

Assignment 3

Cloud Formation SNS

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. Use the template from CloudFormation task 1.
2. Add Notification to the CloudFormation stack using SNS so that you get a notification via mail for every step of the stack creation process

```
1 {
2   "AWSTemplateFormatVersion": "2010-09-09",
3   "Parameters": {
4     "s3bucketname": {
5       "Type": "String"
6     },
7     "NotificationEmail": {
8       "Type": "String",
9       "Description": "Email address to receive notifications"
10    }
11  },
12  "Resources": {
13    "s3": {
14      "Type": "AWS::S3::Bucket",
15      "Properties": {
16        "BucketName": {
17          "Ref": "s3bucketname"
18        },
19        "VersioningConfiguration": {
```

```

20         "Status": "Enabled"
21     }
22 }
23 },
24 "SNSTopic": {
25     "Type": "AWS::SNS::Topic",
26     "Properties": {
27         "Subscription": [
28             {
29                 "Endpoint": {
30                     "Ref": "NotificationEmail"
31                 },
32                 "Protocol": "email"
33             }
34         ]
35     }
36 },
37 "StackSNSTopicPolicy": {
38     "Type": "AWS::SNS::TopicPolicy",
39     "Properties": {

```

```

40         "PolicyDocument": {
41             "Version": "2012-10-17",
42             "Statement": [
43                 {
44                     "Effect": "Allow",
45                     "Principal": "*",
46                     "Action": "sns:Publish",
47                     "Resource": {
48                         "Ref": "SNSTopic"
49                     },
50                     "Condition": {
51                         "ArnEquals": {
52                             "AWS:SourceArn": {
53                                 "Ref": "AWS::AccountId"
54                             }
55                         }
56                     }
57                 }
58             ]
59         },

```

```
59     },
60     "Topics": [
61         {
62             "Ref": "SNSTopic"
63         }
64     ]
65 }
66 }
67 }
68 }
```

[CloudFormation](#) > [Stacks](#) > Create stack

Step 1

Create stack

Step 2

Specify stack details

Step 3

Configure stack options

Step 4

Review and create

Create stack

Prerequisite - Prepare template

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.

☐ **Use a sample template**
Choose from our sample template library.

☐ **Build from Application Composer**
Create a template using a visual builder.

Specify template

A template is a JSON or YAML file that describes your stack's resources and properties.

Template source

Specify template

A template is a JSON or YAML file that describes your stack's resources and properties.

Template source

Selecting a template generates an Amazon S3 URL where it will be stored.



Amazon S3 URL

Provide an Amazon S3 URL to your template.



Upload a template file

Upload your template directly to the console.



Sync from Git - new

Sync a template from your Git repository.

Upload a template file



Choose file

CF-Asgn02.json



JSON or YAML formatted file

S3 URL: <https://s3.ap-south-1.amazonaws.com/cf-templates-1k1y4li1me7pt-ap-south-1/2024-04-21T141438.986Zwd-CF-Asgn02.json>

[View in Application Composer](#)

Cancel

Next

Provide a stack name

Stack name

myStack03

Stack name can include letters (A-Z and a-z), numbers (0-9), and dashes (-).

Parameters

Parameters are defined in your template and allow you to input custom values when you create or update a stack.

NotificationEmail

Email address to receive notifications

ruchitharuthu123@gmail.com

s3bucketname

intellipaat-ruchi

Cancel

Previous

Next

Provide a stack name

Stack name

myStack03

Parameters (2)

Q Search

< 1 >

⚙

Key	Value
NotificationEmail	ruchitharuthu123@gmail.com
s3bucketname	intellipaat-ruchii

CloudFormation > Stacks > myStack03

Stacks (1)

Filter by stack name

Filter status

Active

View nested

< 1 >

Stacks

myStack03

2024-04-21 19:47:25 UTC+0530

CREATE_COMPLETE

DeleteUpdateStack actionsCreate stack

< Stack infoEventsResourcesOutputsParametersTemplateChar >

Resources (3)

Q Search resources

< 1 >

⚙

Logical ID	Physical ID	Type	Status
s3	intellipaat-ruchii	AWS::S3::Bucket	CREATE_COMPLETE
SNSTopic	arn:aws:sns:ap-south-1:730335274013:myStack03-SNSTopic-ruk5ZKSb4ewb	AWS::SNS::Topic	CREATE_COMPLETE
StackSNSTopicPolicy	arn:aws:sns:ap-south-1:730335274013:myStack03-SNSTopic-ruk5ZKSb4ewb	AWS::SNS::TopicPolicy	CREATE_COMPLETE

