

CLOUD ASSIGNMENTS

Day 1

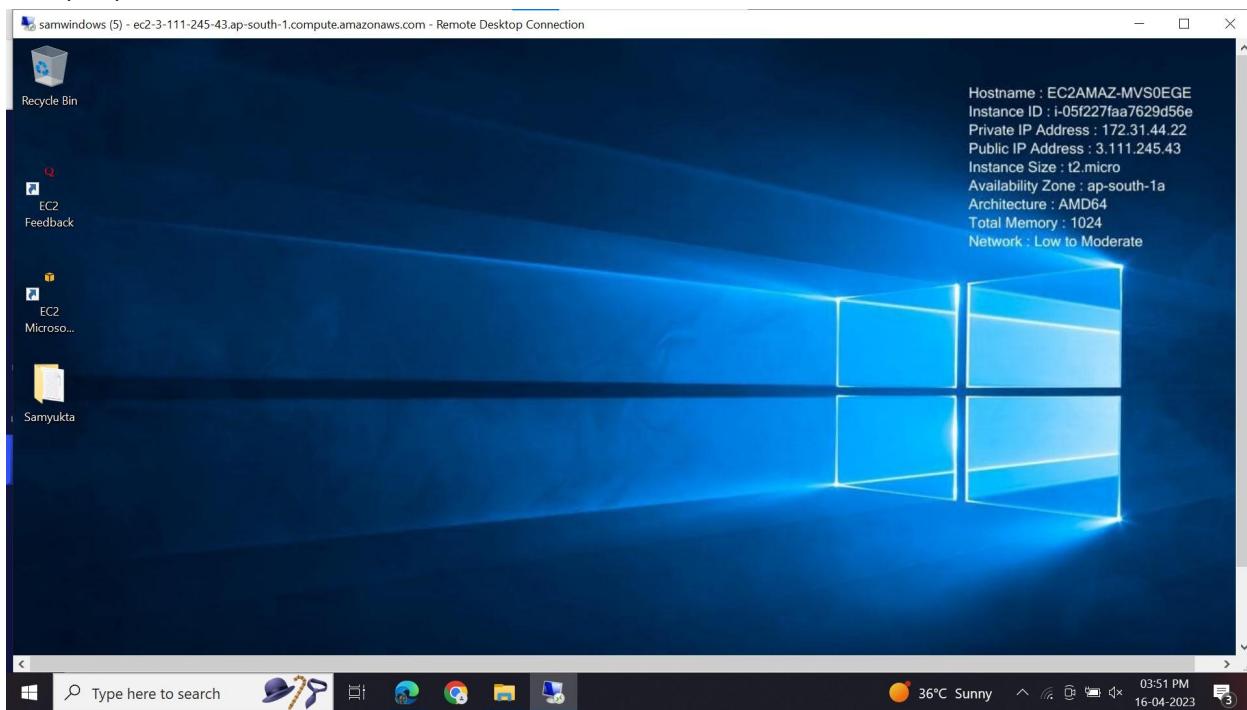
The screenshot shows the AWS Management Console Home page. At the top right, there is a user menu with the account ID "4605-4516-1596" and a "Sign out" button. Below the menu, there is a sidebar titled "Recently visited" with links to EC2, VPC, Lambda, S3, and IAM. The main content area has a "Reset to default layout" button and a "+ Add widget" button. At the bottom, there is a footer with links to CloudShell, Feedback, Language, Privacy, Terms, and Cookie preferences.

Day 2

1) a)

The screenshot shows the AWS EC2 Instance Details page for an instance with the ID i-05f227faa7629d56e. The instance is named "samwindows". The page displays various details about the instance, including its instance ID, public and private IP addresses, instance state (Stopped), and other configuration parameters like VPC ID and instance type (t2.micro). On the left, there is a sidebar with navigation links for EC2 services such as EC2 Dashboard, EC2 Global View, Events, Tags, Limits, Instances, and others. The bottom of the screen shows the Windows taskbar with icons for File Explorer, Task View, Edge, Google Chrome, and File Explorer again.

