

```
John@DESKTOP-T9NK68K MINGW64 ~/Desktop/Udacity/Course2/JNoel-UdagramProject
$ ./create.sh JNoelUdagramApp JNoelUdagram_networkandserver.yml JNoelUdagram_networkandserver.json
{
  "StackId": "arn:aws:cloudformation:us-west-2:960787525217:stack/JNoelUdagramApp/43918450-bfb4-11ea-a988-027518039cd6"
}
John@DESKTOP-T9NK68K MINGW64 ~/Desktop/Udacity/Course2/JNoel-UdagramProject
$
```

us-west-2.console.aws.amazon.com/cloudformation/home?region=us-west-2#/stacks?filteringText=&filteringStatus=active&viewNested=true&hideStacks=false

CloudFormation > Stacks

Stacks (1)

Filter by stack name

Active View nested

Stack name	Status	Created time	Description
JNoelUdagramApp	CREATE_COMPLETE	2020-07-06 14:12:34 UTC-0400	John Noel --- Udagram Application Project -- Udacity Project 2 -- Udacity Cloud and DevOps Engineer Nano...

CloudFormation - Stack JNoelUdagramApp

us-west-2.console.aws.amazon.com/cloudformation/home?region=us-west-2#/stacks/stackinfo?filteringText=&filteringStatus=active&viewNested=true&hideStacks=false&stackId=arn%3Aaws%3Acloudformation%3Aus-west-2%3A960787525217%3Astack%2FJNoelUdagramApp%2F43918450-bfb4-11ea-a988-027518039cd6

CloudFormation > Stacks > JNoelUdagramApp

JNoelUdagramApp

Stack info Events Resources Outputs Parameters Template Change sets

Overview

Stack ID	Description
arn:aws:cloudformation:us-west-2:960787525217:stack/JNoelUdagramApp/43918450-bfb4-11ea-a988-027518039cd6	John Noel --- Udagram Application Project -- Udacity Project 2 -- Udacity Cloud and DevOps Engineer Nanodegree
Status	Status reason
CREATE_COMPLETE	-
Root stack	Parent stack
-	-
Created time	Deleted time
2020-07-06 14:12:34 UTC-0400	-
Updated time	-
-	-

us-west-2.console.aws.amazon.com/cloudformation/home?region=us-west-2#/stacks/events?filteringText=&filteringStatus=active&viewNested=true&hideStacks=false&stackId=arn%3Aaws%3Acloudformation%3Aus-west-2%3Astack%3AJNoelUdagramApp

ServicesResource Groups

CloudFormationStacksJNoelUdagramApp

Stacks (1)

Filter by stack name

ActiveView nested

JNoelUdagramApp2020-07-06 14:12:34 UTC-0400CREATE\_COMPLETE

JNoelUdagramApp

Stack infoEventsResourcesOutputsParametersTemplateChange sets

Events (98)

Search events

Timestamp	Logical ID	Status	Status reason
2020-07-06 14:15:59 UTC-0400	JNoelUdagramApp	CREATE_COMPLETE	-
2020-07-06 14:15:57 UTC-0400	WebAppGroup	CREATE_COMPLETE	-
2020-07-06 14:15:53 UTC-0400	ALBListenerRule	CREATE_COMPLETE	-
2020-07-06 14:15:53 UTC-0400	ALBListenerRule	CREATE_IN_PROGRESS	Resource creation Initiated
2020-07-06 14:15:52 UTC-0400	ALBListenerRule	CREATE_IN_PROGRESS	-
2020-07-06 14:15:50 UTC-0400	Listener	CREATE_COMPLETE	-
2020-07-06 14:15:50 UTC-0400	Listener	CREATE_IN_PROGRESS	Resource creation Initiated
2020-07-06 14:15:50 UTC-0400	Listener	CREATE_IN_PROGRESS	-
2020-07-06 14:15:48 UTC-0400	WebAppLB	CREATE_COMPLETE	-
2020-07-06 14:15:38 UTC-0400	DefaultPrivateRoute2	CREATE_COMPLETE	-
2020-07-06 14:15:22 UTC-0400	DefaultPrivateRoute1	CREATE_COMPLETE	-

