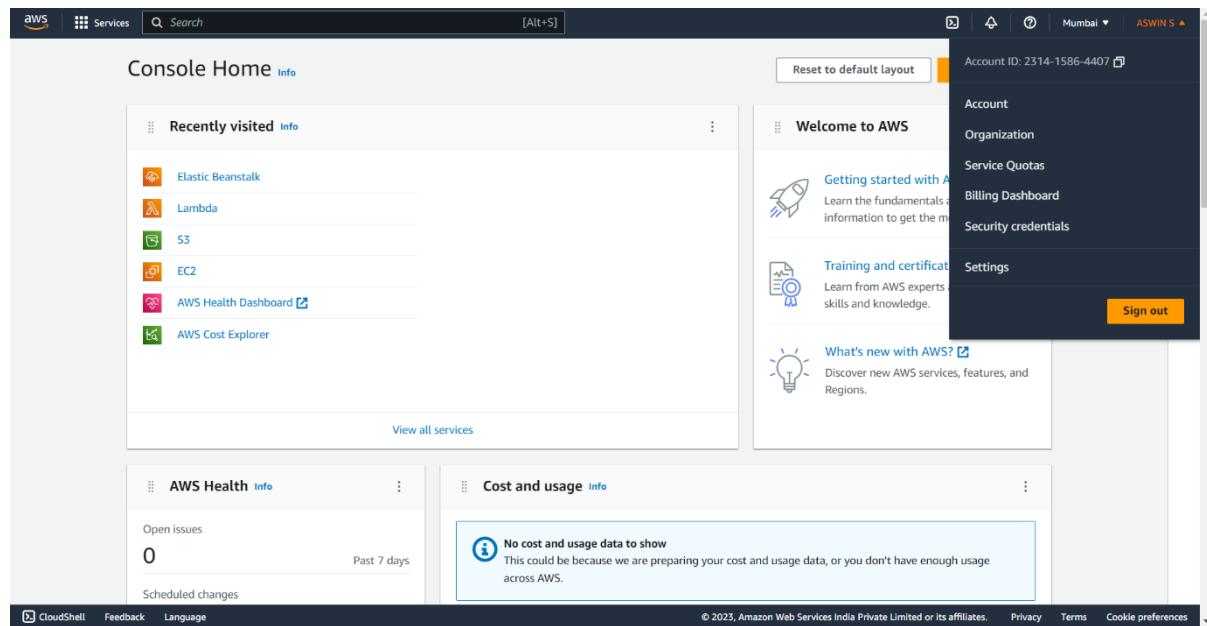


CLOUD COMPUTING

NAME: ASWIN S

ROLL NO:727722EUCS501

DAY-1



DAY-2

1.

Instances (1/4) Info

Name	Instance ID	Instance state	Instance type	Status check	Alarm status
mrrrobot	i-01d3077c18a958237	Stopped	t2.micro	-	No alarms +
Mywebserver	i-0b5f5806aa9b030d2	Running	t2.micro	Initializing	No alarms +
-	i-094682f741ee7211e	Running	t2.micro	2/2 checks passed	No alarms +
asgAshlinux	i-00315fbad573a0dc8	Stopped	t2.micro	-	No alarms +

Instance: i-0b5f5806aa9b030d2 (Mywebserver)

Answer private resource DNS name	Instance type	Elastic IP addresses
IPv4 (A)	t2.micro	-
Auto-assigned IP address	VPC ID	AWS Compute Optimizer finding
13.233.136.227 [Public IP]	vpc-0e606f1077418a7d8	Opt-in to AWS Compute Optimizer for recommendations. Learn more
IAM Role	Subnet ID	Auto Scaling Group name
-	subnet-0ef42394940042587	-
IMDSv2	AMI ID	Monitoring
Optional	ami-09461328af8fbcb9c	disabled
Platform	AMI name	Termination protection
windows	Windows_Server-2022-English-Full-Base-2023.03.15	Disabled
Platform details		
Windows		

2.