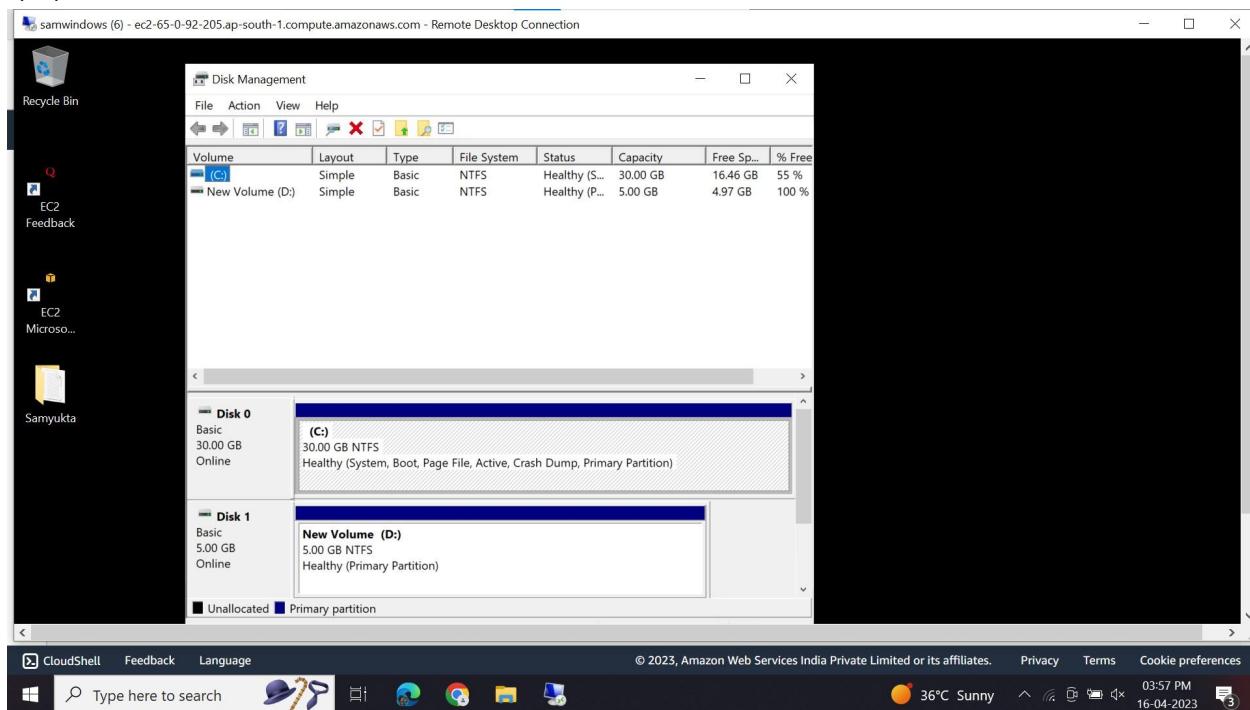
1) b)



2) a)

A screenshot of the AWS EC2 Management Console. The main view is titled "Instance details | EC2 Management" and shows the storage configuration for an instance. The "Storage" tab is selected. The "Root device details" section shows a root device named "/dev/sda1" with an EBS type and disabled optimization. The "Block devices" section lists two volumes: "vol-047b8e9b7e3d9e337" (device /dev/sda1, size 30 GiB, attached) and "vol-094a97f209c5a038a" (device xvdf, size 5 GiB, attached). Below these, a section for "Recent root volume replacement tasks" is shown, indicating "No recent replace root volume tasks". The left sidebar contains navigation links for EC2 Dashboard, Global View, Events, Tags, Instances, Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, and Capacity Reservations. The bottom of the page includes CloudShell, Feedback, Language, Privacy, Terms, and Cookie preferences links.

2) b)



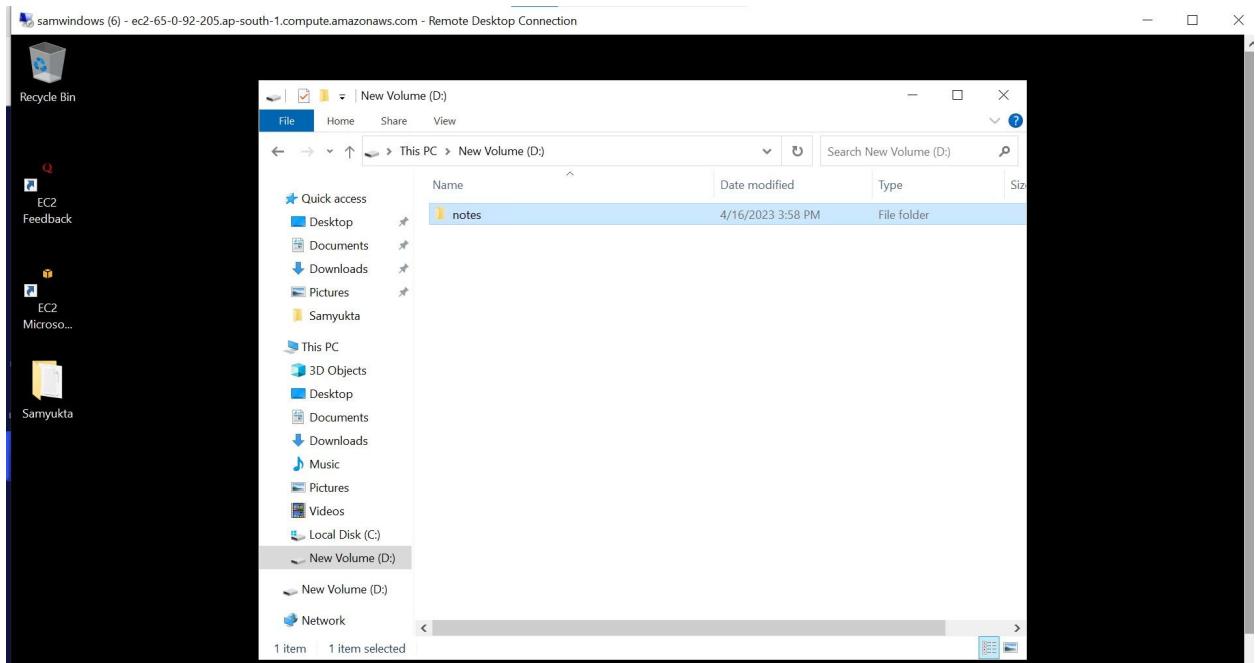
3) a)

