Kerrie Abrams

Student ID: 010894830

D387 Advanced Java

<div align="center">How to Deploy a Docker Container on AWS</div>

The following instructions discuss the deployment process of a given Spring application

packaged as a Docker container image to the cloud using Amazon Web Services.

Prior to deployment it is important to ensure that the application front end can properly access

the back end within a cloud environment. This can easily be done by adjusting the path from which the

back end is read. And if not done so already, a Docker image must be created and pushed to a Docker

Hub repository and a personal access token must be created for future use.

To begin, an AWS account is required. After signing up and logging into the AWS management

console, the first step of the deployment process is to create and launch an Amazon EC2 instance. Search

for EC2 in the console and navigate to EC2 Instances or Instances from the EC2 Dashboard. Name the

instance, select the preferred AMI (Amazon Linux is used in this example), create a new key pair, allow

HTTPS and HTTP traffic from the internet in the network settings, and finally launch instance.

Now it is possible to connect to the newly created instance, install Docker, and deploy the

Docker image. Navigate to the Instances page and click the instance ID. Using EC2 Instance Connect,

connect to the instance. This should open the AMI that was selected (Linux, in this case). Next, to install

and start Docker, enter the following commands:

- $sudo sh

- $yum install -y docker

- $service docker start

Login to Docker Hub and pull the image from the repository with the following commands:

- $docker login (Follow the instructions provided by Docker in the terminal, this is where that personal access token is used)

- $docker pull nameofrepository/nameofimage

Finally, deploy the container using the following command:

- $docker run –name nameofapp -d -p 80:8080 nameofrepository/nameofimage

Now, the container should be successfully deployed. To open the application, navigate to the EC2 Instances page, select the instance, and open the Public IPv4 address listed under Instance summary.