

## Cloud Formation - Deploy EC2 instance.

CloudFormation > Stacks > Create stack

Step 1  
Create stack

Step 2  
Specify stack details

Step 3  
Configure stack options

Step 4  
Review and create

### Specify stack details

Provide a stack name

Stack name  
Assessment-CloudFormation  
Stack name must be 1 to 128 characters, start with a letter, and only contain alphanumeric characters. Character count: 25/128.

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

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

☐ Delete all newly created resources  
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 - optional  
Defines the resources that you want to protect from unintentional updates during a stack update.

Stack policy - optional  
A stack policy is a JSON document that defines the update actions that can be performed on designated resources  
☒ No stack policy ☐ Enter stack policy ☐ Upload a file

► Rollback configuration - optional  
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 - optional  
Specify a new or existing Amazon Simple Notification Service topic where notifications about stack events are sent.

► Stack creation options - optional  
Specify the timeout and termination protection options for stack creation.

Cancel Previous Next

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### Review and create

Step 1: Specify template Edit

Prerequisite - Prepare template

Template  
Template is ready

Template  
Template URL  
https://cf-templates-z7e15vs8ftb-ap-south-1.s3.ap-south-1.amazonaws.com/2024-07-25T110427.345Z/di-ec2.yaml  
Stack description  
This template will launch an EC2 instance and a Security Group, and associate them together.

Step 2: Specify stack details Edit

Provide a stack name

Stack name  
Assessment-CloudFormation

Parameters

Monitoring time

-

CloudWatch alarm ARN

-

Notification options

SNS topic ARN

No notification options

There are no notification options defined

Stack creation options

Timeout

-

Termination protection

Deactivated

Quick-create link

Use quick-create links to get stacks up and running quickly from the AWS CloudFormation console with the same basic configuration as this stack. Copy the URL on the link to share. [Learn more](#)

Open quick-create link

Create change set

Cancel

Previous

Submit

CloudFormation > Stacks > Assessment-CloudFormation

Stacks (5)

Filter by stack name

Filter status

Active

View nested

Stacks

Assessment-CloudFormation

2024-07-29 04:31:57 UTC+0000

CREATE\_IN\_PROGRESS

Assessment-CloudFormation

Delete

Update

Stack actions

Create stack

Stack info

Events

Resources

Outputs

Parameters

Template

Change sets

Git sync - new

Events (1)

Detect root cause

Search events

Timestamp	Logical ID	Status	Detailed status	Status reason
2024-07-29 04:31:57 UTC+0000	Assessment-CloudFormation	CREATE_IN_PROGRESS	-	User Initiated

Assessment-CloudFormation

⚙️

✕

DeleteUpdateStack actions▼Create stack▼

Stack infoEventsResourcesOutputsParametersTemplateChange setsGit sync - new

Overview

Stack ID

am:aws:cloudformation:ap-south-1:008971632097:stack/Assessment-CloudFormation/7d3f3490-4d63-11ef-8a7b-065314482763

Description

This template will launch an EC2 instance and a Security Group, and associate them together.

Status

✔️ CREATE\_COMPLETE

Detailed status

-

Status reason

-

Root stack

-

Parent stack

-

Created time

2024-07-29 04:31:57 UTC+0000

Updated time

-

Deleted time

-

Drift status

⌛ NOT\_CHECKED

Last drift check time

-

Termination protection

Deactivated

IAM role

-

Assessment-CloudFormation

⚙️

✕

DeleteUpdateStack actions▼Create stack▼

Stack infoEventsResourcesOutputsParametersTemplateChange setsGit sync - new

Events (10)

Detect root cause

🔄

🔍 Search events

⚙️

Timestamp	Logical ID	Status	Detailed status	Status reason
2024-07-29 04:32:36 UTC+0000	Assessment-CloudFormation	✔️ CREATE_COMPLETE	-	-
2024-07-29 04:32:35 UTC+0000	windowInstance	✔️ CREATE_COMPLETE	-	-
2024-07-29 04:32:15 UTC+0000	Assessment-CloudFormation	🔄 CREATE_IN_PROGRESS	✔️ CONFIGURATION_COMPLETE E.....	Eventual consistency check initiated
2024-07-29 04:32:15 UTC+0000	windowInstance	🔄 CREATE_IN_PROGRESS	✔️ CONFIGURATION_COMPLETE E.....	Eventual consistency check initiated
2024-07-29 04:32:04 UTC+0000	windowInstance	🔄 CREATE_IN_PROGRESS	-	Resource creation Initiated
2024-07-29 04:32:02 UTC+0000	windowInstance	🔄 CREATE_IN_PROGRESS	-	-
2024-07-29 04:32:02 UTC+0000	InstanceSecurityGroup	✔️ CREATE_COMPLETE	-	-
2024-07-29 04:32:01 UTC+0000	InstanceSecurityGroup	🔄 CREATE_IN_PROGRESS	-	Resource creation Initiated