The screenshot shows the AWS EC2 Snapshot details page for a specific snapshot. The snapshot ID is `snap-030a74b8c41d78672`. The 'Snapshot settings' table contains the following information:

Snapshot ID	Size	Progress	Snapshot status
<code>snap-030a74b8c41d78672</code>	5 GiB	Available (100%)	Completed
Owner	Volume ID	Started	Product codes
<code>460545161596</code>	<code>vol-094a97f209c5a038a</code>	Sun Apr 16 2023 16:00:47 GMT+0530 (India Standard Time)	-
Encryption	KMS key ID	KMS key alias	KMS key ARN
Not encrypted	-	-	-
Fast snapshot restore	Description		
-	-		

The left sidebar of the AWS console shows navigation links for Images, Elastic Block Store, Network & Security, and Load Balancing. The taskbar at the bottom is identical to the one in the previous screenshot.

3) b)



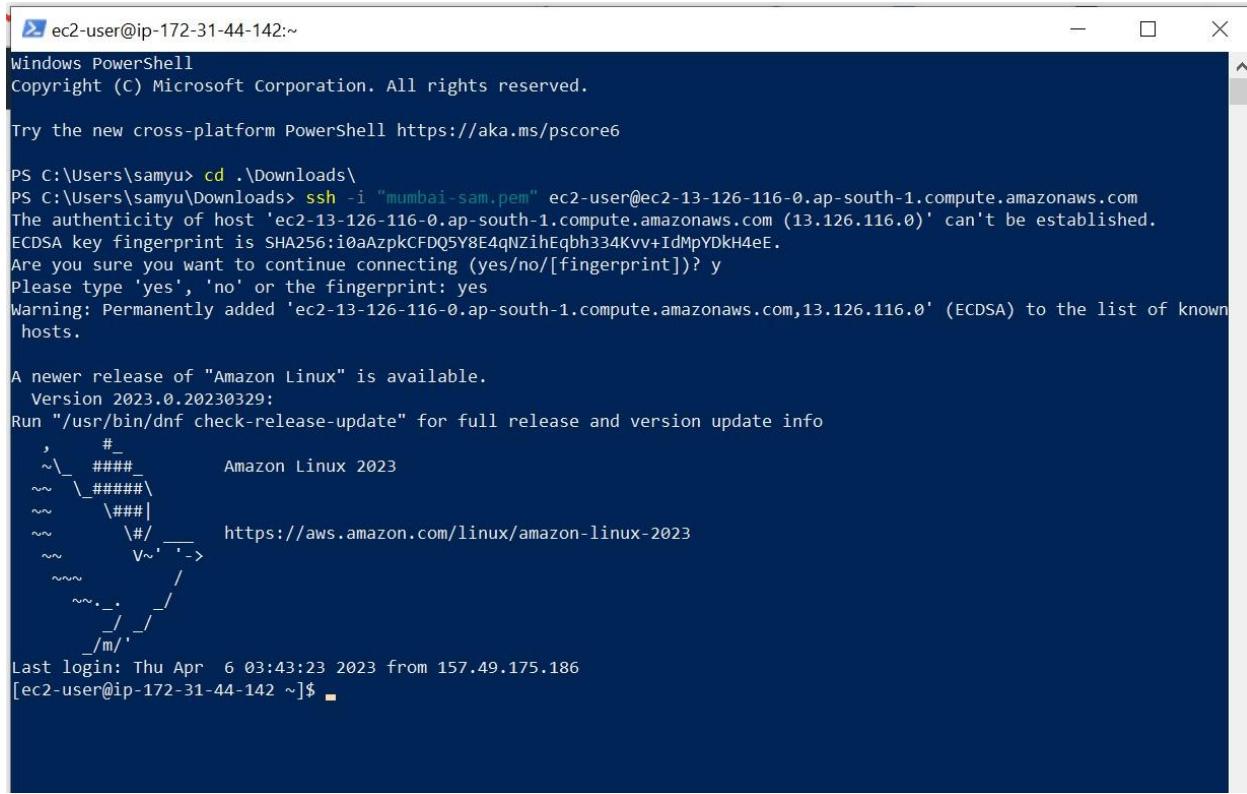
4) a)

A screenshot of the AWS Management Console showing the 'Instance details' page for an EC2 instance. The instance ID is i-0ca155cc05d3f263a. The 'Instance summary' section provides the following details:

Attribute	Value
Instance ID	i-0ca155cc05d3f263a (samserver)
Public IPv4 address	-
Private IPv4 addresses	172.31.44.142
IPv6 address	-
Instance state	Stopped
Public IPv4 DNS	-
Hostname type	Private IP DNS name (IPv4 only)
IP name:	ip-172-31-44-142.ap-south-1.compute.internal
Private IP DNS name (IPv4 only)	ip-172-31-44-142.ap-south-1.compute.internal
Answer private resource DNS name	-
Instance type	t2.micro
Elastic IP addresses	-
IPv4 (A)	-
VPC ID	vpc-05313b159e66ef148
Auto-assigned IP address	-
AWS Compute Optimizer finding	Opt-in to AWS Compute Optimizer for recommendations.

