

Project

**Project: Scalable WordPress Deployment on AWS**

**Group 8**

**Naincy Patel (8825502)**

**Vidhi Patel (8832488)**

**Darpan Patel (8868275)**

**Jay Patel (8916940)**

**Course Code: INFO2350**

**Instructor: Amarpreet Sigh**

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## Project

# Project Overview:

This project uses CloudFormation templates to establish a scalable and highly available WordPress service on AWS. Several AWS services will be used in the completely automated deployment to guarantee security, scalability, and performance. CloudFormation templates will be used exclusively for deployment; no manual user interface modifications will be made.

The WordPress website will be housed on several EC2 instances with an Application Load Balancer (ALB) to disperse traffic effectively. An Auto Scaling Group (ASG) will guarantee automatic scaling in response to demand. For increased dependability and data consistency, Amazon RDS (MySQL) will be used to administer the WordPress database. CloudWatch will also be utilized to log activities and track infrastructure performance.

# Objectives:

- Use AWS CloudFormation to automate the deployment of WordPress.
- Set up a scalable and safe AWS architecture.
- Make sure WordPress has fault tolerance and high availability.
- Use Amazon RDS as the database for the backend.
- AWS CloudWatch is used to maintain and monitor the infrastructure.
- Reduce the amount of work required by applying the infrastructure-as-code concept.

# Architecture Components:

## Networking:

- **Amazon VPC & Subnets:** This customized Virtual Private Cloud (VPC) has both public and private subnets to improve security and scalability.
- **Internet Gateways and Route Tables:** Route tables and an internet gateway provide external connectivity for the visible parts to the public.
- **Network ACLs and Security Groups:** Prevent unwanted access while permitting necessary services.

## Compute & Load Balancing:

- **2 x EC2 Instances (WordPress Servers):** Two WordPress servers, or EC2 instances, host the WordPress program with Apache, PHP, and other required settings.
- **Application Load Balancer (ALB):** By distributing incoming traffic evenly among EC2 instances, the Application Load Balancer (ALB) improves dependability and performance.
- **Auto Scaling Group (ASG):** The Auto Scaling Group (ASG) automatically adds or removes EC2 instances in response to demand, ensuring dynamic scalability.

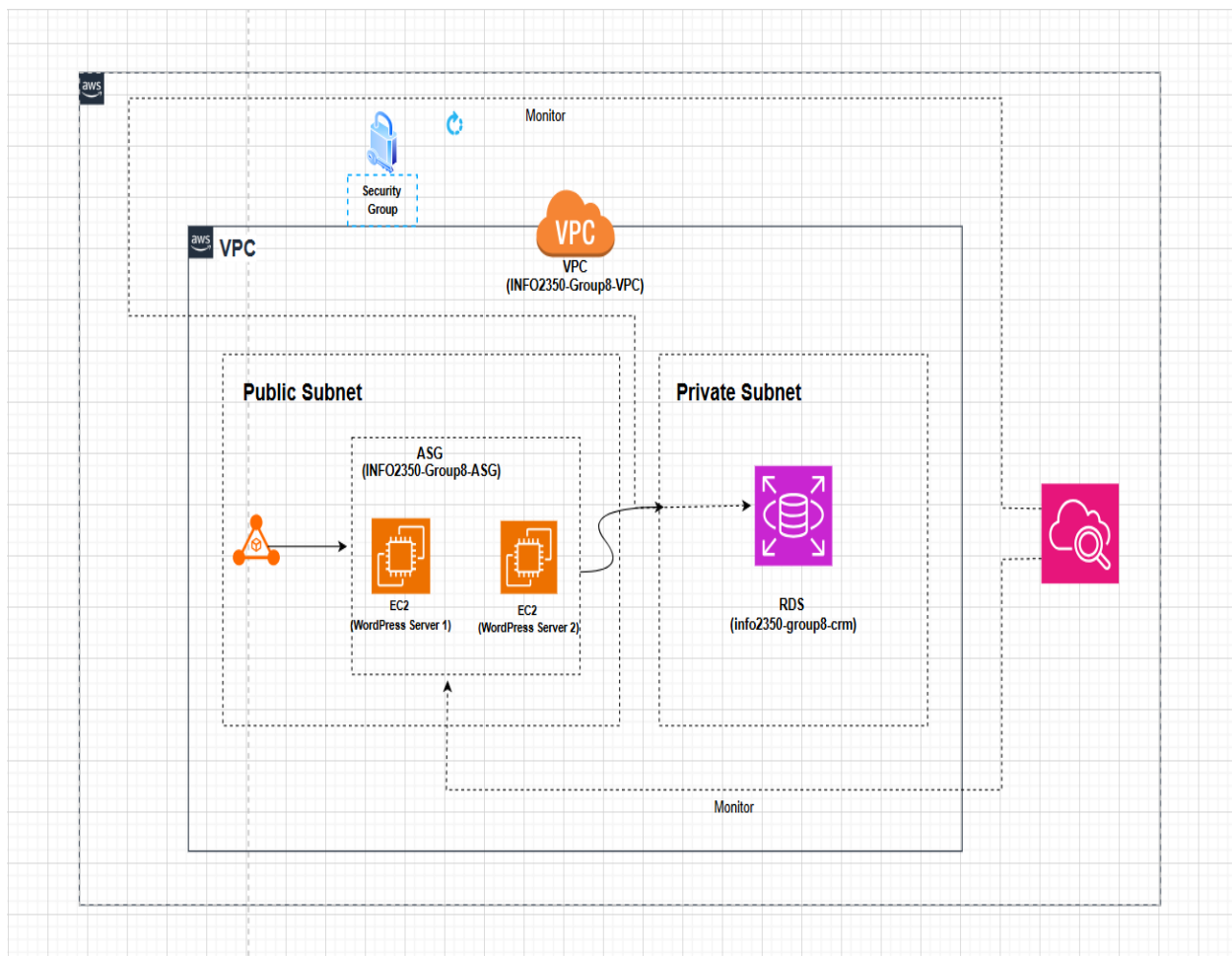
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## Database:

