

# 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.

Search for the CloudFormation service – go in designer – choose the service you want to select like S3 bucket , drag and drop – go in template do the modification as requires – tick the correct icon which validate the code – at last click on cloud icon which initiate the stack formation process – REFRESH THE PAGE IF REQUIRES.

The screenshot displays the AWS CloudFormation Designer interface. On the left, the 'Resource types' panel lists various AWS resources under the 'S3' category. The 'Bucket' resource is selected, indicated by a checkmark. The main canvas shows a red bucket icon with the text 'myS3Bucket' and 'Bucket' below it. The bottom section contains a template editor with a JSON snippet. The 'Choose template language' dropdown is set to 'JSON'. The 'Template' tab is selected in the bottom left corner.

Resource types

- ▼ S3
  - AccessPoint
  - Bucket ✓
  - BucketPolicy
  - MultiRegionAccessPoint
  - MultiRegionAccessPointPolicy
  - StorageLens
  - S3ObjectLambda
  - S3Outposts

File: 'template1'

myS3Bucket  
Bucket

template1

Choose template language: ● JSON ○ YAML ?

```
1 {  
2   "AWSTemplateFormatVersion": "2010-09-09",  
3   "Metadata": {  
4     "AWS::CloudFormation::Designer": {  
5       "98dba250-ecc9-4269-a63a-1df1e95b5ba8": {  
6         "size": {  
7           "width": 60,  
8           "height": 60  
9         },  
10        "position": {  
11          "x": 165,  
12          "y": 113  
13        }  
14      }  
15    }  
16  }
```

Components Template ✓

Messages

# 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.

☒ Template is ready

☐ Use a sample template

☐ Create template in Designer

Specify template

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

If you had template ready upload.

Template source

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

☒ Amazon S3 URL

☐ Upload a template file

☐ Sync from Git - new

Provide an Amazon S3 URL to your template.

Upload your template directly to the console.

Sync a template from your Git repository.

Amazon S3 URL

https://s3.eu-north-1.amazonaws.com/cf-templates-126txhh3ur0p8-eu-north-1/2023334sAI-template1ywrtcqixsv

Amazon S3 template URL

S3 URL: https://s3.eu-north-1.amazonaws.com/cf-templates-126txhh3ur0p8-eu-north-1/2023334sAI-template1ywrtcqixsv

View in Designer

Cancel

Next

## Specify stack details

Provide a stack name

Stack name

mythirdStack

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

# Configure stack options

Tags

You can specify tags (key-value pairs) to apply to resources in your stack. You can add up to 50 unique tags for each stack.

No tags associated with the stack.

Add new tag

You can add 50 more tag(s)

Permissions

IAM role - optional

Choose the IAM role for CloudFormation to use for all operations performed on the stack.

IAM role name

Sample-role-name

Remove

Stack failure options

Behavior on provisioning failure

Specify the roll back behavior for a stack failure. [Learn more](#)

☒ Roll back all stack resources

☐ Preserve successfully provisioned resources

Roll back the stack to the last known stable state.

Preserves the state of successfully provisioned resources, while rolling back failed resources to the last known stable state. Resources without a last known stable state will be deleted upon the next stack operation.

Delete newly created resources during a rollback

Specify whether resources that were created during a failed operation should be deleted regardless of their deletion policy. [Learn more](#)

☒ Use deletion policy

☐ Delete all newly created resources

Retains or deletes created resources according to their attached deletion policy.

Deletes created resources during a rollback regardless of their attached deletion policy.

Advanced options

You can set additional options for your stack, like notification options and a stack policy. [Learn more](#)

Stack policy

Defines the resources that you want to protect from unintentional updates during a stack update.

Rollback configuration

Specify alarms for CloudFormation to monitor when creating and updating the stack. If the operation breaches an alarm threshold, CloudFormation rolls it back.

