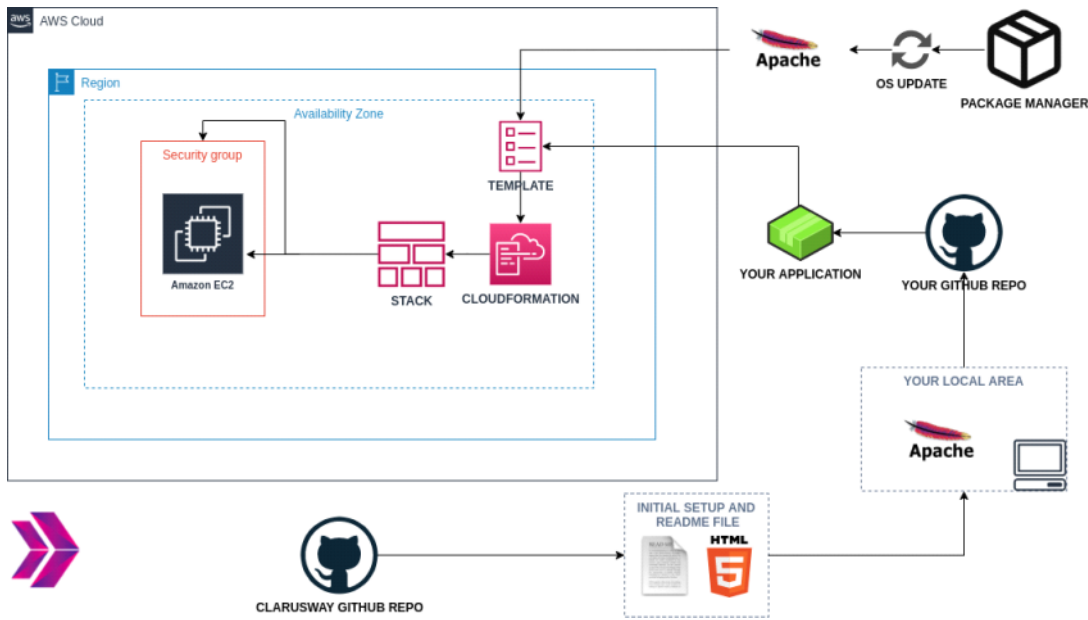


# Project-101-kittens-carousel-static-website-ec2

Monday, 5 July 2021 17:17



- Amacimiz bize verilen jpg ve
- Clarusway reposundaki proje klasorune kendi localimize atiyoruz
- Vs codda locale attigimiz projeyi acalim
- Proje dosyasi icerinde kittens-carousel-static-website.yaml dosyasi olusturalim
- <https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/template-anatomy.html> ==> template hakkında bilgi
- Vs coda 'cfn' yazip enter a basiyoruz ve yaml dosyasinin componentlerini bize verir.