CloudFormation

Stacks

Stack details

StackSets

Exports

Application Composer

laC generator

▼ Registry

Public extensions

EC2 Dashboard

EC2 Global View

Events

▼ Instances

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

▼ Images

AMIs

EC2 Dashboard

EC2 Global View

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Instance Types

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Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

▼ Images

AMIs

AMI Catalog

▼ Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

▼ Network & Security

Security Groups

Elastic IPs

Placement Groups

Key Pairs

Network Interfaces

▼ Load Balancing

Assessment-CloudFormation

Delete Update Stack actions Create stack

Stack info Events Resources Outputs Parameters Template Change sets Git sync - new

Resources (2)

Search resources

Logical ID	Physical ID	Type	Status	Module
InstanceSecurityGroup	sg-078ce432bb0513b9d	AWS::EC2::SecurityGroup	CREATE_COMPLETE	-
windowInstance	i-09654c2793cc7ac21	AWS::EC2::Instance	CREATE_COMPLETE	-

Instances (1) Info

Find instance by attribute or tag (case-sensitive)

All states

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Elastic IP
windowInstance	i-09654c2793cc7ac21	Running	t2.micro	2/2 checks passed	View alarms	ap-south-1a	ec2-13-200-253-90.ap-...	13.200.253.90	-

Select an instance

EC2 > Instances > i-09654c2793cc7ac21

Instance summary for i-09654c2793cc7ac21 (windowInstance) Info

Updated less than a minute ago

Connect Instance state Actions

Instance ID	i-09654c2793cc7ac21 (windowInstance)	Public IPv4 address	13.200.253.90   open address	Private IPv4 addresses	10.0.1.216
IPv6 address	-	Instance state	Running	Public IPv4 DNS	ec2-13-200-253-90.ap-south-1.compute.amazonaws.com   open address
Hostname type	IP name: ip-10-0-1-216.ap-south-1.compute.internal	Private IP DNS name (IPv4 only)	ip-10-0-1-216.ap-south-1.compute.internal	Elastic IP addresses	-
Answer private resource DNS name	-	Instance type	t2.micro	AWS Compute Optimizer finding	Opt-in to AWS Compute Optimizer for recommendations.   Learn more
Auto-assigned IP address	13.200.253.90 [Public IP]	VPC ID	vpc-000586b6ccde36ab (MyVPC)	Auto Scaling Group name	-
IAM Role	-	Subnet ID	subnet-0961c4ba92e599e65 (PublicSubnet)		
IMDSv2	Optional	Instance ARN	arn:aws:ec2:ap-south-1:008971632097:instance/i-09654c2793cc7ac21		
	EC2 recommends setting IMDSv2 to required   Learn more				

Details Status and alarms Monitoring Security Networking Storage Tags

▼ Instance details Info

Platform	ami-049f0f6f51145ff40	Monitoring	disabled
Platform details	Windows_Server-2022-English-Full-Base-2024.07.10	Termination protection	Disabled
Stop protection	Disabled	AMI location	amazon/Windows_Server-2022-English-Full-Base-2024.07.10

EC2 Instance Public IP- 13.200.253.90

Stack ID-

arn:aws:cloudformation:ap-south-1:008971632097:stack/assessment-cloudformation/3107daa0-4d77-11ef-90f5-0ab63bbbaa27f

# Terraform

Create IAM User to access EC2 Instance-

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Action": "ec2:*",
      "Effect": "Allow",
      "Resource": "*"
    }
  ]
}
```

aws configure

```
export AWS_ACCESS_KEY_ID=
export AWS_SECRET_ACCESS_KEY=
```

mkdir assessment-terraform-ec2-instance

cd assessment-terraform-ec2-instance

touch main.tf

```
terraform {
  required_providers {
    aws = {
      source = "hashicorp/aws"
      version = "~> 4.16"
    }
  }

  required_version = ">= 1.2.0"
}

provider "aws" {
  region = "us-west-2"
}

resource "aws_instance" "app_server" {
  ami          = "ami-830c94e3"
  instance_type = "t2.micro"
```

```
tags = {  
  Name = "AssessmentEC2Instance"  
}  
}
```

```
terraform init  
terraform apply
```