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**BRANCH:DEVOPS 2017-2021**


INSERT THE TITLE  
OF YOUR PRESENTATION HERE



# **WORKFLOW**

# APPLICATION

WordPress is an open-source website creation platform that is written in PHP and uses a MySQL database. With WordPress, you can host files and database on different servers/machines very quickly as it uses MySQL as a database management system. I have created my own WordPress and MySQL AMI on AWS from which I will be launching the instance



**In this we will be creating our own VPC on AWS with one public subnet and one private subnet. We will deploy WordPress in the public subnet so that it can be accessed by the users/clients and create MySQL database in the private subnet giving only the WordPress server access to it.**

# Configuring Application Server

On the Application server, we need to install Apache webserver, on which our application can be hosted, PHP and some other PHP dependencies. Also, we will install mysql-client as WordPress acts as client to the MySQL server.



**To configure we run this commands on our instance**

```
~#apt-get update
```

```
~# apt-get upgrade -y
```

```
~# apt-get install apache2 -y
```

```
~# apt-get install php7.0 php7.0-curl php7.0-mysql  
php7.0-mbstring php7.0-dom php7.0-gd -y
```

```
~# apt-get install libapache2-mod-php7.0
```

```
~# apt-get install mysql-client -y
```

## **We will download the wordpress file in the directory /var/www/html**

```
cd /var/www/html
```

```
/var/www/html# rm -rf *
```

```
/var/www/html# wget
```

```
https://wordpress.org/latest.tar.gz
```

```
/var/www/html# tar -xzf latest.tar.gz
```

```
/var/www/html# mv wordpress/* ./
```

```
/var/www/html# chown -R www-data:www-data
```

```
/var/www/html
```

# Configure MySQL Database Server

```
~#apt-get update
```

```
~# apt-get upgrade -y
```

```
~# apt-get install mysql-server mysql-client -y
```

```
~# nano /etc/mysql/mysql.conf.d/mysqld.cnf
```

In this file,there is an arguement bind-address.We have to change the IP Address to the IP on which our server will be running.In case your IP is not static,you can provide bind-address=0.0.0.0



```
1 provider "aws" {
2
3     region = "ap-south-1"
4     profile="Garg"
5 }
6
7 resource "aws_vpc" "virtualpc" {
8     cidr_block      = "192.168.0.0/16"
9     instance_tenancy = "default"
10
11     tags = {
12         Name = "vpc1"
13     }
14 }
15
16 resource "aws_subnet" "publicsubnet" {
17     vpc_id      = "${aws_vpc.virtualpc.id}"
18     cidr_block = "192.168.0.0/24"
19     availability_zone = "ap-south-1a"
20     map_public_ip_on_launch=true
21     tags = {
22         Name = "publicsubnet"
23     }
24 }
25
26 resource "aws_subnet" "priavtesubnet" {
27     vpc_id      = "${aws_vpc.virtualpc.id}"
28     cidr_block = "192.168.1.0/24"
29     availability_zone="ap-south-1b"
30     tags = {
```

```
16 resource "aws_subnet" "publicsubnet" {
17     vpc_id      = "${aws_vpc.virtualpc.id}"
18     cidr_block  = "192.168.0.0/24"
19     availability_zone = "ap-south-1a"
20     map_public_ip_on_launch=true
21     tags = {
22         Name = "publicsubnet"
23     }
24 }
25
26 resource "aws_subnet" "privatesubnet" {
27     vpc_id      = "${aws_vpc.virtualpc.id}"
28     cidr_block  = "192.168.1.0/24"
29     availability_zone="ap-south-1b"
30     tags = {
31         Name = "privatesubnet"
32     }
33 }
34
35 resource "aws_internet_gateway" "internetgw" {
36     vpc_id = "${aws_vpc.virtualpc.id}"
37
38     tags = {
39         Name = "gw"
40     }
41 }
42
43 resource "aws_route_table" "routing" {
44     vpc_id = "${aws_vpc.virtualpc.id}"
```

```
105
106 resource "aws_security_group" "privatesg" {
107     name           = "privatesg"
108     description    = "NAllow "
109     vpc_id         = "${aws_vpc.virtualpc.id}"
110
111     ingress {
112         description = "TLS from VPC"
113         from_port   = 3306
114         to_port     = 3306
115         protocol    = "tcp"
116         cidr_blocks = ["0.0.0.0/0"]
117     }
118
119     egress {
120         from_port   = 0
121         to_port     = 0
122         protocol    = "-1"
123         cidr_blocks = ["0.0.0.0/0"]
124     }
125
126     tags = {
127         Name = "sql"
128     }
```

# Build Job

localhost:9090/job/pipelineiac/pipeline-syntax/

Jenkins » pipelineiac » Pipeline Syntax

- Declarative Directive Generator
- Declarative Online Documentation
- Steps Reference
- Global Variables Reference
- Online Documentation
- Examples Reference
- IntelliJ IDEA GDSL

configure it, click **Generate Pipeline Script**, and you will see a Pipeline Script statement that would call the step with that configuration. You may copy and paste the whole statement into your script, or pick up just the options you care about. (Most parameters are optional and can be omitted in your script, leaving them at default values.)