Instances (1/1) Info

Name	Instance ID	Instance state	Instance type	Status check	Alarm status
newwindows-1	i-0620a6e8b78f88ba6	Running	t2.micro	Initializing	No alarms +

Instance: i-0620a6e8b78f88ba6 (newwindows-1)

Storage

Root device details	Root device name: /dev/sda1	Root device type: EBS	EBS optimization: disabled
Block devices	vol-035e3e49ac363d1cd /dev/sda1 30 Attached 2023/04/17 22:47 GMT+5:30 No -	vol-0577fb1659e0188c xvdf 5 Attached 2023/04/17 22:48 GMT+5:30 No -	

3.

The screenshot shows the AWS Management Console with the URL ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#SnapshotDetails:snapshotId=snap-0dd0426bd9ff36163. The page displays detailed information about a snapshot named 'snap-0dd0426bd9ff36163'. Key details include:

- Snapshot ID:** snap-0dd0426bd9ff36163
- Size:** 5 GiB
- Progress:** Available (100%)
- Snapshot status:** Completed
- Owner:** 231415864407
- Volume ID:** vol-0577fb1659e0188c
- Started:** Thu Apr 20 2023 20:23:03 GMT+0530 (India Standard Time)
- Encryption:** Not encrypted
- KMS key ID:** -
- KMS key alias:** -
- KMS key ARN:** -
- Description:** -

The 'Permissions' tab is selected, showing that the snapshot is shared with no other accounts. The 'Storage tier' and 'Tags' tabs are also present. The bottom right corner includes copyright information and links for Privacy, Terms, and Cookie preferences.

4.

The screenshot shows the AWS Management Console with the URL ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#Instances. The page displays a list of instances under the 'Instances' section. One instance, 'mrrobot' (ID: i-01d3077c18a958237), is currently running. Other instances listed are 'Mywebserver', 'i-094682f741ee7211e', and 'asgAshlinux'. The 'Instances' tab is selected. The right sidebar provides account and organization details, along with links for Compute Optimizer, Service Quotas, Billing Dashboard, Security credentials, and Settings. The bottom right corner includes copyright information and links for Privacy, Terms, and Cookie preferences.

5.



It works!

6.

A screenshot of the AWS Management Console showing the "Instance summary" for an EC2 instance. The instance ID is i-03bbba750c3fedab6, and it is running. Key details shown include:

- Public IPv4 address: 65.0.168.181
- Private IP DNS name (IPv4 only): ip-172-51-39-206.ap-south-1.compute.internal
- Instance type: t2.micro
- VPC ID: vpc-0e60f1077418a7d8
- Subnet ID: subnet-07a8cb3c70a6eecc8

The left sidebar shows the navigation menu for EC2, including "Instances", "Images", and "Elastic Block Store".

DAY-3

1.

The screenshot shows the AWS S3 console interface. The left sidebar has 'Amazon S3' selected under 'Buckets'. The main content area shows a folder named 'mybiodata/'. Inside this folder, there is one object named 'mybiodata.pdf'. The object is a PDF file, created on April 16, 2023, at 21:57:51 (UTC+05:30), and is 146.3 KB in size. The storage class is Standard. The top navigation bar shows the URL as 's3.console.aws.amazon.com/s3/buckets/tashbuck?region=ap-south-1&prefix=mybiodata/'. The top right corner shows the account ID '2314-1586-4407' and the user 'ASWIN S'.

2.

The screenshot shows the AWS S3 console interface. The left sidebar has 'Amazon S3' selected under 'Buckets'. The main content area shows the 'Buckets' page. There is one bucket listed: 'tashbuck'. The bucket details show it was created on April 6, 2023, at 11:21:37. The access level is set to 'Public'. The top navigation bar shows the URL as 's3.console.aws.amazon.com/s3/buckets?region=ap-south-1®ion=ap-south-1'. The top right corner shows the account ID '2314-1586-4407' and the user 'ASWIN S'.

3.

The screenshot shows the AWS S3 Bucket Policy configuration page. At the top, it says "Block all public access" is "Off". Below that, there's a link to "Individual Block Public Access settings for this bucket". The main area displays a JSON-based bucket policy:

```
{
  "Version": "2012-10-17",
  "Id": "Policy1681726052697",
  "Statement": [
    {
      "Sid": "Stmt1681726050744",
      "Effect": "Deny",
      "Principal": "*",
      "Action": "S3:GetObject",
      "Resource": "arn:aws:s3:::tashbuck/mybiodata"
    }
  ]
}
```

At the bottom right of the policy editor, there is an "Edit" button.

