Assignment-11

Rockstar Application:

--> Dotnet build

```
harshavardhani@harshavardhanis-MacBook-Air rockstar % dotnet build
MSBuild version 17.3.1+2badb37d1 for .NET
  Determining projects to restore...
  All projects are up-to-date for restore.
  newproj -> /Users/harshavardhani/Downloads/rockstar/bin/Debug/net5.0/newproj.dll
  newproj -> /Users/harshavardhani/Downloads/rockstar/bin/Debug/net5.0/newproj.Views.dll

Build succeeded.
    0 Warning(s)
    0 Error(s)

Time Elapsed 00:00:00.85
harshavardhani@harshavardhanis-MacBook-Air rockstar % dotnet run
Building...
It was not possible to find any compatible framework version
The framework 'Microsoft.AspNetCore.App', version '5.0.0' was not found.
  - The following frameworks were found:
      3.1.29 at [/usr/local/share/dotnet/x64/shared/Microsoft.AspNetCore.App]

You can resolve the problem by installing the specified framework and/or SDK.

The specified framework can be found at:
  - https://aka.ms/dotnet-core-applaunch?framework=Microsoft.AspNetCore.App&framework_version=5.0.0&arch=x64&rid=osx.11.1-x64
harshavardhani@harshavardhanis-MacBook-Air rockstar % dotnet build
MSBuild version 17.3.1+2badb37d1 for .NET
  Determining projects to restore...
  Restored /Users/harshavardhani/Downloads/rockstar/newproj.csproj (in 54 ms).
  newproj -> /Users/harshavardhani/Downloads/rockstar/bin/Debug/net6.0/newproj.dll

Build succeeded.
    0 Warning(s)
    0 Error(s)

Time Elapsed 00:00:02.49
```

--> Dotnet run

```
harshavardhani@harshavardhanis-MacBook-Air rockstar % dotnet run
Building...
info: Microsoft.Hosting.Lifetime[14]
      Now listening on: https://localhost:5001
info: Microsoft.Hosting.Lifetime[14]
      Now listening on: http://localhost:5000
info: Microsoft.Hosting.Lifetime[0]
      Application started. Press Ctrl+C to shut down.
info: Microsoft.Hosting.Lifetime[0]
      Hosting environment: Development
info: Microsoft.Hosting.Lifetime[0]
      Content root path: /Users/harshavardhani/Downloads/rockstar
^Cinfo: Microsoft.Hosting.Lifetime[0]
      Application is shutting down...
```

--> Docker build

```
harshavardhani@harshavardhanis-MacBook-Air rockstar % docker build -f Dockerfile -t harsharachagiri02/rockstar .
[+] Building 33.3s (11/14)
 => [internal] load build definition from Dockerfile
 => => transferring dockerfile: 532B
 => [internal] load .dockerignore
 => => transferring context: 2B
 => [internal] load metadata for mcr.microsoft.com/dotnet/aspnet:5.0
 => [internal] load metadata for mcr.microsoft.com/dotnet/sdk:5.0
 => [build-env 1/6] FROM mcr.microsoft.com/dotnet/sdk:5.0@sha256:3ff465d940de3e2c727794d92fd7bb649c498d4abd91bc9213ea7831e
 => => resolve mcr.microsoft.com/dotnet/sdk:5.0@sha256:3ff465d940de3e2c727794d92fd7bb649c498d4abd91bc9213ea7831ebf01f1e
 => => sha256:c6285ef146c05fe066cea47dba164efb5af3d27fd5f14e97e55dc2f47aea47c5 7.17kB / 7.17kB
 => => sha256:4931fb8ba4223cb35034141162105ee5482122692b2931eb69eec912ce64606d 25.91MB / 25.91MB
 => => sha256:11110247856357f49911ca38159f7a7f959abb4d06d4aeb538098bc81bbffad9 16.92MB / 16.92MB
 => => sha256:9c90da79cfd69dbfb058337044ee19462013f716243a61d23487f3b61154eb2e 29.61MB / 29.61MB
 => => sha256:3ff465d940de3e2c727794d92fd7bb649c498d4abd91bc9213ea7831ebf01f1e 2.17kB / 2.17kB
 => => sha256:35ee14b8ce07786b37e5f49aa5a9b9682b7405ca4cdb03323a81bedc5c8a4826 2.01kB / 2.01kB
 => => sha256:2950656d8b04d76854ed30958203e09ccc9825506b6feecc2492342c1f1c2e67 154B / 154B
 => => sha256:aab1139e56fde09193653f89ea51a75b1c8a0d64f10437e774f87931e54078f6 8.34MB / 8.34MB
```