CloudFormation - Stack JNoelUdagramAppEC2 Management Console

us-west-2.console.aws.amazon.com/cloudformation/home?region=us-west-2#/stacks/resources?filteringText=&filteringStatus=active&viewNested=true&hideStacks=false&stackId=arn%3Aaws%3Acloudformation%3Aus-west-2%3Astack%3AJNoelUdagramApp

ServicesResource Groups

CloudFormationStacksJNoelUdagramApp

Stacks (1)

Filter by stack name

ActiveView nested

JNoelUdagramApp2020-07-06 14:12:34 UTC-0400CREATE\_COMPLETE

JNoelUdagramApp

Stack infoEventsResourcesOutputsParametersTemplateChange sets

Resources (32)

Search resources

Logical ID	Physical ID	Type	Status	Status reason
ALBListenerRule	arn:aws:elasticloadbalancing:us-west-2:960787525217:listener-rule/app/JNoel-WebApp-4VBNL06TYKV0/5f1bb79f54488c13/991c710ca2abc336/29148fa2526cd412	AWS::ElasticLoadBalancingV2::ListenerRule	CREATE_COMPLETE	-
DefaultPrivateRoute1	JNoel-Defau-VXWEQ6TA1ZHX	AWS::EC2::Route	CREATE_COMPLETE	-
DefaultPrivateRoute2	JNoel-Defau-8DBKM05X31WK	AWS::EC2::Route	CREATE_COMPLETE	-
DefaultPublicRoute	JNoel-Defau-12Y6C0B4J8PDV	AWS::EC2::Route	CREATE_COMPLETE	-
InternetGateway	igw-0e989026fe56909d0	AWS::EC2::InternetGateway	CREATE_COMPLETE	-
InternetGatewayAttachment	JNoel-Inter-1KLZR6U3YHAE7	AWS::EC2::VPCGatewayAttachment	CREATE_COMPLETE	-
Listener	arn:aws:elasticloadbalancing:us-west-2:960787525217:listener/app/JNoel-WebApp-4VBNL06TYKV0/5f1bb79f54488c13/991c710ca2abc336/29148fa2526cd412	AWS::ElasticLoadBalancingV2::Listener	CREATE_COMPLETE	-

CloudFormation - Stack JNoelUda...

us-west-2.console.aws.amazon.com/cloudformation/home?region=us-west-2#/stacks/outputs?filteringText=&filteringStatus=active&viewNested=true&hideStacks=false&stackId=arn%3Aaws%3Acloudformation%3Aus-west-2%3Aaws%3Astack%3AJNoelUda...

Services Resource Groups

JEN Oregon Support

CloudFormation > Stacks > JNoelUdagramApp

Stacks (1)

Filter by stack name

Active View nested

JNoelUdagramApp  
2020-07-06 14:12:34 UTC-0400  
CREATE\_COMPLETE

JNoelUdagramApp

Delete Update Stack actions Create stack

Stack info Events Resources Outputs Parameters Template Change sets

Outputs (4)

Search outputs

Key	Value	Description	Export name
PrivateSubnets	subnet-0b7c41edb20329140,subnet-0e667c882e284300b	A list of the private subnets	UdacityProject-PRIV-NETS
PublicSubnets	subnet-091fc425b661e6723,subnet-0d87036f09a8cb646	A list of the public subnets	UdacityProject-PUB-NETS
VPC	vpc-0b610d4f79fc65707	A reference to the created VPC	UdacityProject-VPCID
WebAppLoadBalancerDNSName	http://JNoel-WebAp-4VBNL06TYKV0-1184556272.us-west-2.elb.amazonaws.com	DNS name or Public URL of the Load Balancer	UdacityProject-LB-DNSName

CloudFormation - Stack JNoelUda...

us-west-2.console.aws.amazon.com/cloudformation/home?region=us-west-2#/stacks/parameters?filteringText=&filteringStatus=active&viewNested=true&hideStacks=false&stackId=arn%3Aaws%3Acloudformation%3Aus-west-2%3Aaws%3Astack%3AJNoelUda...