Notification options

Stack creation options

Cancel

Previous

Next

## Stacks (2)

Filter status

Active ▼

☒ View nested

&lt; 1 &gt;

## Stacks

## mythirdStack

2023-11-30 21:24:21 UTC+0530

[CREATE\\_IN\\_PROGRESS](#)

## myStack-sid30nov

2023-11-30 14:49:07 UTC+0530

[CREATE\\_COMPLETE](#)

## myStack-sid30nov

Delete

Update

Stack actions ▼

Create stack ▼

&lt;

Stack info

**Events**

Resources

Outputs

Parameters

Template

Change sets

&gt;

## Events (5)

[Detect root cause](#)

Timestamp	Logical ID	Status	Status reason
2023-11-30 14:49:33 UTC+0530	myStack-sid30nov	<a href="#">CREATE_COMPLETE</a>	-
2023-11-30 14:49:32 UTC+0530	myS3Bucket	<a href="#">CREATE_COMPLETE</a>	-
2023-11-30 14:49:11 UTC+0530	myS3Bucket	<a href="#">CREATE_IN_PROGRESS</a>	Resource creation Initiated
2023-11-30 14:49:10 UTC+0530	myS3Bucket	<a href="#">CREATE_IN_PROGRESS</a>	-
2023-11-30 14:49:07 UTC+0530	myStack-sid30nov	<a href="#">CREATE_IN_PROGRESS</a>	User Initiated

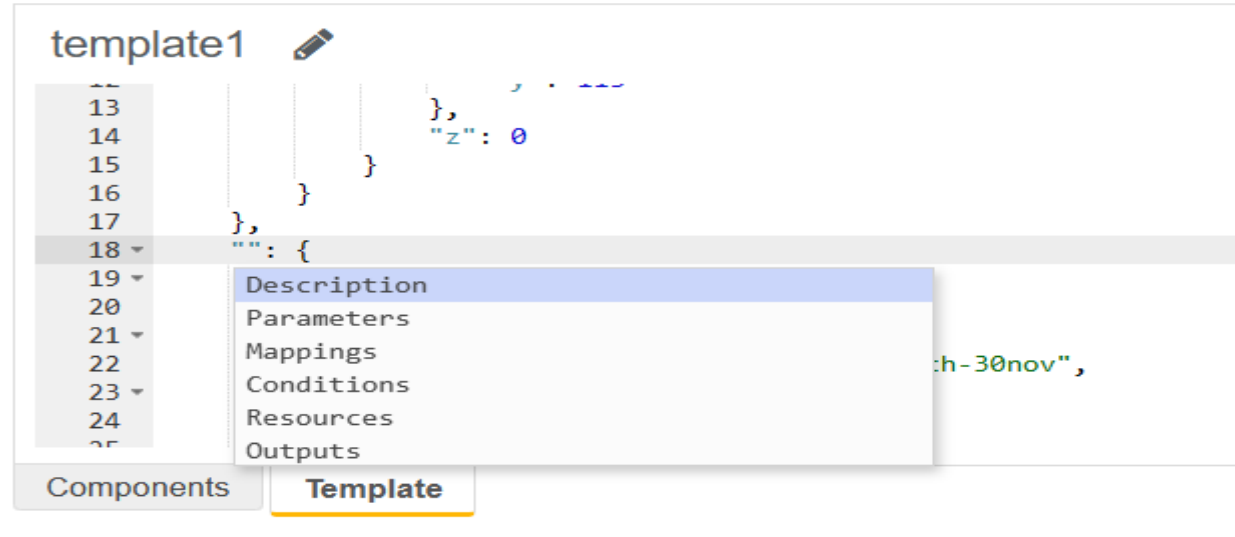
General purpose buckets (4) [Info](#)Buckets are containers for data stored in S3. [Learn more](#)

&lt; 1 &gt;

