

AWS CloudFormation gives a common language for us to model and provision AWS and third-party application resources in our cloud environment. AWS CloudFormation using the programming language or simple text file to model and provision in an automated and secure manner and all the resources needed for your applications across all regions and accounts, giving us a single source of truth for our AWS and third-party resources.

First creating a template or using given templates and modifying according to our needs.

-Downloaded template from the AWS CloudFormation lists of templates according to regions and selecting the template. I downloaded and used it from the directory where it is downloaded in.

<file:///Users/rachirana/Downloads/AWSCloudFormationsamples/ELBGuidedAutoScalingRollingUpgrade.template>

- Modifying the template: change the default instance type to **t2.micro** the free tier.
- Changing the default key to the existed key value pair in our system.
- SSH location is 0.0.0.0/0 allowing SSH from any IP also set it to custom IP.
- Check Security group configuration, Application Load Balancer and Application Load Balancer Target group to allow ingress traffic at port 80, since it will be a web server.
- optionally put all this resource in a subnet and have much tighter restriction on usage by having security group and access control list.
- Save the template to .JSON.

The template:

The screenshot shows a code editor window with the file 'Template.JSON' open. The file contains JSON code defining parameters for an AWS CloudFormation stack. The parameters include 'VpcId', 'Subnets', 'InstanceType', 'KeyName', and 'SSHLocation'. The 'InstanceType' parameter is currently set to 't2.micro'. The 'SSHLocation' parameter is set to '0.0.0.0/0'. The code is numbered from 1 to 45. The status bar at the bottom right indicates the file has 40 lines, 30 columns, 2 spaces, and uses LF line endings.

```
1 "Parameters" : {  
2     "VpcId" : {  
3         "Type" : "AWS::EC2::VPC::Id",  
4         "Description" : "VpcId of your existing Virtual Private Cloud (VPC)",  
5         "ConstraintDescription" : "must be the VPC Id of an existing Virtual Private Cloud."  
6     },  
7  
8     "Subnets" : {  
9         "Type" : "List<AWS::EC2::Subnet::Id>",  
10        "Description" : "The list of SubnetIds in your Virtual Private Cloud (VPC)",  
11        "ConstraintDescription" : "must be a list of at least two existing subnets associated with at least two dif  
12    },  
13  
14    "InstanceType" : {  
15        "Description" : "WebServer EC2 instance type",  
16        "Type" : "String",  
17        "Default" : "t2.micro",  
18        "AllowedValues" : [ "t1.micro", "t2.nano", "t2.micro", "t2.small", "t2.medium", "t2.large", "m1.small", "m1  
19        "ConstraintDescription" : "must be a valid EC2 instance type."  
20    },  
21  
22    "KeyName" : {  
23        "Description" : "Name of an existing EC2 KeyPair to enable SSH access to the instances",  
24        "Type" : "AWS::EC2::KeyPair::KeyName",  
25        "Default" : "rana",  
26        "ConstraintDescription" : "must be the name of an existing EC2 KeyPair."  
27    },  
28  
29    "SSHLocation" : [  
30        "Description" : "The IP address range that can be used to SSH to the EC2 instances",  
31        "Type": "String",  
32        "MinLength": "9",  
33        "MaxLength": "18",  
34        "Default": "0.0.0.0/0",  
35        "AllowedPattern": "(\\d{1,3})\\.(\\d{1,3})\\.(\\d{1,3})\\.(\\d{1,2})",  
36        "ConstraintDescription": "must be a valid IP CIDR range of the form x.x.x.x/x."  
37    ],  
38  
39 },  
40  
41 },  
42  
43 },  
44  
45 };
```

```

28     "KeyName" : {
29         "Description" : "Name of an existing EC2 KeyPair to enable SSH access to the instances",
30         "Type" : "AWS::EC2::KeyPair::KeyName",
31         "Default" : "ranar",
32         "ConstraintDescription" : "must be the name of an existing EC2 KeyPair."
33     },

```

- KeyName value pair with the already existing KeyName in our system as mentioned like shown in template.