- **Amazon RDS:** A managed relational database service with improved availability and automated backups is offered by Amazon RDS (MySQL).
- **Private Subnet Placement:** Private subnet placement ensures security by blocking the database from being accessed from the public internet.

## Monitoring & Logging:

- **Amazon CloudWatch:** This makes it possible to log and monitor EC2 instances, ALB, RDS, and system performance in real time.
- **AWS CloudTrail:** Monitors API requests for security research and auditing.



# Deployment Instructions

## 1. Prepare AWS Environment:

- Make sure you have an administratively authorized AWS account.
- Set up CloudFormation execution by configuring IAM roles and permissions.
- Check that the AWS CLI is configured for automation.

## 2. Deploy Network Infrastructure:

- Make a VPC with the proper public and private subnets.
- Establish security groups, internet gateways, and route tables.
- Use the network.yaml CloudFormation template to deploy network components.

## 3. Deploy Application Layer:

- In the ASG, start EC2 instances.
- Set up the installation scripts for WordPress, PHP, and Apache.
- ALB ought to be set up for traffic distribution.
- Use the WordPress.yaml CloudFormation template for deployment.

## 4. Deploy Database Layer:

- Provide a private subnet for Amazon RDS (MySQL).
- Set up security settings and parameter groups.
- Connect the RDS instance to EC2 instances.

## 5. Configure Monitoring & Security:

- Turn on CloudWatch alerts and logging.
- Set up least-privilege access for IAM roles.
- Verify security group rules to make sure necessary services are permitted.

## 6. Testing & Validation:

- Use the ALB URL to confirm if the website is available.
- <http://info2350-group8-alb-1010922734.us-east-1.elb.amazonaws.com/wp-admin/edit.php>
- **Username – admin**
- **Password - MySecurePassword123**
- Check the WordPress instances' database connectivity.
- Simulate load circumstances to keep an eye on ASG behaviour.
- Record activities and performance metrics.

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## Screenshots:

### → Amazon VPC & Subnets

The screenshot shows the Amazon VPC console for VPC ID vpc-01304a94ea70c2803. The left sidebar shows the navigation menu with 'Virtual private cloud' expanded. The main content area displays the VPC details in a grid format:

- Details Info:** VPC ID: vpc-01304a94ea70c2803, State: Available, Block Public Access: Off, DNS hostnames: Enabled, DNS resolution: Enabled, Main network ACL: acl-03a3907a25026c9a4, IPv6 CIDR: (Network border group), Tenancy: default, Default VPC: No, Network Address Usage metrics: Disabled, DHCP option set: dopt-004b30baf0b09be8d, IPv4 CIDR: 10.0.0.0/16, Route 53 Resolver DNS Firewall rule groups: Failed to load rule groups, Main route table: rtb-0b93d8b82570d2966, IPv6 pool: -, Owner ID: 746642308337.

Below the details is a 'Resource map' section with tabs for 'Resource map', 'CIDRs', 'Flow logs', 'Tags', and 'Integrations'. The 'Resource map' tab is active, showing a visual representation of the VPC resources.

The screenshot shows the Amazon VPC console for the 'Subnets (4/4)' view. The left sidebar shows the navigation menu with 'Virtual private cloud' expanded and 'Subnets' selected. The main content area displays a list of subnets with the following columns: Name, Subnet ID, State, and VPC. All subnets are in an 'Available' state.

