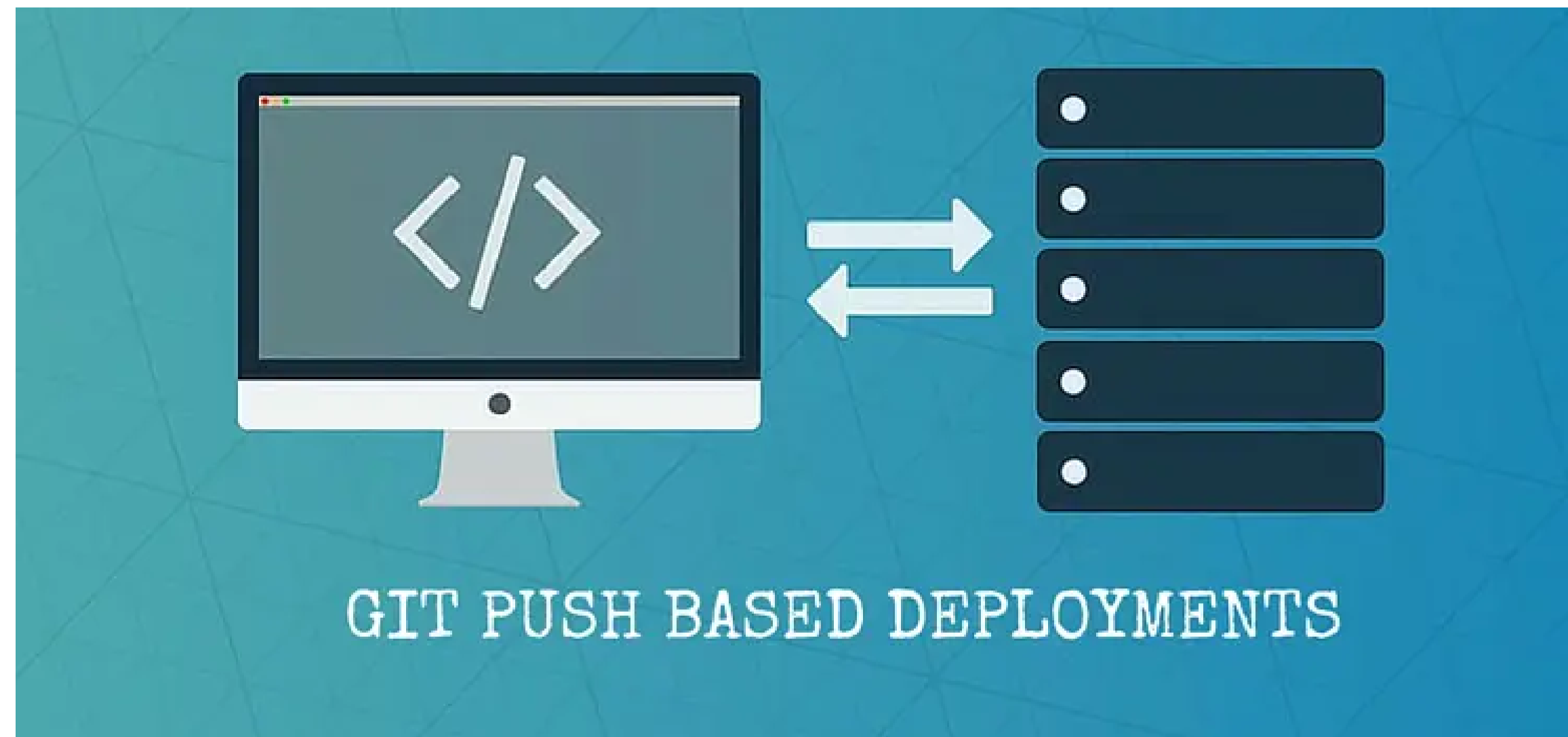