--> Docker push

```
harshavardhani@harshavardhanis-MacBook-Air rockstar % docker push harsharachagiri02/rockstar
Using default tag: latest
The push refers to repository [docker.io/harsharachagiri02/rockstar]
8fc7212d4978: Pushed
cf8d3447bb59: Pushed
3710ffcb49cd: Pushed
ad02b0c87d63: Pushed
7ebf29561063: Pushed
6dbc8608d026: Pushed
acef1b1c001e: Pushed
latest: digest: sha256:d5b073ebd6405222a13779f3fc6c43d8aa3077df87465fee6d09184704ea5c27 size: 1789
```

--> Docker run

```
harshavardhani@harshavardhanis-MacBook-Air rockstar % docker run -p 8014:5001 harsharachagiri02/rockstar
warn: Microsoft.AspNetCore.DataProtection.Repositories.FileSystemXmlRepository[60]
      Storing keys in a directory '/root/.aspnet/DataProtection-Keys' that may not be persisted outside of the container. Protecte
d data will be unavailable when container is destroyed.
warn: Microsoft.AspNetCore.DataProtection.KeyManagement.XmlKeyManager[35]
      No XML encryptor configured. Key {b112e122-b7c0-4a7a-a4af-684da74ed6ca} may be persisted to storage in unencrypted form.
info: Microsoft.Hosting.Lifetime[14]
      Now listening on: http://[::]:80
info: Microsoft.Hosting.Lifetime[0]
      Application started. Press Ctrl+C to shut down.
info: Microsoft.Hosting.Lifetime[0]
      Hosting environment: Production
info: Microsoft.Hosting.Lifetime[0]
      Content root path: /app
^Cinfo: Microsoft.Hosting.Lifetime[0]
      Application is shutting down...
```
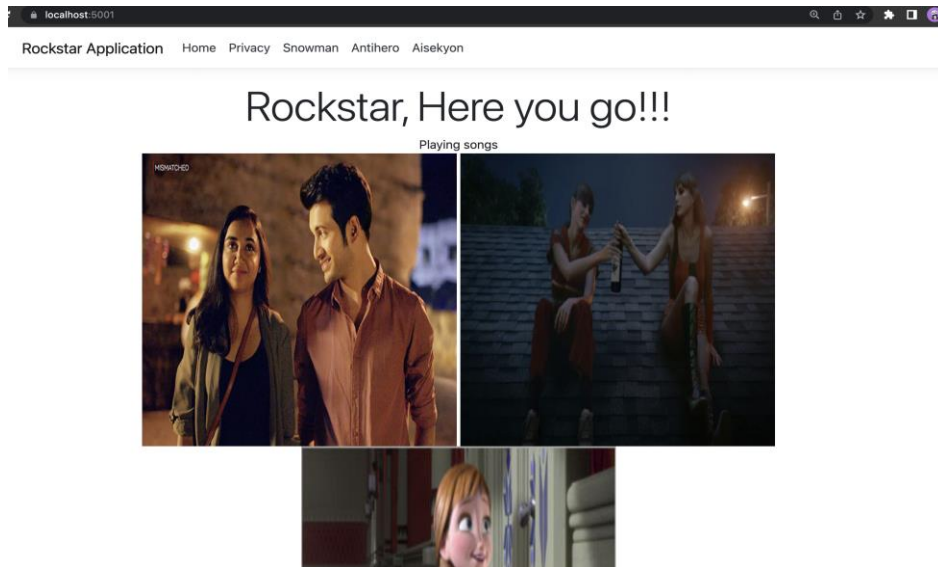
--> DockerHub
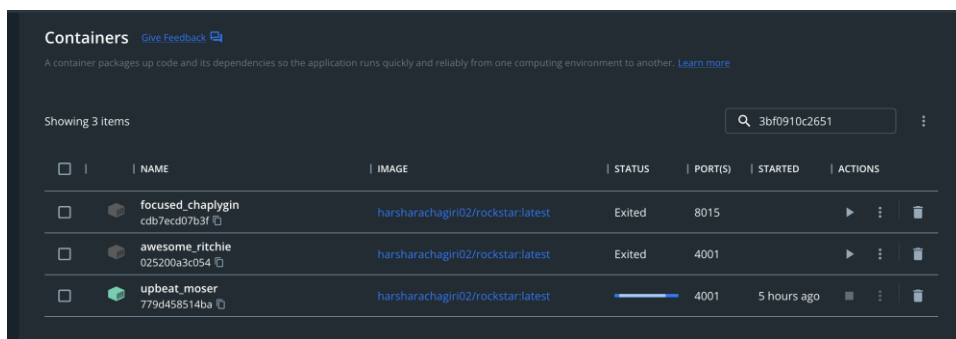
--> DockerHub rockstar image
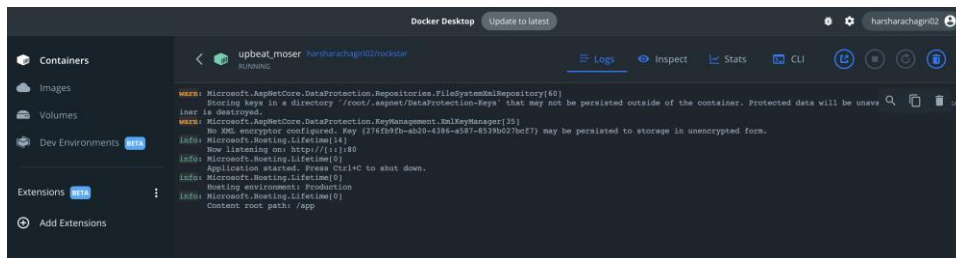
--> Dotnet application having 3 lyrics