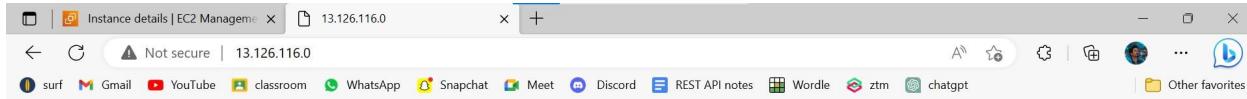
The left sidebar shows navigation links for Images, AMIs, AMI Catalog, Elastic Block Store, Volumes, Snapshots, Lifecycle Manager, Network & Security, Security Groups, Elastic IPs, Placement Groups, Key Pairs, Network Interfaces, and Load Balancing. The bottom of the page includes links for CloudShell, Feedback, Language, and a footer with copyright information and links to Privacy, Terms, and Cookie preferences.

4) b)



```
ec2-user@ip-172-31-44-142:~  
Windows PowerShell  
Copyright (C) Microsoft Corporation. All rights reserved.  
  
Try the new cross-platform PowerShell https://aka.ms/pscore6  
  
PS C:\Users\samyu> cd .\Downloads\  
PS C:\Users\samyu\Downloads> ssh -i "mumbai-sam.pem" ec2-user@ec2-13-126-116-0.ap-south-1.compute.amazonaws.com  
The authenticity of host 'ec2-13-126-116-0.ap-south-1.compute.amazonaws.com (13.126.116.0)' can't be established.  
ECDSA key fingerprint is SHA256:i0aAzpkCFDQ5Y8E4qNzihEqbh334Kvv+IdMjYDkH4eE.  
Are you sure you want to continue connecting (yes/no/[fingerprint])? y  
Please type 'yes', 'no' or the fingerprint: yes  
Warning: Permanently added 'ec2-13-126-116-0.ap-south-1.compute.amazonaws.com,13.126.116.0' (ECDSA) to the list of known hosts.  
  
A newer release of "Amazon Linux" is available.  
Version 2023.0.20230329:  
Run "/usr/bin/dnf check-release-update" for full release and version update info  
, #_ _###_ _Amazon Linux 2023  
~~ \####\ _#/  
~~ \###| _#/  
~~ \#/ _#/  
~~ v..'_>  
~~ / _/  
~~ /_/_/  
~/m'  
Last login: Thu Apr  6 03:43:23 2023 from 157.49.175.186  
[ec2-user@ip-172-31-44-142 ~]$
```

5) a)



It works!

5) b)

```
[ec2-user@ip-172-31-44-142:~]
Please type 'yes', 'no' or the fingerprint: yes
Warning: Permanently added 'ec2-13-126-116-0.ap-south-1.compute.amazonaws.com,13.126.116.0' (ECDSA) to the list of known hosts.

A newer release of "Amazon Linux" is available.
Version 2023.0.20230329:
Run "/usr/bin/dnf check-release-update" for full release and version update info
,      #
~\_ ####_
~~ \####\ Amazon Linux 2023
~~ \###|
~~ \|/   https://aws.amazon.com/linux/amazon-linux-2023
~~ V-' '-'>
~~ . / 
~~ . / /
/m/.

Last login: Thu Apr  6 03:43:23 2023 from 157.49.175.186
[ec2-user@ip-172-31-44-142 ~]$ sudo yum -y install httpd
Last metadata expiration check: 0:04:23 ago on Sun Apr 16 10:40:49 2023.
Package httpd-2.4.56-1.amzn2023.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-44-142 ~]$ sudo service httpd start
Redirecting to /bin/systemctl start httpd.service
[ec2-user@ip-172-31-44-142 ~]$
```

6) a)

The screenshot shows the AWS EC2 Management Console interface. The left sidebar is collapsed, showing options like New EC2 Experience, EC2 Dashboard, EC2 Global View, Events, Tags, Limits, Instances, and Images. The main content area is titled 'Amazon Machine Images (AMIs) (1) Info'. It displays a table with one row of data:

Name	AMI ID	AMI name	Source	Owner	Visibility
-	ami-093c6af873b046d35	LinuxImage	460545161596/LinuxImage	460545161596	Private

Below the table, there is a section titled 'Select an AMI'.

6) b)

The screenshot shows the AWS EC2 Management console with the URL <https://ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#InstanceDetails:instanceId=i-08805201e706dd...>. The left sidebar shows the navigation menu with 'New EC2 Experience' selected. The main content area displays the 'Required' tab of the instance details, specifically the 'Details' sub-tab. Key configuration items shown include:

Setting	Value	Notes
Platform	Linux/UNIX (Inferred)	AMI ID: ami-093c6af873b046d35
Platform details	Linux/UNIX	AMI name: LinuxImage
Stop protection	Disabled	Launch time: Sun Apr 16 2023 16:28:43 GMT+0530 (India Standard Time) (less than a minute)
Instance auto-recovery	Default	Lifecycle: normal
AMI Launch index	0	Key pair assigned at launch: ans1
Credit specification	standard	Kernel ID: -
Usage operation	RunInstances	RAM disk ID: -
Enclaves Support	-	Boot mode: uefi-preferred
Allow tags in instance metadata	-	Use RBN as guest OS hostname: -

Other tabs visible in the header include Security, Networking, Storage, Status checks, Monitoring, and Tags.

