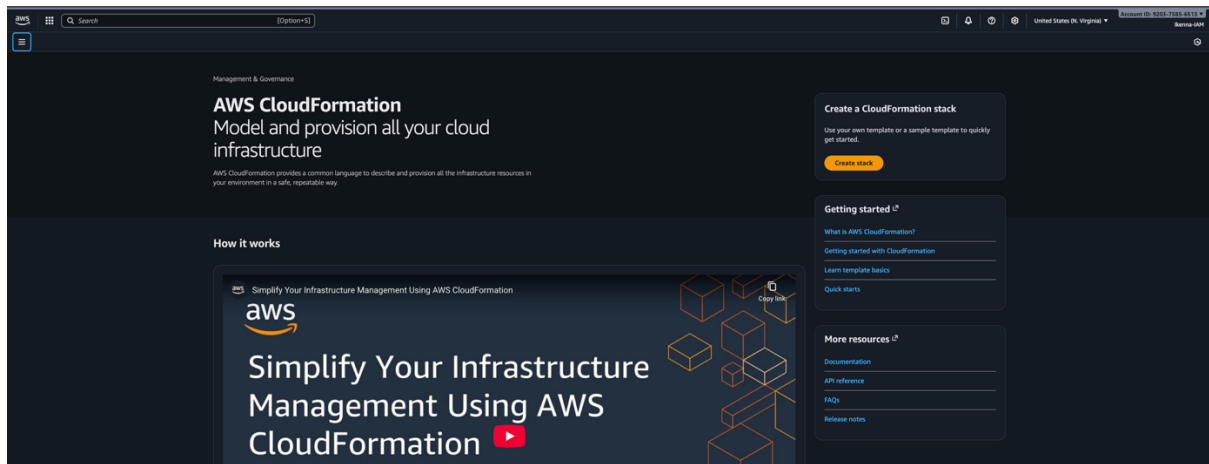
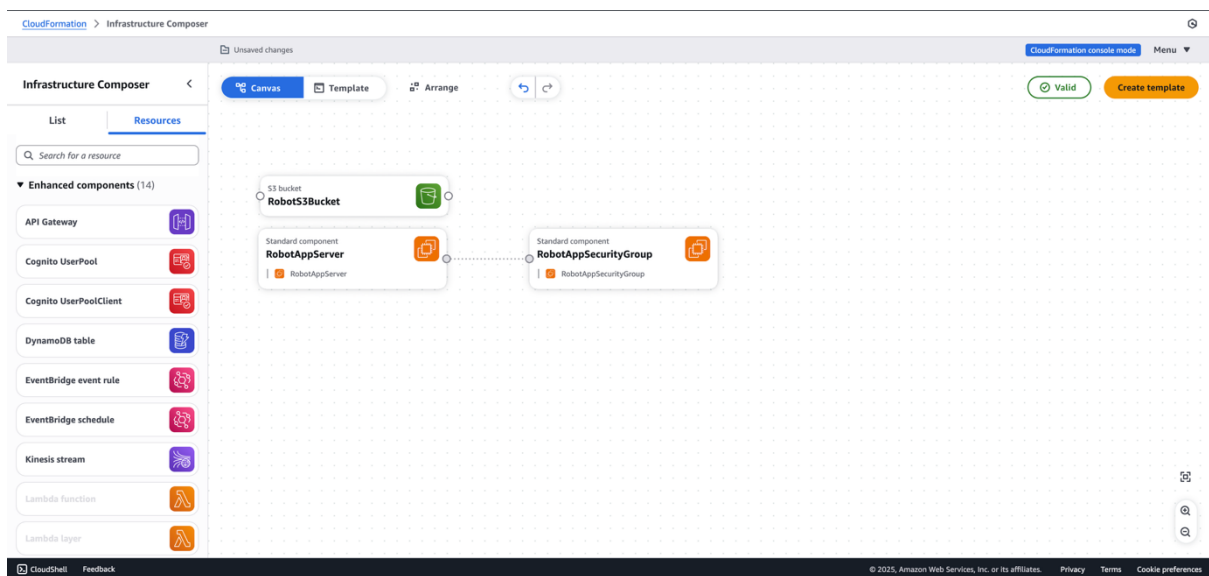


ANASIEZE IKENNA – CLOUD ENGINEER. ROBOTICS RESEARCH (IaC)