4.

The screenshot shows the AWS S3 Bucket Objects list page for the "mybiodata/" folder. The left sidebar shows the navigation path: Amazon S3 > Buckets > tashbuck > mybiodata/. The main content area shows two objects:

Name	Type	Version ID	Last modified	Size	Storage class
mybiodata.pdf	pdf	3nXXsCvRwNKThH8MUpfr9yJpdzl5Kck	April 17, 2023, 15:49:59 (UTC+05:30)	389.7 KB	Standard
mybiodata.pdf	pdf	y6D3PEU3GUisONv_00VjgmBGp2M9Ura	April 16, 2023, 21:57:51 (UTC+05:30)	146.3 KB	Standard

5.

The screenshot shows the AWS S3 bucket configuration page for a bucket named 'tashbuck'. The left sidebar includes links for Buckets, Storage Lens, Feature spotlight, and AWS Marketplace for S3. The main content area displays settings for Object Lock (disabled), Requester pays (disabled), and Static website hosting. Under Static website hosting, it shows the hosting type as Bucket hosting and provides a bucket website endpoint: <http://tashbuck.s3-website.ap-south-1.amazonaws.com>. The right sidebar contains account navigation links like Account, Organization, Service Quotas, Billing Dashboard, Security credentials, and Settings.

6.

The screenshot shows the AWS S3 Lifecycle configuration page for the 'tashbuck' bucket. The left sidebar shows the navigation path: Amazon S3 > Buckets > tashbuck > Lifecycle configuration. The main content area displays a table for Lifecycle rules. There is one rule named 'Ashrule' with the status 'Enabled' and scope 'Entire bucket'. The rule's action is 'Transition to Standard-IA, then Intelligent-Tiering, then One Zone-IA, then Glacier Flexible Retrieval (formerly Glacier)'. The right sidebar contains account navigation links like Account, Organization, Service Quotas, Billing Dashboard, Security credentials, and Settings.

DAY-4

1.

The screenshot shows the AWS IAM User Groups page. The URL is <https://us-east-1.console.aws.amazon.com/iamv2/home?region=ap-south-1#/groups/details/S3-Admins?section=permissions>. The page displays the summary of the 'S3-Admins' user group, which was created on April 20, 2023, at 12:38 (UTC+05:30). It contains one managed policy, 'AmazonS3FullAccess', which provides full access to all buckets via the AWS Management Console. The ARN of the group is arn:aws:iam::231415864407:group/S3-Admins.

2.

The screenshot shows the AWS IAM Users page. The URL is <https://us-east-1.console.aws.amazon.com/iamv2/home?region=ap-south-1#/users/details/S3Admin1?section=groups>. The page displays the summary of the 'S3Admin1' user, which was created on April 20, 2023, at 12:40 (UTC+05:30). The user has 'Console access Enabled without MFA'. The user is a member of the 'S3-Admins' group, which is attached with the 'AmazonS3FullAccess' policy. The ARN of the user is arn:aws:iam::231415864407:user/S3Admin1.

3.

The screenshot shows the AWS IAM Groups page. The URL is us-east-1.console.aws.amazon.com/iamv2/home#/groups/details/S3-Admins?section=permissions. The page title is "S3-Admins". The left sidebar shows "Identity and Access Management (IAM)" with sections for "User groups" (Users, Roles, Policies, Identity providers, Account settings) and "Access reports" (Access analyzer, Archive rules, Analyzers, Settings, Credential report, Organization activity, Service control policies (SCPs)). The main content area shows the "Summary" of the S3-Admins group. It includes fields for "User group name" (S3-Admins), "Creation time" (April 20, 2023, 12:38 (UTC+05:30)), and "ARN" (arn:aws:iam::231415864407:group/S3-Admins). Below this is a navigation bar with tabs: "Users" (selected), "Permissions" (highlighted in orange), and "Access Advisor". Under "Permissions policies (2)", there are two entries: "DenyDeleteObjects" (Customer managed) and "AmazonS3FullAccess" (AWS managed). Buttons for "Simulate", "Remove", and "Add permissions" are available. At the bottom, there is a search bar and links for CloudShell, Feedback, Language, Privacy, Terms, and Cookie preferences.

4.

