

Emays Manual Deployment

For the sake of cost saving, I have changed the deployment to a manual deployment since we can reduce the number of AWS resources in the manual deployment process.

At this moment, Emays application has been disabled and only the website is being running in an AWS EC2 instance. Besides that, we have a ECR for saving the deployment artifacts.

Since it is a monolithic app (Website + App) we have to run a docker orchestration for the website sadly.

So this document is for explaining the manual deployment process of Emays.

Step #1

You should have a IAM user account to connect to the AWS EC2. So ask for a AWS IAM user account from a senior developer. Then you have to setup AWS CLI environment in your machine. <https://docs.aws.amazon.com/signin/latest/userguide/command-line-sign-in.html>

Step #2

Initiate a SSH connection to the EC2 and route to the /home/ubuntu/helm-chart directory.

```
> ssh -i EmaysEC2.pem ubuntu@ec2-34-248-126-112.eu-west-1.compute.amazonaws.com
> cd /home/ubuntu/helm-chart
```

Step #3

Update the helm value.yaml file tags → Emays in the EC2 to what ever the new tag of the artifact.

```
> nano value.yaml
```

Step #4

On a new terminal instance build the docker image that you want to deploy in your local machine and upload it to the ECR.

```
> docker build .
> docker tag <image_id> 111018148131.dkr.ecr.eu-west-1.amazonaws.com/emays:<next-tag>
> docker push 111018148131.dkr.ecr.eu-west-1.amazonaws.com/emays:<next-tag>
```

Step #5

Go back to the SSH connection and pull the image to the EC2 local docker environment.

```
> aws ecr get-login-password --region eu-west-1 | sudo docker login --username AWS --password-stdin 111018148131.dkr.ecr.eu-west-1.amazonaws.com
> sudo docker pull 111018148131.dkr.ecr.eu-west-1.amazonaws.com/emays:<next-tag>
```

Step #6

Push it to the EC2 Microk8s docker.

```
> sudo docker tag 30da44ffd576 localhost:32000/<new-tag>
> sudo docker push localhost:32000/emays:<new-tag>
```

Step #7

Make sure you are still in the helm-chart directory. If so run the helm upgrade command.

```
> export KUBERNETES_MASTER=https://127.0.0.1:16443
> export KUBECONFIG=/var/snap/microk8s/current/credentials/client.config
> helm upgrade emays .
```

Step #8

Check whether the K8 pods are healthy or not.

```
> alias kubectl="microk8s kubectl"
> kubectl get deployments -n default
> kubectl get pods
```

Step #9

Delete the if any old images are in the EC2 Microk8s registry or in EC2 local registry.

```
> microk8s ctr images ls
(check for localhost:32000)

> microk8s ctr images rm localhost:32000/emays

> docker images ls
(check for localhost:32000)

> docker rmi <image-id>
```

Step #8

Exit from the EC2.

```
> exit
```