Tell me about yourself:

Hello Everyone,

This is Balu,

I do have 4.5 years of experience as DevOps engineer current working for Accenture. I am currently working on a Health Care project named Med Fusion. Which is a Leading Health care giant in United states of America. I do work closely with our Developers and QA in the team and follow DevOps methodology by implementing of 4 Cs like Continuous Integration, Continuous Development/Testing, Continuous Deployment and Continuous Delivery.

As part of my Role, I undergo these responsibilities daily,

1. Creating and managing the branches in GitHub.

2. Merging the code from branches to master.

3. Giving accesses to developers based on the need for their code committing repos.

4. Monitoring the Jenkins builds. if any build got failed try to resolve those issues for future.

5. Checking the health of instances using Nagios like Monitoring tools.

6. On the AWS Side based on the requirement I would Create the instances (EC2), Look for any VPC changes and provide User accesses to their own Console. Also, I have knowledge on S3, VPC, Route 53, Certificate Manager,  **IAM, RDS, CloudWatch.**

7. Work closely with team or developers whether if they have any blockers and resolve those issue ASAP.

As part of this Role, I did gain some knowledge on various tools like,

GIT, GITHUB, Maven, SonarQube, Jenkins, Apache Tomcat6.x/7.x, JIRA, Nagios 4.x/5.x, Linux/Unix, Java, J2EE, Docker, AWS, Ansible, Terraform

Flow of our project lies like this:

Code Checkins into Git/Github – Triggers a Build in Maven – Quick Checks done using SonarCube – Hosting done on an AWS EC2 Instance on Apache tomcat server in form a Docker Container.

Git:

Distributed Version control tool

It consists of 3 stages/phase in Git:

Working Area

Staging/Indexing Area

Local repo

Basic Commands:

* git init - Initialize git (Creates a empty local repo)
* git clone "Remote Repo URL" --- Local repo will be clone with Remote repo
* git status - Shows status of any upstaging/working area files available or not
* git add . - Add all the files in staging area
* git commit -m "Message" - Commits files in staging area to local repo
* git push -u origin master - Add all the files from local repo to remote repo
* git fetch -- Fetch all the files from remote repo to local repo
* git pull - Pull all files from remote repo to working directory
* git revert -revertid – Revert back changes based on the revertid provided

Github:

Github accounts are remote.

Use: Code needs to be stored into a centralized distributed for easy access or not to be lost in case of crash of machines.

* git remote add <name> <url> - To Configuring the Remote Repo

Jenkins:

CI/CD tool

Or Build and Release tool

We can create Freestyle jobs or pipeline jobs from Jenkins

We can create jobs in 2 different ways:

Scripted Syntax

node('master')

{

stage('Say Hello') {

echo 'Hello World'

}

stage('Hello') {

echo 'Hello World'

}

}

Declarative Syntax

pipeline {

agent none

stages {

stage('Compile') {

steps {

}

}

stage('Build') {

steps {

}

}

}

}

Maven:

Build automation tool, can also be used to check the missing dependencies

Stages of Maven:

1. Validate
2. Compile
3. Test
4. Package
5. Verify
6. Install
7. Deploy

POM.xml file is the heart of the Maven. Based on what has been written in the file a Target folder would be created.

SonarQube:

SonarQube is a Code Quality Assurance tool that collects and analyzes source code and provides reports for the code quality of your project. (Checking Hardcoded Values on variables, Missing Closures/Semicolons (Coding errors), Security Issues (Vulnerability) etc.,)

SonarQube platform consists of four components**: analyzers, server, plugins** installed on the server and, a **database**.

Apache Tomcat:

Tomcat runs a HTTP web server environment in which Java code can run.

Nginx - Another hosting server (We can do load balancing)