The screenshot shows the AWS IAM Users page. The URL is us-east-1.console.aws.amazon.com/iamv2/home#/users/details/S3Admin1?section=permissions. The page title is "S3Admin1". The left sidebar shows "Identity and Access Management (IAM)" with sections for "User groups" (Users, Roles, Policies, Identity providers, Account settings) and "Access reports" (Access analyzer, Archive rules, Analyzers, Settings, Credential report, Organization activity, Service control policies (SCPs)). The main content area shows the "Summary" of the S3Admin1 user. It includes fields for "ARN" (arn:aws:iam::231415864407:user/S3Admin1), "Console access" (Enabled without MFA), "Access key 1" (Not enabled), "Created" (April 20, 2023, 12:40 (UTC+05:30)), "Last console sign-in" (Never), and "Access key 2" (Not enabled). Below this is a navigation bar with tabs: "Permissions" (selected), "Groups (1)", "Tags", "Security credentials", and "Access Advisor". Under "Permissions policies (4)", there are four entries: "Access" (Customer inline, Attached via S3-Admins), "AmazonS3FullAccess" (AWS managed, Group S3-Admins), and "DenyDeleteObjects" (Customer managed, Group S3-Admins). Buttons for "Find policies", "Remove", and "Add permissions" are available. At the bottom, there is a search bar and links for CloudShell, Feedback, Language, Privacy, Terms, and Cookie preferences.

5.

The screenshot shows the AWS EC2 Instances details page for instance `i-0ecfc2a8709c3098f`. The instance is running and has a public IPv4 address of `65.1.2.186`. It is associated with a VPC ID `vpc-0e60f1077418a7d8` and a subnet ID `subnet-07a8cb3c70a6eecc8`. The instance type is `t2.micro`. The AMI ID is `ami-07d3a50bd29811cd1`. The instance was updated less than a minute ago.

Instance summary for i-0ecfc2a8709c3098f (new) Info
Updated less than a minute ago
Instance ID: i-0ecfc2a8709c3098f (new)
IPv6 address: -
Hostname type: IP name: ip-172-31-40-246.ap-south-1.compute.internal
Answer private resource DNS name: IPv4 (A)
Auto-assigned IP address: 65.1.2.186 [Public IP]
IAM Role: Ashwinrole
IMDSv2 Required:
Public IPv4 address: 65.1.2.186 open address
Private IP4 address: 172.31.40.246
Public IPv4 DNS: ec2-65-1-2-186.ap-south-1.compute.amazonaws.com open address
Instance state: Running
Private IP DNS name (IPv4 only): ip-172-31-40-246.ap-south-1.compute.internal
Instance type: t2.micro
VPC ID: vpc-0e60f1077418a7d8
Subnet ID: subnet-07a8cb3c70a6eecc8
Elastic IP addresses: -
AWS Compute Optimizer finding: Opt-in to AWS Compute Optimizer for recommendations. Learn more
Auto Scaling Group name: -

DAY-5

1.

The screenshot shows the AWS EC2 Launch Template Details page. The launch template ID is lt-045b43838dc9a5f71, and the name is newtemp. It is the default version (v1) and owned by arn:aws:iam::231415864407:root. The description is "A prod webserver for my App". The instance details show an AMI ID (ami-07d3a50bd29811cd1), instance type t2.micro, and security group sg-0e09ad7c532475bef. The launch template version details are identical to the launch template details.

2.

The screenshot shows the AWS Auto Scaling Groups page for the group Ashautoscale. The group details include the Auto Scaling group name (Ashautoscale), Desired capacity (1), Status (-), and Amazon Resource Name (ARN) arn:aws:autoscaling:ap-south-1:231415864407:autoScalingGroup:61541a18-69a0-4967-97df-005fbab336d8:autoScalingGroupName/Ashautoscale. The launch template used is lt-045b43838dc9a5f71 (newtemp). The instance type is t2.micro, and the security group is sg-0e09ad7c532475bef. The owner is arn:aws:iam::231415864407:root.

DAY-6

1.