Services Resource Groups

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CloudFormation > Stacks > JNoelUdagramApp

Stacks (1)

Filter by stack name

Active View nested

JNoelUdagramApp  
2020-07-06 14:12:34 UTC-0400  
CREATE\_COMPLETE

JNoelUdagramApp

Delete Update Stack actions Create stack

Stack info Events Resources Outputs Parameters Template Change sets

Parameters (7)

Search parameters

Key	Value	Resolved value
EnvironmentName	UdacityProject	-
InstanceType	t3.small	-
PrivateSubnet1CIDR	10.0.2.0/24	-
PrivateSubnet2CIDR	10.0.3.0/24	-
PublicSubnet1CIDR	10.0.0.0/24	-
PublicSubnet2CIDR	10.0.1.0/24	-
VpcCIDR	10.0.0.0/16	-

CloudFormation - Stack JNoelUdagramApp

us-west-2.console.aws.amazon.com/cloudformation/home?region=us-west-2#/stacks/template?filteringText=&filteringStatus=active&viewNested=true&hideStacks=false&stackId=arn%3Aaws%3Acloudformation%3Aus-west-2%3A%3Astack%3AJNoelUdagramApp

Stacks (1)

Filter by stack name

Active View nested

JNoelUdagramApp  
2020-07-06 14:12:34 UTC-0400  
CREATE\_COMPLETE

### JNoelUdagramApp

Delete Update Stack actions Create stack

Stack info Events Resources Outputs Parameters Template Change sets

#### Template

View in Designer

Description: >  
John Noel ---- Udagram Application Project -- Udacity Project 2 -- Udacity Cloud and DevOps Engineer Nanodegree

Parameters:

EnvironmentName:  
Description: An environment name that will be prefixed to resources  
Type: String

VpcCIDR:  
Description: Please enter the IP range (CIDR notation) for this  
Type: String  
Default: 10.0.0.0/16

PublicSubnet1CIDR:  
Description: Please enter the IP range (CIDR notation) for the Subnet  
Type: String  
Default: 10.0.0.0/24

PublicSubnet2CIDR:  
Description: Please enter the IP range (CIDR notation) for the Subnet  
Type: String  
Default: 10.0.1.0/24

PrivateSubnet1CIDR:  
Description: Please enter the IP range (CIDR notation) for the Subnet  
Type: String  
Default: 10.0.2.0/24

PrivateSubnet2CIDR:  
Description: Please enter the IP range (CIDR notation) for the Subnet  
Type: String

Instances | EC2 Management Console

us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#Instances:sort=instancetype

New EC2 Experience  
Tell us what you think

Launch Instance Connect Actions

Filter by tags and attributes or search by keyword

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6 IPs	Key Name
	i-06672c52bdc46da69	t3.small	us-west-2a	running	2/2 checks ...	None		-	-	
	i-0732fd7617cd81867	t3.small	us-west-2a	running	2/2 checks ...	None		-	-	
	i-09415b555680e0a...	t3.small	us-west-2b	running	2/2 checks ...	None		-	-	
Ubuntu-proje...	i-0cee8735d5d1746f6	t2.micro	us-west-2a	running	2/2 checks ...	None	ec2-54-201-212-99.us...	54 201 212 99	-	oregon-pair
	i-0de92f6d21d0c3373	t3.small	us-west-2b	running	2/2 checks ...	None		-	-	

EC2 Dashboard  
Events  
Tags  
Reports  
Limits  
INSTANCES  
Instances  
Instance Types  
Launch Templates  
Spot Requests

Load Balancers | EC2 Management console

us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LoadBalancers:sort=loadBalancerName

ServicesResource Groups

JENOregonSupport

New EC2 Experience

Create Load BalancerActions

Filter by tags and attributes or search by keyword

1 to 1 of 1

Name	DNS name	State	VPC ID	Availability Zones
JNoel-WebAp-4VBNL06TYKV0	JNoel-WebAp-4VBNL06TYKV0-1184556272.us-west-2.elb.amazonaws.com	active	vpc-0b610d479fc65707	us-west-2a, us-west-2b

