

UNIT 4.5 GRADED ASSIGNMENT

Group members

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Task:

Based on the solution from day 1

(/tasks/5_microservices_development/day_1_microservices/integrating_flask_redis/) add Redis as another ECS service and connect it with existing application.

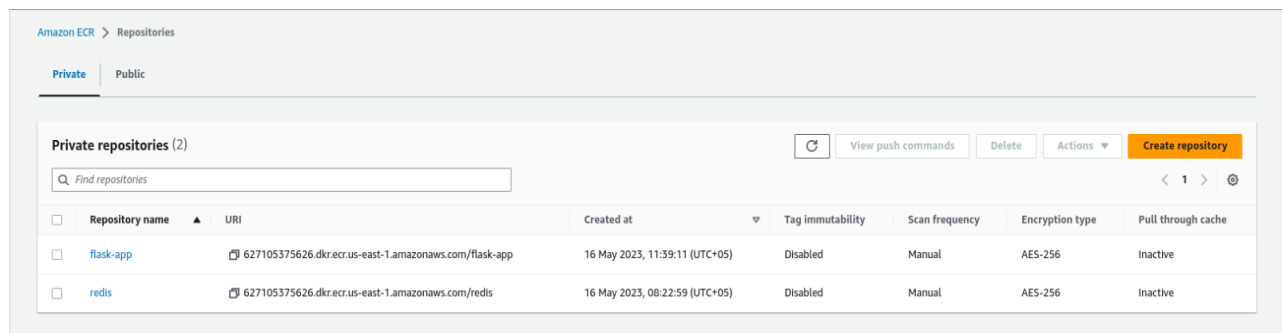
Incorporate results from function *get_and_increase_hit_count()* into the application and show the results on the main page.

Solution:

Create Repositories:

First of all, I created two repositories in ECR and then pushed the images of flask-frontend and redis to the ECR repositories.

I build flask-frontend image with the flask app provided to us and I pull redis image from docker hub.



Create cluster and namespace:

I also create a cluster and using the vpc of that cluster, I create a namespace and create a service in that namespace.

Clusters

An Amazon ECS cluster is a regional grouping of one or more container instances on which you can run task requests. Each account receives a default cluster the first time you use the Amazon ECS service. Clusters may contain more than one Amazon EC2 instance type.

For more information, see the [ECS documentation](#).

[Create Cluster](#) [Get Started](#)

View list card

[view all](#)

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assignment > CloudWatch monitoring

☒ Default Monitoring

FARGATE

2

Services

2

Running tasks

0

Pending tasks

EC2

0

Services

0

Running tasks

0

Pending tasks

No data

CPUUtilization

No data

MemoryUtilization

0

EC2 container instances

EXTERNAL

0

Services

0

Running tasks

0

Pending tasks

0

ECS container instances

[AWS Cloud Map](#) > [Namespaces](#) > assignment.com

Namespace: assignment.com [info](#)

[Edit](#) [Delete](#)

Namespace information

Name assignment.com	Instance discovery API calls and DNS queries in VPCs
Namespace ID ns-xyppjfftyaddlc2	Date created May 16, 2023, 8:23 AM UTC
Description -	SOA TTL 60
HTTP name assignment.com	

Route 53 hosted zone

A hosted zone is a container that holds information about how you want to route traffic. AWS Cloud Map automatically creates a Route 53 hosted zone.

Hosted zone ID Z0116382A7R5IQ798Q44V	Associated VPCs vpc-0a088aeddcd61b41 us-east-1
Description Created by AWS Cloud Map namespace with ARN arn:aws:servicediscovery:us-east-1:627105375626:namespace/ns-xyppjfftyaddlc2	
Type Private hosted zone	
Record count 3	

Tags

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value.