Name	Subnet ID	State	VPC
INFO2350-Group8-PrivateSubnetB	subnet-0b1ca1a91e42cb308	Available	vpc-01304a94ea70c28
INFO2350-Group8-PublicSubnetB	subnet-0b9a21dac94f2e744	Available	vpc-01304a94ea70c28
INFO2350-Group8-PublicSubnetA	subnet-03bf751a724a15db2	Available	vpc-01304a94ea70c28
INFO2350-Group8-PrivateSubnetA	subnet-02ef26c87e7e21384	Available	vpc-01304a94ea70c28

Below the list, the 'Subnets' section shows the IDs: subnet-0b1ca1a91e42cb308, subnet-0b9a21dac94f2e744, subnet-03bf751a724a15db2, subnet-02ef26c87e7e21384.

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## → Security Group

The screenshot shows the AWS Management Console interface for a Security Group. The breadcrumb navigation is VPC > Security Groups > sg-0bb3921d82765c169 - INFO2350-Group8-NetworkStack-EC2SecurityGroup-BHFri7KAP2Rw. The main content area displays the following details:

- Security group name:** INFO2350-Group8-NetworkStack-EC2SecurityGroup-BHFri7KAP2Rw
- Security group ID:** sg-0bb3921d82765c169
- Description:** Security group for EC2 instances
- VPC ID:** vpc-01304a94ea70c2803
- Owner:** 746642308337
- Inbound rules count:** 2 Permission entries
- Outbound rules count:** 1 Permission entry

Below the details, there are tabs for Inbound rules, Outbound rules, Sharing - new, VPC associations - new, and Tags. The Inbound rules tab is active, showing 2 rules.

The screenshot shows the AWS Management Console interface for a VPC dashboard. The breadcrumb navigation is VPC > Security Groups > sg-0bb3921d82765c169 - INFO2350-Group8-NetworkStack-EC2SecurityGroup-BHFri7KAP2Rw. The main content area displays the following details:

- Security group name:** INFO2350-Group8-NetworkStack-EC2SecurityGroup-BHFri7KAP2Rw
- Security group ID:** sg-0bb3921d82765c169
- Description:** Security group for EC2 instances
- VPC ID:** vpc-01304a94ea70c2803
- Owner:** 746642308337
- Inbound rules count:** 2 Permission entries
- Outbound rules count:** 1 Permission entry

Below the details, there are tabs for Inbound rules, Outbound rules, Sharing - new, VPC associations - new, and Tags. The Inbound rules tab is active, showing 2 rules in a table:

Security group rule ID	IP version	Type	Protocol	Port range
sgr-03d01d327d7258beb	IPv4	SSH	TCP	22
sgr-07dec7e7d3f54be43	IPv4	HTTP	TCP	80

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The screenshot shows the AWS Management Console interface for a Security Group. The browser address bar indicates the URL: `us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#SecurityGroup:group-id=sg-0bb3921d82765c169`. The page title is "VPC > Security Groups > sg-0bb3921d82765c169 - INFO2350-Group8-NetworkStack-EC2SecurityGroup-BHFri7KAP2Rw".

**Security group details:**

- Security group name:** INFO2350-Group8-NetworkStack-EC2SecurityGroup-BHFri7KAP2Rw
- Security group ID:** sg-0bb3921d82765c169
- Description:** Security group for EC2 instances
- VPC ID:** vpc-01304a94ea70c2803
- Owner:** 746642308337
- Inbound rules count:** 2 Permission entries
- Outbound rules count:** 1 Permission entry

**Outbound rules (1):**

Security group rule ID	IP version	Type	Protocol	Port range
sgr-0915169f48a90de42	IPv4	All traffic	All	All

The screenshot shows the AWS Management Console interface for a Security Group. The browser address bar indicates the URL: `us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#SecurityGroup:groupid=sg-0649ab4954d56be78`. The page title is "VPC > Security Groups > sg-0649ab4954d56be78 - INFO2350-Group8-NetworkStack-ALBSecurityGroup-UMKj9gmAsROY".

**Security group details:**

- Security group name:** INFO2350-Group8-NetworkStack-ALBSecurityGroup-UMKj9gmAsROY
- Security group ID:** sg-0649ab4954d56be78
- Description:** Security group for ALB
- VPC ID:** vpc-01304a94ea70c2803
- Owner:** 746642308337
- Inbound rules count:** 2 Permission entries
- Outbound rules count:** 1 Permission entry

**Inbound rules (2):**

Security group rule ID	IP version	Type	Protocol	Port range
sgr-0b8a90016263d6136	IPv4	HTTPS	TCP	443
sgr-06a9fa6474f42d570	IPv4	HTTP	TCP	80

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The screenshot shows the AWS Management Console interface for a Security Group. The breadcrumb navigation is **VPC > Security Groups > sg-0649ab4954d56be78 - INFO2350-Group8-NetworkStack-ALBSecurityGroup-UMKJ9gmAsROY**. The left-hand navigation pane is expanded to **Virtual private cloud**, showing options like Subnets, Route tables, and Internet gateways. The main content area displays the **Details** for the selected security group. The details are organized into a grid:

