ECS Lab

ECS-Fargate

* Login to AWS Console
* Search for ECS
* Click on Get Started
  + Under Container Definition select nginx
  + Click on Next at bottom right of the page
  + You will get Define Your Service Page
    - Click on Next at bottom right of the page
  + Configure your Cluster Page
    - Click on Next at bottom right of the page
  + Review Page
    - Click on Create at the bottom right of the page
  + Once Preparation of Services is Completed
    - Click on View Service
    - It opens the Cluster Page
      * Click on Tasks Tab 🡪 Click on Task name
      * Copy the Public IP and paste it in new Browser Tab
    - You can see nginx Home page on Browser
  + Now Come back to the Cluster Page
    - Select the Service and Delete
    - Finally, delete the Cluster
  + Now come to the Task definition
    - Click on Task Definition Name
      * Go to Actions 🡪 Click on DeRegister

If you wanted to create two tasks (i.e. two containers) then select number of desired tasks to 2 in Edit Service and add Load Balancer

Once your Cluster is created then Tasks along with Load Balancer will be created

Use Load Balancer DNS Name to access the application running in either container

**ECS Lab – 1 (EC2 Hosted)**

1. From left menu 🡪 Click on Clusters
2. Select EC2 Linux + Networking 🡪 Click on **Next Step**
   1. Provide Cluster Name
   2. Provisioning Method – On-Demand Instance
   3. EC2 Instance Type -- t2.micro
   4. Number of Instances 1 or 2
   5. Select EC2 AMI ID
   6. Select Key Pair
   7. Select VPC, Subnets, Security Group
   8. Click on **Create**
3. Cluster will get Created with 2 EC2 Instances and No containers running in EC2 Instances at this moment
4. Now Let us create the Task Definitions
   1. Click on Task Definition from Left Menu 🡪 Create Task Definition
   2. Select EC2 and Click on **Next Step**
      1. Provide Task Definition Name
      2. Network mode: Bridge
      3. One Task can have more than 1 container
      4. Task Size to provide memory and Cpu
      5. Container Definition
         1. Provide Container Name
         2. Image – nginx:latest
         3. Port Mappings (80:80)
         4. Provide Memory Limits
         5. Click on Add
      6. Now Click on Create
5. Now Go to Clusters 🡪 Select the Cluster we created
   1. Select the Tasks Tab
   2. Click on Run New Task
      1. Select Launch Type as EC2
      2. Select Task Definition
      3. Select Cluster
      4. Number of Tasks (It cannot be more than as we created two EC2 instances because of Bridge Network)
      5. Click on Run Task
6. Now the Tasks should be Running
7. Copy Public IP of EC2 Instances and access it from Browser
8. You can see nginx running

**ECS Lab – 2 (EC2 Hosted)**

Dynamic port Mapping

* In Container Definition
  + Give 0 to Host Port and 80 to Container Port
  + Create a Service with the Task Definition and number of Tasks
  + Associate with Load Balancer (Need to Create Load Balancer)
  + Create New Target Group
  + Setup Auto Scaling
* Task Definition is nothing but definition of your Container
* Network Mode:
  + Bridge