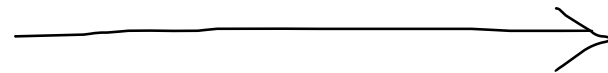


	Name ▲	AWS Region ▼	Access ▼	Creation date ▼
<input type="radio"/>	<a href="#">cf-templates-126txhh3urOp8-eu-north-1</a>	Europe (Stockholm) eu-north-1	<a href="#">Bucket and objects not public</a>	November 30, 2023, 14:33:57 (UTC+05:30)
<input type="radio"/>	<a href="#">elasticbeanstalk-eu-north-1-170303796048</a>	Europe (Stockholm) eu-north-1	<a href="#">Objects can be public</a>	November 29, 2023, 14:36:38 (UTC+05:30)
<input type="radio"/>	<a href="#">intellipaat-siddharth-30nov</a>	Europe (Stockholm) eu-north-1	<a href="#">Bucket and objects not public</a>	November 30, 2023, 14:49:12 (UTC+05:30)
<input type="radio"/>	<a href="#">redshi-bucket</a>	Europe (Stockholm) eu-north-1	<a href="#">Objects can be public</a>	November 28, 2023, 15:03:53 (UTC+05:30)

Control key + space bar for adding any specification.



Template codes



```
{
  "AWSTemplateFormatVersion": "2010-09-09",
  "Metadata": {
    "AWS::CloudFormation::Designer": {
      "98dba250-ecc9-4269-a63a-1df1e95b5ba8": {
        "size": {
          "width": 60,
          "height": 60
        },
        "position": {
          "x": 165,
          "y": 113
        },
        "z": 0
      }
    }
  },
  "Resources": {
    "myS3Bucket": {
      "Type": "AWS::S3::Bucket",
      "Properties": {
        "BucketName": "intellipaat-siddharth-30nov",
        "VersioningConfiguration": {
          "Status": "Enabled"
        }
      }
    }
  }
}
```

# Assignment 2

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## **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"

If you had a template ready upload in Json or YAML format.

### 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.

☒ Template is ready

☐ Use a sample template

☐ Create template in Designer

#### 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 assignment2.yaml

JSON or YAML formatted file

S3 URL: https://s3.us-east-1.amazonaws.com/cf-templates-126txhh3urOp8-us-east-1/2023-12-02T164229.660Zp2y-cfassignment2.yaml

View in Designer

Cancel

Next

Instances (1) Info

Refresh

Connect

Instance state ▼

Actions ▼

Launch instances ▼

Find Instance by attribute or tag (case-sensitive)

Instance state = running X

Clear filters

<

1

>

⚙

<input type="checkbox"/>	Name ✎ ▼	Instance ID	Instance state ▼	Instance type ▼	Status check	Alarm status	Availability Zone ▼	Public IPv
<input type="checkbox"/>	VishwasEC2-C...	i-068a95be91cacb88f	Running 🔍 🔍	t2.micro	2/2 checks passed	No alarms +	us-east-1a	ec2-54-22

# Specify stack details

## Provide a stack name

Stack name

CF\_Assignment2-sid

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

CloudFormation > Stacks > CF-Assignment2-sid

Stacks (1)



Filter by stack name

Filter status

Active



View nested

< 1 >

Stacks

CF-Assignment2-sid



2023-12-02 22:15:57 UTC+0530

CREATE\_COMPLETE

## CF-Assignment2-sid



Delete

Update

Stack actions

Create stack



Stack info

Events

Resources

Outputs

Parameters

Template

Change set



## Events (29)

Detect root cause



Search events



Timestamp



Logical ID

Status

Status reason

2023-12-02 22:16:54  
UTC+0530

CF-Assignment2-sid

CREATE\_COMPLETE

-

2023-12-02 22:16:53  
UTC+0530

EC2Instance

CREATE\_COMPLETE

-



# Assignment 3

## **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.

For getting SNS notifications we need to update this stack.

myStack-sid30nov

Delete

Update

Stack actions ▼

Create stack ▼

<

Stack info

Events

Resources

Outputs

Parameters

Template

Change set >

Overview

⌂

Stack ID	Description
----------	-------------

## Update 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.

☒ Use current template

☐ Replace current template

☐ Edit template in designer

Cancel

Next

## Specify stack details

### 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

### ▼ Notification options

SNS topic ARN - optional

Add SNS topic

Create new SNS topic



Cancel

Previous

Next

### Create new SNS topic



This will create a Simple Notification System (SNS) topic. The email address specified here will be used for the SNS endpoint value.

