Write Up

- Create 3 AWS EC2 instances with same key pair and same security group and name one has “swarm-master”,”swarm-w1”,”swarm-w2”. In the security group add the inbound rule All traffic with port 80 with in the security group.
- While creating the instance under advance tab run with the following commands

  #!/bin/bash
  sudo yum update -y [to update the instance]
  sudo yum install -y docker git [to install docker and git into the instance]
  sudo systemctl start docker [to start the docker]
  sudo systemctl enable docker [to enable the docker]
  sudo usermod -aG docker ec2-user
  sudo docker version [to check the installed docker version]

- In this instance first connect to the ec2 instance connect, then check the docker version using docker -v and git version using git -v then

  Git clone https://github.com/swathiz/angularimage.git this repo into the instance
  Then goto the folder using → **cd angularimage/evntmgt**
  Then build the image with command using → **“docker build -t eventmgtimage”**
  Then run the image in the container using built image →
  “docker container run -d –name myweb1 -p 80:80 eventmgtimage”
  Then login to the docker hub → **docker login**
  Then tag the image using → **docker tag eventmgtimage sona1997/e1**
  Here “sona1997” is the docker hub username
  The push the image to docker hub → **“docker push sona1997/e1”**
  Then run the container → **“docker container run -d –name sswe -p 80:80 sona1997/e1”**

- Then take the public ip of the instance and run with port 80 to see the event management app running in the container.
- Putty into the swarm master, swarm-w1 and swarm-w2 instnces using public ip and ppk file downloaded during the instance creation.

- Then In the master instance run cmd
  “docker swarm init –advertise-adr <private ip of master instance>”
  We will get a master token to join to itself
  Then in the swarm-w1 and swarm-w2 use the token to join using

```
   docker swarm join --token SWMTKN-1-198arnckpgc0k6uymooyq5bxty84ewqkz6t2ur4nx
l1f26jo82-e9dw9znp2e08xv0i1je0o2srm 172.31.17.167:2377
```

  Then we nodes will get joined.
- Then in the master instance use the cmd to check all the nodes joined to it
  “docker node ls”
- Then create a service using
  “docker service create –name myapp1 –replicas 5 -p 80:80 sona1997/e1”
  We can see the all the service converged which means they are up and running
- to see the running services
  “docker service ps myapp1”
- Then using the public ip and port 80 like “52.221.170.53:80” we can see event management app running in all the 3 nodes.