

Assignment 1

Problem Statement:

You work for XYZ Corporation. Your team is asked to deploy similar architecture multiple times for testing, development, and production purposes. Implement CloudFormation for the tasks assigned to you below.

Tasks To Be Performed:

1. Create a template which can create an S3 bucket named "Intellipaat-<yourname >"
2. The template should be able to enable versioning for the bucket created.

The screenshot shows two AWS services: CloudFormation and CloudWatch Events.

CloudFormation Stacks: A list of stacks. One stack named 'deployment' is shown in detail, indicating it was created on 2026-02-05 at 21:28:27 UTC+0530 and is in a 'CREATE_COMPLETE' state.

CloudWatch Events (5 events):

Operation ID	Timestamp	Logical ID	Status	Detailed status	Status reason
2153d2de-0e61-4510-b1b4-723245cb6fc	2026-02-05 21:28:45 UTC+0530	deployment	CREATE_COMPLETE		
2153d2de-0e61-4510-b1b4-723245cb6fc	2026-02-05 21:28:44 UTC+0530	MyS3Bucket	CREATE_COMPLETE		
2153d2de-0e61-4510-b1b4-723245cb6fc	2026-02-05 21:28:31 UTC+0530	MyS3Bucket	CREATE_IN_PROGRESS		Resource creation initiated

The screenshot shows the AWS S3 console under the 'General purpose buckets' tab.

Buckets: A list of buckets. Two buckets are listed: 'cf-templates-1baaystlktb8-us-east-1' and 'intellipaat-lokesh-dev'. The 'intellipaat-lokesh-dev' bucket was created on February 5, 2026, at 21:28:34 UTC+05:30.

Assignment 2

Problem Statement:

You work for XYZ Corporation. Your team is asked to deploy similar architecture multiple times for testing, development, and production purposes. Implement CloudFormation for the tasks assigned to you below.

Tasks To Be Performed:

1. Create a template with 1 VPC and 1 public subnet.
2. Launch an Amazon Linux EC2 instance in the public subnet and tag the instance as "CFinstance"

The screenshot displays three AWS service consoles side-by-side:

- CloudFormation Console:** Shows the "Stacks" section with one stack named "DEV-VPC-EC2". The "Events" tab is selected, showing three events related to the stack creation: "CREATE_COMPLETE" for the VPC and EC2 resources.
- VPC Console:** Shows the "VPCs" section with two VPCs listed: "CF-VPC" and another unnamed VPC. Both VPCs have their "Available" status indicated.
- EC2 Console:** Shows the "Instances" section with one instance named "CFinstance" running in the "us-east-1a" availability zone. The instance has a Public IPv4 address of 3.231.59.136.

Assignment 3

Problem Statement:

You work for XYZ Corporation. To maintain the security of the AWS account and the resources you have been asked to implement a solution that can help easily recognize and monitor the different users.

Tasks To Be Performed:

1. Create a role which only lets user1 and user2 from task 1 to have complete access to VPCs and DynamoDB.
2. Login into user1 and shift to the role to test out the feature.

The screenshot shows two AWS management console pages. On the left is the CloudWatch Metrics interface, specifically the 'Events' section. It displays 19 events, all of which are 'CREATE_COMPLETE' status. The first event is for 'IAM-Assign1'. The second event is for 'User1Policy'. The third event is for 'User2Policy'. The fourth event is for 'User1'. The fifth event is for 'User2'. The rest of the events are for various AWS services like Lambda and CloudWatch Metrics. On the right is the IAM 'Users' page. It lists three users: 'terraform', 'user1', and 'user2'. The 'terraform' user has an active access key. The 'user1' and 'user2' users also have active access keys. The IAM sidebar on the left shows the navigation path: Identity and Access Management (IAM) > Access Management > Users.

