

# General

- VPC created

The first screenshot shows the details of a VPC named 'cloud\_cmputing\_workshop' with ID 'vpc-021f4ce008ae11912'. The VPC is in an 'Available' state. Key details include: DNS resolution is enabled, Main network ACL is 'acl-03dea0eee4c622888', IPv4 CIDR is '192.168.0.0/24', and the Owner ID is '658372763266'. The second screenshot shows the 'Your VPCs' page, listing two VPCs: 'er-diagram-vpc' and 'cloud\_cmputing\_workshop'. The 'cloud\_cmputing\_workshop' VPC is highlighted, showing its details and a resource map. The resource map shows four subnets in the 'us-east-2a' and 'us-east-2b' availability zones, two route tables, and two network connections.

**VPC Details:**

Property	Value
VPC ID	vpc-021f4ce008ae11912
State	Available
Block Public Access	Off
DNS resolution	Enabled
Main network ACL	acl-03dea0eee4c622888
IPv4 CIDR	192.168.0.0/24
Owner ID	658372763266

**Your VPCs (1/2):**

Name	VPC ID	State	Block Public...	IPv4 CIDR
er-diagram-vpc	vpc-356fd35e	Available	Off	172.31.0.0/16
cloud_cmputing_workshop	vpc-021f4ce008ae11912	Available	Off	192.168.0.0/24

**Resource map:**

- Subnets (4):** public-subnet-1, private-subnet-2 (in us-east-2a); public-subnet-3, private-subnet-4 (in us-east-2b).
- Route tables (2):** cloud-computing-workshop-public-rt, cloud-computing-workshop-private-rt.
- Network connections (2):** cloud-computing-workshop-igw, cloud-computing-workshop-nat.

# Backend

- launch template created

The screenshot shows the details of a launch template named 'cloud-computing-workshop' with ID 'lt-0832f2facca500cdf'. The launch template is in a 'Ready' state. Key details include: Launch template name is 'cloud-computing-workshop', Default version is '1', and the Owner is 'arn:aws:iam::658372763266:root'. The launch template version details show that it was created on '2025-04-14T15:18:35.000Z' by 'arn:aws:iam::658372763266:root'. The instance details show that the AMI ID is 'ami-0b031ed5d7b210ba6', the Instance type is 't2.micro', the Availability Zone is 'us-east-2a', and the Key pair name is 'cloud\_computing\_general'.

**Launch template details:**

Property	Value
Launch template ID	lt-0832f2facca500cdf
Launch template name	cloud-computing-workshop
Default version	1
Owner	arn:aws:iam::658372763266:root

**Launch template version details:**

Property	Value
Version	1 (Default)
Description	-
Date created	2025-04-14T15:18:35.000Z
Created by	arn:aws:iam::658372763266:root

**Instance details:**

Property	Value
AMI ID	ami-0b031ed5d7b210ba6
Instance type	t2.micro
Availability Zone	us-east-2a
Key pair name	cloud_computing_general

## - ASG created

The screenshot shows the AWS Management Console for the 'cloud-computing-workshop-asg' Auto Scaling Group. A green notification bar at the top states 'Auto Scaling group updated successfully'. The main content area displays the 'cloud-computing-workshop-asg Capacity overview' with a table showing 'Desired capacity' as 1, 'Scaling limits (Min - Max)' as 1 - 1, and 'Desired capacity type' as 'Units (number of instances)'. Below this, the 'Date created' is 'Mon Apr 14 2025 10:21:32 GMT-0500 (Central Daylight Time)'. The 'Launch template' section shows 'Launch template' as 'cloud-computing-workshop', 'AMI ID' as 'ami-0100e595e1cc1ff7f', 'Instance type' as 't2.micro', and 'Owner' as 'arn:aws:iam::658372763266:root'. The 'Details' tab is selected, showing 'Integrations - new', 'Automatic scaling', 'Instance management', 'Instance refresh', 'Activity', and 'Monitoring'.

cloud-computing-workshop-asg Capacity overview			
Desired capacity	Scaling limits (Min - Max)	Desired capacity type	Status
1	1 - 1	Units (number of instances)	Updating capacity

cloud-computing-workshop-asg Launch template			
Launch template	AMI ID	Instance type	Owner
cloud-computing-workshop	ami-0100e595e1cc1ff7f	t2.micro	arn:aws:iam::658372763266:root