Load balancer: JNoel-WebAp-4VBNL06TYKV0

DescriptionListenersMonitoringIntegrated servicesTags

Basic Configuration

Name	JNoel-WebAp-4VBNL06TYKV0
ARN	arn:aws:elasticloadbalancing:us-west-2:960787525217:loadbalancer/app/JNoel-WebAp-4VBNL06TYKV0/5f1bb79f54488c13
DNS name	JNoel-WebAp-4VBNL06TYKV0-1184556272.us-west-2.elb.amazonaws.com (A Record)
State	active
Type	application
Scheme	internet-facing
IP address type	IPv4
VPC	vpc-0b610d479fc65707
Availability Zones	subnet-091fc425b661e6723 - us-west-2a

Load Balancers | EC2 Management console

us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LoadBalancers:sort=loadBalancerName

ServicesResource Groups

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New EC2 Experience

Create Load BalancerActions

Filter by tags and attributes or search by keyword

1 to 1 of 1

Name	DNS name	State	VPC ID	Availability Zones
JNoel-WebAp-4VBNL06TYKV0	JNoel-WebAp-4VBNL06TYKV0-1184556272.us-west-2.elb.amazonaws.com	active	vpc-0b610d479fc65707	us-west-2a, us-west-2b

Load balancer: JNoel-WebAp-4VBNL06TYKV0

DescriptionListenersMonitoringIntegrated servicesTags

A listener checks for connection requests using its configured protocol and port, and the load balancer uses the listener rules to route requests to targets. You can add, remove, or update listeners and listener rules.

Add listenerEditDelete

Listener ID	Security policy	SSL Certificate	Rules
HTTP : 80 arn...991c710ca2abc336	N/A	N/A	Default: forwarding to JNoel-WebAp-1A6E565RQ9V7F View/edit rules

Target Groups | EC2 Management

us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#TargetGroups:sort=targetGroupName

ServicesResource Groups

JENOregonSupport

New EC2 Experience

Dedicated Hosts

Scheduled Instances

Capacity Reservations

IMAGES

AMIs

Bundle Tasks

ELASTIC BLOCK STORE

Volumes

Snapshots

Lifecycle Manager

NETWORK & SECURITY

Security Groups

Elastic IPs

Placement Groups

Key Pairs

Network Interfaces

LOAD BALANCING

Load Balancers

Target Groups

AUTO SCALING

Launch Configurations

Auto Scaling Groups

Create target groupActions

Filter by tags and attributes or search by keyword

Name	Port	Protocol	Target type	Load Balanc	VPC ID	Monitoring
JNoel-WebAp-1A6E665RQ9...	80	HTTP	instance	JNoel-Web...	vpc-0b610d4f79fc65707	

Target group: JNoel-WebAp-1A6E665RQ9V7F

DescriptionTargetsHealth checksMonitoringTags

Basic Configuration

Name	JNoel-WebAp-1A6E665RQ9V7F
ARN	arn:aws:elasticloadbalancing:us-west-2:960787525217:targetgroup/JNoel-WebAp-1A6E665RQ9V7F/976463c7bbc07ca9
Protocol	HTTP
Port	80
Target type	instance
VPC	vpc-0b610d4f79fc65707
Load balancer	JNoel-WebAp-4VBNL06TYKV0

Attributes

Deregistration delay	300 seconds
Slow start duration	0 seconds
Load balancing algorithm	Round robin
Stickiness	Disabled

Target Groups | EC2 Management

us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#TargetGroups:sort=targetGroupName

ServicesResource Groups

JENOregonSupport

New EC2 Experience

Dedicated Hosts

Scheduled Instances

Capacity Reservations

IMAGES

AMIs

Bundle Tasks

ELASTIC BLOCK STORE

Volumes

Snapshots

Lifecycle Manager

NETWORK & SECURITY

Security Groups

Elastic IPs

Placement Groups

Key Pairs

Network Interfaces

LOAD BALANCING

Load Balancers

Target Groups

AUTO SCALING

Launch Configurations

Auto Scaling Groups

Create target groupActions

Filter by tags and attributes or search by keyword

Name	Port	Protocol	Target type	Load Balanc	VPC ID	Monitoring
JNoel-WebAp-1A6E665RQ9...	80	HTTP	instance	JNoel-Web...	vpc-0b610d4f79fc65707	

Target group: JNoel-WebAp-1A6E665RQ9V7F

DescriptionTargetsHealth checksMonitoringTags

The load balancer starts routing requests to a newly registered target as soon as the registration process completes and the target passes the initial health checks. If demand on your targets increases, you can register additional targets. If demand on your targets decreases, you can deregister targets.