AWS Notification - Subscription Confirmation

Inbox x

19:47 (4 minutes ago)

☆🗨️↩️⋮

AWS Notifications <no-reply@sns.amazonaws.com>

to me

You have chosen to subscribe to the topic:
arn:aws:sns:ap-south-1:730335274013:myStack03-SNSTopic-ruk5ZKSb4ewb

To confirm this subscription, click or visit the link below (If this was in error no action is necessary):
[Confirm subscription](#)

Please do not reply directly to this email. If you wish to remove yourself from receiving all future SNS subscription confirmation requests please send an email to [sns-opt-out](#)

↩️ Reply

➡️ Forward

😊



Simple Notification Service

Subscription confirmed!

You have successfully subscribed.

Your subscription's id is:

arn:aws:sns:ap-south-1:730335274013:myStack03-SNSTopic-ruk5ZKSb4ewb:c95ee7df-3e29-4264-bbe5-b13ea2e1b2db

If it was not your intention to subscribe, [click here to unsubscribe](#).

Amazon SNS > Topics

Topics (1)

Edit

Delete

Publish message

Create topic

Q Search

< 1 > ⚙

	Name ▲	Type ▼	ARN ▼
<input type="radio"/>	myStack03-SNSTopic-ruk5ZKSb4ewb	Standard	arn:aws:sns:ap-south-1:730335274013...

SQS and SES assignment

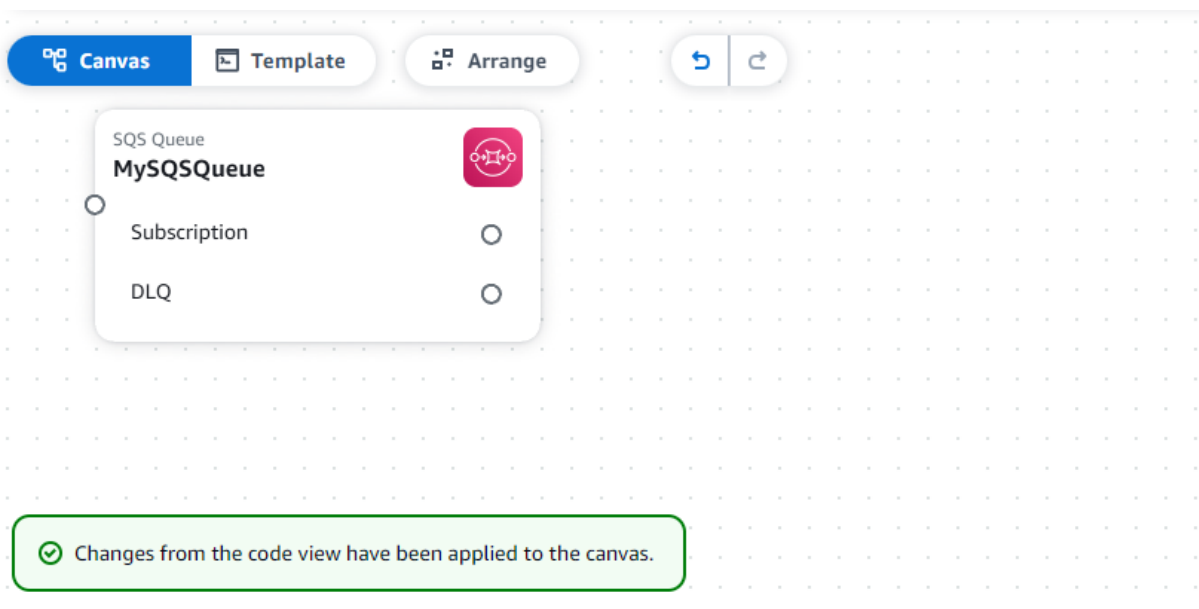
Problem Statement:

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 FIFO SQS queue and test by sending messages.
2. Register your mail in SES and send a test mail to yourself.

```
1 {  
2   "AWSTemplateFormatVersion": "2010-09-09",  
3   "Resources": {  
4     "MySQSQueue": {  
5       "Type": "AWS::SQS::Queue",  
6       "Properties": {  
7         "QueueName": "salmansFirst.fifo",  
8         "FifoQueue": true  
9       }  
10    },  
11  },  
12  "Outputs": {  
13    "SQSQueueURL": {  
14      "Description": "URL of the created FIFO SQS queue",  
15      "Value": {  
16        "Fn::GetAtt": [  
17          "MySQSQueue",  
18          "Arn"  
19        ]  
20      }  
21    }  
22  }
```



Create stack

Prerequisite - Prepare template

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.

