



#### Project

- ☒ Maven Project  
☐ Gradle Project

#### Language

- ☒ Java ☐ Kotlin  
☐ Groovy

#### Spring Boot

- ☐ 2.4.0 (SNAPSHOT) ☐ 2.3.2 (SNAPSHOT) ☒ 2.3.1  
☐ 2.2.9 (SNAPSHOT) ☐ 2.2.8 ☐ 2.1.16 (SNAPSHOT)  
☐ 2.1.15

#### Project Metadata

Group

Artifact

Name

Description

Package name

Packaging ☒ Jar ☐ War

Java ☐ 14 ☐ 11 ☒ 8

#### Dependencies

ADD DEPENDENCIES... CTRL + B

#### Spring Web

WEB

Build web, including RESTful, applications using Spring MVC. Uses Apache Tomcat as the default embedded container.



GENERATE CTRL + G

EXPLORE CTRL + SPACE

SHARE...

TestController.java

```
1 package com.realspeed.controller;
2
3 import org.springframework.http.HttpStatus;
4 import org.springframework.web.bind.annotation.GetMapping;
5 import org.springframework.web.bind.annotation.ResponseStatus;
6 import org.springframework.web.bind.annotation.RestController;
7
8 @RestController
9 public class TestController {
10
11     @GetMapping
12     @ResponseStatus(HttpStatus.OK)
13     public String test() { return "Hello DJ"; }
14
15 }
16
17
```

1. mvn clean install
2. Start the docker container
3. docker build -f Dockerfile -t aws-csr\_spring-boot .
4. docker images
5. docker run -p 8080:8080 aws-csr\_spring-boot

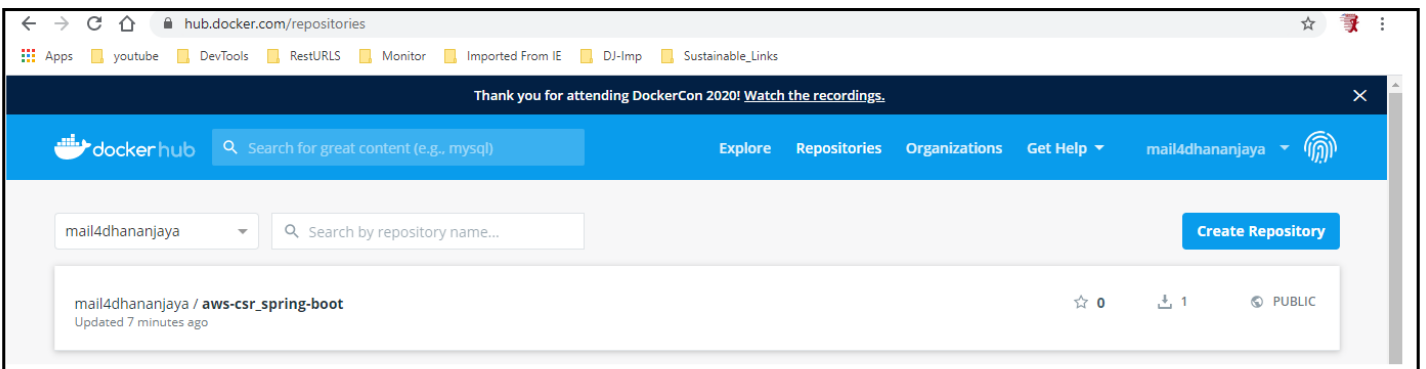
### Run below commands for docker hub

docker tag aws-csr\_spring-boot:latest mail4dhananjaya/aws-csr\_spring-boot:latest