SNS topic name

mySNS\_topic\_CF



Email address

shuklasiddharth945@gmail.com



Cancel

Create SNS topic



Simple Notification Service

### Subscription confirmed!

You have successfully subscribed.

Your subscription's id is:

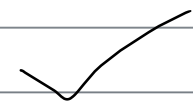
arn:aws:sns:eu-north-1:170303796048:mySNS\_topic\_CF:61b7b0f2-9a5d-4061-91be-3200445844a3

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

### ▼ Notification options

SNS topic ARN - optional

arn:aws:sns:eu-north-1:170303796048:mySNS\_topic\_CF



Add SNS topic

Create new SNS topic

✔ SNS topic arn:aws:sns:eu-north-1:170303796048:mySNS\_topic\_CF was created successfully.

[CloudFormation](#) > [Stacks](#) > myStack-sid30nov

### Stacks (1)



Filter by stack name

Filter status

Active

View nested

< 1 >

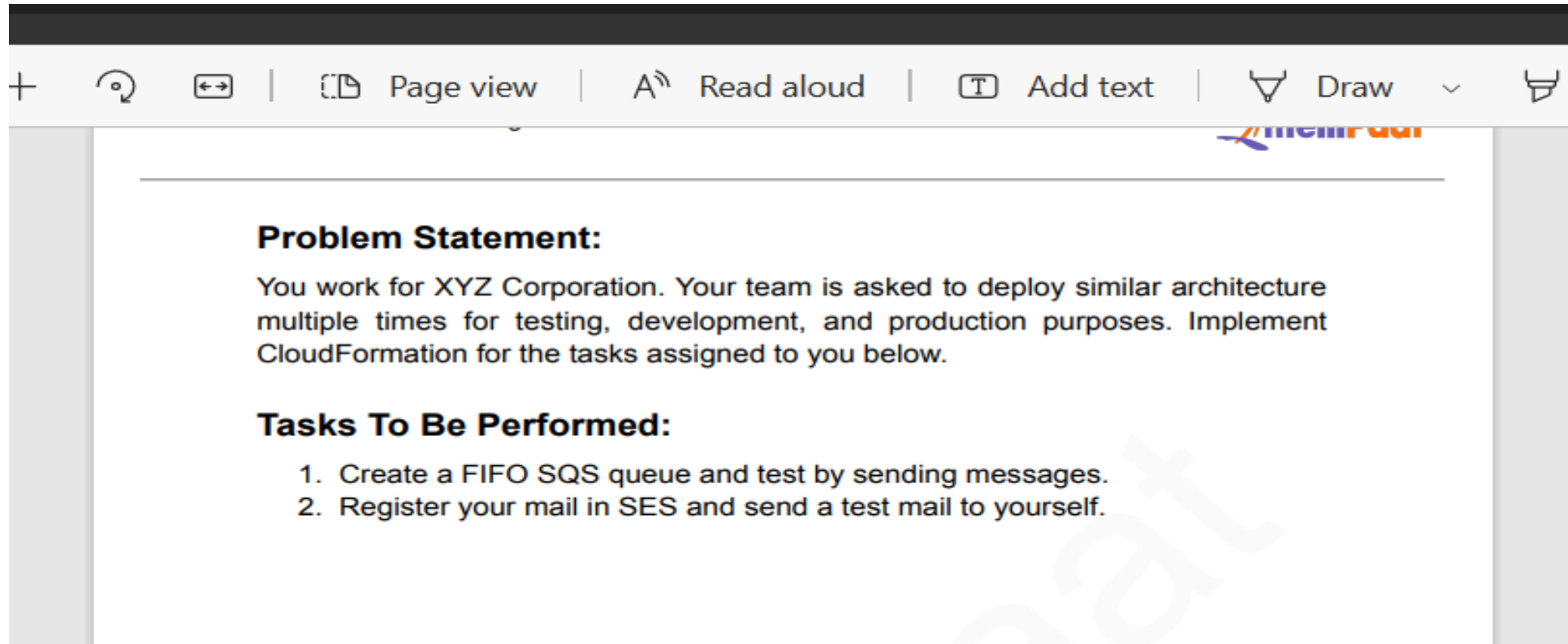
#### Stacks

myStack-sid30nov

2023-11-30 14:49:07 UTC+0530

✔ UPDATE\_COMPLETE

# Assignment 4



The image is a screenshot of a Google Docs document. At the top, there is a dark grey header bar. Below it is a toolbar with various icons: a plus sign, a circular arrow, a double-headed arrow, a document icon, the text 'Page view', a speaker icon, the text 'Read aloud', a text box icon, the text 'Add text', a funnel icon, the text 'Draw', a dropdown arrow, and a trash can icon. The main content area of the document is white and contains the following text:

**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.

A faint, large, light blue watermark with the text 'dat' is visible in the background of the document content area.

# Search for Simple Queue Service – create queue. Standard for all services notification, FIFO for only Queue.

[Amazon SQS](#) > [Queues](#) > Create queue

## Create queue

Details

Type

Choose the queue type for your application or cloud infrastructure.

☐ Standard [Info](#)

At-least-once delivery, message ordering isn't preserved

- At-least once delivery
- Best-effort ordering

☒ FIFO [Info](#)

First-in-first-out delivery, message ordering is preserved

✓

- First-in-first-out delivery
- Exactly-once processing

❗ You can't change the queue type after you create a queue.

Name

A queue name is case-sensitive and can have up to 80 characters. You can use alphanumeric characters, hyphens (-), and underscores (\_).