☐ **Use a sample template**

Choose from our sample template library.

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Create a template using a visual builder.

Specify template

A template is a JSON or YAML file that describes your stack's resources and properties.

Template source

Selecting a template generates an Amazon S3 URL where it will be stored.

☐ **Amazon S3 URL**

Provide an Amazon S3 URL to your template.


☒ **Upload a template file**

Upload your template directly to the console.

☐ **Sync from Git - new**

Sync a template from your Git repository.

Upload a template file

 **Choose file**

CF-Asgn04.json



JSON or YAML formatted file

Specify stack details

Provide a stack name

Stack name

myStack04

Stack name can include letters (A-Z and a-z), numbers (0-9), and dashes (-).

Parameters

Parameters are defined in your template and allow you to input custom values when you create or update a stack.

No parameters

There are no parameters defined in your template

Cancel

Previous

Next

Review and create

Step 1: Specify template

Edit

Prerequisite - Prepare template

Template
Template is ready

Template

Template URL

CloudFormation > Stacks > myStack04

Stacks (1)

Filter by stack name

Filter status

Active

View nested

< 1 >

Stacks

myStack04

2024-04-21 20:11:37 UTC+0530

CREATE_IN_PROGRESS

myStack04

Delete

Update

Stack actions

Create stack

< Stack info Events Resources Outputs Parameters Template >

Resources (1)

Search resources

< 1 >

Logical ID Physical ID Type Status

MySQSQueue

https://sqs.ap-south-1.amazonaws.com/730335274013/salmansFirst.ifo

AWS::SQS::Queue

CREATE_IN_PROGRESS

Amazon SQS > Queues

Queues (1)

Search queues by prefix

< 1 >

	Type	Created	Messages available	Messages in flight	Encryption	Content-based deduplication
First.fifo	FIFO	2024-04-21T20:11+05:30	0	0	Amazon SQS key (SSE-SQS)	Disabled

Customer engagement

Amazon SES

Highly-scalable inbound and outbound email service

Amazon Simple Email Service (SES) is a cloud-based email service that provides cost-effective, flexible and scalable way for businesses of all sizes to keep in contact with their customers through email.

Start using Amazon Simple Email Service

Get started with SES by verifying an email address and sending domain so that you can start sending email through SES.

Get started

Pricing

Amazon SES

×

Get set up [New](#)

Account dashboard

Reputation metrics

SMTP settings

▼ Configuration

Identities

Configuration sets

Dedicated IPs

Email templates

Suppression list

Cross-account notifications

Use a WorkMail mailbox to test your SES campaigns. [Click here](#) to set up your free trial and learn how to configure Outlook.

Amazon SES > Configuration: Identities

Identities

The **Identities** pane lists your domains, subdomains, and email address identities. All identities must be verified before you use them to send email in Amazon SES. [Learn more](#). The **Recommendations** pane lists high-impact email authentication issues found for the identities you select and check for recommendations. [Learn more](#).

Identities (0) [Info](#)

Check for recommendations

Send test email

Delete

Create identity

< 1 > ⚙

<input type="checkbox"/>	Identity	Identity type	Identity status
No identities			

Amazon SES > Configuration: Identities > Create identity

Create identity

An *identity* is a domain, subdomain, or email address you use to send email through Amazon SES. Identity verification at the domain level extends to all email addresses under one verified domain identity.

Identity details [Info](#)

Identity type

☐ Domain
To verify ownership of a domain, you must have access to its DNS settings to add the necessary records.

☒ Email address
To verify ownership of an email address, you must have access to its inbox to open the verification email.

📘 Sending email from an email address identity without having the domain identity verified will result in your message being quarantined or rejected depending on the domain's DMARC policy. [Learn more about DMARC and how to look up a domain's DMARC policy.](#)

Email address

Email address can contain up to 320 characters, including plus signs (+), equals signs (=) and underscores (_).

☐ Assign a default configuration set
Enabling this option ensures that the assigned configuration set is applied to messages sent from this identity by default whenever a configuration set isn't specified at the time of sending.