- The MinSize and MaxSize is 2, we can check for the EC2 instance after we have created a stack in CloudFormation for verification.

```

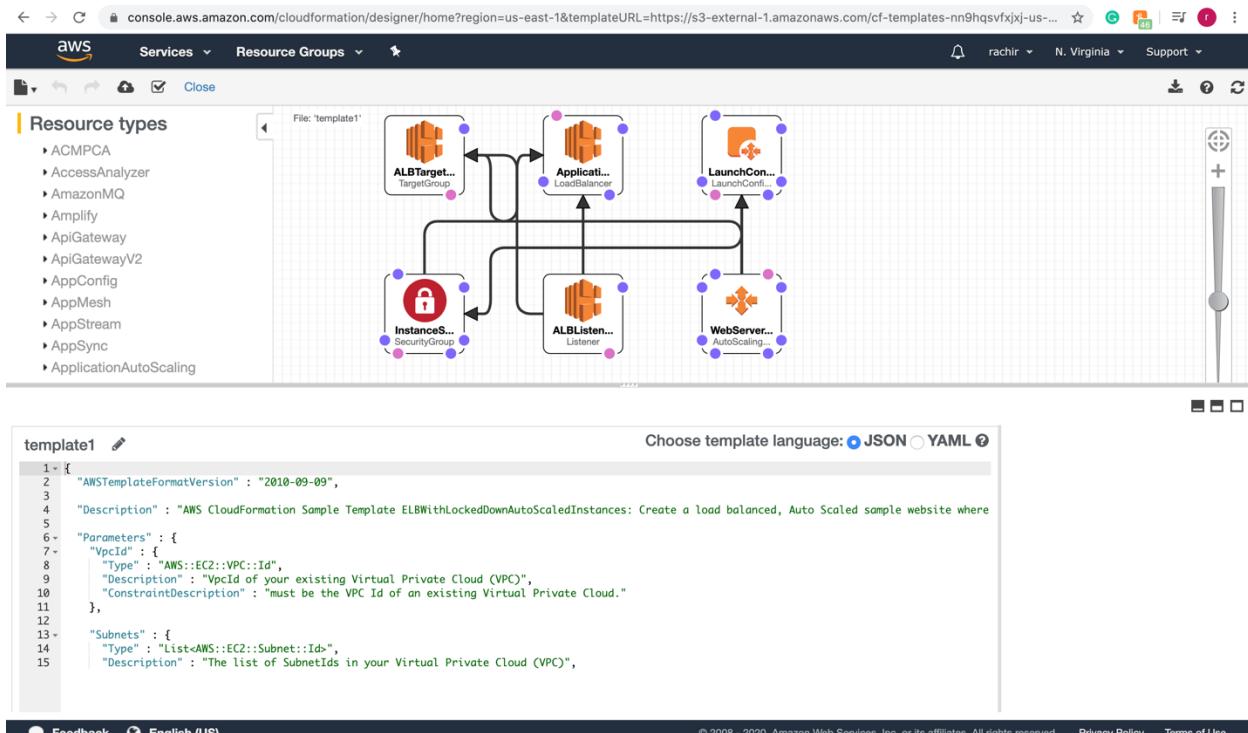
282 },
283 },
284
285 "Resources" : {
286     "WebServerGroup" : {
287         "Type" : "AWS::AutoScaling::AutoScalingGroup",
288         "Properties" : {
289             "VPCZoneIdentifier" : { "Ref" : "Subnets" },
290             "LaunchConfigurationName" : { "Ref" : "LaunchConfig" },
291             "MinSize" : "2",
292             "MaxSize" : "2",
293             "TargetGroupARNs" : [ { "Ref" : "ALBTargetGroup" } ]
294         },
295         "CreationPolicy" : {
296             "ResourceSignal" : [
297                 { "Timeout" : "PT15M" }
298             ],
299         },
300         "UpdatePolicy" : {
301             "AutoScalingRollingUpdate" : {
302                 "MinInstancesInService" : "1",
303                 "MaxBatchSize" : "1",
304                 "PauseTime" : "#T15M",
305                 "WaitOnResourceSignals" : "true"
306             }
307         },
308     },
309     "LaunchConfig" : {
310         "Type" : "AWS::AutoScaling::LaunchConfiguration",
311         "Metadata" : {
312             "Comment" : "Install a simple application",
313             "AWS::CloudFormation::Interface" : {
314                 "config" : {
315                     "packages" : {
316                         "yum" : {
317                             "httpd" : []
318                         }
319                     },
320                     "files" : {
321
322             "ALBTargetGroup" : {
323                 "Type" : "AWS::ElasticLoadBalancingV2::TargetGroup",
324                 "Properties" : {
325                     "HealthCheckIntervalSeconds" : 30,
326                     "HealthCheckTimeoutSeconds" : 5,
327                     "HealthyThresholdCount" : 3,
328                     "Port" : 80,
329                     "Protocol" : "HTTP",
330                     "UnhealthyThresholdCount" : 5,
331                     "VpcId" : { "Ref" : "VpcId" }
332                 },
333             },
334             "InstanceSecurityGroup" : {
335                 "Type" : "AWS::EC2::SecurityGroup",
336                 "Properties" : {
337                     "GroupDescription" : "Enable SSH access and HTTP access on the inbound port",
338                     "SecurityGroupIngress" : [ {
339                         "IpProtocol" : "tcp",
340                         "FromPort" : "80",
341                         "ToPort" : "80",
342                         "SourceSecurityGroupId" : { "Fn::Select" : [ 0, { "Fn::GetAtt" : [ "ApplicationLoadBalancer", "SecurityGroup" ] } ] },
343                         "IpProtocol" : "tcp",
344                         "FromPort" : "22",
345                         "ToPort" : "22",
346                         "CidrIp" : { "Ref" : "SSHLocation" }
347                     } ],
348                     "VpcId" : { "Ref" : "VpcId" }
349                 },
350             },
351             "Outputs" : {
352                 "URL" : {
353                     "Description" : "URL of the website",
354                     "Value" : { "Fn::Join" : [ "", [ "http://", { "Fn::GetAtt" : [ "ApplicationLoadBalancer", "DNSName" ] } ] ] }
355                 }
356             }
357         }
358     }
359 }
360 }
```

Create CloudFormation:

- Goto CloudFormation through services and search CloudFormation.
- Click create stack to create a new stack.
- We have many options, choosing Template is ready and Upload a template file as we've already got a template.

