Assignment 5

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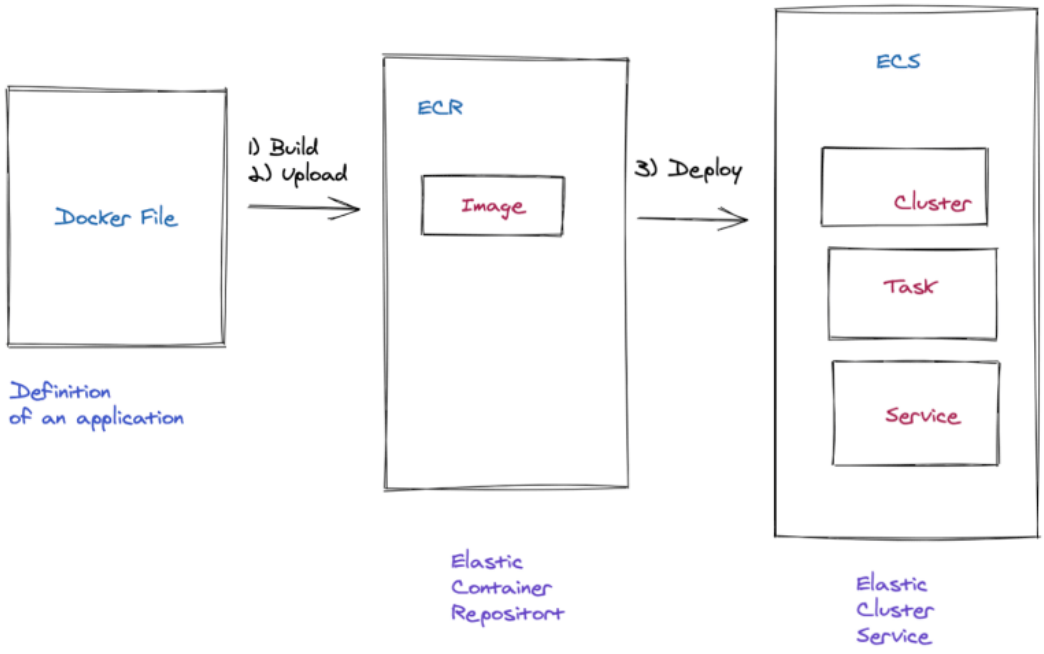
Deploying Docker containers on ECS



Creating Docker Image on ec2 instance:

sudo yum update

aws configure list

mkdir project

sudo yum install docker

sudo systemctl status docker

sudo systemctl enable docker

sudo systemctl start dockerz

sudo vi package.json

```
{
  "name": "docker_web_app",
  "version": "1.0.0",
  "description": "Node.js on Docker",
  "main": "server.js",
  "scripts": {
    "start": "node server.js"
  },
  "dependencies": {
    "express": "^4.17.1"
  }
}
```

sudo vi server.js

```
"use strict"

const express = require("express")

// Constants
const PORT = 8080
const HOST = "0.0.0.0"

// App
const app = express()
app.get("/", (req, res) => {
  res.send(`Hello World - ${new Date().toISOString()}`)
})

app.listen(PORT, HOST)
console.log(`Running on http://${HOST}:${PORT}`)
```

sudo vi Dockerfile

```
FROM node:14
# Create app directory
WORKDIR /usr/src/app
COPY package*.json ./

RUN npm install
COPY . .

EXPOSE 8080

CMD [ "node", "server.js" ]
```

sudo docker build -t node-web-app .