Edit

Registered targets

Instance ID	Name	Port	Availability Zone	Status	Description
i-06672c92bdc46da69		80	us-west-2a	healthy	This target is currently passing target group's health checks.
i-0732d7617cd818b7		80	us-west-2a	healthy	This target is currently passing target group's health checks.
i-09415b555680e0a19		80	us-west-2b	healthy	This target is currently passing target group's health checks.
i-0de92ff421dcc3373		80	us-west-2b	healthy	This target is currently passing target group's health checks.

Availability Zones

Availability Zone	Target count	Healthy?
us-west-2a	2	Yes
us-west-2b	2	Yes

Target Groups | EC2 Management

us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#targetGroups:sort=targetGroupName

Services Resource Groups

New EC2 Experience  
Tell us what you think

Create target group Actions

Filter by tags and attributes or search by keyword

Name	Port	Protocol	Target type	Load Balanc	VPC ID	Monitoring
JNoel-WebAp-1A6E665RQ9...	80	HTTP	Instance	JNoel-Web...	vpc-0b610d4f79c65707	

Target group: JNoel-WebAp-1A6E665RQ9V7F

Description Targets Health checks Monitoring Tags

Protocol HTTP

Path /

Port traffic port

Healthy threshold 2

Unhealthy threshold 5

Timeout 8

Interval 10

Success codes 200

Edit health check

EC2 Management Console

us-west-2.console.aws.amazon.com/ec2/autoscaling/home?region=us-west-2#LaunchConfigurations:isid=JNoelUdagramApp-WebAppLaunchConfig-WJLJZKZPCAUR

Services Resource Groups

EC2 Dashboard  
Events  
Tags  
Reports  
Limits

INSTANCES  
Instances  
Instance Types  
Launch Templates  
Spot Requests  
Savings Plans  
Reserved Instances  
Dedicated Hosts  
Scheduled Instances  
Capacity Reservations

IMAGES  
AMIs  
Bundle Tasks

ELASTIC BLOCK STORE  
Volumes  
Snapshots  
Lifecycle Manager

NETWORK & SECURITY  
Security Groups  
Elastic IPs  
Placement Groups

Save up to 90% on Compute  
Optimize compute costs by creating your Auto Scaling group with a launch template to combine EC2 On-Demand, Spot, and RIs. [Learn more](#)

Create launch configuration Create Auto Scaling group Copy to launch template Actions

Filter: Filter launch configurations...

Name	AMI ID	Instance Type	Spot Price	Creation Time
JNoelUdagram...	ami-00363424...	t3.small		July 6, 2020 at 2:15:00 PM UTC-4

Launch Configuration: JNoelUdagramApp-WebAppLaunchConfig-WJLJZKZPCAUR

Details

Copy launch configuration

AMI ID	ami-003634241a8fcdcd	Instance Type	t3.small
IAM Instance Profile	JNoelUdagramApp-Profile/WithRolesForOurApp-3X6IZ3MXVVP	Kernel ID	
Key Name		Monitoring	true
EBS Optimized	false	Security Groups	sg-076521d18d825954
Spot Price		Creation Time	Mon Jul 06 14:15:00 GMT-400 2020
RAM Disk ID		Block Devices	/dev/sdk
User data	<a href="#">View User data</a>	IP Address Type	Only assign a public IP address to instances launched in the default VPC and subnet. (default)

EC2 Management Console

us-west-2.console.aws.amazon.com/ec2/autoscaling/home?region=us-west-2#AutoScalingGroupsId=JNoelUdagramApp-WebAppGroup-1DMNY7IL49KIU:view=details

ServicesResource Groups

JENOregonSupport

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Scheduled Instances

Capacity Reservations

IMAGES

AMIs

Bundle Tasks

ELASTIC BLOCK STORE

Volumes

Snapshots

Lifecycle Manager

NETWORK & SECURITY

Security Groups

Elastic IPs

Placement Groups

Key Pairs

Network Interfaces

LOAD BALANCING

Load Balancers

Target Groups

AUTO SCALING

Launch Configurations

**Auto Scaling Groups**

Try the new design for Amazon EC2 Auto Scaling

This older console is being replaced with the new EC2 Auto Scaling console. No new features or improvements will be made in this older console. [Go to the new console.](#)

Create Auto Scaling group

Actions

Filter: Filter Auto Scaling groups...