Configuration [Info](#)

Set the maximum message size, visibility to other consumers, and message retention.

Visibility timeout [Info](#)

Seconds ▼

Should be between 0 seconds and 12 hours.

Message retention period [Info](#)

Days ▼

Should be between 1 minute and 14 days.

Delivery delay [Info](#)

Seconds ▼

Should be between 0 seconds and 15 minutes.

Maximum message size [Info](#)

KB

Should be between 1 KB and 256 KB.

Receive message wait time [Info](#)

Seconds

Should be between 0 and 20 seconds.

FIFO queue settings

☒ Content-based deduplication

When content-based deduplication is enabled, the message deduplication ID is optional.

☒ High throughput FIFO queue (recommended) [Info](#)

Configure your FIFO queue for maximum throughput.

❗ High throughput for FIFO queues supports a higher number of transactions per second, per API.

Deduplication scope [Info](#)

Specify the scope of deduplication for a FIFO queue.

☒ Queue

Deduplicate all messages in a queue.

☐ Message group

Deduplicate all messages that belong to the same message group.

FIFO throughput limit [Info](#)

Specify how to apply the throughput limit on FIFO queue.

☒ Per queue

Apply the throughput limit at the queue level.

☐ Per message group ID

Apply the throughput limit at the message group level.

Encryption [Info](#)

Amazon SQS provides in-transit encryption by default. To add at-rest encryption to your queue, enable server-side encryption.

Server-side encryption

☐ Disabled

☒ Enabled

Encryption key type

☒ Amazon SQS key (SSE-SQS)

An encryption key that Amazon SQS creates, manages, and uses for you.

☐ AWS Key Management Service key (SSE-KMS)

An encryption key protected by AWS Key Management Service (AWS KMS).

Access policy [Info](#)

Define who can access your queue.

Choose method

☒ Basic

Use simple criteria to define a basic access policy.

✓

☐ Advanced

Use a JSON object to define an advanced access policy.

Define who can send messages to the queue

☒ Only the queue owner

Only the owner of the queue can send messages to the queue.

☐ Only the specified AWS accounts, IAM users and roles

Only the specified AWS account IDs, IAM users and roles can send messages to the queue.