Screenshot of the AWS VPC Management Console showing the details of a VPC named 'newvpc-2'. The VPC has an ID of 'vpc-0d704ac4012d1c1b2' and is in a state of 'Available'. It uses a DHCP option set 'dopt-04558f2be96a61593'. The default VPC network is IPv4 CIDR '10.0.0.0/16'. Network Address Usage metrics are disabled. DNS hostnames are disabled, and DNS resolution is enabled. The main route table is 'rtb-03508184b170ab950'. The owner ID is '231415864407'. A resource map shows the VPC, Subnets (3), and Route tables (1) associated with the VPC.

2.

Screenshot of the AWS Management Console showing the Subnets page. The table lists 8 subnets under the VPC 'newvpc-2'. The subnet 'p-subnet1' is selected. The subnet details show it has an ID of 'subnet-07058559af08e54a', is in an 'Available' state, and belongs to the VPC 'vpc-0d704ac4012d1c1b2'. Its IPv4 CIDR is '10.0.0.0/24'. Below the table, the subnet's configuration is shown, including its association with a VPC, a Network border group 'ap-south-1', a Route table 'rtb-03508184b170ab950', and various network ACLs and auto-assign settings.

Screenshot of the AWS Management Console VPC Management Console showing the details of a VPC.

VPC ID: vpc-0d704ac4012d1c1b2

Tenancy: Default

Default VPC: No

Network Address Usage metrics: Disabled

State: Available

DNS resolution: Enabled

Main route table: rtb-03508184b170ab950

IPv4 CIDR: 10.0.0.0/16

IPv6 pool: -

Route 53 Resolver DNS Firewall rule groups: -

Owner ID: 231415864407

Resource map:

- VPC:** newvpc-2
- Subnets (3):** ap-south-1a, p-subnet1, ap-south-1b, p-subnet2, ap-south-1c, p-subnet3
- Route tables (1):** rtb-03508184b170ab950
- Network connections:** mynatgateway-1

Introducing the VPC resource map: Solid lines represent relationships between resources in your VPC. Dotted lines represent network traffic to other networks.

3.

Screenshot of the AWS Management Console VPC Management Console showing the details of a VPC.

VPC ID: vpc-0d704ac4012d1c1b2

Tenancy: Default

Default VPC: No

Network Address Usage metrics: Disabled

State: Available

DNS resolution: Enabled

Main route table: rtb-03508184b170ab950

IPv4 CIDR: 10.0.0.0/16

IPv6 pool: -

Route 53 Resolver DNS Firewall rule groups: -

Owner ID: 231415864407

Resource map:

- VPC:** newvpc-2
- Subnets (3):** ap-south-1a, p-subnet1, ap-south-1b, p-subnet2, ap-south-1c, p-subnet3
- Route tables (1):** rtb-03508184b170ab950
- Network connections:** mynatgateway-1

Introducing the VPC resource map: Solid lines represent relationships between resources in your VPC. Dotted lines represent network traffic to other networks.

4.

The screenshot shows the AWS VPC Peering Connection Details page for peering connection `pcx-013c0db5effe9b01`. The left sidebar includes links for VPC dashboard, EC2 Global View, and various VPC-related services like Subnets, Route tables, Internet gateways, Egress-only Internet gateways, DHCP option sets, Elastic IPs, Managed prefix lists, Endpoints, Endpoint services, NAT gateways, and Peering connections. The main content area displays the peering connection details:

Requester owner ID	Acceptor owner ID	VPC Peering connection ARN
231415864407	231415864407	arn:aws:ec2:ap-south-1:231415864407:vpc-peering-connection/pcx-013c0db5effe9b01
Peering connection ID	Requester VPC	Acceptor VPC
pcx-013c0db5effe9b01	vpc-0d88a5bf1f81a6a84	vpc-07181faa4568f83ad / ashvpc-1
Status	Requester CIDRs	Acceptor CIDRs
Active	172.0.0.0/16	10.0.0.0/16
Expiration time	Requester Region	Acceptor Region
-	Singapore (ap-southeast-1)	Mumbai (ap-south-1)

Below the details, there are tabs for DNS, Route tables, and Tags. The DNS tab is selected, showing the DNS settings for both the Requester VPC and Acceptor VPC, both of which have the "Allow accepter VPC to resolve DNS of hosts in requester VPC to private IP addresses" option set to "Disabled".

5.

This screenshot is identical to the one above, showing the AWS VPC Peering Connection Details page for peering connection `pcx-013c0db5effe9b01`. The left sidebar and main content area are exactly the same, displaying the same peering connection details and DNS settings for both the Requester VPC and Acceptor VPC.