docker push mail4dhananjaya/aws-csr\_spring-boot:latest

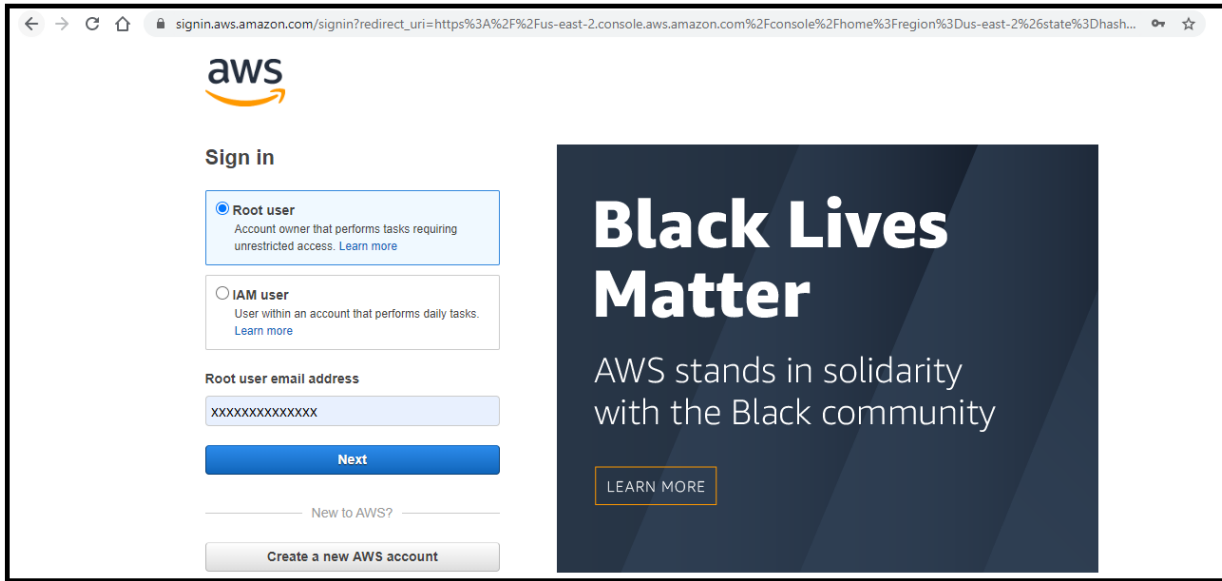
```
E:\Project\Java_Projects\aws_csr_spring-boot\aws_csr_spring-boot>docker push mail4dhananjaya/aws-csr_spring-boot:latest
The push refers to repository [docker.io/mail4dhananjaya/aws-csr_spring-boot]
668a9a23fd92: Pushed
35c20f26d188: Pushed
c3fe59dd9556: Pushed
6ed1a81ba5b6: Pushed
a3483ce177ce: Pushed
ce6c8756685b: Pushed
30339f20ced0: Pushed
0eb22bfb707d: Pushed
a2ae92ffcd29: Pushed
latest: digest: sha256:b0e30808a3e72cefca5713a42b18522d3e338d5033386911f8673c2eda758f1d size: 2212

E:\Project\Java_Projects\aws_csr_spring-boot\aws_csr_spring-boot>
```



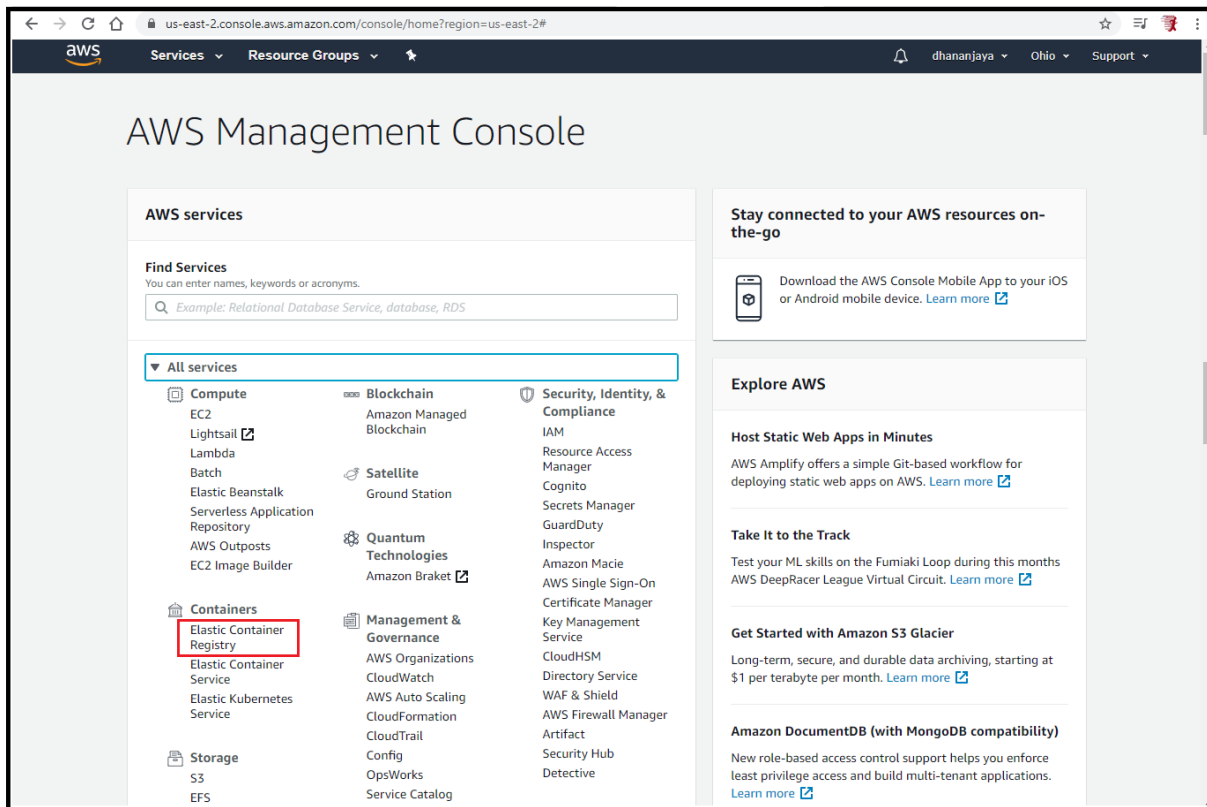
## How to push image to Amazon ECR [Elastic Container Registry]