The screenshot shows the AWS CloudFormation 'Create stack' wizard. The top navigation bar includes the AWS logo, Services dropdown, Resource Groups dropdown, and user information (rachir, N. Virginia, Support). The main title is 'Create stack'. On the left, a sidebar lists steps: Step 1 (Specify template, currently selected), Step 2 (Specify stack details), Step 3 (Configure stack options), and Step 4 (Review). The main content area is titled 'Prerequisite - Prepare template' with a sub-section 'Prepare template'. It explains that every stack is based on a template, which is a JSON or YAML file containing configuration information for AWS resources. Three options are shown: 'Template is ready' (selected), 'Use a sample template', and 'Create template in Designer'. Below this is the 'Specify template' section, which states that a template is a JSON or YAML file describing the stack's resources and properties. It includes a 'Template source' section where 'Amazon S3 URL' is selected, showing the URL <https://s3-external-1.amazonaws.com/cf-templates-nn9hqsvfxjxj-us-east-1/2020116etg-template11inoeqcj42e>. There is also an 'Upload a template file' option and a 'View in Designer' button. At the bottom right are 'Cancel' and 'Next' buttons. The footer contains links for Feedback, English (US), Privacy Policy, and Terms of Use.

- Once you have uploaded the template can view in design, we should see something like shown in below screenshot for graphical representation.



- Then naming the stack and providing some parameters; instance type the free tier one, KeyName is the already existed one which we also specified in the template we uploaded.
- Choose the subnets we already have two different subnets in different availability domain or region, and VPC will be using the one created specifically for this stack, or you could use the default one.

console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks/create/parameters

CloudFormation > Stacks > Create stack

Specify stack details

Step 1 Specify template

Step 2 Specify stack details

Step 3 Configure stack options

Step 4 Review

Stack name
Stack name: CloudForm
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.

InstanceType
WebServer EC2 instance type: t2.micro

KeyName
Name of an existing EC2 KeyPair to enable SSH access to the instances: ranar

SSHLocation
The IP address range that can be used to SSH to the EC2 instances: 0.0.0.0/0

Subnets
The list of SubnetIds in your Virtual Private Cloud (VPC):

- subnet-45c83764 (172.31.80.0/20) X
- subnet-ce880883 (172.31.16.0/20) X

Step 4 Review

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

InstanceType
WebServer EC2 instance type: t2.micro

KeyName
Name of an existing EC2 KeyPair to enable SSH access to the instances: ranar

SSHLocation
The IP address range that can be used to SSH to the EC2 instances: 0.0.0.0/0

Subnets
The list of SubnetIds in your Virtual Private Cloud (VPC):

- subnet-45c83764 (172.31.80.0/20) X
- subnet-ce880883 (172.31.16.0/20) X

VpcId
VpcId of your existing Virtual Private Cloud (VPC): **vpc-988bb86e2 (172.31.0.0/16)**

Cancel **Previous** **Next**

Feedback **English (US)**

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- Configuring the stack options for more stern rules in IAM roles. Then review and click on create stack.
- New stack will be created but will take some time to be created.
- Can be seen below in screenshots.

Screenshot of the AWS CloudFormation 'Create stack' wizard Step 1: Specify template.

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. [Learn more](#)

| Key | Value | Remove |
|-------------------------|-------|--------|
| Add tag | | |

Permissions
Choose an IAM role to explicitly define how CloudFormation can create, modify, or delete resources in the stack. If you don't choose a role, CloudFormation uses permissions based on your user credentials. [Learn more](#)

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 |
|---------------|------------------|--------|
|---------------|------------------|--------|

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.

Review CloudForm

Step 1: Specify template

Template

Template URL
<https://s3-external-1.amazonaws.com/cf-templates-nn9hqsvfxjxj-us-east-1/2020116etg-template11inoeqsj42e>

Stack description
AWS CloudFormation Sample Template ELBWithLockedDownAutoScaledInstances: Create a load balanced, Auto Scaled sample website where the instances are locked down to only accept traffic from the load balancer. This example creates an Auto Scaling group behind a load balancer with a simple health check. The web site is available on port 80, however, the instances can be configured to listen on any port (8888 by default).
WARNING This template creates one or more Amazon EC2 instances and an Application Load Balancer. You will be billed for the AWS resources used if you create a stack from this template.