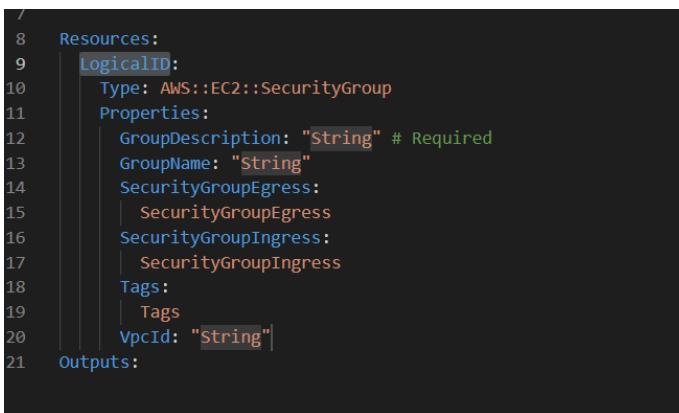
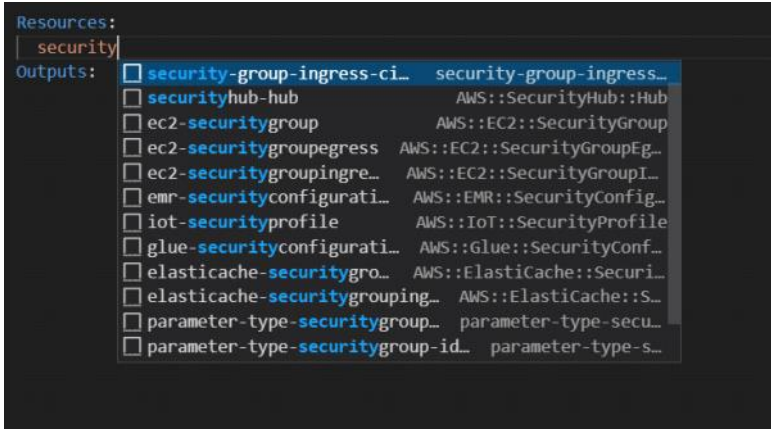
```
cloudformation.json
1  AWSTemplateFormatVersion: 2010-09-09
2  Description: |
3    This CloudFormation Template was written for running Kittens Carousel Static Website on EC2. Kittens Carousel Static Website will be deployed
4    on Amazon Linux 2 (ami-026dea5602e368e96) EC2 Instance with custom security group which allows http connections on port 80 and ssh
5    port 22 from anywhere. Kittens Carousel Static Website is downloaded from my Public Github repository, then deployed on Apache Web
6    Server.
7  Parameters:
8
9  Metadata:
10
11  Mappings:
12
13  Conditions:
14
15  Resources:
16
17  Transform:
18
19  Outputs:
```

Description kismina '

This CloudFormation Template was written for running Kittens Carousel Static Website on EC2. Kittens Carousel Static Website will be deployed on Amazon Linux 2 (ami-026dea5602e368e96) EC2 Instance with custom security group which allows http connections on port 80 and ssh port 22 from anywhere. Kittens Carousel Static Website is downloaded from my Public Github repository, then deployed on Apache Web Server.'

- Description: |
- This CloudFormat
- AWSTemplateFormatVersion
- Description: >

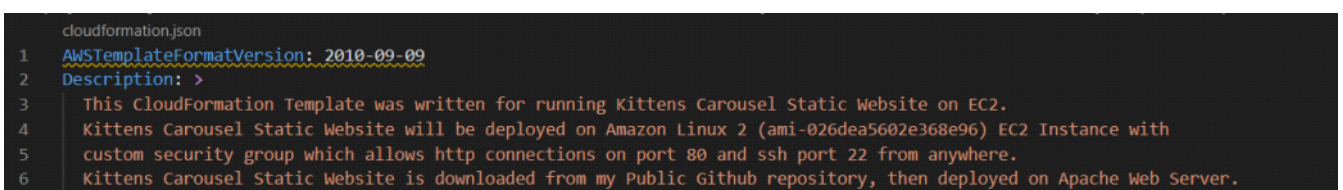
- Yukarıdaki gibi | veya > işaretleri olabilir
- **Parameters, metadata, mappings conditions, transform** kısımlarını bu günkü çalışmada kullanmayacağımız için sileceğiz.
- Resources, AWS üzerinde çalıştırdığımız makinalar ve işlemler butunu ve mutlaka eklenmesi gerekmektedir.
- Öncelikle security grup oluşturacağız. Security yazıp 3. seçeneği seçiyoruz.



- LogicalID yazan kısma istediğimiz ismi atayabiliriz. Biz simdi WebServerSecurityGroup yazıyoruz
- Type ==> aynı kalıyor
- GroupDescription kısmına yazılacak ==> Enable HTTP for Apache Server and SSH secure connection
- Groupname i siliyoruz
- Securitygroupingress kısmi kalıyor egress kısmi siliyoruz.
- Securitygroupingress kısmına 'securityg' yazınca gorseldeki kısmi acacagiz