TASK 1 - LOG IN AND OPEN CLOUDFORMATION



TASK 2 - CREATE A NEW STACK



TASK 3 - CHOOSE THE TEMPLATE SOURCE

CloudFormation > Infrastructure Composer

Unsaved changes

CloudFormation console mode Menu

Infrastructure Composer

Canvas Template YAML JSON

Validate Create template

List Resources

Search for a resource

Enhanced components (14)

- API Gateway
- Cognito UserPool
- Cognito UserPool Client
- DynamoDB table
- EventBridge event rule
- EventBridge schedule

```
1 # STACK TWO
2
3 AWSTemplateFormatVersion: '2010-09-09'
4 Description: Multi-region safe EC2 + Security Group + S3 stack
5
6 Parameters:
7   DefaultVPC:
8     Type: AWS::EC2::VPC::Id
9     Description: Select the default VPC for the region
10
11 Resources:
12
13   RobotAppSecurityGroup:
14     Type: AWS::EC2::SecurityGroup
15     Properties:
16       GroupDescription: Allow SSH and HTTP access
17       VpcId: !Ref DefaultVPC
18       SecurityGroupIngress:
19         - IpProtocol: tcp
20           FromPort: 22
21           ToPort: 22
```

No template validation errors

CloudShell Feedback

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TASK 4 - NAME THE STACK AND CONFIGURE STACK OPTIONS

CloudFormation > Stacks > Create stack

CloudFormation Console now supports multiple new features. See below for more details.

Notifications

Step 1: Create stack

Step 2: Specify stack details

Step 3: Configure stack options

Step 4: Review and create

Create stack

Prerequisite - Prepare template

You can also create a template by scanning your existing resources in the [IaC generator](#).

Prepare template

Every stack is based on a template. A template is a JSON or YAML file that contains configuration information about the AWS resources you want to include in the stack.

☐ Choose an existing template
Upload or choose an existing template.

☒ Build from Infrastructure Composer
Create a template using a visual builder.

Create a template in Infrastructure Composer

Use Infrastructure Composer to visually design your stacks on a simple, drag-and-drop interface. Infrastructure Composer automatically updates and validates the template.

✔ Your template was successfully imported from Infrastructure Composer.

Amazon S3 URL

<https://s3.us-east-1.amazonaws.com/cf-templates-13x4qhex7mb-us-east-1/template-1765754531007.yaml>

Edit in Infrastructure Composer

Cancel Next

CloudShell Feedback

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CloudFormation > Stacks > RobotAppStack

CloudFormation Console now supports multiple new features. See below for more details.

Notifications

Delete

Update stack

Stack actions

Create stack

RobotAppStack

Stack info | Events | Resources | Outputs | Parameters | Template | Changesets | Git sync

Resources (3)

Search resources

Logical ID	Physical ID	Type	Status	Module
RobotAppSecurityGroup	RobotAppStack-RobotAppSecurityGroup-bAKSQcJvbf35	AWS::EC2::SecurityGroup	CREATE_COMPLETE	-
RobotAppServer	i-Oet1a6987da77c52b	AWS::EC2::Instance	CREATE_IN_PROGRESS	-
RobotS3Bucket	robotappstack-robotbucket-gguptsmrxb2	AWS::S3::Bucket	CREATE_COMPLETE	-

RobotAppStack

CloudFormation Console now supports multiple new features. See below for more details.

Notifications [Icons]

Events | Resources | Outputs | Parameters | Template | Changelsets | Git sync

[Delete] [Update stack ▼] [Stack actions ▼] [Create stack ▼]

Events (12)

Q Search events View next cause [Icon]