Login to AWS [<https://console.aws.amazon.com/console/home>]



The screenshot shows the AWS sign-in page. On the left, there's a 'Sign in' section with two options: 'Root user' (selected) and 'IAM user'. Below these is a field for 'Root user email address' with placeholder text 'XXXXXXXXXXXX'. A blue 'Next' button is below the field. At the bottom, there's a link 'New to AWS?' and a button 'Create a new AWS account'. On the right, there's a large dark blue banner with the text 'Black Lives Matter' in large white font, followed by 'AWS stands in solidarity with the Black community' in smaller white font. A yellow 'LEARN MORE' button is at the bottom of the banner.

## Select Elastic Container Registry [ECR]



The screenshot shows the AWS Management Console. The top navigation bar includes the AWS logo, 'Services', 'Resource Groups', and user information. The main header is 'AWS Management Console'. Below this, there's a 'Find Services' section with a search bar. A list of services is displayed, categorized by icons. The 'Containers' category is expanded, and 'Elastic Container Registry' is highlighted with a red box. Other categories include Compute, Blockchain, Satellite, Quantum, Management & Governance, Storage, Security, Identity, & Compliance, and AWS Amplify. On the right, there's a 'Stay connected to your AWS resources on-the-go' section with a mobile app download link. Below that is an 'Explore AWS' section with links to 'Host Static Web Apps in Minutes', 'Take It to the Track', 'Get Started with Amazon S3 Glacier', and 'Amazon DocumentDB (with MongoDB compatibility)'.

## Create a repository

The screenshot shows the AWS Console home page. The top navigation bar includes the AWS logo, 'Services', 'Resource Groups', and user information. The main content area features a large banner for 'Amazon Elastic Container Registry' with the text 'Easily store, manage, and deploy container images'. A 'Create a repository' button is highlighted with a red box.

# Amazon Elastic Container Registry

Easily store, manage, and deploy container images

Amazon Elastic Container Registry (ECR) is a fully-managed container registry that makes it easy for developers to store, manage, and deploy container images.

Create a repository

Get Started

The screenshot shows the 'Create repository' page in the AWS Console. The breadcrumb navigation is 'ECR > Repositories > Create repository'. The 'Repository access and tags' section contains a 'Repository name' field with the text 'xxxxxxxxxxxx.dkr.ecr.us-east-2.amazonaws.com/ realspeed' highlighted by a red box. Below the field, there is a note: 'A namespace can be included with your repository name (e.g. namespace/repo-name)'. The 'Tag immutability' section has a 'Disabled' radio button selected.

## Create repository

### Repository access and tags

Repository name

xxxxxxxxxxxx.dkr.ecr.us-east-2.amazonaws.com/ realspeed

A namespace can be included with your repository name (e.g. namespace/repo-name).