[Edit tags](#)

Key Value

Services (1)

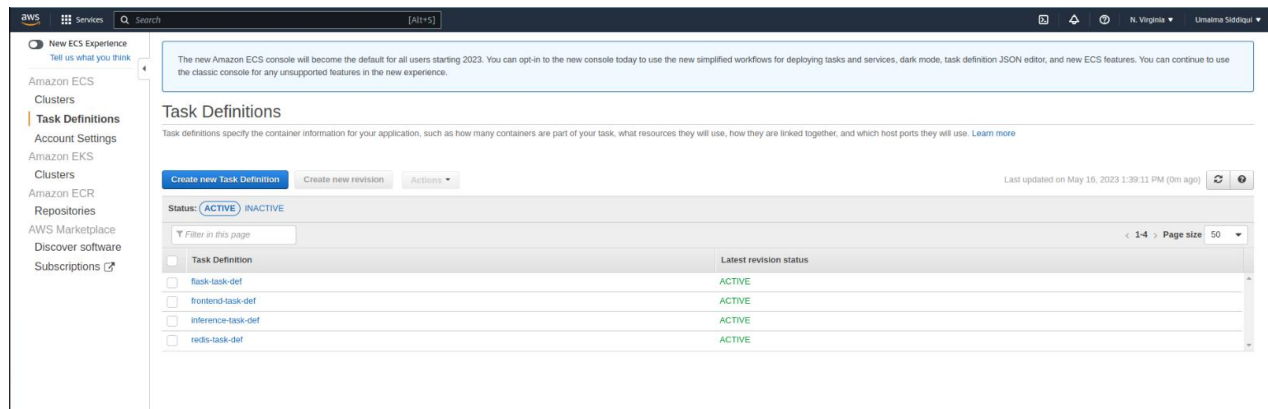
[Refresh](#) [View details](#) [Delete](#) [Create service](#)

< 1 > [Refresh](#)

Name	Description	Discoverable By	Date created	Service ID
redis	-	API Calls and DNS Queries	May 16, 2023, 8:24 AM UTC	srv-ogvadqu66dj777gh

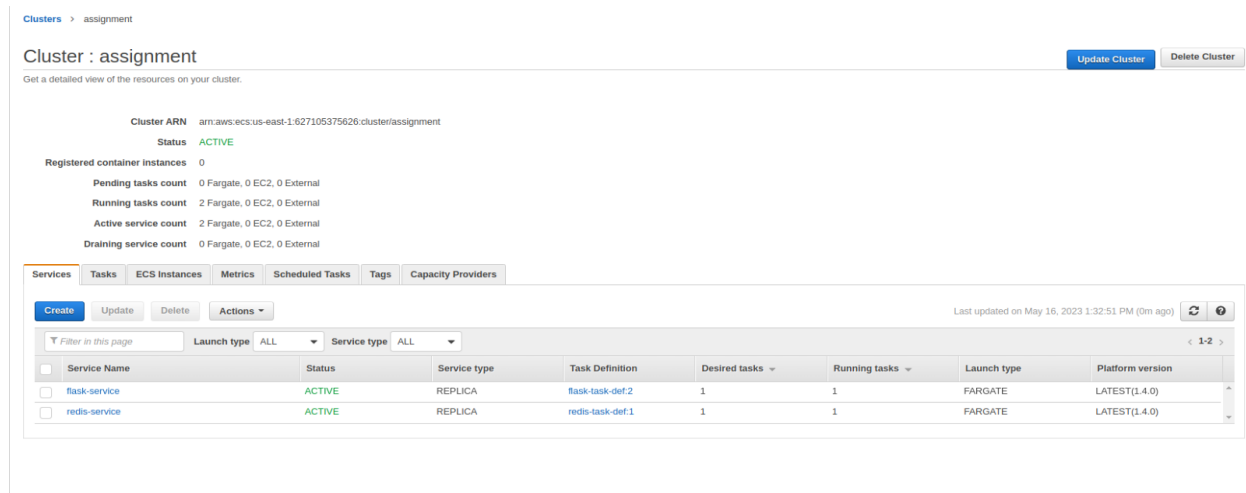
Create task definitions:

After creating namespace I created two task definitions for flask app and redis.