Define who can receive messages from the queue

☒ Only the queue owner

Only the owner of the queue can receive messages from the queue.

☐ Only the specified AWS accounts, IAM users and roles

Only the specified AWS account IDs, IAM users and roles can receive messages from the queue.

JSON (read-only)

```
{  "Version": "2012-10-17",  "Id": "__default_policy_ID",  "Statement": [    {      "Sid": "__owner_statement",      "Effect": "Allow",      "Principal": {        "AWS": "170303796048"      },      "Action": [        "SQS:*"      ],      "Resource": "arn:aws:sqs:eu-north-1:170303796048:MyAssignment4-1Dec-sid.fifo"    }  ]}
```

Redrive allow policy - Optional [Info](#)

Identify which source queues can use this queue as the dead-letter queue.

Select which source queues can use this queue as the dead-letter queue.

☒ Disabled

☐ Enabled

Dead-letter queue - Optional [Info](#)

Send undeliverable messages to a dead-letter queue.

Set this queue to receive undeliverable messages.

☒ Disabled

☐ Enabled

Tags - Optional [Info](#)

A tag is a label assigned to an AWS resource. Use tags to search and filter your resources or track your AWS costs.

Key

Add new tag

You can add 49 more tags.

Value - optional

Remove

Cancel

Create queue

✓

Queues (1)

↻

Edit

Delete

Send and receive messages

Actions ▼

Create queue

Search queues by prefix

< 1 > ⚙

	Name ▲	Type ▼	Created ▼	Messages available ▼	Messages in flight ▼	Encryption
<input type="radio"/>	<a href="#">MyAssignment4-1Dec-sid.fifo</a>	FIFO	2023-12-01T15:01+05:30	0	0	Amazon SQS I

MyAssignment4-1Dec-sid.fifo

Edit

Delete

Purge

Send and receive messages

Start DLQ redrive

Details [Info](#)

Send message [Info](#)

Clear content

Send message

Message body

Enter the message to send to the queue.

Hi i am siddhartha.

Message group ID

The tag that specifies that a message belongs to a specific message group.

1

Message deduplication ID

The token used for deduplication of messages within the deduplication interval.

1

▶ Message attributes - Optional

[Info](#)

Receive messages [Info](#)

Edit poll settings

Stop polling

Poll for messages

Messages available

1

Polling duration

30

Maximum message count

10

Polling progress

0%

0 receives/second

Messages (0)

View details

Delete

Search messages

< 1 > ⚙

	ID ▼	Sent ▲	Size ▼	Receive count ▼
No messages. To view messages in the queue, poll for messages.				

Poll for messages

Receive messages [Info](#)

Edit poll settings

Stop polling

Poll for messages

Messages available

1

Polling duration

30

Maximum message count

10

Polling progress



1 receives/second

Messages (1)

View details

Delete

< 1 > ⚙

<input type="checkbox"/>	ID	Sent	Size	Receive count
<input type="checkbox"/>	<a href="#">4d156e79-03f2-41bf-a8bc-28f0fcbb2e10</a>	2023-12-01T15:06+05:30	22 bytes	1

Message: 4d156e79-03f2-41bf-a8bc-28f0fcbb2e10



Body

Attributes

Details

Hiii i am siddhartha.

Done

Search for Simple email service. Go for verified identities.

Amazon SES

Get set up [New](#)

Account dashboard

Reputation metrics

SMTP settings

▼ Configuration

Verified identities

Configuration sets

Dedicated IPs [New](#)

Email templates

Suppression list

Cross-account notifications

Maintain sender reputation with new managed dedicated IP address capabilities (only available for senders > 1,000 emails per day). [Click here](#) to learn more.

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 > Configuration: Verified identities

## Verified identities

A *verified identity* is a domain, subdomain, or email address you use to send email through Amazon SES. [Learn more](#)

New identity status update

The **Identity status** now represents the explicit verification of the identity itself. For the domain identities this means verifying ownership through updates in the DNS records, and for the email address identities, this means opening the verification email from `no-reply-aws@amazon.com` and selecting the link to complete the verification process. [Learn more](#)

Identities (0) [Info](#)

Send test email

Delete

Create identity

Q Search all identities

< 1 > ⚙

Identity

Identity type

Identity status

No verified identities

No verified identities to display.