## - ALB created

The screenshot shows the AWS Management Console for the 'cloud-computing-workshop-alb' Application Load Balancer. A blue notification bar at the top states 'Application Load Balancers now support public IPv4 IP Address Management (IPAM)'. The main content area displays the 'cloud-computing-workshop-alb' details. The 'Details' section shows 'Load balancer type' as 'Application', 'Scheme' as 'Internet-facing', 'Status' as 'Active', 'Hosted zone' as 'ZSAADJGX6KTTL2', 'VPC' as 'vpc-021f4ce008ae11912', 'Availability Zones' as 'us-east-2a, us-east-2b, us-east-2c', 'Load balancer IP address type' as 'IPv4', and 'Date created' as 'April 14, 2025, 10:21 (UTC-05:00)'. The 'Listeners and rules' tab is selected, showing 'Network mapping', 'Resource map', 'Security', 'Monitoring', 'Integrations', 'Attributes', 'Capacity', and 'Tags'.

cloud-computing-workshop-alb Details			
Load balancer type	Status	VPC	Load balancer IP address type
Application	Active	vpc-021f4ce008ae11912	IPv4

cloud-computing-workshop-alb Details			
Scheme	Hosted zone	Availability Zones	Date created
Internet-facing	ZSAADJGX6KTTL2	us-east-2a, us-east-2b, us-east-2c	April 14, 2025, 10:21 (UTC-05:00)

## - RDS created

The screenshot shows the AWS Management Console for the 'cloud-computing' RDS instance. The 'Connectivity & security' tab is selected, showing 'Endpoint & port', 'Networking', and 'Security' sections. The 'Endpoint & port' section shows 'Endpoint' as 'cloud-computing.c6d905it7ia0.us-east-2.rds.amazonaws.com' and 'Port' as '3306'. The 'Networking' section shows 'Availability Zone' as 'us-east-2a', 'VPC' as 'cloud-computing-workshop (vpc-021f4ce008ae11912)', 'Subnet group' as 'cloud-computing-workshop-sg', and 'Subnets' as 'subnet-089617fbcfae8250f, subnet-0fed5f3ebe6617449'. The 'Security' section shows 'VPC security groups' as 'cloud-computing-workshop-rds-sg (sg-04448357ffdc82083)', 'Publicly accessible' as 'No', 'Certificate authority' as 'rds-ca-rsa2048-g1', 'Certificate authority date' as 'May 21, 2061, 19:04 (UTC-05:00)', and 'DB instance certificate expiration date' as 'April 14, 2026, 11:32 (UTC-05:00)'. The 'Details' tab is selected, showing 'Monitoring', 'Logs & events', 'Configuration', 'Zero-ETL integrations', 'Maintenance & backups', and 'Data'.

cloud-computing RDS instance Details		
Endpoint & port	Networking	Security
Endpoint	Availability Zone	VPC security groups
cloud-computing.c6d905it7ia0.us-east-2.rds.amazonaws.com	us-east-2a	cloud-computing-workshop-rds-sg (sg-04448357ffdc82083)

## - Source code modified

```

const mysql = require('mysql');
const bodyParser = require('body-parser');

// MySQL Connection
const db = mysql.createConnection({
  host: process.env.DB_HOST,
  user: process.env.DB_USER,
  password: process.env.DB_PASSWORD,
  database: 'test_db'
});

// Connect to MySQL
db.connect((err) => {
  if (err) {
    console.error('Error connecting to MySQL: ' + err.stack);
    return;
  }
  console.log('Connected to MySQL as ID ' + db.threadId);
});

```

```

app.get('/students', async (req, res) => {
  db.query('SELECT * FROM students', (err, results) => {
    if (err) {
      console.error('Error executing query: ' + err.stack);
      res.status(500).send('Error fetching users');
      return;
    }
    res.json(results);
  });
  //res.send(students);
});

