

Parameters

1. In this lab you are going to learn about parameters.
2. While you're creating CloudFormation stack you see parameters option there. We'll see in this lab how we can give user power of entering some parameters. So, we can use two parameters key pair and the instance type.
3. First before you go to CloudFormation, navigate to EC2 and create 2 key pairs.

Key pairs (2) <small>Info</small>					
<input type="button" value="Create key pair"/>					
<input type="button" value="Actions"/> <small>▼</small>					
<input type="button" value="Find Key Pair by attribute or tag"/>					
Name	Type	Created	Fingerprint	ID	
demo-parameter-01	rsa	2024/02/21 19:53 GMT+5:30	af:52:3c:a4:0b:70:92:42:df:79:04:ea:c0:dc:70...	key-04be9e...	
demo-parameter-02	rsa	2024/02/21 19:53 GMT+5:30	7e:5e:f3:1b:c6:82:1f:06:0c:03:97:7d:08:29:51...	key-009b84...	

4. Once it is done then navigate to CloudFormation and create your stack using the template which you are going to download from GitHub.
5. Again, the almost same as the previous one which we used in the last lab but here this time some parameters are also added and using those parameters we are going to create our instances and security group.
6. Now upload your template and create your 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.

Amazon S3 URL
`https://s3.us-east-2.amazonaws.com/cf-templates-kmi81w4ukk76-us-east-2/2024052rZ0-template1z9en52zv9uh`

Amazon S3 template URL
`https://s3.us-east-2.amazonaws.com/cf-templates-kmi81w4ukk76-us-east-2/2024052rZ0-template1z9en52zv9uh`

7. Now in the step two you can see the parameters that are added because of the code.
8. You can see that now we can choose our instance type; we can also choose the key pair which one we want.
9. Below are the snapshots from which you can have the understanding that the instance type which it is showing to us are defined in the template. But for the key pairs AWS is fetching them for us.
10. Now you also need to define the name of the service.

Specify stack details

Provide a stack name

Stack name

demo-parameter-lab

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.

InstanceTypeParameter

Enter t2.micro, m1.small, or m1.large. Default is t2.micro.

t2.micro

Q |

t2.micro

t2.small

t2.medium

m1.small

m1.large

KeyName

Name of EC2 login key

demo-parameter-01

Q |

demo-parameter-01

demo-parameter-02

Parameters

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

InstanceTypeParameter

Enter t2.micro, m1.small, or m1.large. Default is t2.micro.

t2.micro

KeyName

Name of EC2 login key

demo-parameter-01

NameOfService

The name of the service this stack is to be used for.

demo-parameter-example

Cancel

Previous

Next

11. Here you can see that your stack is created successfully.

12. Now if you will go to EC2 and view your instance and the security group along with the key pairs. You will see they are the same which you have given.

CloudFormation > Stacks > demo-parameter-lab

Stacks (1)

Filter status: Active

View nested

Stacks

demo-parameter-lab
2024-02-21 20:00:38 UTC+0530
CREATE_COMPLETE

Events (8)

Search events

Timestamp	Logical ID	Status	Status reason
2024-02-21 20:01:20 UTC+0530	demo-parameter-lab	CREATE_COMPLETE	-
2024-02-21 20:01:20 UTC+0530	MyInstance	CREATE_COMPLETE	-
2024-02-21 20:00:48 UTC+0530	MyInstance	CREATE_IN_PROGRESS	Resource creation Initiated
2024-02-21 20:00:47 UTC+0530	MyInstance	CREATE_IN_PROGRESS	-
2024-02-21 20:00:46 UTC+0530	DemoSG	CREATE_COMPLETE	-
2024-02-21 20:00:46 UTC+0530	DemoSG	CREATE_IN_PROGRESS	Resource creation Initiated
2024-02-21 20:00:41 UTC+0530	DemoSG	CREATE_IN_PROGRESS	-
2024-02-21 20:00:38 UTC+0530	demo-parameter-lab	CREATE_IN_PROGRESS	User Initiated

Instances (1/1) Info

Find Instance by attribute or tag (case-sensitive)

Instance state: running

Clear filters

Actions ▾ Launch instances ▾

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
demo-parameter-example	i-00370fb2c07d602b	Running	t2.micro	2/2 checks passed	View alarms +	us-east-2a

Instance: i-00370fb2c07d602b (demo-parameter-example)

Details Status and alarms New Monitoring Security Networking Storage Tags

Instance summary

Instance ID: i-00370fb2c07d602b (demo-parameter-example)	Public IPv4 address: 18.222.119.214 [open address]	Private IPv4 addresses: 172.31.9.81
IPv6 address: -	Instance state: Running	Public IPv4 DNS: ec2-18-222-119-214.us-east-2.compute.amazonaws.com [open address]

Key pair assigned at launch
█ **demo-parameter-01**

EC2 > Security Groups > sg-07e9690a4166514de - demo-parameter-lab-DemoSG-1NGL3JEHZHD4F

sg-07e9690a4166514de - demo-parameter-lab-DemoSG-1NGL3JEHZHD4F

Actions ▾

Details			
Security group name demo-parameter-lab-DemoSG-1NGL3JEHZHD4F	Security group ID sg-07e9690a4166514de	Description Allow ssh & http from Anywhere-IPv4	VPC ID vpc-0653a0406b834ffa
Owner 878893308172	Inbound rules count 2 Permission entries	Outbound rules count 1 Permission entry	

Inbound rules | Outbound rules | Tags

Inbound rules (2)

<input type="checkbox"/>	Name	Security group rule...	IP version	Type	Protocol	Port range	Source
<input type="checkbox"/>	-	sgr-05f9124fe06a6686f	IPv4	SSH	TCP	22	0.0.0.0/0
<input type="checkbox"/>	-	sgr-0a8307ac82324c78a	IPv4	HTTP	TCP	80	0.0.0.0/0

13. Once you are done just delete your stack.