Day -3

1) a)

The screenshot shows the AWS S3 Management Console with the URL <https://s3.console.aws.amazon.com/s3/buckets?region=ap-south-1®ion=ap-south-1>. The left sidebar shows the navigation menu with 'Buckets' selected. The main content area displays the 'Buckets' section, which includes an 'Account snapshot' summary and a table of existing buckets. One bucket is listed:

Name	AWS Region	Access	Creation date
chammumonkie	Asia Pacific (Mumbai) ap-south-1	Objects can be public	April 6, 2023, 11:23:22 (UTC+05:30)

Actions available for the bucket include View Storage Lens dashboard, Copy ARN, Empty, Delete, and Create bucket.

1)b)

The screenshot shows the AWS S3 console interface. The URL in the browser is <https://s3.console.aws.amazon.com/s3/buckets/chammumonkie?region=ap-south-1&tab=objects>. The left sidebar has 'Buckets' selected. The main content area shows a single object named 'index.html' with details: Type: html, Last modified: April 6, 2023, 11:27:01 (UTC+05:30), Size: 313.0 B, Storage class: Standard. There are buttons for Copy S3 URI, Copy URL, Download, Open, Delete, Actions, Create folder, and Upload.

2)

The screenshot shows the AWS S3 Management Console interface. The URL in the browser is <https://s3.console.aws.amazon.com/s3/buckets?region=ap-south-1®ion=ap-south-1>. The left sidebar has 'Buckets' selected. The main content area shows an 'Account snapshot' section with a 'View Storage Lens dashboard' button. Below it is a 'Buckets (1)' section with a table:

Name	AWS Region	Access	Creation date
chammumonkie	Asia Pacific (Mumbai) ap-south-1	Objects can be public	April 6, 2023, 11:23:22 (UTC+05:30)

There are buttons for Copy ARN, Empty, Delete, and Create bucket.

3)a)

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

```
<Error>
<Code>AccessDenied</Code>
<Message>Access Denied</Message>
<RequestId>XMYIWB3Q9P59MIV</RequestId>
<HostId>sh51wQ/nwZhr83P6R1wvFnLfaZ0382vF19pRPsbg18JMnL08A1Qf+qGURZ/FPCm4f1uPOCuxd7q57b1HldJA==</HostId>
</Error>
```

3) b)

The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. [Learn more](#)

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "DenyReadAccessToFolder",
      "Effect": "Deny",
      "Principal": "*",
      "Action": [
        "s3:GetObject",
        "s3:GetObjectVersion"
      ],
      "Resource": "arn:aws:s3:::chammumonkie/nicefolder/*"
    }
  ]
}
```

4) a)

The screenshot shows the AWS S3 console for the bucket "chammumonkie". A green banner at the top indicates that the bucket versioning has been successfully edited. The main content area is titled "Object management overview" and contains sections for "Bucket properties" and "Management configurations".

Bucket properties:

- Bucket Versioning:** Enabled.
- Object Lock:** Disabled.
- Object Lock retention mode:** In governance mode.
- Default retention period:** Disabled.

Management configurations:

- Replication status:** No replication rules are present.
- View replication rules:** Link to view replication rules.
- Expiration rule:** No expiration rules are present.
- Expiration date:** No expiration date is set.

4) b)

The screenshot shows the AWS S3 console for the object "index.html" within the bucket "chammumonkie". The "Versions" tab is selected. It displays two versions of the file:

Version ID	Type	Last modified	Size	Storage class
Mpkn9ljcfuFyQoVF_5InoGLF.BtHRBP_(Current version)	html	April 16, 2023, 23:14:29 (UTC+05:30)	316.0 B	Standard
null	html	April 6, 2023, 11:27:01 (UTC+05:30)	313.0 B	Standard

5) a)

The screenshot shows the AWS S3 console with a modal dialog overlay. The main page displays details for an object named 'index.html' in the 'chammumonkie' bucket. The object's properties include:

- Owner: 7a6bcc8d76325f31929781fd305c7b16319f7dce4903945440
- AWS Region: Asia Pacific (Mumbai) ap-south-1
- Last modified: April 16, 2023, 23:14:29 (UTC+05:30)
- Size: 316.0 B
- Type: html
- Key: index.html

The modal dialog is titled 'Share "index.html" with a presigned URL'. It contains the following information:

- A note: 'Presigned URLs are used to grant access to an object for a limited time. Learn more'.
- A message: 'Anyone can access the object with this presigned URL until it expires, even if the bucket, and object are private.'
- A section titled 'Time interval until the presigned URL expires': 'Using the S3 console, you can share an object with a presigned URL for up to 12 hours or until your session expires. To create a presigned URL with a longer time interval, use the AWS CLI or AWS SDK.' Options for 'Minutes' (selected) and 'Hours' are shown, with 'Number of minutes' set to 2.
- A note: 'Must be a whole number between 1 and 720.'
- A button: 'Create presigned URL'.

5) b)

The screenshot shows a web browser window with the URL <https://chammumonkie.s3.ap-south-1.amazonaws.com/index.html?response-content-disposition=inline&X-Amz-Security-Token=...>. The page content is:

Vanakkam

How are you?

6)

The screenshot shows the AWS S3 Management Console with the URL <https://s3.console.aws.amazon.com/s3/management/chammumonkie/lifecycle?region=ap-south-1>. The left sidebar is titled "Amazon S3" and includes sections for Buckets, Access Points, Object Lambda Access Points, Multi-Region Access Points, Batch Operations, IAM Access Analyzer for S3, Block Public Access settings for this account, Storage Lens, Dashboards, AWS Organizations settings, Feature spotlight, and AWS Marketplace for S3. The main content area is titled "Lifecycle configuration" and shows a table of lifecycle rules. One rule named "Storage move" is listed, which transitions objects to Glacier and allows flexible retrieval.

Lifecycle rule name	Status	Scope	Current version actions	Noncurrent versions actions	Expired object delete markers	Incomplete multipart uploads
Storage move	Enabled	Filtered	Transition to Glacier Flexible Retrieval (formerly Glacier)	-	-	-

Day 4

1)

The screenshot shows the AWS IAM Management Console with the URL <https://us-east-1.console.aws.amazon.com/iamv2/home?region=ap-south-1#/groups/details/S3-Admins?section=permissions>. The left sidebar is titled "Identity and Access Management (IAM)" and includes sections for Dashboard, Access management (User groups, Roles, Policies, Identity providers, Account settings), Access reports (Archive rules, Analyzers, Settings, Credential report, Organization activity, Service control policies (SCPs)), and Related consoles. The main content area shows the "S3-Admins" user group with a summary table and a "Permissions" tab. It lists one policy named "AmazonS3FullAccess" which provides full access to all buckets via the AWS Management Console.

User group name	Creation time	ARN
S3-Admins	April 16, 2023, 23:44 (UTC+05:30)	arn:aws:iam:460545161596:group/S3-Admins

Policy name	Type	Description
AmazonS3FullAccess	AWS managed	Provides full access to all buckets via the AWS Management Console.

2)

IAM Management Console

https://us-east-1.console.aws.amazon.com/iamv2/home?region=ap-south-1#/users/create

User details

User name	SSAdmin1	Console password type	Autogenerated	
			Require password reset	Yes

Permissions summary

Name	Type	Used as
SS-Admins	Group	Permissions group
IAMUserChangePassword	AWS managed	Permissions policy

Tags - optional

Add new tag

Add up to 50 more tags.

3)

IAM Management Console

https://us-east-1.console.aws.amazon.com/iam/home#/policies\$inlineEdit?groupId=S3-Admins&policyName=Policy1&ste...

Visual editor JSON