Create identity

Create identity

A *verified 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.

Email address

shuklasiddharth945@gmail.com

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.

Tags - optional [Info](#)

No tags associated with the resource.

Add new tag

You can add 50 more tags.

Cancel

Create identity



# Congratulations!

You have successfully verified an email address. You can now start sending email from this address.

**For new Amazon SES users** — If you have not yet applied for a sending limit increase, then you are still in the [sandbox environment](#), and you can only send email to addresses that have been verified. To verify a new email address or domain, see the **Identity Management** section of the [Amazon SES console](#).

**For new Amazon Pinpoint users** — If you have not yet applied for a sending limit increase, then you are still in the [sandbox environment](#), and you can only send email to addresses that have been verified. To verify a new email address or domain, see the **Settings > Channels** page on the [Amazon Pinpoint console](#).

If you have already been approved for a sending limit increase, then you can start sending email to non-verified addresses.

Thank you for using Amazon Web Services!

[Go to the Amazon SES detail page.](#)

[Amazon SES](#) > [Configuration: Verified identities](#) > shuklasiddharth945@gmail.com


shuklasiddharth945@gmail.com

Delete

Send test email



### Legacy TXT records


Domain verification in Amazon SES is now based on *DomainKeys Identified Mail (DKIM)*, an email authentication standard that receiving mail servers use to validate an email's authenticity. Configuring DKIM in your domain's DNS settings confirms to SES that you're the identity owner, eliminating the need for TXT records. Domain identities that were verified using TXT records do not need to be reverified; however, we still recommend enabling DKIM signatures to enhance the deliverability of your mail with DKIM-compliant email providers. **To access your legacy TXT records,** [download Legacy TXT record set as .csv](#) .

## Summary for shuklasiddharth945@gmail.com

Identity status

 Verified

Amazon Resource Name (ARN)

 arn:aws:ses:eu-north-1:170303796048:identity/shuklasiddharth945@gmail.com

AWS Region

EU (Stockholm)

You can always use SES for only verified emails within SES. We can test by sending message from one email to other.

Identities (2) [Info](#)

Send test email

Delete

Create identity

Search all identities

< 1 > ⚙

<input type="checkbox"/>	Identity ▾	Identity type ▾	Identity status ▾
<input type="checkbox"/>	<a href="#">shuklasiddharth65@gmail.com</a>	Email address	✓ Verified
<input type="checkbox"/>	<a href="#">shuklasiddharth945@gmail.com</a>	Email address	✓ Verified

Test Mail Inbox x



**shuklasiddharth65@gmail.com** [via amazonses.com](#)  
to me ▾

This is test message for assignment 4 CloudFormation.

← Reply

→ Forward

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

[shuklasiddharth65@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.

[shuklasiddharth945@gmail.com](#)

Subject

Test Mail

Body - optional

This is test message for assignment 4 CloudFormation.

Configuration set - optional [Info](#)

Choose a configuration set

► Additional configurations - optional

Cancel

Send test email

# Case Study Cloud Formation

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## **Problem Statement:**

You work for XYZ Corporation. Your corporation wants to launch a new web-based application. The development team has prepared the code but it is not tested yet. The development team needs the system admins to build a web server to test the code but the system admins are not available.

## **Tasks To Be Performed:**

1. Web tier: Launch an instance in a public subnet and that instance should allow HTTP and SSH from the internet.
2. Application tier: Launch an instance in a private subnet of the web tier and it should allow only SSH from the public subnet of Web Tier-3.
3. DB tier: Launch an RDS MYSQL instance in a private subnet and it should allow connection on port 3306 only from the private subnet of Application Tier-4.
4. Setup a Route 53 hosted zone and direct traffic to the EC2 instance.