[Estimate cost](#)

Step 2: Specify stack details

Parameters (5)

| Key | Value |
|-----|-------|
|-----|-------|

[Edit](#)

- Viewing the created stack as below.

Screenshot of the AWS CloudFormation console showing the Events and Resources sections for the "CloudForm" stack.

Events (22)

| Timestamp | Logical ID | Status | Status reason |
|------------------------------|----------------|---------------------------------|-----------------------------------------------------------|
| 2020-04-25 18:45:21 UTC-0400 | CloudForm | CREATE_COMPLETE | - |
| 2020-04-25 18:45:19 UTC-0400 | WebServerGroup | CREATE_COMPLETE | - |
| 2020-04-25 18:45:18 UTC-0400 | WebServerGroup | CREATE_IN_PROGRESS | Received SUCCESS signal with UniqueId i-0f641bd84c624a282 |
| 2020-04-25 18:45:18 UTC-0400 | WebServerGroup | CREATE_IN_PROGRESS | Received SUCCESS signal with UniqueId i-0bac03a02ea53fec5 |
| 2020-04-25 18:43:35 UTC-0400 | WebServerGroup | CREATE_IN_PROGRESS | Resource creation Initiated |
| 2020-04-25 18:43:34 UTC-0400 | WebServerGroup | CREATE_IN_PROGRESS | - |
| 2020-04-25 18:43:32 UTC-0400 | LaunchConfig | CREATE_COMPLETE | - |
| 2020-04-25 18:43:32 UTC-0400 | LaunchConfig | CREATE_IN_PROGRESS | Resource creation Initiated |

Resources (6)

| Logical ID | Physical ID | Type | Status | Status reason |
|-------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------|---------------|
| CloudForm | 2020-04-25 18:40:13 UTC-0400 | CREATE_COMPLETE | - | - |
| ALBTargetGroup | arn:aws:elasticloadbalancing:us-east-1:963609547803:targetgroup/Cloud-ALBTa-1STC4GENU73LN/befed76548ae003f | AWS::ElasticLoadBalancingV2::TargetGroup | CREATE_COMPLETE | - |
| ApplicationLoadBalancer | arn:aws:elasticloadbalancing:us-east-1:963609547803:loadbalancer/app/Cloud-App-1RWAD01H1Z01N/536b3395e91eaaa8 | AWS::ElasticLoadBalancingV2::LoadBalancer | CREATE_COMPLETE | - |
| InstanceSecurityGroup | sg-04aac7034be1727b5 | AWS::EC2::SecurityGroup | CREATE_COMPLETE | - |
| LaunchConfig | CloudForm-LaunchConfig-1SR7USACVX2TU | AWS::AutoScaling::LaunchConfiguration | CREATE_COMPLETE | - |
| WebServerGroup | CloudForm-WebServerGroup-17Z5WFSJMGYP8 | AWS::AutoScaling::AutoScalingGroup | CREATE_COMPLETE | - |

CloudFormation > Stacks > CloudForm

CloudForm

Stacks (1) C

Filter by stack name

Active View nested

CloudForm
2020-04-25 18:40:13 UTC-0400 CREATE_COMPLETE

Outputs (1)

Search outputs

| Key | Value | Description | Export name |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------|
| URL | http://Cloud-App1-1RWAD01H1Z01N-1199001243.us-east-1.elb.amazonaws.com | URL of the website | - |

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CloudFormation > Stacks > CloudForm

CloudForm

Stacks (1) C

Filter by stack name

Active View nested

CloudForm
2020-04-25 18:40:13 UTC-0400 CREATE_COMPLETE

Parameters (5)

Search parameters

| Key | Value | Resolved value |
|--------------|---------------------------------|----------------|
| InstanceType | t2.micro | - |
| KeyName | rrana | - |
| SSHLocation | 0.0.0.0/0 | - |
| Subnets | subnet-45c83764,subnet-ce880883 | - |
| VpcId | vpc-988b86e2 | - |

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The screenshot shows the AWS CloudFormation console. On the left, there's a sidebar with 'CloudFormation > Stacks > CloudForm'. The main area has a title 'CloudForm' with tabs: Stack info, Events, Resources, Outputs, Parameters, Template, and Change sets (which is underlined). Below this is a section titled 'Change sets (0)' with a search bar and a table header: Name, Created time, Status, Description. A message says 'Empty change sets' and 'No change sets to display'. At the bottom is a 'Create change set' button.

<https://console.aws.amazon.com/cloudformation/home?region=us-east-1#>

- For verification, we can check the EC2 instances, various resources that has been provisioned in resources tab, verify some of those resource.

