AWS Cloud Security – Task 4 Report

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Internship Program: Cloud Computing – CodTech

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

Platform Used: AWS

Date: July 2025

# 1. IAM Policy Setup

Policy Name: CodtechS3AccessPolicy

Purpose: This IAM policy allows a user to list, upload, and download files from a specific S3 bucket.

Steps Taken:

* - Created a custom policy using JSON.
* - Allowed s3:ListBucket, s3:GetObject, and s3:PutObject actions.
* - Limited access to prachi-secure-bucket-2025 only.

# 2. IAM User Creation

User Name: prachi-gupta

Purpose: A user created to test S3 access securely.

Steps Taken:

* - Created user with programmatic access.
* - Attached the CodtechS3AccessPolicy.
* - Downloaded credentials for CLI testing.

# 3. Secure S3 Bucket Setup

Bucket Name: prachi-secure-bucket-2025

Purpose: To securely store and access data.

Steps Taken:

* - Created a unique bucket name.
* - Uploaded a sample file (e.g., test.txt).
* - Set default encryption to SSE-S3.

# 4. Encryption Details

Encryption Type: SSE-S3

Bucket Key: Enabled

Why Encryption?

To protect sensitive data at rest, so that even if someone accesses the files, they cannot read the content without proper authorization.

# Conclusion

All required AWS security features (IAM, permissions, encryption, secure storage) were configured successfully. The cloud environment is now safe and meets the requirements of Task 4.