- Security group name:** INFO2350-Group8-NetworkStack-ALBSecurityGroup-UMKJ9gmAsROY
- Security group ID:** sg-0649ab4954d56be78
- Description:** Security group for ALB
- VPC ID:** vpc-01304a94ea70c2803
- Owner:** 746642308337
- Inbound rules count:** 2 Permission entries
- Outbound rules count:** 1 Permission entry

Below the details, there are tabs for **Inbound rules**, **Outbound rules** (which is selected), **Sharing - new**, **VPC associations - new**, and **Tags**. The **Outbound rules (1)** section shows a search bar and a table with one rule:

Security group rule ID	IP version	Type	Protocol	Port range
sgr-0627791d1794a911a	IPv4	All traffic	All	All

The bottom of the screenshot shows the Windows taskbar with various application icons and the system tray displaying the time as 2:09 AM on 2025-04-02.

The screenshot shows the AWS Management Console interface for a Security Group. The breadcrumb navigation is **VPC > Security Groups > sg-05d5427fcc089297a - INFO2350-Group8-NetworkStack-RDSecurityGroup-nCHKGc7TutXA**. The left-hand navigation pane is expanded to **Virtual private cloud**. The main content area displays the **Details** for the selected security group. The details are organized into a grid:

- Security group name:** INFO2350-Group8-NetworkStack-RDSecurityGroup-nCHKGc7TutXA
- Security group ID:** sg-05d5427fcc089297a
- Description:** Security group for RDS
- VPC ID:** vpc-01304a94ea70c2803
- Owner:** 746642308337
- Inbound rules count:** 1 Permission entry
- Outbound rules count:** 1 Permission entry

Below the details, there are tabs for **Inbound rules** (which is selected), **Outbound rules**, **Sharing - new**, **VPC associations - new**, and **Tags**. The **Inbound rules (1)** section shows a search bar and a table with one rule:

Security group rule ID	IP version	Type	Protocol	Port range
sgr-07173b0da5703a708	-	MSSQL	TCP	1433

The bottom of the screenshot shows the Windows taskbar with various application icons and the system tray displaying the time as 2:09 AM on 2025-04-02.

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The screenshot shows the AWS VPC console for a Security Group. The left sidebar contains the VPC dashboard and navigation options. The main content area displays the details of the Security Group, including its name, ID, description, owner, and rule counts. The 'Outbound rules' tab is selected, showing a single rule for all traffic.

**Details**

<b>Security group name</b> INFO2350-Group8- NetworkStack- RDSSecurityGroup- ncHKGc7TutXA	<b>Security group ID</b> sg-05d5427fcc089297a	<b>Description</b> Security group for RDS	<b>VPC ID</b> vpc- 01304a94ea70c2803
<b>Owner</b> 746642308337	<b>Inbound rules count</b> 1 Permission entry	<b>Outbound rules count</b> 1 Permission entry	

**Outbound rules (1)**

Security group rule ID	IP version	Type	Protocol	Port range
sgr-07af4ec30a10eb4bd	IPv4	All traffic	All	All

## → 2 x EC2 Instances (WordPress Server)

The screenshot shows the AWS EC2 console with two instances selected. The instances are in a 'Running' state and are of type 't2.small'. The console displays a table of instances and a monitoring section for the selected instances.

**Instances (2/2) info**

Name	Instance ID	Instance state	Instance type	Status check
INFO2350-Group8-EC2	i-0e804d0a154e5bf5b	Running	t2.small	2/2 checks passed
INFO2350-Group8-EC2	i-04ec3d0e343471b8c	Running	t2.small	2/2 checks passed

**2 instances selected**

**Monitoring**

Alarm recommendations:  3h 1d 1w 1h UTC timezone

CPU utilization... Network in (by... Network out (... Network pack...

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## → Application Load Balancer (ALB)

The screenshot shows the AWS Management Console interface for the 'INFO2350-Group8-ALB' load balancer. The left-hand navigation pane is visible, with 'Load Balancing' selected. The main content area displays the following details:

- Details**
  - Load balancer type:** Application
  - Status:** Active
  - VPC:** vpc-01304a94ea70c2803
  - Load balancer IP address type:** IPv4
  - Scheme:** Internet-facing
  - Hosted zone:** Z355XDOTRQ7X7K
  - Availability Zones:** subnet-0b9a21dac94f2e744 (us-east-1b (use1-az4)), subnet-03bf751a724a15db2 (us-east-1a (use1-az2))
  - Date created:** April 2, 2025, 01:05 (UTC-04:00)
  - Load balancer ARN:** arn:aws:elasticloadbalancing:us-east-1:746642308337:loadbalancer/app/INFO2350-Group8-ALB/7370e3d241a5a913
  - DNS name:** INFO2350-Group8-ALB-1010922734.us-east-1.elb.amazonaws.com (A Record)

Navigation tabs at the bottom include: Listeners and rules, Network mapping, Resource map, Security, Monitoring, Integrations, and Actions.

