Module-7: Containerization using Docker Part - II

Case Study I - Solution

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Case Study

Problem Statement

You are working with a web development agency that highly relies on Drupal as their base framework for developing web applications for their clients. So far, you have been deploying Drupal manually across all the servers but now the firm wants to have the process streamlined and automated.

Objectives:

- Download your company's website files from the given link
- Write a docker file that will make your company's website work out of the box with a web server (Tip - You can use httpd / apache image and build on top of it)
- Make sure that you use volumes to store the actual data of the website outside of the container
- Push the docker image to your docker hub account so that it can be pulled later
- Create a swarm cluster
- Deploy your firm's website on the swarm cluster and expose port 80 to access the website. Also, ensure that the volumes are configured properly so that the source of the files is the same for all the containers of the service

Application Link: https://github.com/edurekacontent/dockerContent

Solution

1. Download the files from the given link
2. Use the following docker file to create a docker image of your company's website
   ```
   FROM httpd:2.4
   ADD my-downloaded-files /usr/local/apache2/htdocs/
   ```

3. Please replace "my-downloaded-files" with the actual directory of your website files and use the following command to build an actual image out of the Dockerfile and push it. [Optional] Create and attach a volume to the container to keep a track of the files.

   `docker build . -t my-username/my-imagename` (where my-username is your docker hub username and my-imagename is desired name of the image)

   `docker push my-username/my-imagename`

4. Create a new swarm cluster
5. Create a new service using the following command

   ```
   docker service create -p 80:80 --name my-service my-username/my-imagename
   ```