You have been also asked to propose a solution so that:

1. Development team can test their code without having to involve the system admins and can invest their time in testing the code rather than provisioning, configuring and updating the resources needed to test the code.
2. Make sure when the development team deletes the stack, RDS DB instances should not be deleted.

# 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.

☒ Template is ready

☐ Use a sample template

☐ Create template in Designer

## 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-CaseStudy.yaml

JSON or YAML formatted file

S3 URL: <https://s3.eu-north-1.amazonaws.com/cf-templates-126txhh3ur0p8-eu-north-1/2023-12-09T090040.949Zdre-Cf-CaseStudy.yaml>

[View in Designer](#)

Cancel

Next

# Specify stack details

## Provide a stack name

Enter stack name – choose keypair – enter any 8 character long master username and master password.

Stack name

*Enter a stack name*

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.

AMI

The Ubuntu AMI to use.

ami-0b5eea76982371e91

InstanceTypeParameter

Enter instance size. Default is t2.micro.

t2.micro

Key

Select from Existing Keys.

CloudFormation

MasterUserPassword

The password for the database.

*Enter String*

MasterUsername

The username for the database.

*Enter String*

Cancel

Previous

Next

<input type="checkbox"/>	VPCAssessment	vpc-004716ef91f2a0c4d	Available	10.10.0.0/16	-			
<hr/>								
<input type="checkbox"/>	RouteTablePrivateSubnet	rtb-07542feab300986b5	<a href="#">subnet-03d840d9882530...</a>	-	No	<a href="#">vpc-004716ef91f2a</a>		
<input type="checkbox"/>	RouteTablePublicSubnet	rtb-0cdffb6b8f86ee151	<a href="#">subnet-042fce624943cf9...</a>	-	No	<a href="#">vpc-004716ef91f2a</a>		
<hr/>								
<input type="checkbox"/>	Name	Internet gateway ID	State	VPC ID	Owner			
<input type="checkbox"/>	InternetGatewayAssessment	igw-05cedc121f04e8471	Attached	vpc-004716ef91f2a0c4d   VPCAssessm...	170303796			
<hr/>								
<input type="radio"/>	NatGetwayAssessm...	nat-0ae38e49b91ab914f	Public	Available	-	52.45.184.146 10.10.		
<hr/>								
<input checked="" type="checkbox"/>	PrivateSubnetAssessment	subnet-03d840d98825301f6	Available	<a href="#">vpc-004716ef91f2a0c4d   VPCA...</a>	10.10.2.0/24			
<input type="checkbox"/>	PublicSubnetAssessment	subnet-042fce624943cf959	Available	<a href="#">vpc-004716ef91f2a0c4d   VPCA...</a>	10.10.1.0/24			
<hr/>								
<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv
<input type="checkbox"/>	LinuxPublic	i-053e75229beb35ad2	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	ec2-18-23
<input type="checkbox"/>	LinuxPrivate	i-0aecb8b63f4d2cd46	Running	t2.micro	2/2 checks passed	No alarms	us-east-1b	-

Databases (1)

☒ Group resources

↻

Modify

Actions ▼

Restore from S3

Create database

DB identifier ▲	Status ▼	Role ▼	Engine ▼	Region & AZ ▼	Size ▼	Actions ▼	CPU ▼
<a href="#">dbassessment12</a>	Available	Instance	MySQL Community	us-east-1b	db.t2.micro	-	<div><div></div></div> 4.67%

CloudFormation > Stacks > north

Stacks (1)

↻

Filter status

Active ▼

☒ View nested

< 1 >

Stacks

north

2023-12-08 22:21:22 UTC+0530

CREATE\_COMPLETE

north

Delete

Update

Stack actions ▼

Create stack ▼

Events (68)

Detect root cause

↻

⚙

Timestamp ▼	Logical ID	Status	Status reason
2023-12-08 22:28:38 UTC+0530	north	CREATE_COMPLETE	-
2023-12-08 22:28:33 UTC+0530	RDSDBInstance	CREATE_COMPLETE	-