Build permission statements using the JSON editor.
Policy editor
Visual
JSON
Actions
{
"Version": "2012-10-17",
"Statement": [
{
"Effect": "Allow",
"Action": [
"s3:PutObject",
"s3:GetObject"
],
"Resource": "arn:aws:s3:::abdul2000.bucket/*"
}
]
}
Edit statement
Select a statement
Select an existing statement in the policy or add a new statement.
+ Add new statement
CloudShell
Feedback
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Privacy
Terms
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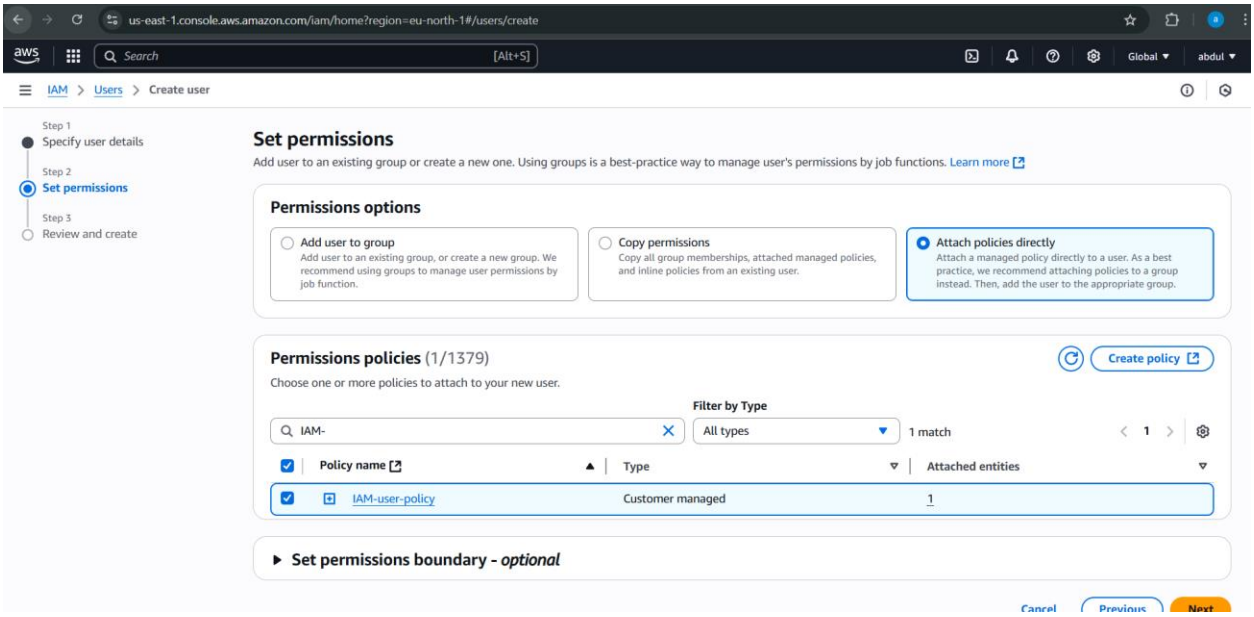
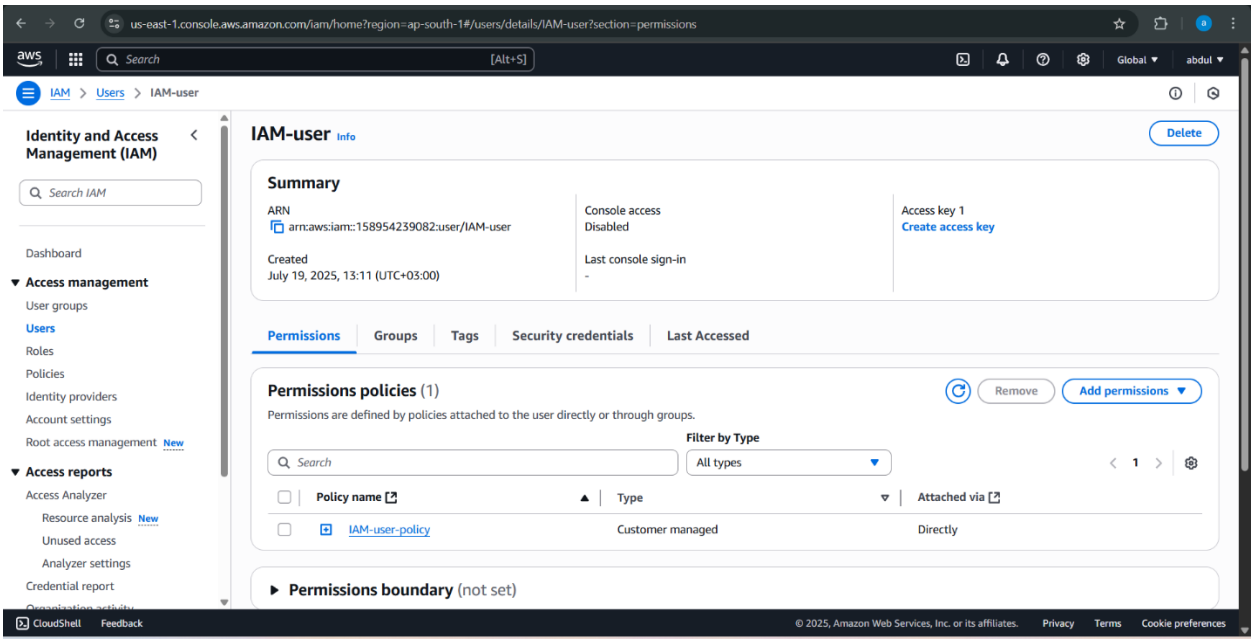

