## Continuous Deployment using Docker

Case Study - Problem Statement

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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:**

#### Part - A

- 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.
- Once you get everything working, it is time to deploy your firm's actual web application
  with a replica set of 5 and expose it on port 80. 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.

#### Part - B

- Create a cluster of 3 servers which will have 1 Manager and 2 worker nodes. These servers can either be on cloud such as AWS / GCP or local virtual machines. The assumption is that you're using Ubuntu 16.04+ Operating System.
- Make sure that the cluster is setup and configured properly including the Overlay network that would be set up by Docker swarm at the time of initialization.
- Deploy your firm's application as a "service" with a replica set of 3 on the cluster to verify the integrity.

Application Link: <a href="https://github.com/edurekacontent/dockerContent">https://github.com/edurekacontent/dockerContent</a>