This screenshot shows the 'Listeners and rules' configuration page for the 'INFO2350-Group8-ALB'. The 'Listeners and rules (1)' section is active, showing a single listener configuration:

Protocol:Port	Default action	Rules	ARN	Security policy
HTTP:80	Forward to target group <ul style="list-style-type: none"><li>INFO23-Target-3XK43WLNDCZF: 1 (100%)</li><li>Target group stickiness: Off</li></ul>	1 rule	ARN	Not applicable

Buttons for 'Manage rules', 'Manage listener', and 'Add listener' are visible at the top of the configuration area.

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The screenshot shows the AWS Management Console interface for a Target Group. The breadcrumb navigation is EC2 > Target groups > INFO23-Targe-3XK43WLNDZCF. The main content area displays the 'Details' tab for the target group. The ARN is `arn:aws:elasticloadbalancing:us-east-1:746642308337:targetgroup/INFO23-Targe-3XK43WLNDZCF/fc3137f79d001215`. The target type is 'Instance', protocol is 'HTTP', port is '80', and protocol version is 'HTTP1'. The VPC is `vpc-01304a94ea70c2803`. The IP address type is 'IPv4', and the load balancer is `INFO2350-Group8-ALB`. A summary row shows 2 total targets, 2 healthy, 0 unhealthy, 0 unused, 0 initial, and 0 draining. Below this is a section for 'Distribution of targets by Availability Zone (AZ)' with a note to select values in the table to see corresponding filters.

This screenshot shows the 'Registered targets' section of the AWS Management Console. It features a search bar for filtering targets and a table with columns for Instance ID, Name, Port, Zone, Health status, and Health status details. Two targets are listed, both in a 'Healthy' state. The first target has Instance ID `i-04ec3d0e343471b8c` and is in the `us-east-1a` zone. The second target has Instance ID `i-0e804d0a154e5bf5b` and is in the `us-east-1b` zone. The interface also includes buttons for 'Anomaly mitigation: Not applicable', 'Deregister', and 'Register targets'.

Instance ID	Name	Port	Zone	Health status	Health status details
<a href="#">i-04ec3d0e343471b8c</a>	INFO2350-Gro...	80	us-east-1a (us...)	Healthy	-
<a href="#">i-0e804d0a154e5bf5b</a>	INFO2350-Gro...	80	us-east-1b (us...)	Healthy	-

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The screenshot shows the AWS Management Console interface for a Target Group. The breadcrumb navigation is EC2 > Target groups > INFO23-Target-3XK43WLNDCZF. The main content area displays a summary of the target group's status: 2 Total targets, 2 Healthy, 0 Unhealthy, 0 Unused, 0 Initial, and 0 Draining. Below this, there is a section for 'Distribution of targets by Availability Zone (AZ)' with a note to select values in the table to see corresponding filters. The 'Health checks' tab is selected, showing settings for a HTTP health check. The settings include: Protocol: HTTP, Path: /wp-login.php, Port: Traffic port, Healthy threshold: 5 consecutive health check successes, Unhealthy threshold: 2 consecutive health check failures, Timeout: 5 seconds, Interval: 30 seconds, and Success codes: 200. The left sidebar shows navigation options for AMIs, Elastic Block Store, Network & Security, Load Balancing, and Auto Scaling. The bottom of the page shows the AWS logo, search bar, and user information for 'voclabs/user3779931=Dpatel8275@conestogac.on.ca @ 7466-4230-8337'.

## → Auto Scaling Group (ASG)

The screenshot shows the AWS Management Console interface for an Auto Scaling Group. The breadcrumb navigation is EC2 > Auto Scaling groups > INFO2350-Group8-ASG. The main content area displays the 'INFO2350-Group8-ASG Capacity overview' section, which includes the ARN: arn:aws:autoscaling:us-east-1:746642308337:autoScalingGroup:f897939f-066b-4799-887c-5bc5cb506fa7:autoScalingGroupName/INF02350-Group8-ASG. The capacity overview table shows: Desired capacity: 2, Scaling limits (Min - Max): 2 - 4, Desired capacity type: Units (number of instances), and Status: -. Below this, the 'Date created' is listed as Wed Apr 02 2025 01:06:10 GMT-0400 (Eastern Daylight Time). The 'Launch template' section shows: Launch template: lt-0a244b5801695d6dc INFO2350-Group8-LaunchTemplate, AMI ID: ami-001eed247d2135475, Instance type: t2.small, and Owner: arn:aws:sts::746642308337:assumed-role/voclabs/user3779931=Dpatel8275@conestogac.on.ca. The left sidebar shows navigation options for Snapshots, Lifecycle Manager, Network & Security, Load Balancing, and Auto Scaling. The bottom of the page shows the AWS logo, search bar, and user information for 'voclabs/user3779931=Dpatel8275@conestogac.on.ca @ 7466-4230-8337'.