The screenshot shows the AWS EC2 Instances page. The left sidebar includes 'New EC2 Experience', 'EC2 Dashboard', 'Events', 'Tags', 'Reports', 'Limits', 'INSTANCES' (with 'Instances' selected), 'Images', 'Elastic Block Store', and 'Feedback'. The main area has a table with columns: Name, Instance ID, Instance Type, Availability Zone, Instance State, Status Checks, Alarm Status, Public DNS (IPv4), and IPv4 Public IP. Two instances are listed:

| Name | Instance ID | Instance Type | Availability Zone | Instance State | Status Checks | Alarm Status | Public DNS (IPv4) | IPv4 Public IP |
|---------------------|---------------------|---------------|-------------------|----------------|----------------|--------------|--------------------------|----------------|
| i-0f641bd84c624a282 | i-0f641bd84c624a282 | t2.micro | us-east-1a | running | 2/2 checks ... | None | ec2-54-173-57-115.co... | 54.173.57.115 |
| i-0bac03a02ea53fec5 | i-0bac03a02ea53fec5 | t2.micro | us-east-1b | running | 2/2 checks ... | None | ec2-18-206-171-181.co... | 18.206.171.181 |

Screenshot of the AWS CloudFront console showing the creation of a new CloudFront distribution. The left sidebar shows various AWS services like EC2, S3, Lambda, etc. The main area shows the CloudFront dashboard with a table of existing distributions. A 'Create New Distribution' button is visible.

| Name | DNS name | State | VPC ID | Availability Zones | Type |
|---------------------------|----------------------------|--------|--------------|------------------------|-------------|
| Cloud-Appli-1Q1P8GQ1YL3FK | Cloud-Appli-1Q1P8GQ1YL3... | active | vpc-988b86e2 | us-east-1a, us-east-1b | application |

Basic Configuration

- Name: Cloud-Appli-1Q1P8GQ1YL3FK
- ARN: arn:aws:elasticloadbalancing:us-east-1:963609547803:loadbalancer/app/Cloud-Appli-1Q1P8GQ1YL3FK/d0248e32c35c8152
- DNS name: Cloud-Appli-1Q1P8GQ1YL3FK-992553740.us-east-1.elb.amazonaws.com (A Record)
- State: active
- Type: application
- Scheme: internet-facing
- IP address type: ipv4

- Noting the URL and opening the DNS from the LoadBalancer.

DNS name Cloud-Appli-1Q1P8GQ1YL3FK-992553740.us-east-1.elb.amazonaws.com (A Record)

Screenshot of a web browser showing the CloudFront distribution URL: <http://cloud-appli-1q1p8gq1yl3fk-992553740.us-east-1.elb.amazonaws.com>. The page displays the 'Introducing AWS CloudFormation' landing page, which includes a diagram of various AWS services (Amazon EC2, Amazon SimpleDB, Amazon CloudWatch, Amazon S3, Amazon RDS) interconnected by arrows.

Congratulations, you have successfully launched the AWS CloudFormation sample.

- To check the LoadBalancer is working, make some changes in the instances index.html files through apache server, it was working previously, the server automatically starts and accepts the requests.
- If we terminate one instance it automatically created new instance in the EC2.

Screenshot of the AWS CloudFormation console showing the status of three EC2 instances:

| | Instance ID | Instance Type | Availability Zone | Instance State | Status Checks | Alarm Status |
|-------|---------------------|---------------|-------------------|----------------|-------------------|--------------|
| Web 1 | i-0350d4d218f326b67 | t2.micro | us-east-1a | running | Initializing | None |
| | i-04118b0dc9f8bcc74 | t2.micro | us-east-1b | running | 2/2 checks passed | None |
| | i-0722aeb95dc5acb4b | t2.micro | us-east-1a | terminated | | None |

Details for instance i-0350d4d218f326b67 (New Web 1):

- Public DNS: ec2-3-94-184-168.compute-1.amazonaws.com
- Instance ID: i-0350d4d218f326b67
- Public DNS (IPv4): ec2-3-94-184-168.compute-1.amazonaws.com
- Instance state: running
- IPv4 Public IP: 3.94.184.168
- Instance type: t2.micro
- IPv6 IPs: -
- Finding: Opt-in to AWS Compute Optimizer for recommendations. [Learn more](#)
- Elastic IPs: -
- Private DNS: ip-172-31-81-200.ec2.internal
- Availability zone: us-east-1a

Browser screenshot showing the CloudFormation sample application:

Introducing AWS CloudFormation
Use simple templates to deploy your AWS Infrastructure.
[Learn more...](#)

Congratulations, you have successfully launched the AWS CloudFormation sample Web1.