Tag immutability

Enable tag immutability to prevent image tags from being overwritten by subsequent image pushes using the same tag. Disable tag immutability to allow image tags to be overwritten.

☐ Disabled

The screenshot shows the 'Repositories' page in the AWS Console. A green banner at the top indicates 'Successfully created repository realspeed' with a 'View push commands' button highlighted by a red box. The left sidebar shows the 'Amazon ECR' section with 'Repositories' selected. The main content area displays a table of repositories.

## Amazon Container Services

- Amazon ECS
  - Clusters
  - Task definitions
- Amazon EKS
  - Clusters
- Amazon ECR
  - Repositories

### Repositories (1)

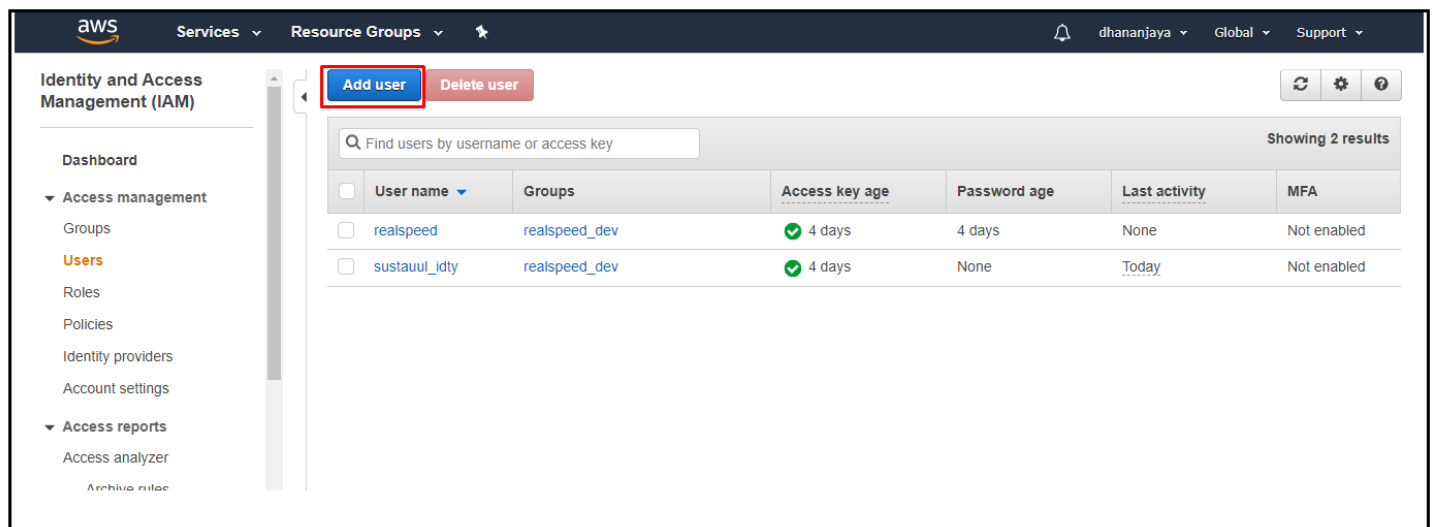
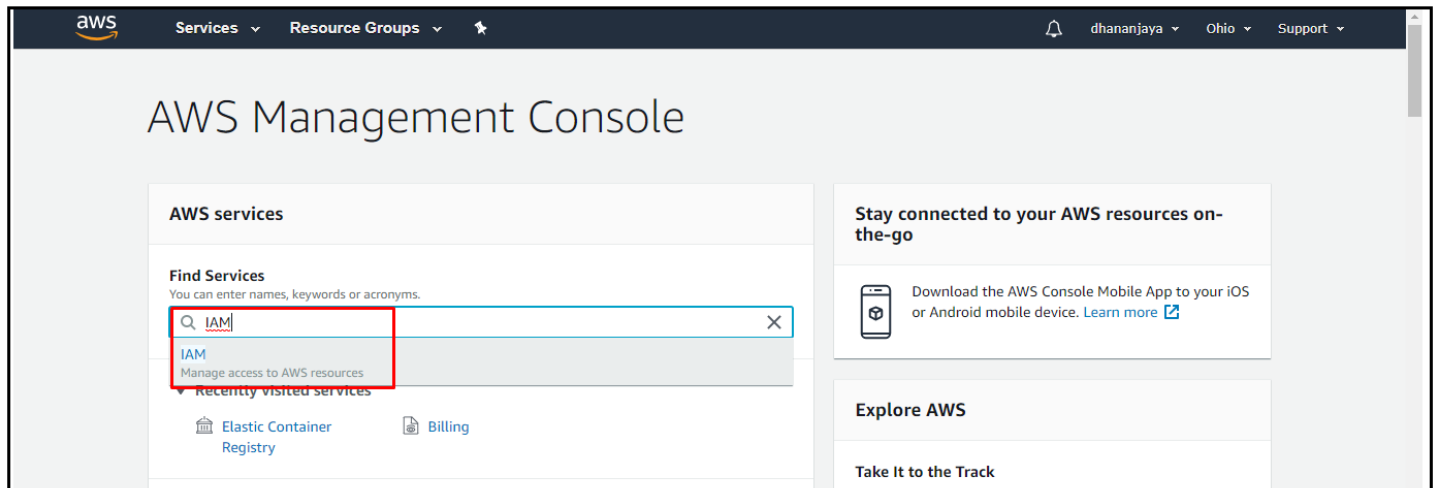
Find repositories