6.

The screenshot shows the AWS Management Console interface for managing Network ACLs. The left sidebar navigation includes VPC dashboard, EC2 Global View (New), Filter by VPC (Select a VPC), Virtual private cloud (Your VPCs New, Subnets, Route tables, Internet gateways, Egress-only internet gateways, DHCP option sets, Elastic IPs, Managed prefix lists, Endpoints, Endpoint services, NAT gateways, Peering connections), Security (Network ACLs, Security groups), and DNS firewall. The main content area is titled "Network ACLs (1/3) Info". It lists three Network ACLs:

Name	Network ACL ID	Associated with	Default	VPC ID
-	acl-01560fbda72279f8c	3 Subnets	Yes	vpc-0d704ac4012d1c1b2 / newvpc-2
-	acl-0f0f8ea74b9fd621a	2 Subnets	Yes	vpc-07181faa4568f83ad / ashvpc-1
-	acl-0321efd25cbfd2a3	3 Subnets	Yes	vpc-0e606f1077418a7d8

Below this, the "Inbound rules (3)" section displays the following rules:

Rule number	Type	Protocol	Port range	Source	Allow/Deny
100	RDP (3389)	TCP (6)	3389	0.0.0.0/0	Deny
467	SSH (22)	TCP (6)	22	0.0.0.0/0	Deny
*	All traffic	All	All	0.0.0.0/0	Deny

Questions

1.CREATING A VPC WITH 2 PUBLIC SUBNETS ON DIFFERENT AVAILABILITY ZONES

The screenshot shows the AWS VPC Management Console. On the left, a sidebar lists various VPC-related options like Subnets, Route tables, and Security groups. The main panel displays the details for a VPC named 'newvpc'. Key information includes:

- VPC ID:** vpc-0ed7e860601879dc9
- State:** Available
- Tenancy:** Default
- Default VPC:** No
- Network Address Usage metrics:** Disabled
- DNS resolution:** Enabled
- Main route table:** rtb-0557c963316cf55a3
- IPv6 pool:** -
- Owner ID:** 231415864407

The 'Resource map' section shows the VPC structure with nodes for VPC, Subnets (2), Route tables (1), and a tooltip explaining the map.

2.CREATING AN APPLICATION LOAD BALANCER WITH TARGET GROUPS FOR SIMPLE WEBSITES WITH PATH BASED ROUTINGS

The screenshot shows the AWS EC2 Target Groups console. The left sidebar includes options like Dedicated Hosts, Capacity Reservations, Images, AMIs, AMI Catalog, Elastic Block Store, Network & Security, Load Balancing, Auto Scaling, and more. The main panel shows the 'ec2targets' target group under the 'Targets' tab. Key details include:

- Target type:** Instance
- Protocol:** Port HTTP: 80
- Protocol version:** HTTP1
- VPC:** vpc-0e9ebbc52a37374d0
- Total targets:** 0
- Healthy:** 0
- Unhealthy:** 0
- Unused:** 0
- Initial:** 0
- Draining:** 0

The 'Registered targets (0)' section shows no registered targets.

The screenshot shows the AWS CloudFront console with the following details:

- CloudFront Distribution:** arn:aws:elasticloadbalancing:us-east-2:231415864407:loadbalancer/app/ec2elb/9c6a3bd7fbf4c06c
- Load balancer type:** Application
- DNS name:** ec2elb-74408871.us-east-2.elb.amazonaws.com (A Record)
- Status:** Active
- VPC:** vpc-0e9ebbc52a37374d0
- IP address type:** IPv4
- Scheme:** Internet-facing
- Availability Zones:** subnet-0a3354fa0b37123a9 (us-east-2a), subnet-0b56158aa9bffaad4 (us-east-2b)
- Hosted zone:** Z3AADJGX6KTTL2
- Date created:** April 19, 2023, 16:46 (UTC+05:30)

Below the main configuration, there is a tab bar with **Listeners** selected, followed by Network mapping, Security, Monitoring, Integrations, Attributes, and Tags.

3.CREATING A DOCKER HOST SERVER IN AWS EC2 INSTANCE AND RUNNING DOCKER CONTAINERS