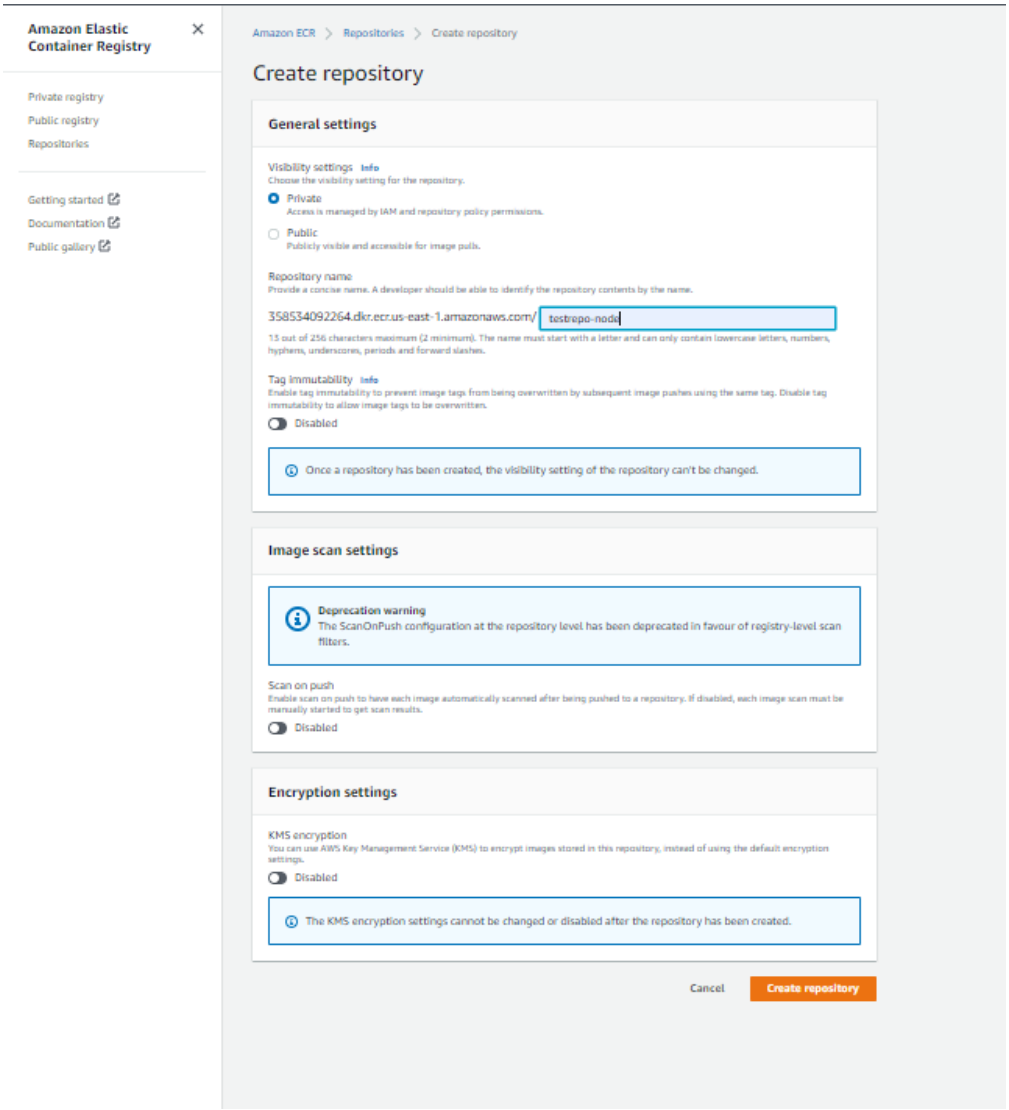
sudo docker run -p 80:8080 -d node-web-app

curl http://localhost:80

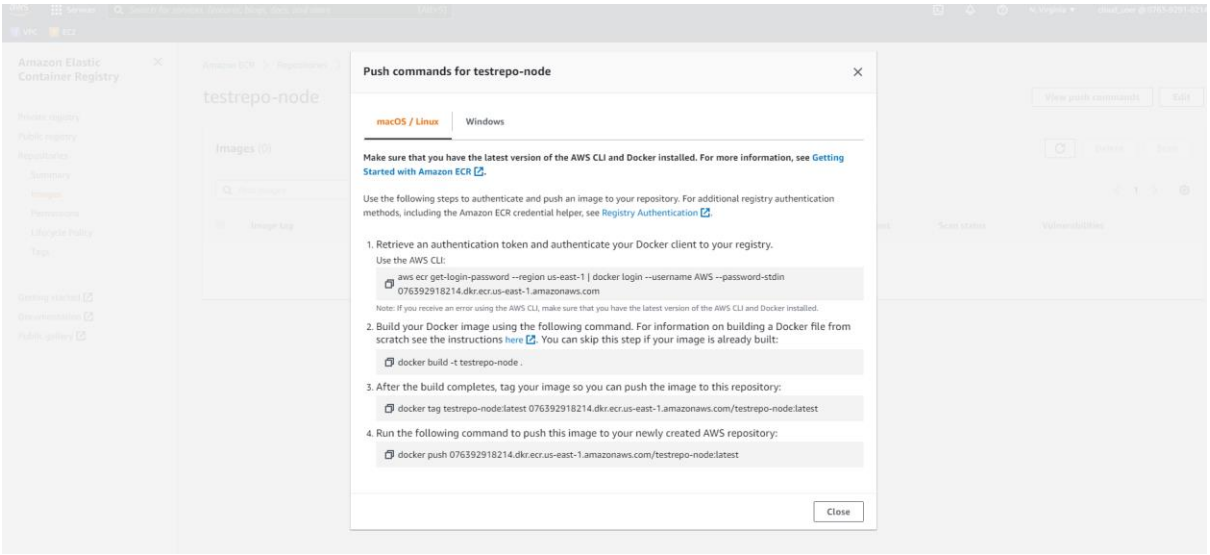
Result:

```
Hello World - 2021-02-11T05:06:12.739Z
```

Create your Amazon ECR in the AWS Console:



Viewing pushing Command



Uploading image using these command.

Copy the image URI: we need to keep this to create a task definition for the following steps.

Create an ECS Cluster

Go to the ECS home page and click on the create cluster button:

Choose EC2 Linux + Networking and then click next:

Then enter the following information:

- name of the cluster: ecs01
- EC2 instance type: t3-micro
- Number of instances: 1

Then choose:

- Default VPC
- Auto assign IP: Enabled
- Security group: default
- Choose one of the subnet

Create a new Task definition

Click on new Task definition

Choose EC2

Then next

Choose NodeWebAppTask for the name of the task definition.

Enter 128for memory size.

Click Add Container:

Add the name of the container: NodeWebApp

Set the image URI that we have saved to add the end of the add image step

Set the port mappings 80:8080

Click create.

Create Application load Balancer attach it to service and check the DNS:

http://my-alb-1205436972.us-east-1.elb.amazonaws.com/

It is working 😊