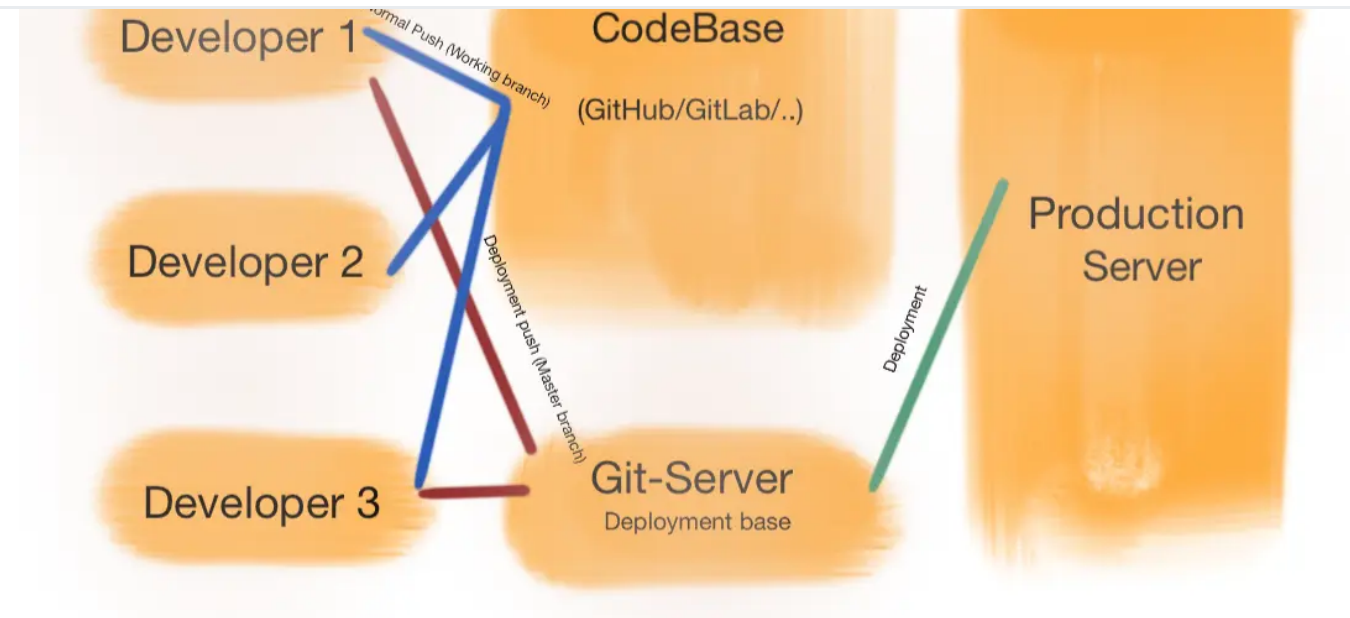