<< 1 to 1 of 1 Auto Scaling Groups >>

Name	Launch Configuration /	Instances	Desired	Min	Max	Availability Zones	Default Cooldown	Health Check Grac
JNoelUdagram...	JNoelUdagramApp-We...	4	4	4	6	us-west-2a, us-west-2b	300	0

Auto Scaling Group: JNoelUdagramApp-WebAppGroup-1DMNY7IL49KIU

Details

Activity History

Scaling Policies

Instances

Monitoring

Notifications

Tags

Scheduled Actions

Lifecycle Hooks

Launch Configuration

JNoelUdagramApp-WebAppLaunchConfig-WJLJZKZPCAWR

Desired Capacity

4

Min

4

Max

6

Availability Zone(s)

us-west-2a, us-west-2b

Subnet(s)

subnet-0b7c41edb20329140, subnet-0e667c882e284300b

Classic Load Balancers

Target Groups

JNoel-WebAp-1A6E665RQ9V7F

Health Check Type

EC2

Health Check Grace Period

0

Instance Protection

Termination Policies

Default

Suspended Processes

Network interfaces | EC2 Manag

us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#NICsort=networkInterfaceId

ServicesResource Groups

JENOregonSupport

New EC2 Experience

Tell us what you think

Create Network Interface

Attach

Detach

Delete

Actions

Filter by tags and attributes or search by keyword

<< 1 to 9 of 9 >>

Name	Network Interf	Subnet ID	VPC ID	Zone	Security groups	Description	Instance ID	Status	IPv4 Public IP	Primary private	Second
eni-00e385312...	eni-00e385312...	subnet-0b7c41...	vpc-0b610d4f7...	us-west-2a	JNoelUdagramApp...		i-0732d7617cd818b7	In-use	-	10.0.2.69	
eni-01091a580...	eni-01091a580...	subnet-091fc4...	vpc-0b610d4f7...	us-west-2a	JNoelUdagramApp...	ELB app/JNoel...		In-use	52.88.86.13*	10.0.0.91	
eni-02c76ae4e...	eni-02c76ae4e...	subnet-0e667c...	vpc-0b610d4f7...	us-west-2b	JNoelUdagramApp...		i-0de92ff621d0c3373	In-use	-	10.0.3.209	
eni-04183d9e0...	eni-04183d9e0...	subnet-0b7c41...	vpc-0b610d4f7...	us-west-2a	JNoelUdagramApp...		i-06672c92bdc46da69	In-use	-	10.0.2.198	
eni-06557915f...	eni-06557915f...	subnet-0d8703...	vpc-0b610d4f7...	us-west-2b		Interface for N...		In-use	44.231.124.159*	10.0.1.190	
eni-0a7d3950b...	eni-0a7d3950b...	subnet-0d8703...	vpc-0b610d4f7...	us-west-2b	JNoelUdagramApp...	ELB app/JNoel...		In-use	52.43.141.142*	10.0.1.186	
eni-0b2065502...	eni-0b2065502...	subnet-0e667c...	vpc-0b610d4f7...	us-west-2b	JNoelUdagramApp...		i-09415b655680e0a19	In-use	-	10.0.3.115	
eni-0c920602b...	eni-0c920602b...	subnet-091fc4...	vpc-0b610d4f7...	us-west-2a		Interface for N...		In-use	54.71.51.173*	10.0.0.42	
eni-0f456f3ab1...	eni-0f456f3ab1...	subnet-0de868...	vpc-0a4eaa11...	us-west-2a	oregon-sg		i-0cee8735d5d1746f6	In-use	54.201.212.99*	172.31.17.80	