```
1 * {
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "DenyDeleteObjects",
      "Effect": "Deny",
      "Action": [
        "s3:DeleteObject",
        "s3:DeleteObjectVersion"
      ],
      "Resource": [
        "arn:aws:s3:::chammamonkie/*"
      ],
      "Condition": {
        "StringEquals": {
          "aws:userId": [
            "SS-Admins"
          ]
        }
      }
    }
  ]
}
```

Import managed policy

Character count: 237 of 5,120.
The current character count includes character for all inline policies in the group: S3-Admins.

Cancel Review policy

4)

The screenshot shows the AWS IAM Management Console with the URL [https://us-east-1.console.aws.amazon.com/iam/home#/users/User1\\$policyEditor?policyName=timelimitRead&step=edit](https://us-east-1.console.aws.amazon.com/iam/home#/users/User1$policyEditor?policyName=timelimitRead&step=edit). The page title is "Edit timelimitRead". It displays a JSON editor with the following policy code:

```
1 {
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "s3:GetObject"
      ],
      "Resource": "arn:aws:s3:::chammunkie/*",
      "Condition": {
        "DateGreaterThan": {
          "aws:CurrentTime": "2023-04-16T08:00:00Z"
        },
        "DateLessThan": {
          "aws:CurrentTime": "2023-04-16T17:00:00Z"
        }
      }
    }
  ]
}
```

Below the editor, a message states: "Character count: 257 of 2,048. The current character count includes character for all inline policies in the user: User1." At the bottom right are "Cancel" and "Review policy" buttons.

5)a)

The screenshot shows the AWS IAM Management Console with the URL <https://us-east-1.console.aws.amazon.com/iamv2/home#/roles/details/S3Accessing?section=permissions>. The page title is "S3Accessing". The "Permissions" tab is selected. The role summary includes:

- Creation date: April 17, 2023, 06:19 (UTC+05:30)
- ARN: arn:aws:iam::460545161596:role/S3Accessing
- Last activity: None
- Maximum session duration: 1 hour
- Instance profile ARN: arn:aws:iam::460545161596:instance-profile/S3Accessing

The "Permissions" section lists one managed policy:

Policy name	Type	Description
AmazonS3FullAccess	AWS managed	Provides full access to all buckets via the AWS Management Console.

At the bottom, there is a note about the "Permissions boundary - (not set)": "Set a permissions boundary to control the maximum permissions this role can have. This is not a common setting but can be used to delegate permission management to others."

5)b)

The screenshot shows the AWS EC2 Management Console interface. On the left, there's a navigation sidebar with links like 'New EC2 Experience', 'EC2 Dashboard', 'Instances' (selected), 'Images', and 'AMIs'. The main content area has a title 'Successfully attached S3Accessing to instance i-0c88f77f41c640a31'. Below it is a table titled 'Instances (5) Info' with columns: Name, Instance ID, Instance state, Instance type, Status check, Alarm status, Availability Zone, and Public IPv4 DNS. The table lists five instances: 'samserver', 'samwindows', 'samluxnew', 'ec2usecase1', and another unnamed instance. All instances are currently stopped. At the bottom, there's a section titled 'Select an instance'.

6)a)

The screenshot shows the AWS IAM Management Console interface. On the left, there's a navigation sidebar with links like 'Identity and Access Management (IAM)' (selected), 'Dashboard', 'Access management' (with 'Users' selected), 'Access reports', and 'Related consoles'. The main content area shows a summary for 'User1'. It includes sections for 'Summary' (ARN: arn:aws:iam::460545161596:user/User1, Console access: Enabled with MFA, Last console sign-in: April 16, 2023, 22:13 (UTC+05:30), Access key 1: Not enabled), 'Security credentials' (Console sign-in link: https://460545161596.sigin.aws.amazon.com/console, Console password: Updated 7 hours ago (2023-04-16 22:31 GMT+5:30), Last console sign-in: 8 hours ago (2023-04-16 22:25 GMT+5:30)), and 'Access Advisor'. At the bottom, there are links for 'Permissions', 'Groups', 'Tags', 'Security credentials' (selected), and 'Access Advisor', along with a 'Delete' button.

6)b)