Automated Deployment With Git Push Using Ansible

by **Prabhu Vignesh Kumar Rajagopal** · July 30, 2016



Deploying applications these days are really a big thing. Especially developers are already working hard for their logic and they cannot find time to login into the server and run the deployment scripts one by one. Mainly developers know their time for deployment, which mean they know the importance and priority of the deployment. So automating and leaving deployment work with developers will really help healthy IT release.



Classic way of push to deploy only with GIT

Automated Deployment With Git

GIT push based deploy will really make this possible. Let developers use their own git repository tool but by adding extra remote URL on git configuration file, which is to deploy the application.

Like this

```
[remote "origin"]
  url = git@github.com:company/project.git
  url = git@remote-server:project.git
  fetch = +refs/heads/*:refs/remotes/origin/*
```

[or]

```
[remote "deploy"]
  url = git@remote-server:project.git
```

This will push the code in two different places at a time. one is for Codebase, another is for deployment.

Here is how

We just have to configure our git server in such a way that whenever git push event is happening, GIT server should run the deployment script remotely or locally.
so we need to configure the git server first.

- First, we need to install git-core on the git server.

- Then we need to create git user.

```
sudo useradd git
passwd git
```

- Then adding developer's workstation public key authorized_keys file to allow developer's workstation to access the git server from remote.

```
cat ~/.ssh/id_rsa.pub | ssh git@remote-server "mkdir -p ~/.ssh && cat >>
~/.ssh/authorized_keys"
```

- Then need to create an empty repository into git-server

```
mkdir -p /home/user/project.git
cd /home/swapnil/project-1.git
git init --bare
```

This will create dummy git repository and you can see the folder called hooks, which is having scripts to perform respective event so by keeping deployment script inside post-receive will execute the post deployment scripts and by keeping pre-deployment script inside pre-receive file will run the pre-deploy script.

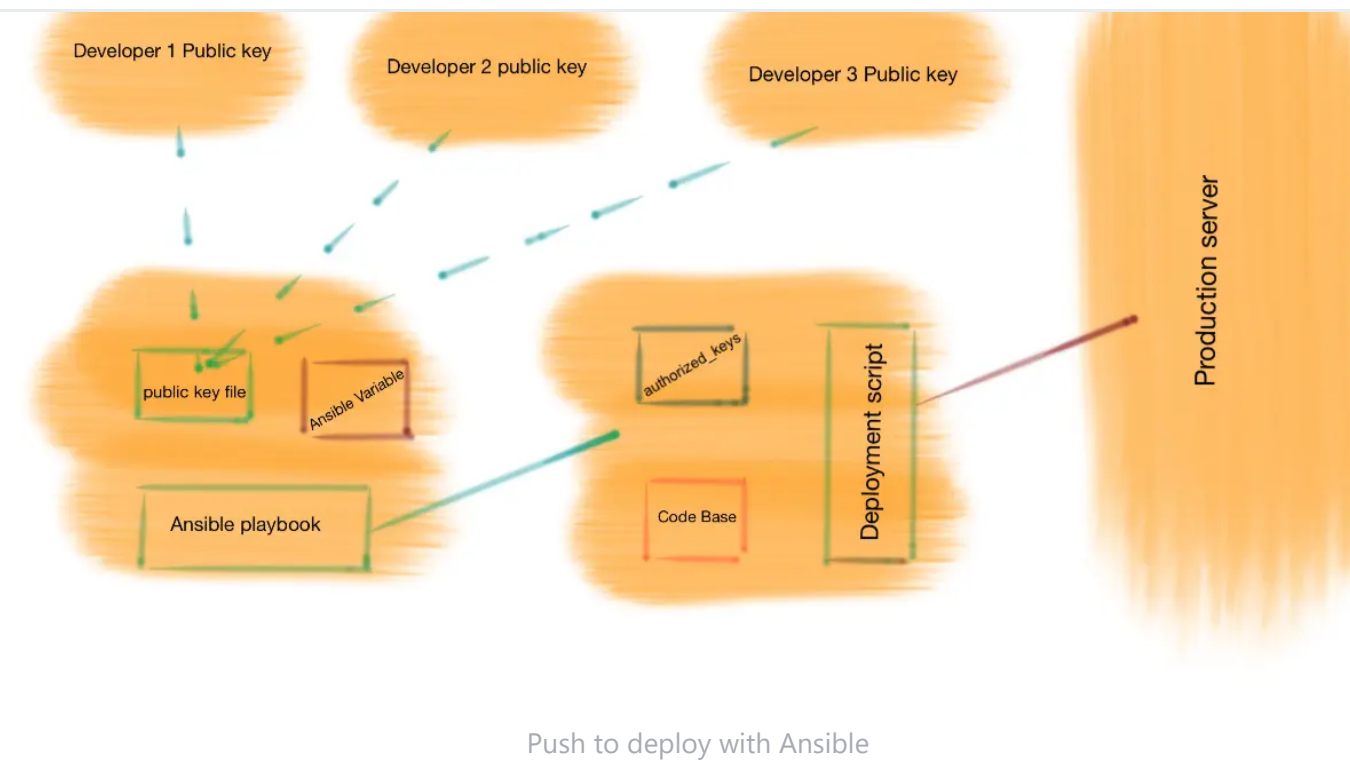
so at initial, developer should add the git server's project URL into his project.

like this :

```
git remote add deploy git@remote-server:project.git
git push deploy master
```

this will deploy the developer's code directly.