| Repository name | URI  | Created at            | Tag immutability | Scan on push |
|-----------------|--|-----------------------|------------------|--------------|
| realspeed       | 079371596533.dkr.ecr.us-east-2.amazonaws.com/realspeed | 06/26/20, 10:02:41 PM | Disabled         | Disabled     |

## Run below commands for aws repository, But to run below command create IAM user

1. `aws ecr get-login-password --region us-east-2 | docker login --username AWS --password-stdin 079371596533.dkr.ecr.us-east-2.amazonaws.com`
2. `docker tag realspeed:latest 079371596533.dkr.ecr.us-east-2.amazonaws.com/realspeed:latest`
3. `docker push 079371596533.dkr.ecr.us-east-2.amazonaws.com/realspeed:latest`

## How to create IAM user in AWS



aws

Services ▾ Resource Groups ▾ ☆

🔔 dhananjaya ▾ Global ▾ Support ▾

Add user

1 2 3 4 5

Set user details

You can add multiple users at once with the same access type and permissions. [Learn more](#)

User name\*

dhananjaya

+ Add another user

Select AWS access type

Select how these users will access AWS. Access keys and autogenerated passwords are provided in the last step. [Learn more](#)

Access type\*

☒ Programmatic access

Enables an **access key ID** and **secret access key** for the AWS API, CLI, SDK, and other development tools.

☒ AWS Management Console access

Enables a **password** that allows users to sign-in to the AWS Management Console.

Console password\*

☐ Autogenerated password

☒ Custom password

.....

☐ Show password

Require password reset

☒ User must create a new password at next sign-in

Users automatically get the [IAMUserChangePassword](#) policy to allow them to change their own password.

\* Required

Cancel

Next: Permissions

aws

Services ▾ Resource Groups ▾ ☆

🔔 dhananjaya ▾ Global ▾ Support ▾

Add user

1 2 3 4 5

Set permissions

Add user to group

Copy permissions from existing user

Attach existing policies directly

Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. [Learn more](#)

Add user to group

Create group Refresh

Search

Showing 1 result

| Group ▾                                | Attached policies                        |
|--|--|
| <input type="checkbox"/> realspeed_dev | <a href="#">IAMFullAccess</a> and 1 more |

Cancel Previous Next: Tags

## Create Group and add user to this group

Creation time 2020-06-26 22:39 UTC+0530

Permissions Groups (1) Tags Security credentials Access Advisor

▼ Permissions policies (3 policies applied)

[Add permissions](#) [+ Add inline policy](#)

| Policy name ▼                    | Policy type ▼                                       |   |
|----------------------------------|---|---|
| Attached directly                |   |   |
| ▶  IAMUserChangePassword         | AWS managed policy                                  | ✕ |
| Attached from group              |   |   |
| ▶  IAMFullAccess                 | AWS managed policy from group dhananjaya_full_admin | ✕ |
| ▶  AdministratorAccess           | AWS managed policy from group dhananjaya_full_admin | ✕ |
| ▶ Permissions boundary (not set) |   |   |

## Add user

1 2 3 4 5

### Review

Review your choices. After you create the user, you can view and download the autogenerated password and access key.