Identities

The **Identities** pane lists your domains, subdomains, and email address identities. All identities must be verified before you use them to send email in Amazon SES. [Learn more](#). The **Recommendations** pane lists high-impact email authentication issues found for the identities you select and check for recommendations. [Learn more](#)

Identities (1) [Info](#)

[Check for recommendations](#) [Send test email](#) [Delete](#) [Create identity](#)

☐

Identity

▼

☐

Identity type

▼

☐

Identity status

▼

☐

[ruchitharuthu123@gmail.com](#)

Email address

⌚ Verification pending

Amazon Web Services – Email Address Verification Request in region Asia Pacific (Mumbai)

Amazon Web Services

to me

20:20 (2 minutes ago)

Dear Amazon Web Services Customer,

We have received a request to authorize this email address for use with Amazon SES and Amazon Pinpoint in region Asia Pacific (Mumbai). If you requested this verification, please go to the following URL to confirm that you are authorized to use this email address:

https://email-verification.ap-south-1.amazonaws.com/?Context=730335274013&X-Amz-Date=20240421T145028Z&Identity.IdentityName=ruchitharuthu123%40gmail.com&X-Amz-Algorithm=AWS4-HMAC-SHA256&Identity.IdentityType=EmailAddress&X-Amz-SignedHeaders=host&X-Amz-Credential=AKIA52FYEQVMDFWTLZVP%2F20240421%2Fap-south-1%2Fses%2Faws4_request&Operation=ConfirmVerification&Namespace=Bacon&X-Amz-Signature=6cf29c285336851d92cb7c96d9bdda8a0ae18f117e4eebb5e67da705a1655b4a

Your request will not be processed unless you confirm the address using this URL. This link expires 24 hours after your original verification request.

If you did NOT request to verify this email address, do not click on the link. Please note that many times, the situation isn't a phishing attempt, but either a misunderstanding of how to use our service, or someone setting up email-sending capabilities on your behalf as part of a legitimate service, but without having fully communicated the procedure first.

To learn more about sending email from Amazon Web Services, please refer to the Amazon SES Developer Guide at <http://docs.aws.amazon.com/ses/latest/DeveloperGuide/Welcome.html> and Amazon Pinpoint Developer Guide at <http://docs.aws.amazon.com/pinpoint/latest/userguide/welcome.html>.

Sincerely,

Identities

The **Identities** pane lists your domains, subdomains, and email address identities. All identities must be verified before you use them to send email in Amazon SES. [Learn more](#). The **Recommendations** pane lists high-impact email authentication issues found for the identities you select and check for recommendations. [Learn more](#)

Identities (1) [Info](#)

[Check for recommendations](#) [Send test email](#) [Delete](#) [Create identity](#)

☐

Identity

▼

☐

Identity type

▼

☐

Identity status

▼

☐

[ruchitharuthu123@gmail.com](#)

Email address

✅ Verified

Recommendations (0)

To see high-impact recommendations, select up to 10 identities in the list above and choose Check for recommendations. If you implement a provided solution, refresh the table by selecting Check for recommendations to ensure it's no longer listed. If you enable Virtual Deliverability Manager, this table will refresh automatically for all

Send test email [Info](#)

The Amazon SES mailbox simulator lets you test how your application handles different email sending scenarios. Emails that you send to the mailbox simulator do not count towards your sending quota or your bounce and complaint rates. [Learn more](#)

Message details

Email format

☒ **Formatted**

Choose this option if you want to construct a simple test message using the form provided. SES takes the information entered in the form and parses it into email format for you.

☐ **Raw**

Choose this option if you want to send a more complex test message, such as one that uses HTML or includes attachments. This option requires you to format the entire message yourself.

From-address

ruchitharuthu123@gmail.com

Scenario [Info](#)

Choose the email sending scenario that you want to simulate. Each scenario corresponds to a different recipient email address managed by the mailbox simulator. To specify a custom recipient, select Custom.

Custom

Use a recipient address of your own

Custom recipient

While your account is in the Amazon SES sandbox, you can only send test emails to other verified identities. If you've verified an identity at the domain level, you can send a test email to any email address under that verified domain.

ruchitharuthu123@gmail.com

Subject

testing

Body - optional

Hi Ruchitha
How are you?

Configuration set - optional [Info](#)

Choose a configuration set

← [Icons]

1 of

Testing [Inbox x](#)



ruchitharuthu123@gmail.com via amazonses.com
to me ▾

20:25 (1 minute ago) ☆

Hi Ruchitha How are you!

↩ Reply

➦ Forward



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