Browser screenshot showing the CloudFormation sample application:

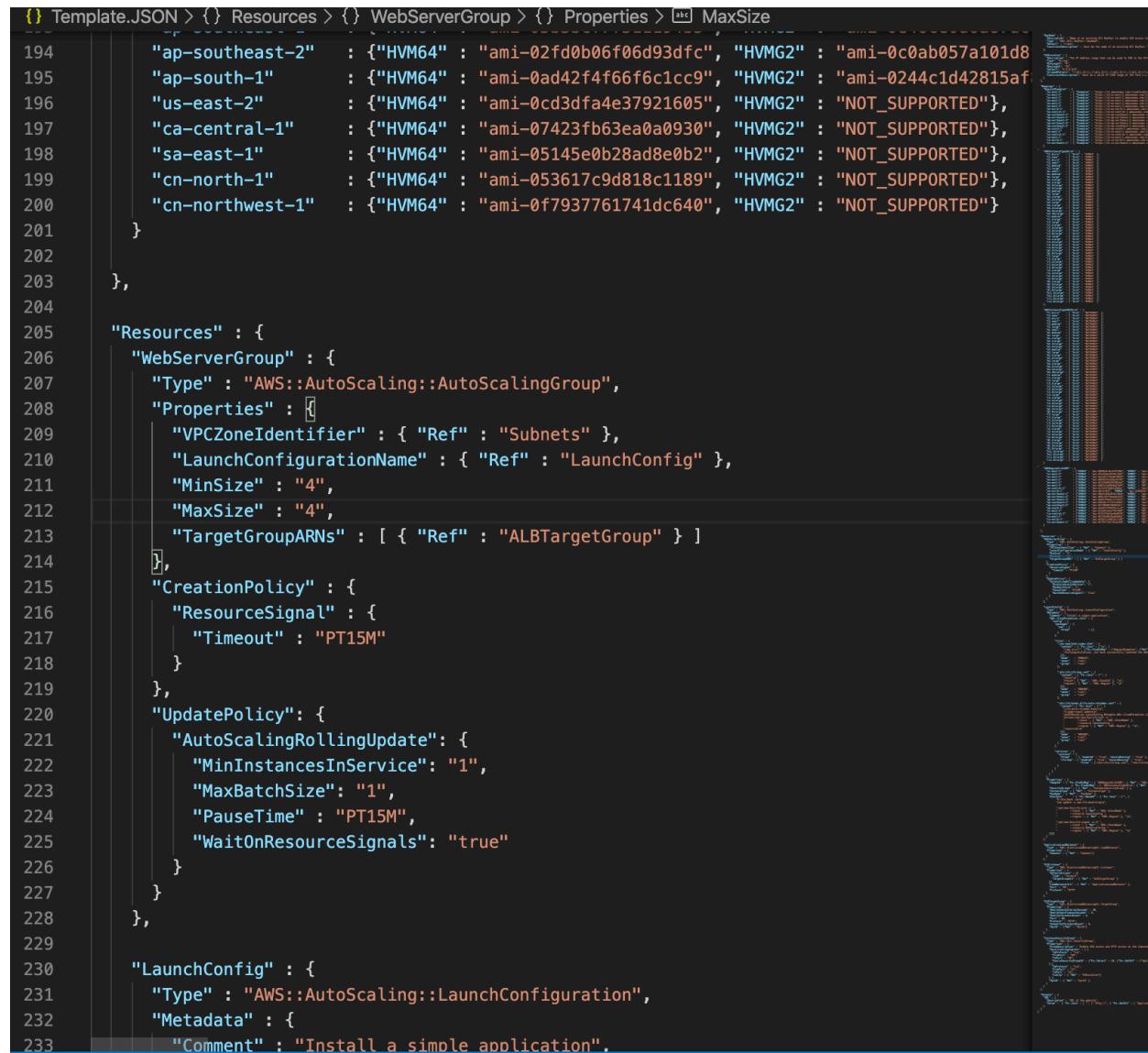
Introducing AWS CloudFormation
Use simple templates to deploy your AWS Infrastructure.
[Learn more...](#)

Congratulations, you have successfully launched the AWS CloudFormation sample Web 2.

- Now, change set configuration need to update a stack, understanding how your changes will affect running resources before you implement them can help you update stacks with confidence. Change sets allow you to preview how proposed changes to a stack might impact your running

resources, the changes will delete or replace any critical resources like change the Autoscaling configuration in Resources

- Set Min Size to 4 and Set Max Size to 4, save template as a new file which will be used to create a new stack configuration for next part.
- Follow the same steps as previously we used to create our stack but this time instead of creating a new stack CloudFormation will update the existing stack.