Seems like a waste of time and unnecessary for developer right? So Ansible makes this very easy.



Just install the role from ansible.galaxy by

```
ansible-galaxy install PrabhuVignesh.push_to_deploy
```

Just keep the workstation machine's public key in a file.

For example

```
$ cat publickeys.txt
ssh-rsa
AAuyFUVFY65tYTFV567YTYTytyTYTYTfyuV56FUyTVYFYTVyTFYUG877686V767R76R67R76R6YTYTf
developer1@sample.com
ssh-rsa
AAuyFUVFY65tYTFV567YTYTytyTYTYTfyuV56FUyTVYFYTVyTFYUG877686V767R76R67R76R6YTYTf
developer1@sample.com
ssh-rsa
AAuyFUVFY65tYTFV567YTYTytyTYTYTfyuV56FUyTVYFYTVyTFYUG877686V767R76R67R76R6YTYTf
developer1@sample.com
```

Mention the path of this file in

path_for_authorized_keys,git_repository_path,post_receive_script,pre_receive_script in the variable as mentioned below.

```
---
roles:
  - role: PrabhuVignesh.push_to_deploy
    path_for_authorized_keys: /path/to/public_key/file
    git_repository_path: /home/path/to/your/repo.git
    post_receive_script: "script to deploy the code"
    pre_receive_script: "Prepare storing code"
```

whenever a developer pushes the code to git server, the application specified script like “puppet deploy script”, “cap deploy...” etc.. for post-receive and pre-receive will run from there and the application will be deployed. Make the scripts in such a way that deployment script will run only after the master branch has been pushed. So that unnecessary deployment will be avoided. Example code for that is

```
#!/bin/bash
do
    if [[ $ref =~ .*/master$ ]];
    then
        echo "I am master branch push and i will run deployment script"
        # Run deployment script....
    else
        echo "Ref $ref successfully received. Doing nothing: only
the master branch may be deployed on this server."
    fi
done
```

Conclusion

GI**T** is really an amazing tool for IT automation, especially it connects application developers with IT operations to make things easy.

TAGS:

GIT

42

 SHARE 42

 TWEET







Prabhu Vignesh Kumar Rajagopal

Prabhu Vignesh is a person who loves to automate the IT process. As a developer, he knows some MVC frameworks and its stack. As an operational guy, he knows the complete workflow of many tools and Linux concepts. Collaborating these two tracks results in an excellent automation in IT process, which makes him a perfect Devops guy. Visit his [website](#) to know more about him