- Sayfa görüntüsü gorseldeki gibi olacak



```

cloudformation.json
1  AWSTemplateFormatVersion: 2010-09-09
2  Description: >
3    This CloudFormation Template was written for running Kittens Carousel Static Website on EC2.
4    Kittens Carousel Static Website will be deployed on Amazon Linux 2 (ami-026dea5602e368e96) EC2 Instance with
5    custom security group which allows http connections on port 80 and ssh port 22 from anywhere.
6    Kittens Carousel Static Website is downloaded from my Public Github repository, then deployed on Apache Web Server.
7
8  Resources:
9    WebServerSecurityGroup:
10     Type: AWS::EC2::SecurityGroup
11     Properties:
12       GroupDescription: Enable HTTP for Apache Server and SSH secure connection # Required
13       SecurityGroupIngress:
14         - IpProtocol: tcp
15           FromPort:
16           ToPort:
17           CidrIp:
18       Tags:
19         Tags
20         VpcId: "String"
21  Outputs:

```

- Securitygroupingress kismini gorseldeki gibi 80 ve 22 olacak sekilde duzenliyoruz

```

Properties:
  GroupDescription: Enable HTTP for Apache S
  SecurityGroupIngress:
    - IpProtocol: tcp
      FromPort: 80
      ToPort: 80
      CidrIp: 0.0.0.0/0
  Tags:

```

```

SecurityGroupIngress:
  - IpProtocol: tcp
    FromPort: 80
    ToPort: 80
    CidrIp: 0.0.0.0/0
  - IpProtocol: tcp
    FromPort: 22
    ToPort: 22
    CidrIp: 0.0.0.0/0

```

Inbound rules (4) Edit inbound rules

Type	Protocol	Port range	Source	Description - optional
HTTP	TCP	80	0.0.0.0/0	-
HTTP	TCP	80	::/0	-
SSH	TCP	22	0.0.0.0/0	-
SSH	TCP	22	::/0	-

- Tag kismini siliyoruz
- Ec2 instance olusturacagiz dokuman ==> <https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/aws-properties-ec2-instance.html>
- Instance yazip sekildekini seciyoruz. Bize uzun bir dizi cikaracak.

```

CidrIp: 0.0.0.0/0
instance
  ec2-instance

```

- Gorseldeki ami ile baslayan ilk numarayi imageId kismina yapistiriyoruz.

Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-0ab4d1e9cf9a1215a (64-bit x86) / ami-0d296d66f2f256c2 (64-bit ARM)

Free tier eligible

Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras. This AMI is the successor of the Amazon Linux AMI that is approaching end of life on December 31, 2020 and has been removed from this wizard.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

- Instancetype ==> t2.micro yaziyoruz

## Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized for different use cases, performance needs, and networking capacity, and give you the flexibility to choose the instance type that best meets your needs.

Filter by: All instance families Current generation

Currently selected: t2.micro (- ECUs, 1 vCPUs, 2.5 GHz)

	Family	Type
<input type="checkbox"/>	t2	t2.nano
<input checked="" type="checkbox"/>	t2	t2.micro Free tier eligible

- Resource altına yazdığımız 'WebServerSecurityGroup' metni SecurityGroupsIds kısmına basına !Ref yazarak ekliyoruz.

```
SecurityGroupIds:
  - !Ref WebServerSecurityGroup
SecurityGroups:
```

- EC2 açarken ilk görsele yazmış olduğumuz değeri yaml dosyası içinde oluşturmuş olacağız. \$ isaretiyle oluşturacağımız stack ismini atama

```
Tags:
  - Key : Name
    Value : Web Server of Stackname ${AWS::Stackname} Stack
```

- Konsoldo 3. bölümde (Configure instance) kismindaki userdata bölümünü yazacağız. Root'ta çalışacağı için sudo komutlarını kullanmaya gerek yok.