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The screenshot shows the AWS Management Console interface for an Auto Scaling Group. The breadcrumb navigation is EC2 > Auto Scaling groups > INFO2350-Group8-ASG. The left-hand navigation pane includes categories like Network & Security, Load Balancing, and Auto Scaling. The main content area is titled 'Launch template' and contains several key-value pairs:

- Launch template:** It-0a244b5801695d6dc, INFO2350-Group8-LaunchTemplate
- AMI ID:** ami-001eed247d2135475
- Instance type:** t2.small
- Owner:** arn:aws:sts::746642308337:assumed-role/voclabs/user3779931=Dpatel8275@conestogac.on.ca
- Version:** 1
- Security groups:** -
- Security group IDs:** sg-0b2ae79051b9908bd
- Create time:** Wed Apr 02 2025 01:06:05 GMT-0400 (Eastern Daylight Time)
- Description:** -
- Storage (volumes):** -
- Key pair name:** Dpatel8275-Key Pair
- Request Spot Instances:** No

Below the launch template details is a 'Network' section with the following information:

- Availability Zones:** us-east-1a, us-east-1b
- Subnet ID:** subnet-0b9a21dac94f2e744, subnet-03bf751a724a15db2
- Availability Zone distribution:** Balanced best effort

The bottom of the screenshot shows the Windows taskbar with various application icons and the system tray displaying the time as 2:14 AM on 2025-04-02.

This screenshot shows the 'Activity history' view for the same Auto Scaling Group. The breadcrumb navigation is EC2 > Auto Scaling groups > INFO2350-Group8-ASG. The main content area displays a message: 'No notifications are currently specified' with a 'Create notification' button. Below this is the 'Activity history (2)' section, which includes a search filter and a table of activities:

Status	Description	Cause
Successful	Launching a new EC2 instance: i-0e804d0a154e5bf5b	At 2025-04-02T05:06:11Z a user request update of AutoScalingGroup constraints to min: 2 desired: 2 changing the desired capacity from 0 to 2. At 2025-04-02T05:06:15Z an instance in response to a difference between desired and actual capacity, increasing the capacity fro
Successful	Launching a new EC2 instance: i-04ec3d0e343471b8c	At 2025-04-02T05:06:11Z a user request update of AutoScalingGroup constraints to min: 2 desired: 2 changing the desired capacity from 0 to 2. At 2025-04-02T05:06:15Z an instance in response to a difference between desired and actual capacity, increasing the capacity fro

The bottom of the screenshot shows the Windows taskbar with various application icons and the system tray displaying the time as 2:19 AM on 2025-04-02.

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## → Amazon RDS (MySQL)

The screenshot shows the AWS Management Console interface for an Amazon RDS instance. The browser address bar indicates the URL: `us-east-1.console.aws.amazon.com/rds/home?region=us-east-1#database:id=info2350-group8-crm;is-cluster=false`. The console header shows the user is logged in as `voclabs/user3779931=Dpatel8275@conestogac.on.ca` in the `us-east-1` region.

The main content area displays the instance details for `info2350-group8-crm`. The **Summary** section includes:

- DB identifier:** info2350-group8-crm
- Status:** Available
- Role:** Instance
- Engine:** MySQL Community
- CPU:** 3.84%
- Class:** db.t3.micro
- Current activity:** 0 Connections
- Region & AZ:** us-east-1a

Below the summary, there are tabs for **Connectivity & security**, **Monitoring**, **Logs & events**, **Configuration**, and **Zero-ETL integrations**. The **Connectivity & security** tab is active, showing details for **Endpoint & port**, **Networking**, and **Security**.

The **Endpoint & port** section shows the endpoint `info2350-group8-crm.cyq.s82vnafe1.us-east-1.rds.amazonaws.com` and the port `3306`. The **Networking** section shows the **Availability Zone** as `us-east-1a` and the **VPC** as `INFO2350-Group8-VPC (vpc-01304a94ea70c2803)`. The **Security** section shows the **VPC security groups** as `INFO2350-Group8-RDSStack-RDSecurityGroup-NEglNeqazKM8 (sg-092816a2629ba5849)` and the **Publicly accessible** status as `No`.