## Steps

Sample Step

git: Git

Repository URL

Branch

Credentials

Add

☒ Include in polling?

☒ Include in changelog?

Generate Pipeline Script

```
git credentialsId: '87315ee5-6b30-40c6-82c6-251a66b18ca3', url: 'https://github.com/vanshika28/spcm'
```

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General

Build Triggers

Advanced Project Options

Pipeline

☐ Trigger builds remotely (e.g., from scripts)

## Advanced Project Options

Advanced...

## Pipeline

Definition

Pipeline script

Script

```
2   agent any
3   tools {
4     terraform 'terraform-11'
5   }
6   stages{
7     stage('Git Checkout'){
8       steps{
9         git credentialsId: '87315ee5-6b30-40c6-82c6-251a66b18ca3', url: 'https://github.com'
10      }
11    }
12    stage('Terraform Init'){
13      steps{
14        sh label: '', script: 'terraform init'
15      }
16    }
17  }
18 }
```

☒ Use Groovy Sandbox

Save

Apply

[Syntax](#)

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```
1 pipeline{
2   agent any
3   tools {
4     terraform 'terraform-11'
5   }
6   stages{
7     stage('Git Checkout'){
8       steps{
9         git credentialsId: '87315ee5-6b30-40c6-82c6-251a66b18ca3', url: 'https://github.com/vanshika28/spcm'
10      }
11    }
12    stage('Terraform Init'){
13      steps{
14        sh label: '', script: 'terraform init'
15      }
16    }
17    stage('Terraform Apply'){
18      steps{
19        sh label: '', script: 'terraform apply --auto-approve'
20      }
21    }
22  }
23 }
```

# BUILD NOW

 [add description](#)

[Disable Project](#)

[Recent Changes](#)

**View**

Average stage times:  
Average full run time: ~9s

No  
Changes

No  
Changes

No  
Changes

Declarative: Tool Install	Git Checkout	Terraform Init	Terraform Apply
187ms	2s	2s	5s
62ms	1s	963ms	6s
312ms	3s	3s	3s <i>failed</i>

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← → ↺ ↻

ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#Instances:sort=instanceId

☆ ⚙️ 👤

aws

Services ▾

Resource Groups ▾

📌

🔔

Garg @ 9363-9927-7227 ▾

Mumbai ▾

Support ▾

New EC2 Experience

Tell us what you think

✕

EC2 Dashboard New

Events New

Tags

Limits

▼ Instances

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts New

Capacity Reservations

▼ Images

AMIs

▼ Elastic Block Store

Launch Instance ▾

Connect

Actions ▾

🔍

Filter by tags and attributes or search by keyword

?

⏪ < 1 of 7 > ⏩

<input type="checkbox"/>	Name ▾	Instance ID ▴	Instance Type ▾	Availability Zone ▾	Instance State ▾	Status Checks ▾	Alarm Status	Public DNS (IPv4) ▾
<input type="checkbox"/>	sql	i-05068e54a50dd5fa4	t2.micro	ap-south-1a	running	2/2 checks ...	None	ec2-13-232-176-59 ap-...

Instance: **i-0568016276b9ebe65 (wordpress)**

Public IP: 13.127.158.96

⏏ ⏏ ⏏

Description

Status Checks

Monitoring

Tags

Instance ID	i-0568016276b9ebe65	Public DNS (IPv4)	-
Instance state	running	IPv4 Public IP	13.127.158.96 📄