#### User details

|                        |   |
|------------------------|---|
| User name              | dhananjaya  |
| AWS access type        | Programmatic access and AWS Management Console access |
| Console password type  | Custom  |
| Require password reset | Yes   |
| Permissions boundary   | Permissions boundary is not set                       |

#### Permissions summary

The user shown above will be added to the following groups.

[Cancel](#) [Previous](#) [Create user](#)

aws Services ▼ Resource Groups ▼

dhananjaya ▼ Global ▼ Support ▼

## Add user

1 2 3 4 5

✓ **Success**

You successfully created the users shown below. You can view and download user security credentials. You can also email users instructions for signing in to the AWS Management Console. This is the last time these credentials will be available to download. However, you can create new credentials at any time.

Users with AWS Management Console access can sign-in at: <https://079371596533.signin.aws.amazon.com/console>

[Download .csv](#)

| User           | Access key ID         | Secret access key                       | Email login instructions   |
|----------------|-----------------------|---|----------------------------|
| ▶ ✓ dhananjaya | AKIARE6XKOLZ7S4FCZINC | TnqP6RIU46SKYATU5JSRN-IGkEUwdeQzaHdpFay | <a href="#">Send email</a> |

Install AWS CLI : <https://docs.aws.amazon.com/AmazonECR/latest/userguide/getting-started-cli.html>

Run command **aws configure** [set user name and password to aws cli]

```
E:\Project\Java_Projects\aws_csr_spring-boot\aws_csr_spring-boot>aws configure
AWS Access Key ID [*****R40U]: *****
AWS Secret Access Key [*****j3oZ]: *****
Default region name [us-east-2]: us-east-2
Default output format [json]: json

E:\Project\Java_Projects\aws_csr_spring-boot\aws_csr_spring-boot>
```

```
aws ecr get-login-password --region us-east-2 | docker login --username AWS --password-stdin
079371596533.dkr.ecr.us-east-2.amazonaws.com
```

```
E:\Project\Java_Projects\aws_csr_spring-boot\aws_csr_spring-boot>aws ecr get-login-password --region us-east-2 | docker login --username AWS --password-stdin 079371596533.dkr.ecr.us-east-2.amazonaws.com
Login Succeeded
```

docker build -t realspeed .

docker tag realspeed:latest 079371596533.dkr.ecr.us-east-2.amazonaws.com/realspeed:latest

docker push 079371596533.dkr.ecr.us-east-2.amazonaws.com/realspeed:latest

```
E:\Project\Java_Projects\aws_csr_spring-boot\aws_csr_spring-boot>docker push 079371596533.dkr.ecr.us-east-2.amazonaws.com/realspeed:latest
The push refers to repository [079371596533.dkr.ecr.us-east-2.amazonaws.com/realspeed]
668a9a23fd92: Pushing [=====>] 7.275MB/16.5MB
35c20f26d188: Pushed
c3fe59dd9556: Pushing [=>] 9.16MB/351.5MB
6ed1a81ba5b6: Pushed
a3483ce177ce: Pushed
ce6c8756685b: Pushing [=====>] 1.404MB
30339f20ced0: Pushing [=>] 3.832MB/122.6MB
0eb22bfb707d: Pushing [=====>] 7.833MB/44.31MB
a2ae92ffcd29: Waiting
```

The screenshot shows the AWS Management Console interface for the Amazon ECR 'real speed' repository. The left sidebar contains navigation links for Amazon Container Services, Amazon ECS, Amazon EKS, and Amazon ECR. The main content area displays the repository details, including a search bar and a table of images. The table lists one image tag, 'latest', with its URI, push time, digest, and size.

| Image tag | Image URI   | Pushed at             | Digest              | Size (MB) |
|-----------|---|-----------------------|---------------------|-----------|
| latest    | 079371596533.dkr.ecr.us-east-2.amazonaws.com/realspeed:latest | 06/26/20, 11:09:44 PM | sha256:b0e30808a... | 262.1     |



Now Image is pushed to aws repository.

## Go to Amazon ECS service

The screenshot shows the AWS Management Console interface. At the top, the navigation bar includes the AWS logo, 'Services', 'Resource Groups', and user information. The main heading is 'AWS Management Console'. Below this, there's a 'Find Services' section with a search bar containing 'ECS'. The search results show 'Elastic Container Service' highlighted with a red box. To the right, there are promotional banners for staying connected to AWS resources and exploring AWS services. The left sidebar shows a list of services, with 'aws\_csr\_spring-boot.zip' selected.