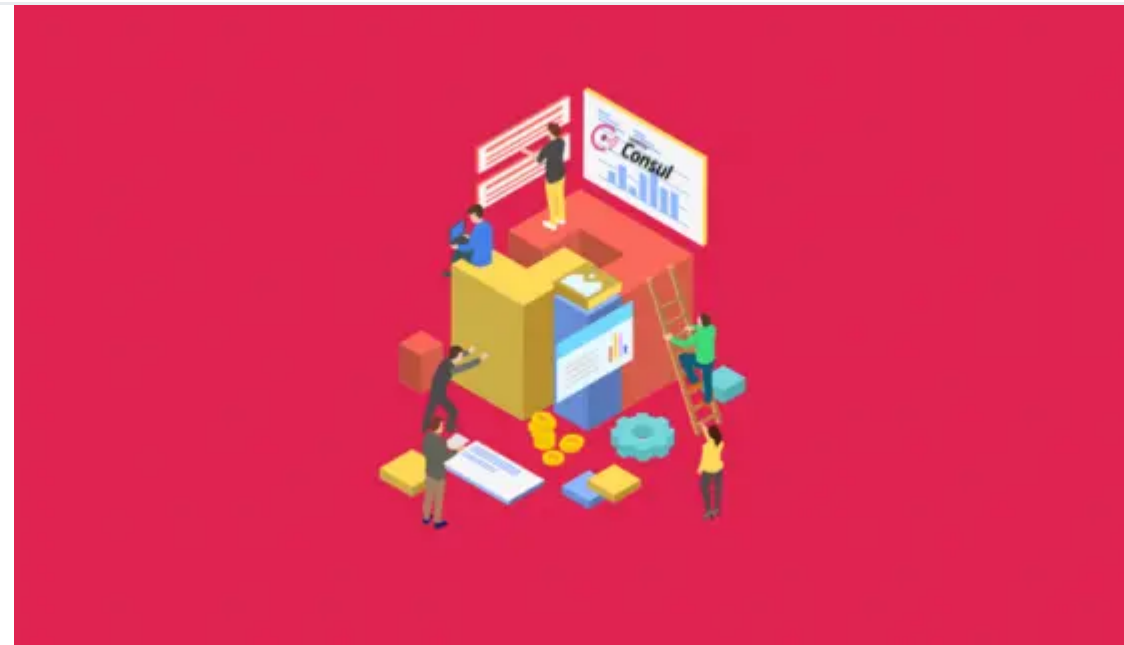
42
SHARES







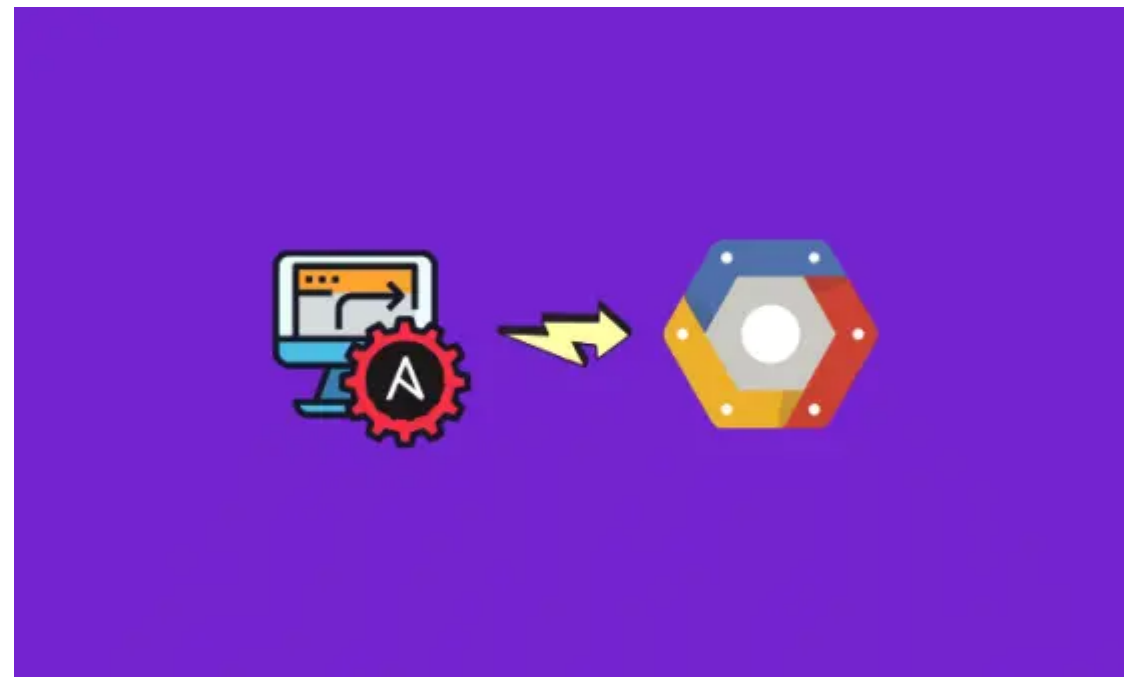
VIEW COMMENTS (0)



How To Setup Consul Cluster (Multi-Node) on Linux – Beginners Guide

by **devopscube** · September 21, 2019

Consul is an open source key-value store. It is used for use cases such as service discovery, config...