This screenshot provides a detailed view of the **Connectivity & security** tab for the Amazon RDS instance `info2350-group8-crm`. The **Endpoint & port** section shows the endpoint `info2350-group8-crm.cyq.s82vnafe1.us-east-1.rds.amazonaws.com` and the port `3306`. The **Networking** section shows the **Availability Zone** as `us-east-1a` and the **VPC** as `INFO2350-Group8-VPC (vpc-01304a94ea70c2803)`. The **Subnet group** is `info2350-group8-rdsstack-dbsubnetgroup-tgkpyglh7pgq`. The **Subnets** are `subnet-0b1ca1a91e42cb308` and `subnet-02ef26c87e7e21384`. The **Network type** is `IPv4`. The **Security** section shows the **VPC security groups** as `INFO2350-Group8-RDSStack-RDSecurityGroup-NEglNeqazKM8 (sg-092816a2629ba5849)` and the **Publicly accessible** status as `No`. The **Certificate authority** is `Info rds-ca-rsa2048-g1` and the **Certificate authority date** is `May 25, 2061, 19:34 (UTC-04:00)`. The **DB instance certificate expiration date** is `April 02, 2026, 01:08 (UTC-04:00)`.

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**Aurora and RDS** > Databases > info2350-group8-crm

### Security group rules (2)

Filter by Security group rules

Security group	Type	Rule
<a href="#">INFO2350-Group8-RDSStack-RDSSecurityGroup-NEgLnqazKM8 (sg-092816a2629ba5849)</a>	CIDR/IP - Inbound	10.0.0.0/16
<a href="#">INFO2350-Group8-RDSStack-RDSSecurityGroup-NEgLnqazKM8 (sg-092816a2629ba5849)</a>	CIDR/IP - Outbound	0.0.0.0/0

### Replication (1)

Filter by Replication

DB identifier	Role	Region & AZ	Replication source	Replication state	Lag
<a href="#">info2350-group8-crm</a>	Instance	us-east-1a	-	-	-