--> Terraform apply


```
Note: You didn't use the -out option to save this plan, so Terraform can't guarantee to take exactly these
actions if you run "terraform apply" now.
harshavardhani@harshavardhanis-MacBook-Air tr-aws % terraform apply
data.aws_region.current: Reading...
data.aws_availability_zones.available: Reading...
data.aws_region.current: Read complete after 0s [id=us-west-2]
data.aws_availability_zones.available: Read complete after 1s [id=us-west-2]

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated
with the following symbols:
  + create
 <= read (data resources)

Terraform will perform the following actions:
```



```
aws_autoscaling_group.demo: Still creating... [20s elapsed]
aws_autoscaling_group.demo: Creation complete after 28s [id=terraform-eks-demo]

Apply complete! Resources: 24 added, 0 changed, 0 destroyed.

Outputs:

config_map_aws_auth = <<EOT


apiVersion: v1
kind: ConfigMap
metadata:
  name: aws-auth
  namespace: kube-system
data:
  mapRoles: |
    - rolearn: arn:aws:iam::339604974571:role/terraform-eks-demo-node
      username: system:node:{{EC2PrivateDNSName}}
      groups:
        - system:bootstrappers
        - system:nodes
```
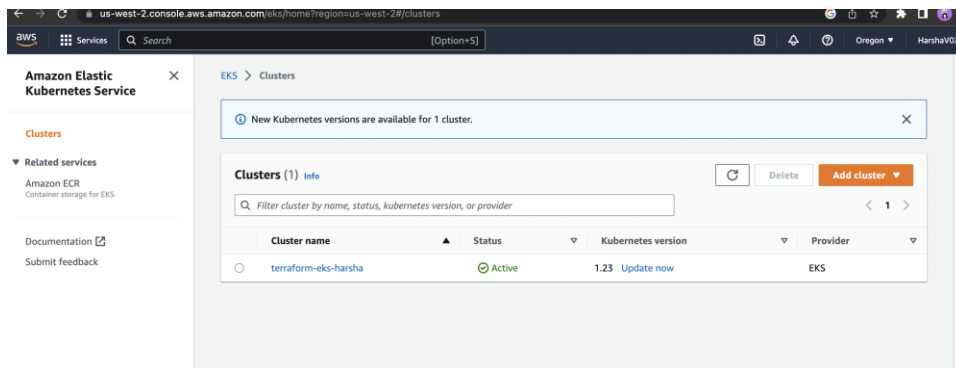
--> AWS cluster