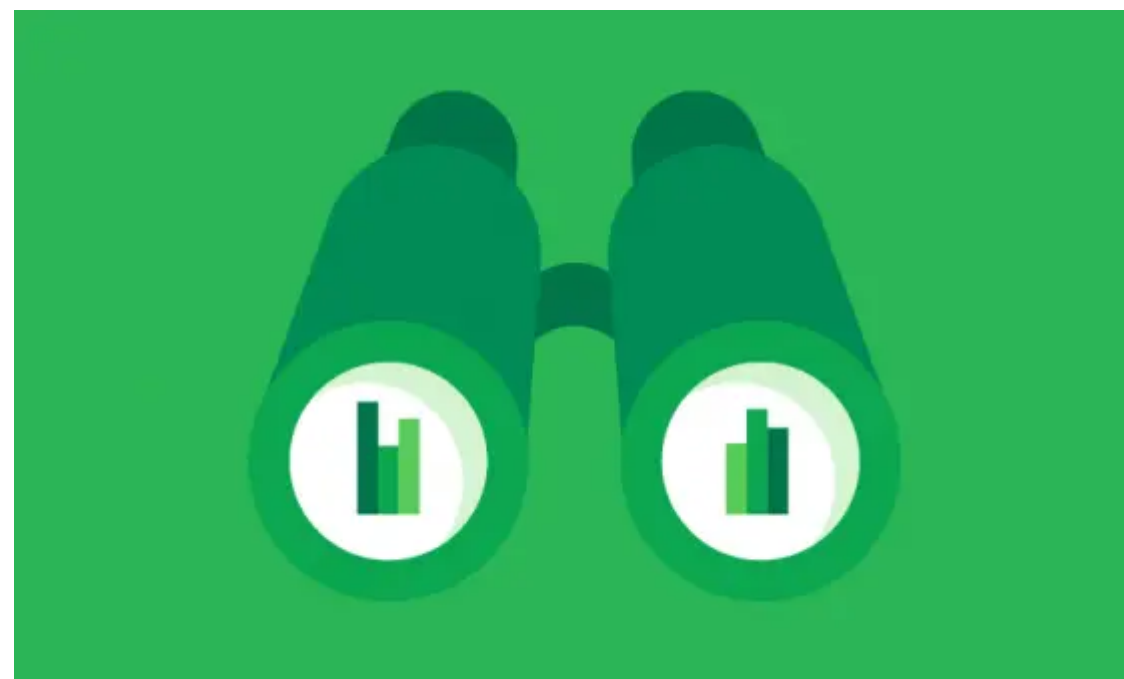


D — DEVOPS

How To Setup Ansible Dynamic Inventory For Google Cloud

by **Bibin Wilson** · June 20, 2020

The best way to manage and orchestrate VM instances in Google cloud using Ansible is through Dynamic inventory...