User data ⓘ ☒ As text ☐ As file ☐ Input is already base64 encoded

(Optional)

- Yaml dosyamızın görseli ve yazı hali :

```

cloudformation.json
1  AWSTemplateFormatVersion: 2010-09-09
2  Description: >
3      This CloudFormation Template was written for running Kittens Carousel Static Website on EC2.
4      Kittens Carousel Static Website will be deployed on Amazon Linux 2 (ami-0ab4d1e9cf9a1215a)
5      EC2 Instance with custom security group which allows http connections on port 80 and ssh port 22
6      from anywhere.
7      Kittens Carousel Static Website
8      is downloaded from my Public Github repository, then deployed on Apache Web Server.
9  Resources:
10     WebServerSecurityGroup:
11       Type: AWS::EC2::SecurityGroup
12       Properties:
13         GroupDescription: Enable HTTP for Apache Web Server and SSH for secure connection.
14         SecurityGroupIngress:
15           - IpProtocol: tcp
16             FromPort: 80
17             ToPort: 80
18             CidrIp: 0.0.0.0/0
19           - IpProtocol: tcp
20             FromPort: 22
21             ToPort: 22
22             CidrIp: 0.0.0.0/0
23     WebServerHost:
24       Type: AWS::EC2::Instance
25       Properties:
26         ImageId: ami-0ab4d1e9cf9a1215a
27         InstanceType: t2.micro
28         KeyName: EC2_key
29         SecurityGroupIds:
30           - !Ref WebServerSecurityGroup
31         Tags:
32           - Key: Name
33             Value: !Sub Web Server of ${AWS::StackName} Stack
34         UserData:
35           Fn::Base64:
36             !Sub |
37               #!/bin/bash
38               yum update -y
39               yum install httpd -y
40               FOLDER="https://raw.githubusercontent.com/hamidgokce/MY_PROJECTS/main/aws/projects/
41               Project-101-kittens-carousel-static-website-ec2/static-web"
42               cd /var/www/html
43               wget $FOLDER/index.html
44               wget $FOLDER/cat0.jpg
45               wget $FOLDER/cat1.jpg
46               wget $FOLDER/cat2.jpg
47               wget $FOLDER/cat3.png
48               systemctl start httpd
49               systemctl enable httpd
50     Outputs:
51       WebsiteURL:
52         Value: !Sub
53           - http://${PublicAddress}
54           - PublicAddress: !GetAtt WebServerHost.PublicDnsName
55       Description: Kittens Carousel Application URL

```

AWSTemplateFormatVersion: 2010-09-09

Description: >

This CloudFormation Template was written for running Kittens Carousel Static Website on EC2.

Kittens Carousel Static Website will be deployed on Amazon Linux 2 (ami-0ab4d1e9cf9a1215a)

EC2 Instance with custom security group which allows http connections on port 80 and ssh port 22

from anywhere.

Kittens Carousel Static Website

is downloaded from my Public Github repository, then deployed on Apache Web Server.

Resources:

WebServerSecurityGroup:

Type: AWS::EC2::SecurityGroup

Properties:

GroupDescription: Enable HTTP for Apache Web Server and SSH for secure connection.

SecurityGroupIngress:

- IpProtocol: tcp

FromPort: 80

ToPort: 80

CidrIp: 0.0.0.0/0

- IpProtocol: tcp

FromPort: 22

ToPort: 22

CidrIp: 0.0.0.0/0

WebServerHost:

Type: AWS::EC2::Instance

Properties:

ImageId: ami-0ab4d1e9cf9a1215a

InstanceType: t2.micro

KeyName: EC2\_key

SecurityGroupIds:

- !Ref WebServerSecurityGroup

Tags:

- Key: Name

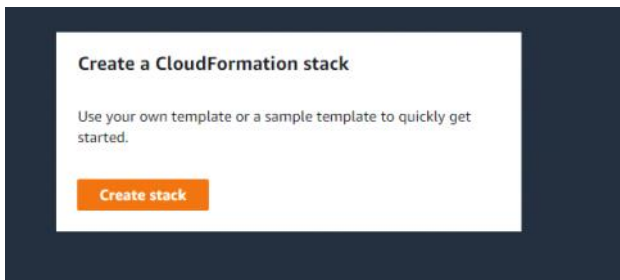
Value: !Sub Web Server of \${AWS::StackName} Stack

