 

**Placement Empowerment Program**

***Cloud Computing and DevOps Centre***

**Static Website Deployment Locally**

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Introduction and Overview

In this POC, we will learn how to automate the deployment of a static website locally using a shell script. This process involves setting up a local web server, automating file updates, and ensuring that changes are seamlessly applied. By following these steps, you’ll gain hands-on experience in automating web deployments, which is a crucial skill for DevOps and system administration.

Objective

The goal of this project is to:

1. Set up a local web server using Apache.
2. Automate the deployment of static files.
3. Ensure seamless updates when changes are made to the website.

Importance of Automating Deployment

Automating static website deployment ensures:

* **Efficiency:** Eliminates manual intervention for every update.
* **Consistency:** Reduces human errors and ensures all changes are applied correctly.
* **Speed:** Deploy changes instantly without downtime.

Step-by-Step Overview

**Step 1:** Install Apache HTTP Server Ensure Apache is installed on your local machine. If not, install it using:

**sudo apt update**

**sudo apt install apache2 -y**

For Windows users, download Apache from [Apache Lounge](https://www.apachelounge.com/) and follow the installation guide.

**Step 2:** Create the Deployment Script Create a shell script to automate the deployment of static website files.

**deploy\_static\_site.sh:**

#!/bin/bash

# Define source and destination directories

**SOURCE\_DIR="/path/to/website/files**"

**DEST\_DIR="/var/www/html"**

# Ensure Apache is running

**sudo systemctl start apache2**

# Sync files to the web directory

**rsync -av --delete "$SOURCE\_DIR/" "$DEST\_DIR/"**

# Restart Apache to apply changes

**sudo systemctl restart apache2**

# Print success message

echo "Deployment completed successfully!"

**Step 3:** Make the Script Executable Run the following command to make the script executable:

chmod +x deploy\_static\_site.sh

**Step 4:** Execute the Script To deploy the website, run:

./deploy\_static\_site.sh

**Step 5:** Automate Deployment with Cron Job To automate the deployment process, schedule the script to run periodically using cron.

\* \* \* \* \* /path/to/deploy\_static\_site.sh

This ensures that the website is updated automatically whenever changes are made to the source directory.

By implementing this automation, you ensure that updates are deployed seamlessly without manual intervention, streamlining the website management process.