## → CloudWatch Monitoring

**CloudWatch** > Metrics

### Untitled graph

1h 3h 12h 1d 3d 1w Custom UTC timezone Actions Investigate Line

Percent

100

52.4

4.78

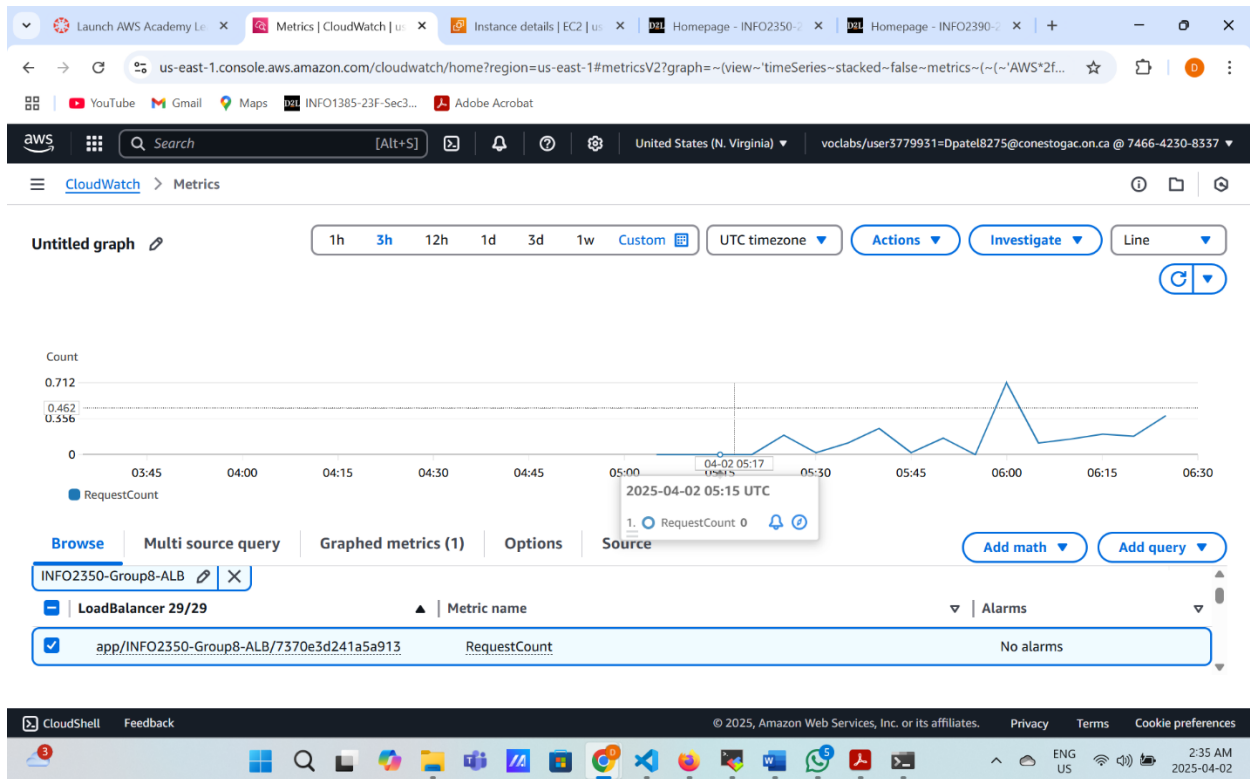
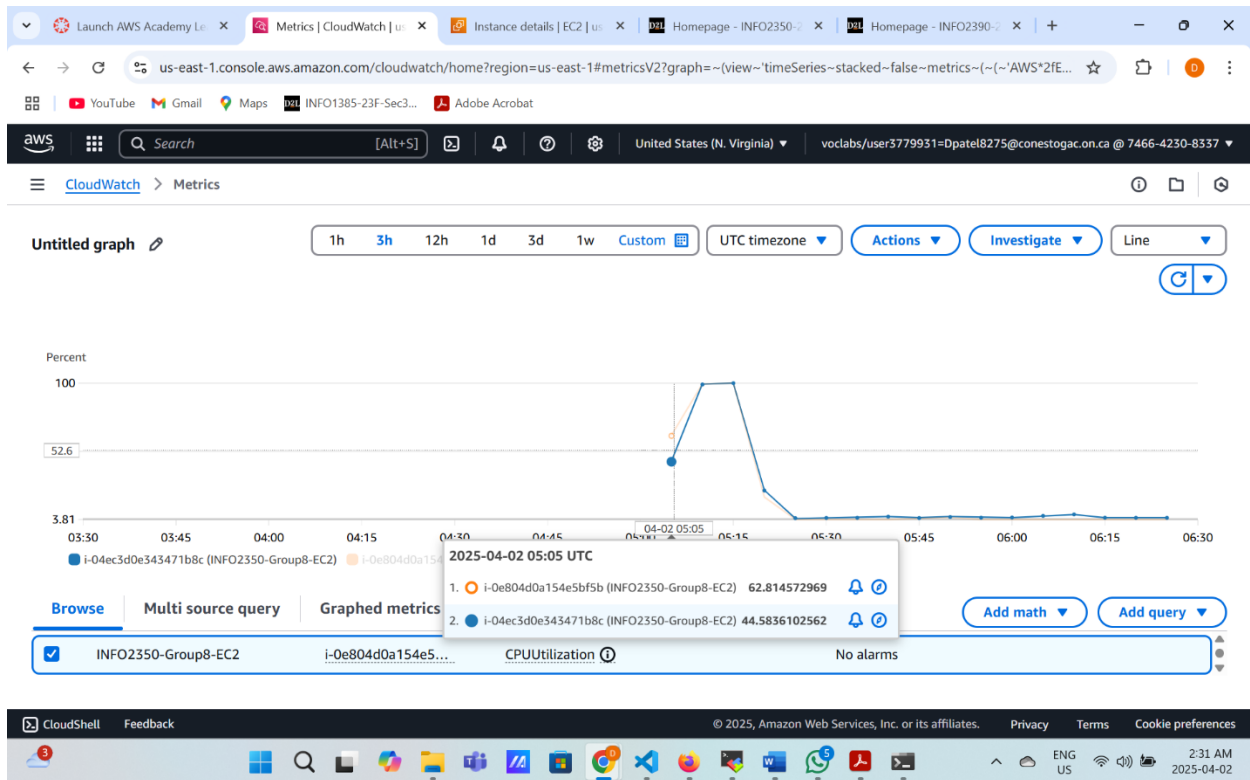
03:30 03:45 04:00 04:15 04:30 04:45 05:00 05:15 05:30 05:45 06:00 06:15

CPUUtilization

Browse Multi source query Graphed metrics (1) Options Source Add math Add query

Instance	Source	Metric	Alarms
<input checked="" type="checkbox"/> INFO2350-Group8-EC2	<a href="#">i-04ec3d0e34347...</a>	CPUUtilization	No alarms

# Project



# Project

The image shows a screenshot of a web browser displaying the WordPress dashboard. The browser's address bar shows the URL: `info2350-group8-alb-1010922734.us-east-1.elb.amazonaws.com/wp-admin/`. The dashboard header includes the WordPress logo, the title "Dashboard", and user information "Howdy, admin". A left-hand navigation menu lists various dashboard sections: Dashboard, Home, Updates, Posts, Media, Pages, Comments, Appearance, Plugins, Users, Tools, Settings, and Collapse menu. The main content area features a large "Welcome to WordPress!" message with a link to "Learn more about the 6.7.2 version." Below this, three columns of promotional text are visible: "Author rich content with blocks and patterns" (with a link to "Add a new page"), "Customize your entire site with block themes" (with a link to "Open site editor"), and "Switch up your site's look & feel with Styles" (with a link to "Edit styles"). At the bottom of the dashboard, there are sections for "Site Health Status" and "Quick Draft". The Windows taskbar at the bottom shows various application icons, including the Start menu, search, and several open applications, along with system tray icons for network, volume, and battery, and the date/time "2:51 AM 2025-04-02".