```

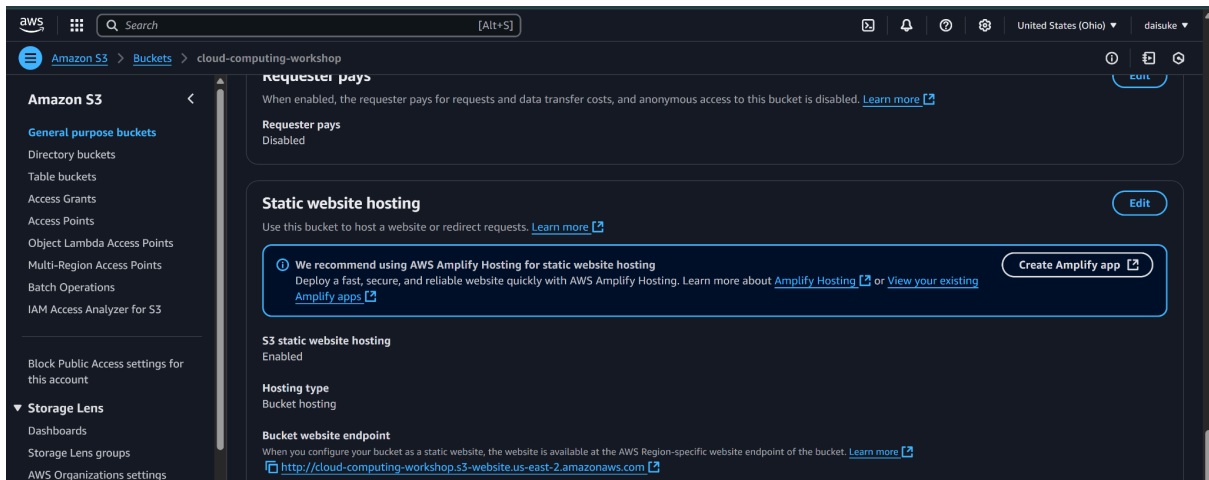
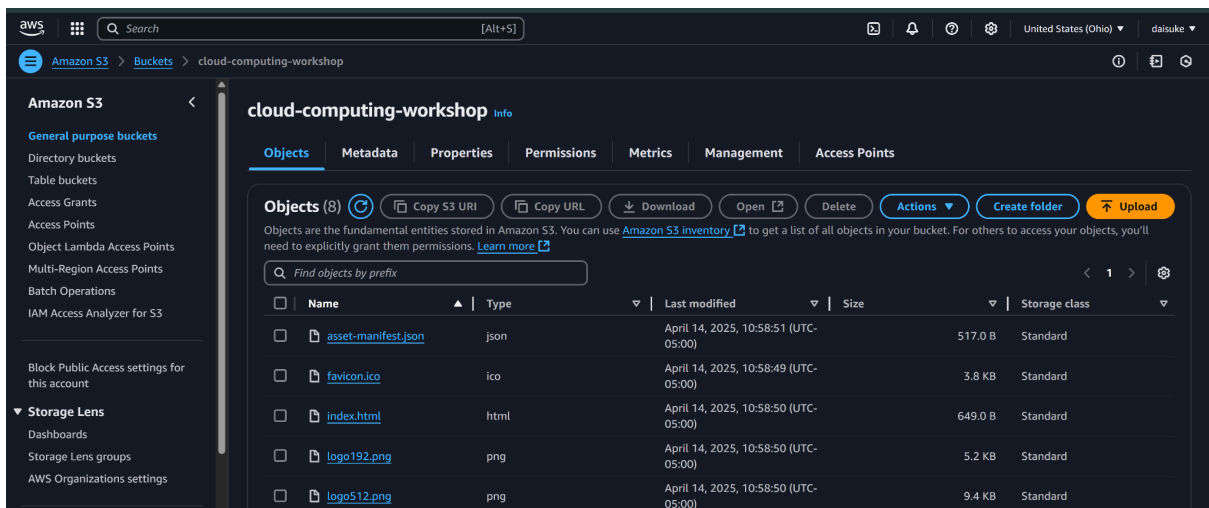
- data confirmed from the browser