The screenshot shows the AWS CloudFormation console with the stack configuration for the WebServerGroup. The left pane displays the JSON template code, and the right pane shows the stack's resources and their current state (e.g., healthy, pending, failed).

```
{ } Template.JSON > {} Resources > {} WebServerGroup > {} Properties > MaxSize
```

```
194     "ap-southeast-2" : {"HVM64" : "ami-02fd0b06f06d93dfc", "HVMG2" : "ami-0c0ab057a101d8
195     "ap-south-1" : {"HVM64" : "ami-0ad42f4f66f6c1cc9", "HVMG2" : "ami-0244c1d42815af
196     "us-east-2" : {"HVM64" : "ami-0cd3dfa4e37921605", "HVMG2" : "NOT_SUPPORTED"}, 
197     "ca-central-1" : {"HVM64" : "ami-07423fb63ea0a0930", "HVMG2" : "NOT_SUPPORTED"}, 
198     "sa-east-1" : {"HVM64" : "ami-05145e0b28ad8e0b2", "HVMG2" : "NOT_SUPPORTED"}, 
199     "cn-north-1" : {"HVM64" : "ami-053617c9d818c1189", "HVMG2" : "NOT_SUPPORTED"}, 
200     "cn-northwest-1" : {"HVM64" : "ami-0f7937761741dc640", "HVMG2" : "NOT_SUPPORTED"}}
201   }
202 
203 },
204 
205 "Resources" : {
206   "WebServerGroup" : {
207     "Type" : "AWS::AutoScaling::AutoScalingGroup",
208     "Properties" : [
209       "VPCZoneIdentifier" : { "Ref" : "Subnets" },
210       "LaunchConfigurationName" : { "Ref" : "LaunchConfig" },
211       "MinSize" : "4",
212       "MaxSize" : "4",
213       "TargetGroupARNs" : [ { "Ref" : "ALBTargetGroup" } ]
214     ],
215     "CreationPolicy" : {
216       "ResourceSignal" : {
217         "Timeout" : "PT15M"
218       }
219     },
220     "UpdatePolicy": {
221       "AutoScalingRollingUpdate": {
222         "MinInstancesInService": "1",
223         "MaxBatchSize": "1",
224         "PauseTime" : "PT15M",
225         "WaitOnResourceSignals": "true"
226       }
227     }
228   },
229 
230   "LaunchConfig" : {
231     "Type" : "AWS::AutoScaling::LaunchConfiguration",
232     "Metadata" : {
233       "Comment" : "Install a simple application".
234     }
235   }
236 }
```

- After uploading the stack will take some time to update.

console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks?filteringText=&filteringStatus=active&viewNested=true&hideStacks=false

AWS Services Resource Groups N. Virginia Support rachir

CloudFormation > Stacks

Stacks (1)

Filter by stack name Active View nested

| Stack name | Status | Created time | Description |
|------------|--------------------|------------------------------|------------------------------------------------------------|
| CloudForm | UPDATE_IN_PROGRESS | 2020-04-25 18:40:13 UTC-0400 | AWS CloudFormation Sample Template ELBWithLockedDownAut... |

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console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks/stackinfo?filteringText=&filteringStatus=active&viewNested=true&hideStacks=false&stack...

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CloudFormation > Stacks > CloudForm

CloudForm

Stack info Events Resources Outputs Parameters Template Change sets

Overview

| | |
|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stack ID arn:aws:cloudformation:us-east-1:963609547803:stack/CloudForm/b9f38960-8745-11ea-899e-0a5af1032bb | Description AWS CloudFormation Sample Template ELBWithLockedDownAutoScaledInstances: Create a load balanced, Auto Scaled sample website where the instances are locked down to only accept traffic from the load balancer. This example creates an Auto Scaling group behind a load balancer with a simple health check. The web site is available on port 80, however, the instances can be configured to listen on any port (8888 by default). **WARNING** This template creates one or more Amazon EC2 instances and an Application Load Balancer. You will be billed for the AWS resources used if you create a stack from this template. |
| Status UPDATE_COMPLETE | Status reason - |
| Root stack - | Parent stack - |
| Created time 2020-04-25 18:40:13 UTC-0400 | Deleted time - |
| Updated time 2020-04-25 19:14:16 UTC-0400 | |

CloudForm

Stacks (1) | Delete | Update | Stack actions | Create stack

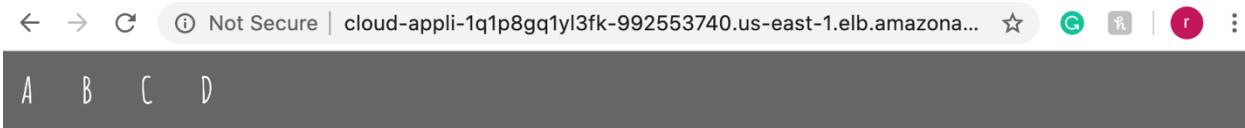
Events (27)

| Timestamp | Logical ID | Status | Status reason |
|------------------------------|----------------|-------------------------------------|----------------|
| 2020-04-25 19:19:22 UTC-0400 | CloudForm | UPDATE_COMPLETE | - |
| 2020-04-25 19:19:21 UTC-0400 | CloudForm | UPDATE_COMPLETE_CLEANUP_IN_PROGRESS | - |
| 2020-04-25 19:19:19 UTC-0400 | WebServerGroup | UPDATE_COMPLETE | - |
| 2020-04-25 19:14:22 UTC-0400 | WebServerGroup | UPDATE_IN_PROGRESS | - |
| 2020-04-25 19:14:16 UTC-0400 | CloudForm | UPDATE_IN_PROGRESS | User Initiated |
| 2020-04-25 18:45:21 UTC-0400 | CloudForm | CREATE_COMPLETE | - |

- Then after update can go and check 4 instances are running in EC2.