The screenshot shows the 'Edit password policy' page in the AWS IAM Management Console. The 'Custom' option is selected, indicating a customized password policy. The 'Password minimum length' is set to 8 characters, which is highlighted in red. Other requirements listed include requiring at least one uppercase letter, one lowercase letter, one number, and one non-alphanumeric character. There are also sections for 'Other requirements' and 'Other settings'. At the bottom, there are 'Cancel' and 'Save changes' buttons.

6)c)

The screenshot shows the 'Account settings' page in the AWS IAM Management Console. A green banner at the top indicates that 'Password requirements for IAM users are updated'. The 'Password policy' section shows a custom policy with a minimum length of 8 characters, requiring uppercase and lowercase letters. The 'Other requirements' section includes 'Never expire password' and 'Allow users to change their own password'. The 'Security Token Service (STS)' section provides information about using STS tokens for temporary access. The left sidebar shows various IAM management options like User groups, Roles, Policies, and Account settings.

Day - 5

1) a)

The screenshot shows a browser window for the AWS EC2 Management Console. The URL is <https://ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#CreateTemplate>. The page displays a success message: "Successfully created LaunchTemplate1 (lt-03f0c1df2fb6fe8ac)". Below this, there is a "Next steps" section with links to "Launch an instance", "Create an Auto Scaling group from your template", and "Create a Spot Fleet". At the bottom, there are CloudShell, Feedback, and Language options.

1) b)

The screenshot shows the "LaunchTemplate1 (lt-03f0c1df2fb6fe8ac)" details page in the AWS EC2 Management Console. The URL is <https://ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchTemplateDetails:launchTemplateId=lt-0...>. The page displays the launch template details, including the ID (lt-03f0c1df2fb6fe8ac), name (LaunchTemplate1), version (1), and owner (arn:aws:siam::460545161596:root). It also shows the launch template version details, such as the default version (1), description (empty), date created (2023-04-17T03:50:14.000Z), and created by (arn:aws:siam::460545161596:root). The sidebar on the left shows the New EC2 Experience, Instances, Images, and other navigation links.

2)

The screenshot shows the AWS EC2 Auto Scaling Groups page. At the top, a green banner displays the message "autoscaling1 created successfully". Below the banner, the "Auto Scaling groups (1/1) Info" section is visible, showing a single entry for "autoscaling1". The entry includes the launch template "LaunchTemplate1 | Version Default", desired capacity of 0, and minimum and maximum capacities of 1. The "Availability Zones" listed are "ap-south-1c, ap-sout...". Below this, the "Auto Scaling group: autoscaling1" details page is shown, with tabs for Details, Activity, Automatic scaling, Instance management, Monitoring, and Instance refresh. The "Group details" section shows the group name "autoscaling1", desired capacity of 1, status as "Updating capacity...", and the ARN "arn:aws:autoscaling:ap-south-1:460545161596:autoScalingGroup:6fc2a7e5:cd2b4dd2-a857-5b06".

Day 6

1)

The screenshot shows the AWS VPC Subnets page. On the left, a sidebar navigation menu includes "VPC dashboard", "EC2 Global View", "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 displays a table titled "Subnets (7) Info" with columns: Name, Subnet ID, State, VPC, IPv4 CIDR, and IPv6 CIDR. The table lists seven subnets, each marked as "Available". The subnets are: "mumbai-vpc1-subn...", "mumbai-vpc1-subn...", "mumbai-vpc1-subn...", "mumbai-vpc1-subn...", "mumbai-vpc1-subn...", "mumbai-vpc1-subn...", and "mumbai-vpc1-subn...". The VPC column shows IDs like "vpc-0d6535a3fff3e11a1" and "vpc-0d6535a3fff3e11a1". The IPv4 CIDR column shows ranges like "10.0.16.0/20" and "10.0.0.0/20". The IPv6 CIDR column shows "-" for all entries.

2)

The screenshot shows the AWS VPC Subnets page. The left sidebar is collapsed. The main area displays a table of subnets:

Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR
mumbai-vpc1-subn...	subnet-0cef3ee1106edb7a8	Available	vpc-0d6535a3fff3e11a1 mu...	10.0.128.0/20	-
mumbai-vpc1-subn...	subnet-07a75a74ae41277a3	Available	vpc-0d6535a3fff3e11a1 mu...	10.0.0.0/20	-