Assignment 4

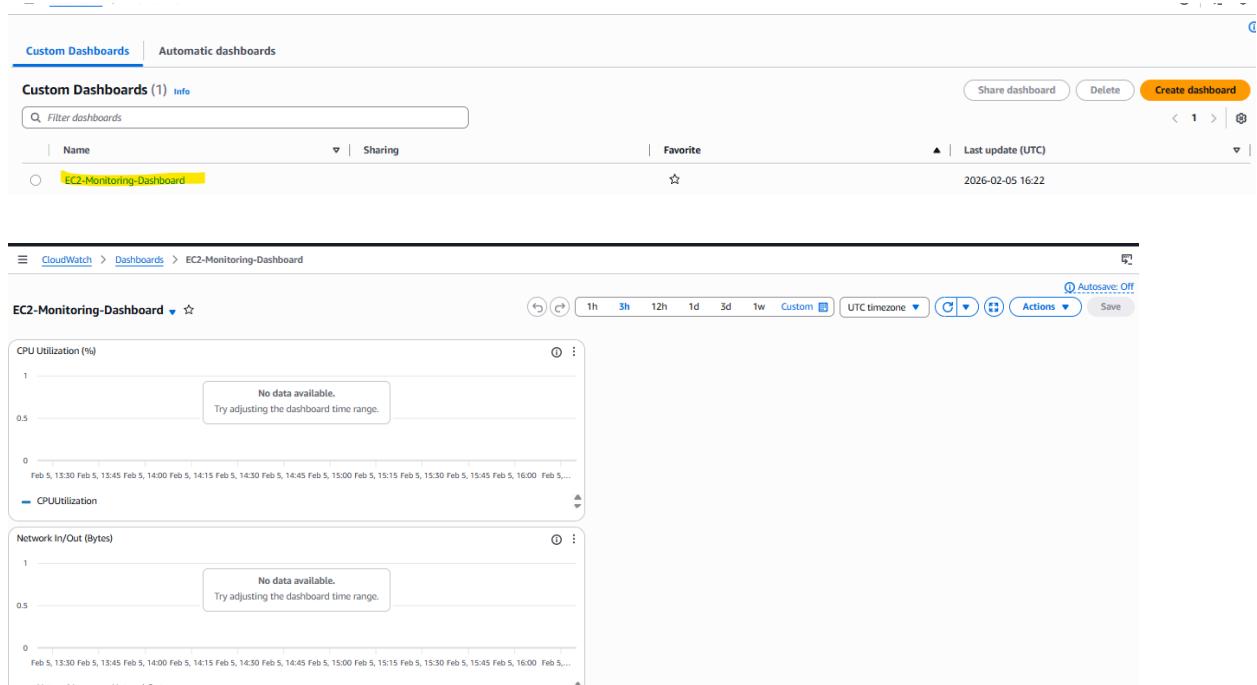
Problem Statement:

You work for XYZ Corporation. To maintain the security of the AWS account and the

resources you have been asked to implement a solution that can help easily recognize and monitor the different users. Also, you will be monitoring the machines created by these users for any errors or misconfigurations.

Tasks To Be Performed:

1. Create a dashboard which lets you check the CPU utilization and networking for a particular EC2 instance



Assignment 4

Problem Statement:

You work for XYZ Corporation. To maintain the security of the AWS account and the resources you have been asked to implement a solution that can help easily

recognize and monitor the different users. Also, you will be monitoring the machines created by these users for any errors or misconfigurations.

Tasks To Be Performed:

1. Create a CloudWatch billing alarm which goes off when the estimated charges go above \$500.
2. Create a CloudWatch alarm which goes off to an Alarm state when the CPU utilization of an EC2 instance goes above 65%. Also add an SNS topic so that it notifies the person when the threshold is crossed.

The image shows two screenshots from the AWS CloudFormation and CloudWatch Metrics dashboards.

CloudFormation Events Dashboard:

- Stacks:** IAM-Assign2 (Status: CREATE_COMPLETE)
- Events:** Shows three events related to the stack creation:

Operation ID	Timestamp	Logical ID	Status	Detailed status	Status reason
073dbde2-b297-4832-8e00-2f89d475fc37	2026-02-05 22:08:12 UTC+0530	CPUUtilizationAlarm	CREATE_COMPLETE	-	-
073dbde2-b297-4832-8e00-2f89d475fc37	2026-02-05 22:08:12 UTC+0530	BillingAlarm	CREATE_COMPLETE	-	-

CloudWatch Metrics Dashboard:

- Alarms by AWS service:** Shows EC2 and Billing metrics. EC2 is in an alarm (red bar) with 0 data points. Billing has 2 data points (green bar).
- Recent alarms:** Displays two recent alarms:
 - EC2CPUUtilizationOver65: CPUUtilization > 65 for 1 datapoints within 5 minutes. Last value: 71.5.
 - BillingAlarmOver500: EstimatedCharges > 500 for 1 datapoints within 6 hours. Last value: 550.