UserData:

```
Fn::Base64:
!Sub |
  #! /bin/bash
  yum update -y
  yum install httpd -y
  FOLDER="https://raw.githubusercontent.com/hamidgokce/MY_PROJECTS/main/aws/projects/
  Project-101-kittens-carousel-static-website-ec2/static-web"
  cd /var/www/html
  wget $FOLDER/index.html
  wget $FOLDER/cat0.jpg
  wget $FOLDER/cat1.jpg
  wget $FOLDER/cat2.jpg
  wget $FOLDER/cat3.png
  systemctl start httpd
  systemctl enable httpd

Outputs:
WebsiteURL:
  Value: !Sub
  - http://${PublicAddress}
  - PublicAddress: !GetAtt WebServerHost.PublicDnsName
Description: Kittens Carousel Application URL
```

- Yapmis oldugumuz degisikliklerimizi github repomuza push ediyoruz.
  - o `Git status`
  - o `Git add .`
  - o `Git commit -m 'kittens carousel'`
  - o `Git push`
- AWS cloudformation sayfasini acalim  
['https://console.aws.amazon.com/cloudformation/home?region=us-east-1#/'](https://console.aws.amazon.com/cloudformation/home?region=us-east-1#/)
- Create Stack



- **Upload a template file** kismini secip VS codda hazirlamis oldugumuz yaml dosyasini yukleyelim ve NEXT
- Acilan sayfadan olusturacagimiz stack e bir isim verelim ve NEXT

### Specify stack details

**Stack name**

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.

**No parameters**

There are no parameters defined in your template

Cancel
Previous
Next

- Sonraki bolumleri default olarak birakip stack imizi create

ediyoruz.

- Stack hatasız bir şekilde oluştu ve yeni bir EC2 instance başlatıldı.

Instances (1/2) <a href="#">Info</a>							
<input type="text" value="Filter instances"/>							
<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
<input type="checkbox"/>	Web Server of kitten Stack	i-05f5cba906a79cf8d	Terminated	t2.micro	-	No alarms	us-east-1b
<input checked="" type="checkbox"/>	Web Server of Kittens Stack	i-0d1aea7a59827c94b	Running	t2.micro	Initializing	No alarms	us-east-1b

Kittens

Delete

Update

Stack actions ▾

Create stack ▾

Stack info

Events

Resources

Outputs

Parameters

Template

Change sets

Events (6)

Q Search events

↺

⚙

Timestamp	Logical ID	Status	Status reason
2021-07-07 00:16:35 UTC+0300	WebServerHost	<div>🕒 CREATE_IN_PROGRESS</div>	Resource creation Initiated
2021-07-07 00:16:33 UTC+0300	WebServerHost	<div>🕒 CREATE_IN_PROGRESS</div>	-
2021-07-07 00:16:31 UTC+0300	WebServerSecurityGroup	<div>✅ CREATE_COMPLETE</div>	-
2021-07-07 00:16:31 UTC+0300	WebServerSecurityGroup	<div>🕒 CREATE_IN_PROGRESS</div>	Resource creation Initiated
2021-07-07 00:16:25 UTC+0300	WebServerSecurityGroup	<div>🕒 CREATE_IN_PROGRESS</div>	-
2021-07-07 00:16:21 UTC+0300	Kittens	<div>🕒 CREATE_IN_PROGRESS</div>	User Initiated

- Outputs kısmında çıkan linki tıkladığımızda oluşturduğumuz HTML dosyamızı browserda göreceğiz.

Kittens

Delete

Update

Stack actions

Stack info

Events

Resources

Outputs

Parameters

Template

Change sets

Outputs (1)

Q Search outputs

Key	Value	Description	Export name
WebsiteURL	<a href="http://ec2-3-227-19-36.compute-1.amazonaws.com">http://ec2-3-227-19-36.compute-1.amazonaws.com</a>	Kittens Carousel Application URL	-