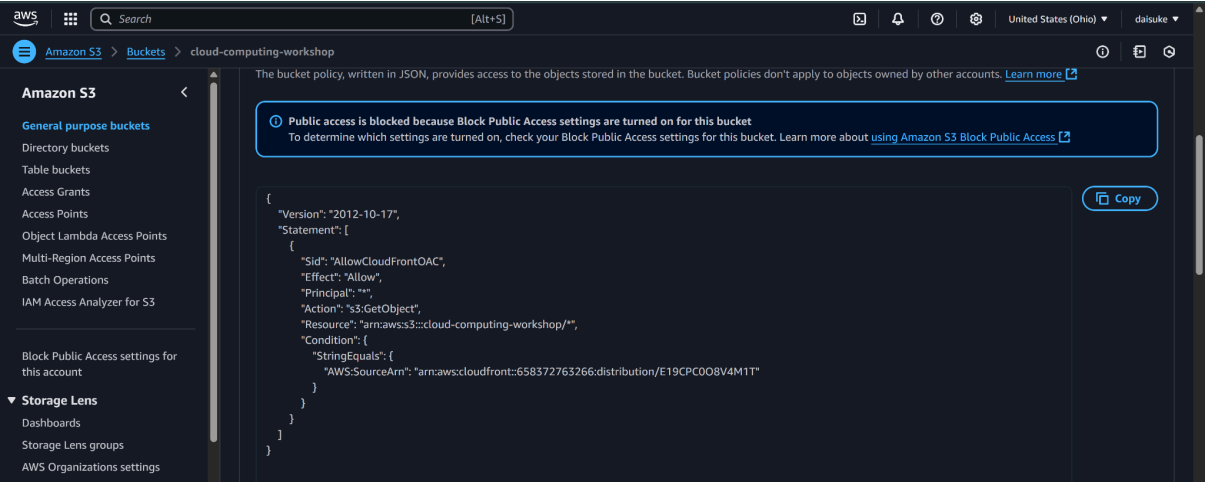
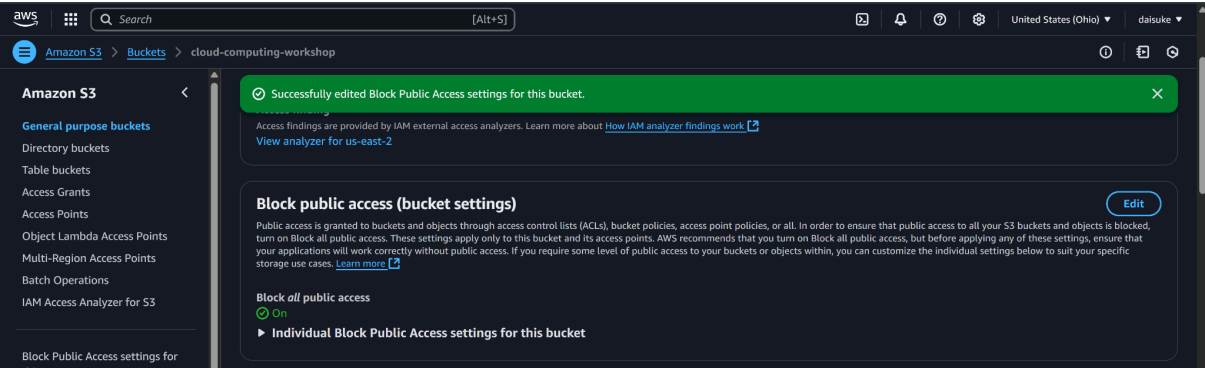
```
cloud-computing-workshop-alb-1997005820.us-east-2.elb.amazonaws.com/students

[
  {
    "id": 1,
    "name": "John Doe",
    "email": "john@example.com"
  },
  {
    "id": 2,
    "name": "Jane Smith",
    "email": "jane@example.com"
  }
]
```

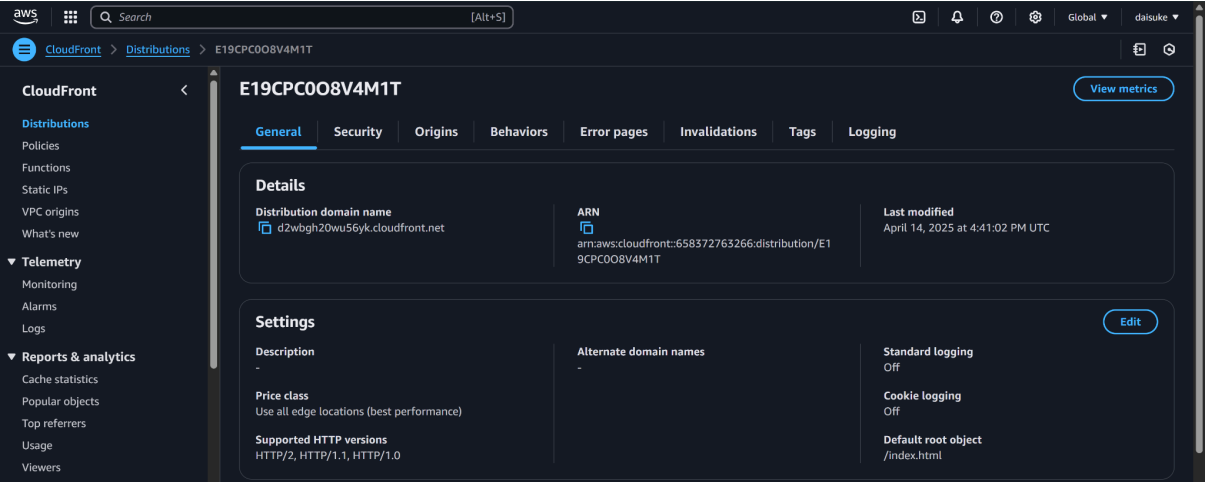
## Frontend

- S3 created

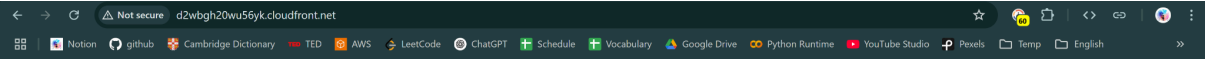




- CloudFront created



- Data confirmed from the browser



### MIU Student List

John Doe - john@example.com - 1
Jane Smith - jane@example.com - 2