The screenshot shows the 'Task Definitions' page in the Amazon ECS console. The left sidebar lists navigation options like 'Amazon ECS Clusters', 'Task Definitions', 'Account Settings', 'Amazon EKS Clusters', 'Amazon ECR Repositories', 'AWS Marketplace', 'Discover software', and 'Subscriptions'. The main content area has a heading 'Task Definitions' and a description. Below this, there's a 'Create new Task Definition' button highlighted with a red box. To the right of this button are 'Create new revision' and 'Actions' buttons. A status bar shows 'Status: ACTIVE INACTIVE'. Below this is a table with columns for 'Task Definition' and 'Latest revision status'. The table is currently empty.

The screenshot shows the 'Create new Task Definition' wizard, specifically Step 1: 'Select launch type compatibility'. The left sidebar shows the progress: 'Step 1: Select launch type compatibility' and 'Step 2: Configure task and container definitions'. The main content area has a heading 'Select launch type compatibility' and a description. Below this, there are two options: 'FARGATE' and 'EC2'. The 'FARGATE' option is highlighted with a red box. The 'FARGATE' option includes a description: 'Price based on task size', 'Requires network mode awsvpc', and 'AWS-managed infrastructure, no Amazon EC2 instances to manage'. The 'EC2' option includes a description: 'Price based on resource usage', 'Multiple network modes available', and 'Self-managed infrastructure using Amazon EC2 instances'.

# Create new Task Definition

- Step 1: Select launch type compatibility
- Step 2: Configure task and container definitions

## Configure task and container definitions

A task definition specifies which containers are included in your task and how they interact with each other. You can also specify data volumes for your containers to use. [Learn more](#)

Task Definition Name\*

docker-spring-boot

Requires Compatibilities\*

FARGATE

Task Role

None

Optional IAM role that tasks can use to make API requests to authorized AWS services. Create an Amazon Elastic Container Service Task Role in the [IAM Console](#)

Task execution role

ecsTaskExecutionRole

Task size

The task size allows you to specify a fixed size for your task. Task size is required for tasks using the Fargate launch type and is optional for the EC2 launch type. Container level memory settings are optional when task size is set. Task size is not supported for Windows containers.

Task memory (GB)

0.5GB

The valid memory range for 0.25 vCPU is: 0.5GB - 2GB.

Task CPU (vCPU)

0.25 vCPU

The valid CPU for 0.5 GB memory is: 0.25 vCPU

Task memory maximum allocation for container memory reservation

0

512 shared of 512 MiB

Task CPU maximum allocation for containers

0

256 shared of 256 CPU units

Container Definitions

## Add container

### Standard

Container name\*

docker-spring-boot

Image\*

079371596533.dkr.ecr.us-east-2.amazonaws.com/realspeed

Private repository authentication\*

Memory Limits (MiB)

Soft limit

128

+ Add Hard limit

## Add Port to container

Add container

Port mappings

| Container port | Protocol |
|----------------|----------|
| 8080           | tcp      |
| 80             | tcp      |

+ Add port mapping

Host port mappings are not valid when the network mode for a task definition is host or awsvpc. To specify different host and container port mappings, choose the Bridge network mode.

Advanced container configuration

HEALTHCHECK

Command

CMD-SHELL, curl -f http://localhost/ || exit 1

\* Required

Cancel

Add

Now task is ready.

## Create a cluster

aws

Services

Resource Groups

dhnanjaya

Ohio

Support

Amazon ECS

Clusters

Task Definitions

Account Settings

Amazon EKS

Clusters

Amazon ECR

Repositories

AWS Marketplace

Discover software

Subscriptions

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

4 loaded of 4 clusters

Last updated on June 27, 2020 12:11:56 AM (0m ago)

Filter in this page

| Cluster name | CloudWatch monitori... | Services | Running tasks | Pending tasks | Container instances |
|--------------|------------------------|----------|---------------|---------------|---------------------|
|--------------|------------------------|----------|---------------|---------------|---------------------|



Amazon ECS

Clusters

Task Definitions

Account Settings

Amazon EKS

Clusters

Amazon ECR

Repositories

AWS Marketplace

Discover software

Subscriptions

## Run Task

Select the cluster to run your task definition on and the number of copies of that task to run. To apply container overrides or target particular container instances, click Advanced Options.