Instance type	t2.micro	IPv6 IPs	-
Finding	Opt-in to AWS Compute Optimizer for recommendations. <a href="#">Learn more</a>	Elastic IPs	-
Private DNS	ip-192-168-0-145.ap-south-1.compute.internal	Availability zone	ap-south-1a
Private IPs	192.168.0.145	Security groups	<a href="#">publicsg</a> , <a href="#">view inbound rules</a> , <a href="#">view outbound rules</a>
Secondary private IPs	-	Scheduled events	No scheduled events
VPC ID	<a href="#">vpc-0b3c1e7164a3ad650 (vpc1)</a>	AMI ID	<a href="#">wordpressg (ami-03c36a740967e1c6a)</a>
Subnet ID	<a href="#">subnet-0857d71dbda855aab (publicsubnet)</a>	Platform details	Linux/UNIX
Network interfaces	<a href="#">eth0</a>	Usage operation	RunInstances

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## Welcome

---

Welcome to the famous five-minute WordPress installation process! Just fill in the information below and you'll be on your way to using the most extendable and powerful personal publishing platform in the world.

## Information needed

---

Please provide the following information. Don't worry, you can always change these settings later.


**Site Title**

**Username**

Username can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.

**Password**

Medium

 Hide

**Important:** You will need this password to log in. Please store it in a secure location.

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Medium

**Important:** You will need this password to log in. Please store it in a secure location.

**Your Email**

Double-check your email address before continuing.



## Success!

---

WordPress has been installed. Thank you, and enjoy!

**Username**      Vanshika Garg

**Password**      *Your chosen password.*

Log In

## Dashboard

Home

Updates 6

Posts

Media

Pages

Comments

Appearance

Plugins 2

Users

Tools

Settings

Collapse menu

WordPress 5.4.2 is available! [Please update now.](#)

## Dashboard

## Welcome to WordPress!

We've assembled some links to get you started:

✕ Dismiss

## Get Started

[Customize Your Site](#)

or, change your theme completely

## Next Steps

[Write your first blog post](#)[Add an About page](#)[View your site](#)

## More Actions

[Manage widgets or menus](#)[Turn comments on or off](#)[Learn more about getting started](#)

## At a Glance

[1 Post](#)[1 Page](#)[1 Comment](#)

WordPress 4.8.14 running [Twenty Seventeen](#) theme.

[Update to 5.4.2](#)

## Activity

Recently Published

## Quick Draft

[Save Draft](#)

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×

Saved

You are customizing

?

Devops

Active theme

Twenty Seventeen

Change

Site Identity

>

Colors

>

Header Media

>

Menus

>

Widgets

>

Static Front Page

>




Theme Options

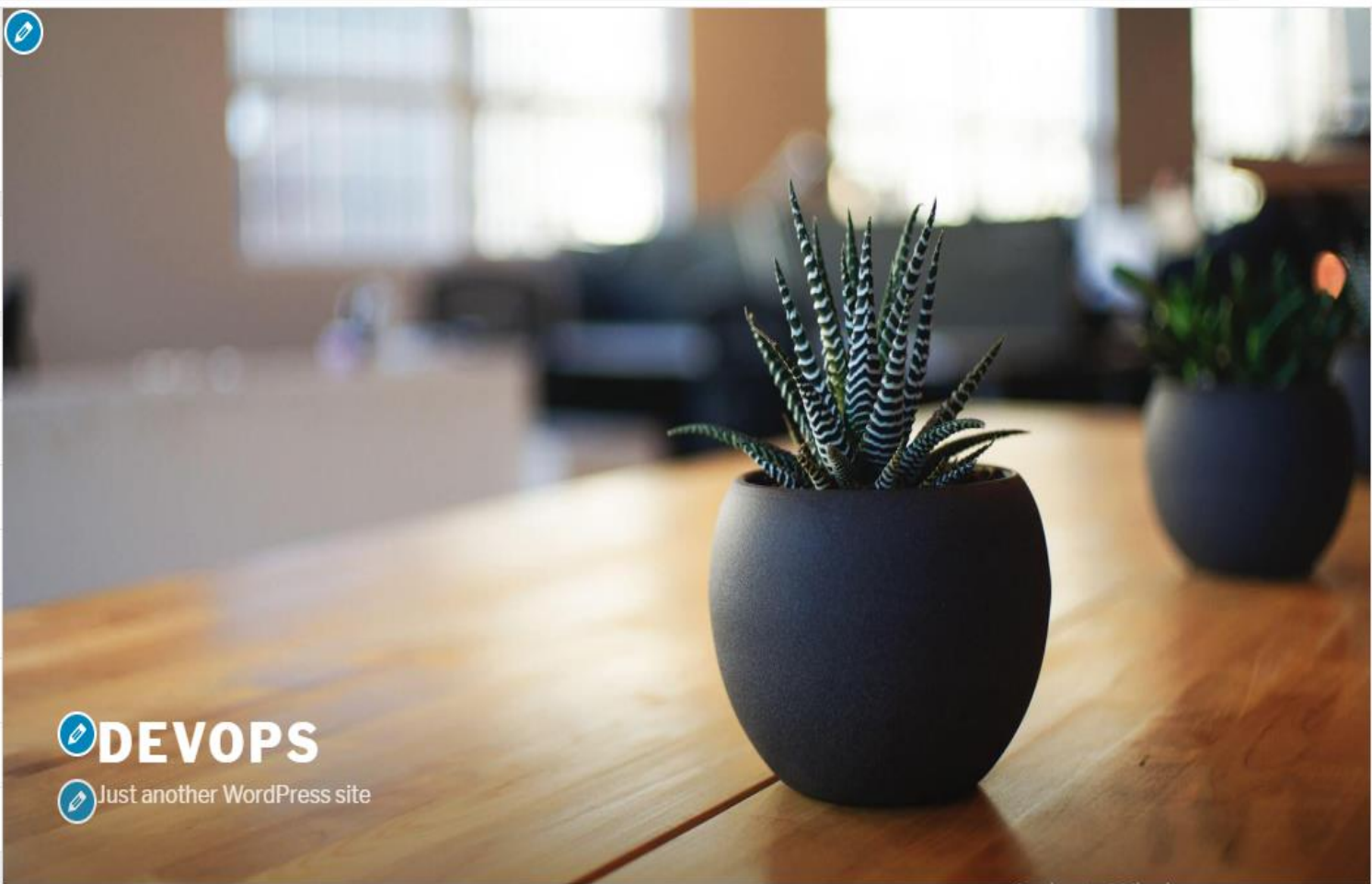
>

Additional CSS

>

Hide Controls



[Home](#)[About](#)[Blog](#)[Contact](#)

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**THANK YOU**