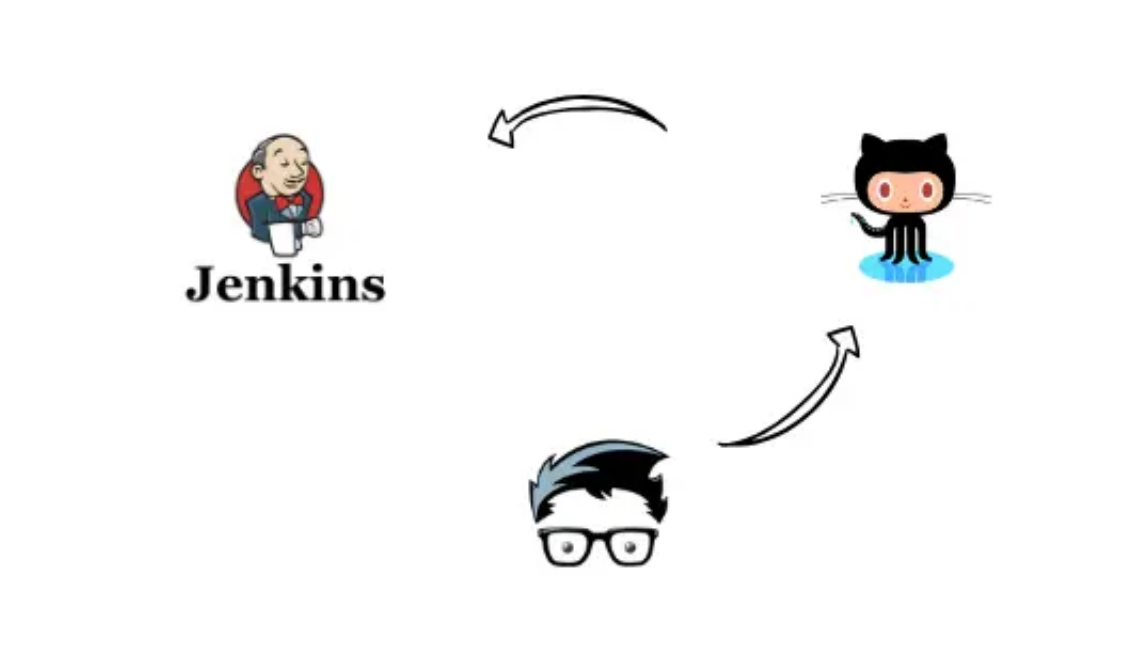


T — TUTORIAL

How To Monitor Linux Servers Using Prometheus Node Exporter

by **devopscube** · June 14, 2018

Node exporter is the best way to collect all the Linux server related metrics and statistics for monitoring....

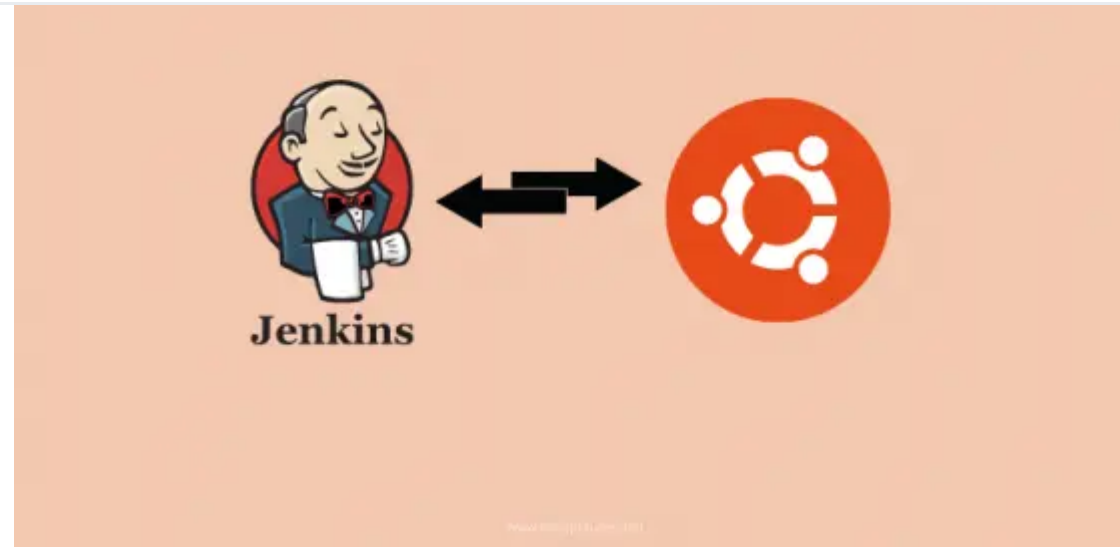


D — DEVOPS

Jenkins Automated Build Trigger On Github Pull Request

by **devopscube** · June 16, 2020

Building projects based on pull request is something you cannot avoid in CI/CD pipelines. Nowadays every team does...



Install Jenkins on Ubuntu in 10 Easy Steps

by **devopscube** · March 3, 2021

Jenkins 2.x has lots of great functionalities that will make the CI pipeline smooth using the pipeline as...



D — DEVOPS

Release Management Explained: Dev To Prod Deployment Process

by **Nivedha Varadharajan** · April 29, 2020

If you are into DevOps it is very important to understand release management. There is no single template...

DevopsCube

©devopscube 2021. All rights reserved.

[Privacy Policy](#)

[About](#)

[Site Map](#)

[Disclaimer](#)

[Contribute](#)

[Advertise](#)

[Archives](#)