us-east-1.console.aws.amazon.com/iam/home?region=eu-north-1#/users/create
Search
[Alt+S]
Global
abdul
IAM > Users > Create user
Step 1
Specify user details
Step 2
Set permissions
Step 3
Review and create
Set permissions
Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. Learn more
Permissions options
Add user to group
Add user to an existing group, or create a new group. We recommend using groups to manage user permissions by job function.
Copy permissions
Copy all group memberships, attached managed policies, and inline policies from an existing user.
Attach policies directly
Attach a managed policy directly to a user. As a best practice, we recommend attaching policies to a group instead. Then, add the user to the appropriate group.
Permissions policies (1/1379)
Choose one or more policies to attach to your new user.
Create policy
Filter by Type
IAM-
All types
1 match
1
Policy name
Type
Attached entities
IAM-user-policy
Customer managed
1
Set permissions boundary - optional
Cancel
Previous
Next


us-east-1.console.aws.amazon.com/iam/home?region=ap-south-1#/users/details/IAM-user?section=permissions
Search
[Alt+S]
Global
abdul
IAM > Users > IAM-user
Identity and Access Management (IAM)
Search IAM
Dashboard
Access management
User groups
Users
Roles
Policies
Identity providers
Account settings
Root access management New
Access reports
Access Analyzer
Resource analysis New
Unused access
Analyzer settings
Credential report
IAM-user Info
Delete
Summary
ARN
arn:aws:iam::158954239082:user/IAM-user
Console access
Disabled
Access key 1
Create access key
Created
July 19, 2025, 13:11 (UTC+03:00)
Last console sign-in
-
Permissions
Groups
Tags
Security credentials
Last Accessed
Permissions policies (1)
Permissions are defined by policies attached to the user directly or through groups.
Remove
Add permissions
Filter by Type
Search
All types
Policy name
Type
Attached via
IAM-user-policy
Customer managed
Directly
Permissions boundary (not set)
CloudShell
Feedback
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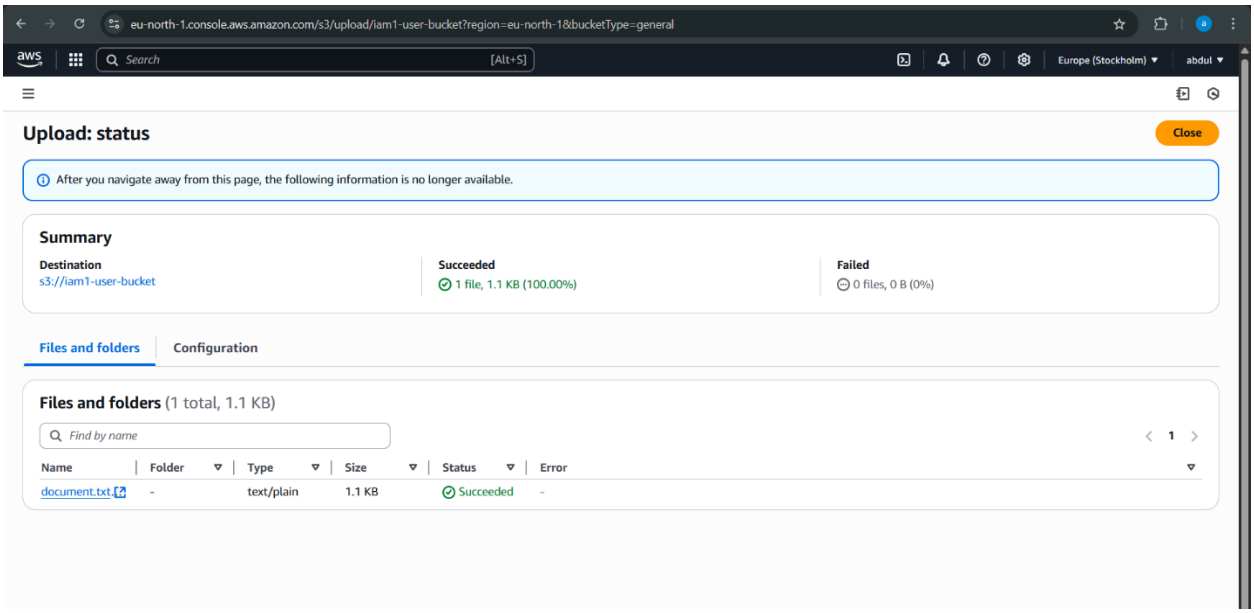
eu-north-1.console.aws.amazon.com/s3/upload/iam1-user-bucket?region=eu-north-1&bucketType=general
Search
[Alt+S]
Europe (Stockholm)
abdul
Upload: status
Close
After you navigate away from this page, the following information is no longer available.
Summary
Destination
s3://iam1-user-bucket
Succeeded
1 file, 1.1 KB (100.00%)
Failed
0 files, 0 B (0%)
Files and folders
Configuration
Files and folders (1 total, 1.1 KB)
Find by name
Name
Folder
Type
Size
Status
Error
document.txt
-
text/plain
1.1 KB
Succeeded
-

✅ Completed

✅ Date: [19th July 2025]

✅ Platform: AWS

✅ Skills Demonstrated: IAM roles, least-privilege access, S3 bucket policy, server-side encryption