--> config-map-aws-auth.yml

```
harshavardhani@harshavardhanis-MacBook-Air tr-aws % terraform output kubeconfig > ~/.kube/config-terraform-eks-ha
rsha
harshavardhani@harshavardhanis-MacBook-Air tr-aws % cp ~/.kube/config-terraform-eks-demo ~/.kube/config
harshavardhani@harshavardhanis-MacBook-Air tr-aws % cp ~/.kube/config-terraform-eks-harsha ~/.kube/config
harshavardhani@harshavardhanis-MacBook-Air tr-aws % terraform output config_map_aws_auth > config-map- aws-auth.y
ml

  Error: Unexpected argument

  The output command expects exactly one argument with the name of an output variable or no arguments to show
  all outputs.


For more help on using this command, run:
  terraform output -help
harshavardhani@harshavardhanis-MacBook-Air tr-aws % terraform output config_map_aws_auth > config-map-aws-auth.ym
l
harshavardhani@harshavardhanis-MacBook-Air tr-aws % terraform output config_map_aws_auth > config-map-aws-auth.ym
```

--> Kubectl apply

```
harshavardhani@harshavardhanis-MacBook-Air tr-aws %  kubectl apply -f config-map-aws-auth.yml
configmap/aws-auth created
```

--> Brew install I-am-authenticator

```
harshavardhani@harshavardhanis-MacBook-Air tr-aws % brew install aws-iam-authenticator
Running `brew update --auto-update`...
==> Auto-updated Homebrew!
Updated 2 taps (hashicorp/tap and homebrew/core).
==> New Formulae
graphqxl                joker              mariadb@10.9          ruff              tut

You have 24 outdated formulae installed.
You can upgrade them with brew upgrade
or list them with brew outdated.

Warning: aws-iam-authenticator 0.5.11 is already installed and up-to-date.
To reinstall 0.5.11, run:
  brew reinstall aws-iam-authenticator
```

--> Terraform output version

```
harshavardhani@harshavardhanis-MacBook-Air tr-aws % terraform output kubeversion
"1.23"
```

--> kubectl get nodes

```
harshavardhani@harshavardhanis-MacBook-Air tr-aws % kubectl get nodes
NAME                                  STATUS   ROLES     AGE    VERSION
ip-10-0-0-197.us-west-2.compute.internal   Ready    <none>    20m    v1.23.13-eks-fb459a0
ip-10-0-1-125.us-west-2.compute.internal   Ready    <none>    20m    v1.23.13-eks-fb459a0
```

--> kubectl create deploy yml file

```
harshavardhani@harshavardhanis-MacBook-Air tr-aws % kubectl create -f rockstar.yml
pod/rockstar created
```

--> kubectl create services yml file

```
harshavardhani@harshavardhanis-MacBook-Air tr-aws % kubectl create -f rockstar_service.yml
service/rockstar created
```

--> kubectl get services

```
harshavardhani@harshavardhanis-MacBook-Air tr-aws % kubectl get services
NAME          TYPE          CLUSTER-IP      EXTERNAL-IP
                PORT(S)        AGE
kubernetes    ClusterIP     172.20.0.1      <none>
                443/TCP        15h
rockstar      LoadBalancer  172.20.54.243   af4f0600c60fe45a6b0ca77273a33fee-854703383.us-west-2
.elb.amazonaws.com   80:31830/TCP   2m33s
```

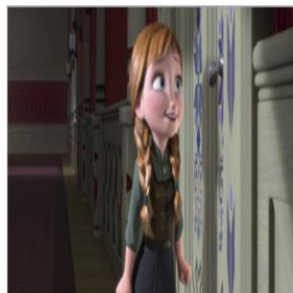--> 3 lyrics

Rockstar Application   Home   Privacy   Snowman   Antihero   Aisekyon

Aisekyon

Jara Jara Abhi Baatein Shuru Hi Hui
Magar Khush Hu Main Aaj Kal
Hmm Abhi Talak Meri Sham Toh Aisi Na Thi
Jaise Halki Hai Aaj Kal
Kya Hai Ye Maajra
Kuch To Hai Mil Raha
Ye Fir Main Hi Bas Mann Hi Mann

Rockstar Application   Home   Privacy   Snowman   Antihero   Aisekyon

Antihero

I have this thing where I get older but just never wiser
Midnights become my afternoons
When my depression works the graveyard shift
All of the people I've ghosted stand there in the room
I should not be left to my own devices
They come with prices and vices