Launch type ☒ FARGATE ☐ EC2 ⓘ[Switch to capacity provider strategy](#) ⓘ

Task Definition

Family

docker-spring-boot ▼

Enter a value

Revision

1 (latest) ▼

Platform version

LATEST ▼ ⓘ

Cluster

docker-test ▼

Number of tasks

1

Task Group

## VPC and security groups

VPC and security groups are configurable when your task definition uses the awsvpc network mode.

Cluster VPC\*

vpc-8e77a5e5 (172.31.0.0/16) ▼ ⓘ

Subnets\*

subnet-6686430d ⓘ

(172.31.0.0/20) - us-east-2a

assign ipv6 on creation: Disabled

subnet-d1a43f9d ⓘ

(172.31.32.0/20) - us-east-2c

assign ipv6 on creation: Disabled

Security groups\*

docker-2037

Edit ⓘ

Auto-assign public IP

ENABLED ▼ ⓘ

## Advanced Options



Tagging requires that you opt in to the new ARN and resource ID format.

The IAM user/role has not opted in to the new ARN format. Opt-in to the new format to use this feature. [Manage your opt-in settings.](#)

Cancel

Run Task

Configure security groups

security groups

☐ Select existing security group

Security group name\*

docker-2037

Description

Sat Jun 27 2020 00:13:51 GMT+0530

Inbound rules for security group

| Type        | Protocol | Port range | Source   |                 |
|-------------|----------|------------|----------|-----------------|
| All TCP     | TCP      | 0 - 65535  | Anywhere | 0.0.0.0/0, ::/0 |
| All traffic | All      | 0 - 65535  | Anywhere | 0.0.0.0/0, ::/0 |

+ Add rule

Cancel

Save

Now after save run the task and wait for deployment

ServicesTasksECS InstancesMetricsScheduled TasksTagsCapacity Providers

Run new TaskStopStop AllActions

Last updated on June 27, 2020 12:17:18 AM (0m ago)

Desired task status: RunningStopped

Filter in this page

Launch type ALL

< 1-1 > Page size 50

|                          | Task           | Task definit... | Container i... | Last status ... | Desired sta... | Started By ... | Group           | Launch typ... | Platform ve... |
|--------------------------|----------------|-----------------|----------------|-----------------|----------------|----------------|-----------------|---------------|----------------|
| <input type="checkbox"/> | 600523df-26... | docker-sprin... | --             | RUNNING         | RUNNING        |                | family:docke... | FARGATE       | 1.3.0          |

Run new Task Stop Stop All Actions

Last updated on June 27, 2020 12:17:39 AM (0m ago)



Desired task status: Running Stopped

Filter in this page

Launch type ALL

< 1-1 > Page size 50

| <input type="checkbox"/> | Task           | Task definit... | Container i... | Last status ... | Desired sta... | Started By ... | Group           | Launch typ... | Platform ve... |
|--------------------------|----------------|-----------------|----------------|-----------------|----------------|----------------|-----------------|---------------|----------------|
| <input type="checkbox"/> | 600523df-26... | docker-sprin... | --             | RUNNING         | RUNNING        |                | family:docke... | FARGATE       | 1.3.0          |

AWS Marketplace  
Discover software  
Subscriptions

Group family:docker-spring-boot  
Task role None  
Last status RUNNING  
Desired status RUNNING  
Created at 2020-06-27 00:16:37 +0530  
Started at 2020-06-27 00:17:18 +0530

### Network

Network mode awsvpc  
ENI id eni-01838b93135b8b10c  
Subnet Id subnet-d1a43f9d  
Private IP 172.31.42.229  
Public IP 3.134.86.175  
Mac address 0a:c7:80:66:56:40

### Containers

Last updated on June 27, 2020 12:18:00 AM (0m ago)



| Name | Container Runtime | St | Image | Image Digest | C | H | E | R |
|------|-------------------|----|-------|--------------|---|---|---|---|
|------|-------------------|----|-------|--------------|---|---|---|---|

← → ↻ 🏠 ⓘ Not secure | 3.134.86.175:8080

Apps youtube DevTools RestURLS Monitor Imported From IE DJ-Im

Hello DJ