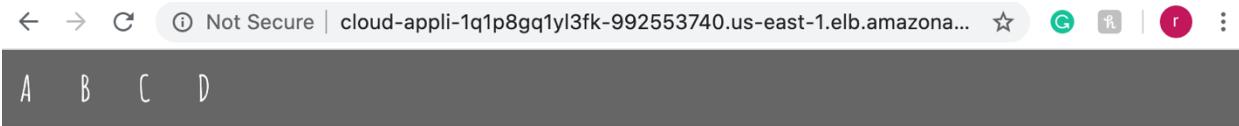
| Name | Instance ID | Instance Type | Availability Zone | Instance State | Status Checks | Alarm Status | Public DNS (IPv4) | IPv4 Public IP |
|---------------------|-------------|---------------|-------------------|----------------|---------------|--------------------------|-------------------|----------------|
| i-0f641bd84c624a282 | i2.micro | us-east-1a | running | 2/2 checks ... | None | ec2-64-173-57-115.co... | 54.173.57.115 | |
| i-0fa7ba64ea792729c | i2.micro | us-east-1a | running | 2/2 checks ... | None | ec2-3-87-56-84.comput... | 3.87.56.84 | |
| i-0bac03a02ea53fec5 | i2.micro | us-east-1b | running | 2/2 checks ... | None | ec2-18-206-171-181.co... | 18.206.171.181 | |
| i-0ece9f7756b7eff2c | i2.micro | us-east-1b | running | 2/2 checks ... | None | ec2-18-208-215-84.co... | 18.208.215.84 | |

- Made some changes in the in each instance created. cd /var/www/html at apache server. Check like previously through LoadBalancer, the URL and opening the DNS from the LoadBalancer.



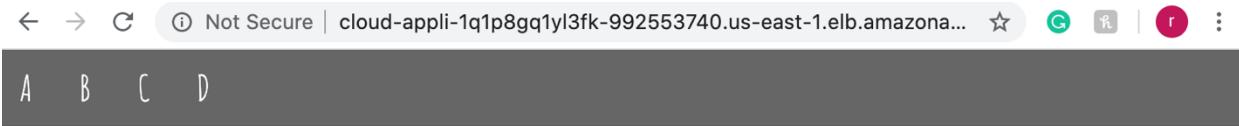
CLOUDFORMATION





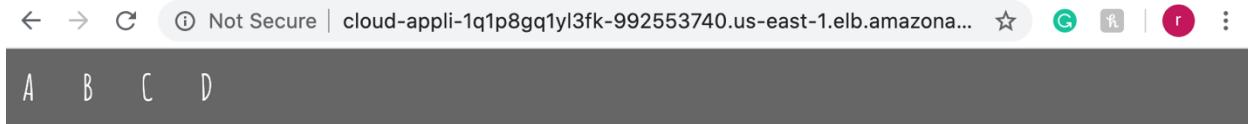
CLOUDFORMATION





CLOUDFORMATION





CLOUDFORMATION



- Stop and Delete stack:
- Deleting the stack will delete all the resources; instances load balancer, security groups from the AWS.

console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks?filteringText=&filteringStatus=active&viewNested=true&hideStacks=false&stackId=arn%3... ☆ G D 1 :

Services Resource Groups

Delete initiated for arn:aws:cloudformation:us-east-1:963609547803:stack/CloudForm/b9f38960-8745-11ea-899e-0a5afd1032bb

CloudFormation > Stacks

Stacks (1)

Filter by stack name Active View nested

Stack name Status Created time Description

CloudForm **DELETE_IN_PROGRESS** 2020-04-25 18:40:13 UTC-0400 AWS CloudFormation Sample Template ELBWithLockedDownAut...

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Launch Instance Connect Actions

Filter by tags and attributes or search by keyword 1 to 8 of 8

| Name | Instance ID | Instance Type | Availability Zone | Instance State | Status Checks | Alarm Status | Public DNS (IPv4) | IPv4 Public IP |
|---------|---------------------|---------------|-------------------|----------------|---------------|--------------|-------------------|----------------|
| Server3 | i-0d5437c8b104dc980 | t2.micro | us-east-1a | terminated | None | None | - | - |
| | i-0ec728edd14fe495b | t2.micro | us-east-1a | terminated | None | None | - | - |
| Ser1 | i-0f641bd84c624a282 | t2.micro | us-east-1a | terminated | None | None | - | - |
| Ser2 | i-0fa7ba64ea792729c | t2.micro | us-east-1a | terminated | None | None | - | - |

Create Load Balancer Actions

Filter by tags and attributes or search by keyword None found

| Name | DNS name | State | VPC ID | Availability Zones | Type |
|----------------------------------------------------|----------|-------|--------|--------------------|------|
| You do not have any load balancers in this region. | | | | | |