Operation ID	Timestamp	Logical ID	Status	Detailed status	Status reason	Hook invocations
bdrh1812-280e-df0e-8878-e4d541b62ba	-	-	-	-	-	-
bdrh1812-280e-df0e-8878-e4d541b62ba	2025-12-14 19:54:22 UTC-03:00	RobotAppStack	CREATE_COMPLETE	-	-	-
bdrh1812-280e-df0e-8878-e4d541b62ba	2025-12-14 19:54:21 UTC-03:00	RobotAppServer	CREATE_COMPLETE	-	-	-
bdrh1812-280e-df0e-8878-e4d541b62ba	2025-12-14 19:54:11 UTC-03:00	RobotS3Bucket	CREATE_COMPLETE	-	-	-
bdrh1812-280e-df0e-8878-e4d541b62ba	2025-12-14 19:54:11 UTC-03:00	RobotAppServer	CREATE_IN_PROGRESS	CONFIGURATION_COMPLETE	Eventual consistency check initiated	-
bdrh1812-280e-df0e-8878-e4d541b62ba	2025-12-14 19:54:09 UTC-03:00	RobotAppServer	CREATE_IN_PROGRESS	-	Resource creation initiated	-
bdrh1812-280e-df0e-8878-e4d541b62ba	2025-12-14 19:54:06 UTC-03:00	RobotAppServer	CREATE_IN_PROGRESS	-	-	-
bdrh1812-280e-df0e-8878-e4d541b62ba	2025-12-14 19:54:06 UTC-03:00	RobotAppSecurityGroup	CREATE_COMPLETE	-	-	-
bdrh1812-280e-df0e-8878-e4d541b62ba	2025-12-14 19:53:59 UTC-03:00	RobotAppSecurityGroup	CREATE_IN_PROGRESS	-	Resource creation initiated	-
bdrh1812-280e-df0e-8878-e4d541b62ba	2025-12-14 19:53:58 UTC-03:00	RobotS3Bucket	CREATE_IN_PROGRESS	-	Resource creation initiated	-
bdrh1812-280e-df0e-8878-e4d541b62ba	2025-12-14 19:53:57 UTC-03:00	RobotAppSecurityGroup	CREATE_IN_PROGRESS	-	-	-
bdrh1812-280e-df0e-8878-e4d541b62ba	2025-12-14 19:53:57 UTC-03:00	RobotS3Bucket	CREATE_IN_PROGRESS	-	-	-
bdrh1812-280e-df0e-8878-e4d541b62ba	2025-12-14 19:53:55 UTC-03:00	RobotAppStack	CREATE_IN_PROGRESS	-	User Initiated	-

TASK 7 - VALIDATE RESOURCES AFTER COMPLETION

The screenshot displays the AWS Management Console for an EC2 instance. The left sidebar shows navigation options like Dashboard, EC2 Global View, Events, Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, and Capacity Manager. The main content area shows the 'Instance summary' for 'i-0ce1a6987da77c52b'. Key details include: Instance ID, IPv6 address, Hostname type (IP name: ip-172-31-21-139.ec2.internal), Auto-assigned IP address (50.17.58.175), IAM Role, IMDSv2 (Optional), and Operator. Below the summary, tabs for Details, Status and alarms, Monitoring, Security, Networking, Storage, and Tags are visible. The 'Details' tab is active, showing Instance details (AMI ID, AMI name, Stop protection, Instance reboot migration, Step-Functions behavior, State transition reason, State transition message, Owner, Current instance boot mode), Monitoring (disabled), Allowed image, Launch time, Instance auto-recovery, AMI Launch index, Credit specification, Usage operation, Enclaves Support, Platform details (Linux/UNIX), Termination protection (disabled), AMI location, Lifecycle (normal), Key pair assigned at launch, Kernel ID, RAM disk ID, Boot mode, and Use RBN as guest OS hostname (disabled).

TASK 8 – USE CHANGESSET TO UPDATE STACK

The screenshot shows the AWS CloudFormation console for the stack 'RobotAppS5t-822cwtstmgx-1kiclej2q2'. The 'Overview' tab is selected, displaying the ChangeSet ID, Description, Change set type (Standard change set), Change set status (CREATE_COMPLETE), Change set status reason, and Execution status (AVAILABLE). Below the overview, tabs for Resource changes, Deployment validations - new, Input, Template, JSON changes, and Evaluations are shown. The 'Resource changes' tab is active, showing a table of changes. The table has columns for Logical ID, Action, Resource type, Replacement, Nested change set, Policy action, Module, and Hook invocations. One change is listed: 'RobotAppServer' with Action 'Update', Resource type 'AWS::EC2::Instance', and Replacement 'Conditional'.

TASK 8 – VERIFY UPDATED STACK

The screenshot displays the AWS CloudFormation console for the stack 'RobotAppStack'. The 'Events' tab is selected, showing a list of events. The table has columns for Operation ID, Timestamp, Logical ID, Status, Detailed status, and Status reason. The events show the stack's progress from 'UPDATE_IN_PROGRESS' to 'CREATE_COMPLETE' for various resources including 'RobotAppServer', 'RobotAppBucket', 'RobotAppSecurityGroup', and 'RobotAppSecurityGroupVpc'. The final status is 'CREATE_COMPLETE'.