Create services:

And then using the task definitions I create two services in the cluster which I created before:



After this I can see the running tasks in my services.

Service : flask-service

UpdateDelete

Clusterassignment
StatusACTIVE
Task definitionflask-task-def:2
Service typeREPLICA
Launch typeFARGATE
Service roleAWSServiceRoleForECS
Created Byarn:aws:iam::627105375626:root

Desired count1
Pending count0
Running count1

- DetailsTasksEventsAuto ScalingDeploymentsMetricsTagsLogs

Last updated on May 16, 2023 1:33:30 PM (0m ago)

Task status: RunningStopped

Filter in this page							< 1-1 > Page size 50
Task	Task Definition	Last status	Desired status	Group	Launch type	Platform version	
494628616ce949c2a5c72f5332dc8...	flask-task-def:2	RUNNING	RUNNING	service:flask-service	FARGATE	1.4.0	

Task : 494628616ce949c2a5c72f5332dc8e6a

Run more like thisStop

- DetailsTagsLogs

Clusterassignment
Launch typeFARGATE
Platform version1.4.0
Task definitionflask-task-def:2
Groupservice:flask-service
Task roleNone
Last statusRUNNING
Desired statusRUNNING
Created at2023-05-16 13:29:28 +0500
Started at2023-05-16 13:29:44 +0500

Network

Network modeaws-vc
ENI ideni-0a78e41bb3e455a91
Subnet idsubnet-081e61ad7e505c6d
Private IP10.0.0.145
Public IPS4.242.212.113
Mac address0a:16:1a:66:50:69

Containers

Last updated on May 16, 2023 1:33:39 PM (0m ago)

Name	Container Runtime I...	Status	Image	Image Digest	CPU Units	Hard/Soft memory limits...	Essential	Resource ID
flask-conta...	494628616ce949c2a5...	RUNNING	627105375626.dkr.ecr.us-east-1.a...	sha256:01896af3058f62a56ba092...	--	--/--	true	dbbe471b-19e1-44f6-88a...

<div>▼ Network interface details</div> <div>Network interface ID eni-05528ac035ea3a2542</div> <div>Network interface status In-use</div> <div>VPC ID vpc-0c7458bce11e368db</div> <div>Owner 627105375626</div> <div>Source/dest. check True</div> <div>▼ IP addresses</div> <div>Private IPv4 address 10.0.0.136</div> <div>Public IPv4 address 54.242.132.35</div> <div>Secondary private IPv4 addresses -</div> <div>MAC address 0a:94:32:ca:b1:89</div> <div>▼ Instance details</div> <div>Instance ID -</div> <div>Allocation ID -</div>	<div>Name -</div> <div>Interface type Elastic network interface</div> <div>Subnet ID subnet-070c3a70de77a58fa</div> <div>Requester ID 578734482556</div> <div>Private IPv4 DNS ip-10-0-0-136.ec2.internal</div> <div>Public IPv4 DNS ec2-54-242-132-35.compute-1.amazonaws.com</div> <div>Association ID -</div> <div>IPv4 Prefix Delegation -</div> <div>Instance owner 293789792345</div>	<div>Description arn:aws:ec2:us-east-1:627105375626:attachment/5feb3a2-a6c1-47ed-9f50-8bad20a6b8d6</div> <div>Security groups sg-05aadd8e2f9dc30c0 (flask_2159)</div> <div>Availability Zone us-east-1a</div> <div>Requester-managed True</div> <div>Elastic Fabric Adapter False</div> <div>IPv6 addresses -</div> <div>Elastic IP address owner amazon</div> <div>IPv6 Prefix Delegation -</div> <div>Device index 1</div>
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Copy the public IPv4 DNS and paste it on browser and attach 5000 port with it.