mumbai-vpc1-subn...	subnet-0c02dccbee39182bf	Available	vpc-0d6535a3fff3e11a1 mu...	10.0.144.0/20	-

3)

The screenshot shows the 'Create NAT gateway' wizard. The steps are:

- Create NAT gateway**
- NAT gateway settings**

NAT gateway settings

- Name - optional**: natgateway-1
- Subnet**: subnet-0cef3ee1106edb7a8 (mumbai-vpc1-subnet-private1-ap-south-1a)
- Connectivity type**: Public
- Elastic IP allocation ID**: Select an Elastic IP address to the NAT gateway.
- Tags**: A tag is a label you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

4)

The screenshot shows the AWS VPC Peering Connections page. On the left sidebar, under the 'Peering connections' section, there is a link to 'Create peering connection'. The main table displays one peering connection:

Name	Peering connection ID	Status	Requester VPC	Acceptor VPC	Requester CIDR
mumbai-frank...	pxc-005bcef1f399596f4	Active	vpc-0d6535a3fff3e11a1 / mu...	vpc-0e46dd502259db0df	10.0.0.0/16

The detailed view for this connection shows the following information:

- Details:**
 - Requester owner ID: 215512906739
 - Accepter owner ID: 215512906739
 - Peering connection ID: pxc-005bcef1f399596f4
 - Requester VPC: vpc-0d6535a3fff3e11a1 / mumbai-vpc1-vpc
 - Status: Active
 - Requester CIDRs: 10.0.0.0/16
 - Expiration time: --
 - Requester Region: Mumbai (ap-south-1)
- VPC Peering connection ARN:** arn:aws:ec2:ap-south-1:215512906739:vpc-peering-connection/pxc-005bcef1f399596f4
- Acceptor:**
 - VPC: vpc-0e46dd502259db0df
 - CIDRs: 172.0.0.0/16
 - Region: Frankfurt (eu-central-1)

5)a)

The screenshot shows the AWS VPC Peering Connections page. A green banner at the top states: "A VPC peering connection pxc-0ae0cffd0d658e499 / nvirginia-mumbai-vpc has been requested. Remember to change your region to ap-south-1 to accept the peering connection." On the left sidebar, under the 'Peering connections' section, there is a link to 'Create peering connection'. The main table displays one peering connection:

Name	Peering connection ID	Status	Requester VPC	Acceptor VPC	Requester CIDR
nvirginia-mum...	pxc-0ae0cffd0d658e499	Active	vpc-077c391e311d830b9 / pr...	vpc-0d6535a3fff3e11a1	192.0.0.0/16

The detailed view for this connection shows the following information:

- Details:**
 - Requester owner ID: 077c391e311d830b9
 - Accepter owner ID: 215512906739
 - Peering connection ID: pxc-0ae0cffd0d658e499
 - Requester VPC: vpc-077c391e311d830b9 / private-vpc
 - Status: Active
 - Requester CIDRs: 192.0.0.0/16
 - Expiration time: --
 - Requester Region: N. Virginia (us-east-1)
- Accepter:**
 - VPC: vpc-0d6535a3fff3e11a1
 - CIDRs: 172.0.0.0/16
 - Region: Mumbai (ap-south-1)

5)b)

The screenshot shows the AWS VPC Peering connections page. The left sidebar includes sections for Virtual private cloud (Your VPCs, Subnets, Route tables, Internet gateways, Egress-only internet gateways, DHCP option sets, Elastic IPs, Managed prefix lists, Endpoints, Endpoint services, NAT gateways), Security (Network ACLs, Security groups), DNS firewall (Rule groups, Domain lists), and Network Firewall. The main content area displays a table of peering connections:

Name	Peering connection ID	Status	Requester VPC	Acceptor VPC	Requester CIDR
mumbai-frank...	pcx-005bccef1f399596f4	Active	vpc-0d6535a3fff3e11a1 / mu...	vpc-0e46dd502259db0df	10.0.0.0/16
mumbai-nvirgi...	pcx-0ae0cffd0d658e499	Active	vpc-077c391e311d830b9	vpc-0d6535a3fff3e11a1 / mu...	192.0.0.0/16

Below the table, a message says "Select a peering connection above".

5) C)

The screenshot shows the AWS VPC Details page for the VPC "project-vpc-frankfurt-vpc". The left sidebar is identical to the one in the previous screenshot. The main content area shows the VPC's details:

VPC ID	State	DNS hostnames	DNS resolution
vpc-0e46dd502259db0df	Available	Disabled	Disabled
Tenancy	DHCP option set	Main route table	Main network ACL
Default	dopt-0e95595599ba256ae	rtb-0cb0bb9ab5236955	acl-0188da99d88ddce0d
Default VPC	IPv4 CIDR	IPv6 pool	IPv6 CIDR (Network border group)
No	172.0.0.0/16	-	-
Network Address Usage metrics	Route 53 Resolver DNS Firewall rule groups	Owner ID	
Disabled	-	215512906739	

6)

You have successfully updated inbound rules for acl-Of90a4335c18f34d6

Network ACLs (1/3) Info

Inbound rules (4)

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