**Setting Up Jenkins Pipeline to Deploy Docker Swarm**

DESCRIPTION

**Project objective:**

You have to develop an environment for Docker networking.

**Background of the problem statement:**

As you have worked on Docker containers previously, your manager has asked you to perform container scheduling over multiple hosts using Docker CLI and connect multiple hosts with Docker containers.

**You must use the following:**

● Jenkins: To create a pipeline to deploy Docker Swarm  
● Docker Swarm: To implement container networking  
● Git: To connect and push files from the local system to GitHub   
● GitHub: To store the Angular application

**JENKINS PIPELINE TO DOCKER SWARM**

**<!DOCTYPE html>**

**<html>**

**<head>**

**<title>Provisioning Test Page</title>**

**<link href="https://fonts.googleapis.com/css?family=Slabo+27px" rel="stylesheet">**

**<style type="text/css">**

**body {**

**text-align:center;**

**font-family: 'Slabo 27px', serif;**

**height:100vh;**

**}**

**.vertical-center {**

**position:relative;**

**top:50%;**

**transform: translateY(-50%);**

**}**

**img {**

**width:100px;**

**}**

**</style>**

**</head>**

**<body>**

**<div class="vertical-center">**

**<h1>Fibonacci Generator</h1>**

**<p>The number at position <%= index %> is <%= value %></p>**

**<img src="https://cdn.worldvectorlogo.com/logos/docker.svg" />**

**</div>**

**</body>**

**</html>**

**HACKABLE:**

**<!DOCTYPE html>**

**<html>**

**<head>**

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**<link href="https://fonts.googleapis.com/css?family=Slabo+27px" rel="stylesheet">**

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**font-family: 'Slabo 27px', serif;**

**height:100vh;**

**}**

**.vertical-center {**

**position:relative;**

**top:50%;**

**transform: translateY(-50%);**

**}**

**img {**

**width:100px;**

**}**

**#command {**

**width:50%;**

**display: inline-block;**

**}**

**#stdout {**

**width:50%;**

**display: inline-block;**

**}**

**</style>**

**</head>**

**<body>**

**<div class="vertical-center">**

**<img src="/images/logo.png" />**

**<h1>Hackable: Code Injection</h1>**

**<p>The following command was run on the server!</p>**

**<code id="command">**

**<%= command %>**

**</code>**

**<p>This was the result</p>**

**<code id="stdout">**

**<%= stdout %>**

**</code>**

**</div>**

**</body>**

**</html>**

**POSTS:**

**<!DOCTYPE html>**

**<html>**

**<head>**

**<title>Provisioning Test Page</title>**

**<link href="https://fonts.googleapis.com/css?family=Slabo+27px" rel="stylesheet">**

**<style type="text/css">**

**body {**

**font-family: 'Slabo 27px', serif;**

**height:100vh;**

**}**

**img {**

**width:100px;**

**}**

**.blog {**

**padding:50px;**

**}**

**.post {**

**padding:20px;**

**}**

**</style>**

**</head>**

**<body>**

**<div class="blog">**

**<img src="https://cdn.worldvectorlogo.com/logos/docker.svg" />**

**<h1>Recent Posts</h1>**

**<hr/>**

**<% posts.forEach(function(post){ %>**

**<div class="post">**

**<h3><%= post.title %></h3>**

**<p><%= post.body %></p>**

**</div>**

**<% }) %>**

**</div>**

**</body>**

**</html>**

**JENKINSFILES:**

**pipeline {**

**environment {**

**registry = "naistangz/docker\_automation"**

**registryCredential = "dockerhub"**

**dockerImage = ''**

**PATH = "$PATH:/usr/local/bin"**

**}**

**agent {**

**'docker'}**

**stages {**

**stage('Cloning our Git') {**

**steps {**

**git 'https://github.com/naistangz/Docker\_Jenkins\_Pipeline.git'**

**}**

**}**

**stage('Building Docker Image') {**

**steps {**

**script {**

**dockerImage = docker.build registry + ":$BUILD\_NUMBER"**

**}**

**}**

**}**

**stage('Deploying Docker Image to Dockerhub') {**

**steps {**

**script {**

**docker.withRegistry('', registryCredential) {**

**dockerImage.push()**

**}**

**}**

**}**

**}**

**stage('Cleaning Up') {**

**steps{**

**sh "docker rmi $registry:$BUILD\_NUMBER"**

**}**

**}**

**}**

**}**