

Ansible Project

Library project deployment automation

The project requires us to make use of jenkins and ansible to deploy an web application and implement a continuous integration and continuous deployment pipeline. So for my project I used a public repository from github- [Online Library Management System PHP](#)

This project was forked for my projects use. Furthermore, I made use of this project and deployed it as a LAMP stack project. The process was automated with the help of ansible.

The steps taken-

Step 1

Setup VM

Install 2 centos machines as webserver that hosts the website and dbserver that hosts the database serve. Also 1 master machine that will host ansible and jenkins. The master machine is a Rocky Linux server.

Step 2

Setup for ansible

1. Configure with `nmtui` to make the machines' ip static.
2. Install package pre-requisite packages.

```
`yum install vim curl wget open-vm-tools -y`
```

3. Disable selinux by opening `/etc/selinux/config` change `enforcing` to `disabled`
4. Change hostnames in `/etc/hostname`
5. Add name resolution in `/etc/hosts`

```
192.168.20.246 rocky-ansible.localdomain rocky-ansible

192.168.20.135 webserver.localdomain webserver

192.168.20.124 dbserver.localdomain dbserver
```

6. In master machine create `ssh-keygen` add the key in the client machines in `~/.ssh/authorized_keys`.
7. To install ansible run

```
yum install epel-release -y
yum install ansible -y
```

8. In ansible config in `/etc/ansible/ansible.cfg` the following lines are changed as such

```
# explicit - do not gather by default, must say gather_facts: True
gathering = smart
```

```
# default user to use for playbooks if user is not specified
# (/usr/bin/ansible will use current user as default)
remote_user = root
```

```
# if set, always use this private key file for authentication, same as
# if passing --private-key to ansible or ansible-playbook
private_key_file = /root/.ssh/id_rsa

# If set, configures the path to the Vault password file as an alternative to
# specifying --vault-password-file on the command line.
vault_password_file = /opt/pass.txt
```

Note: The vault_password_file points to ansible where to find ansible vault password

9. In ansible inventory in `/etc/ansible/hosts` the following lines are changed as such

```
[webservers]
webserver

[dbservers]
dbserver
```

Step 3

Setup for jenkins

1. First we need to add the jenkins repo

```
wget -O /etc/yum.repos.d/jenkins.repo https://pkg.jenkins.io/redhat-
stable/jenkins.repo

rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io-2023.key

yum upgrade
```

2. Add required dependencies for the jenkins package by installing java

```
sudo yum install java-11-openjdk
```

3. Install jenkins and reload the daemon

```
yum install jenkins
systemctl daemon-reload
```

4. Change jenkins default port using `vim /usr/lib/systemd/system/jenkins.service` as following

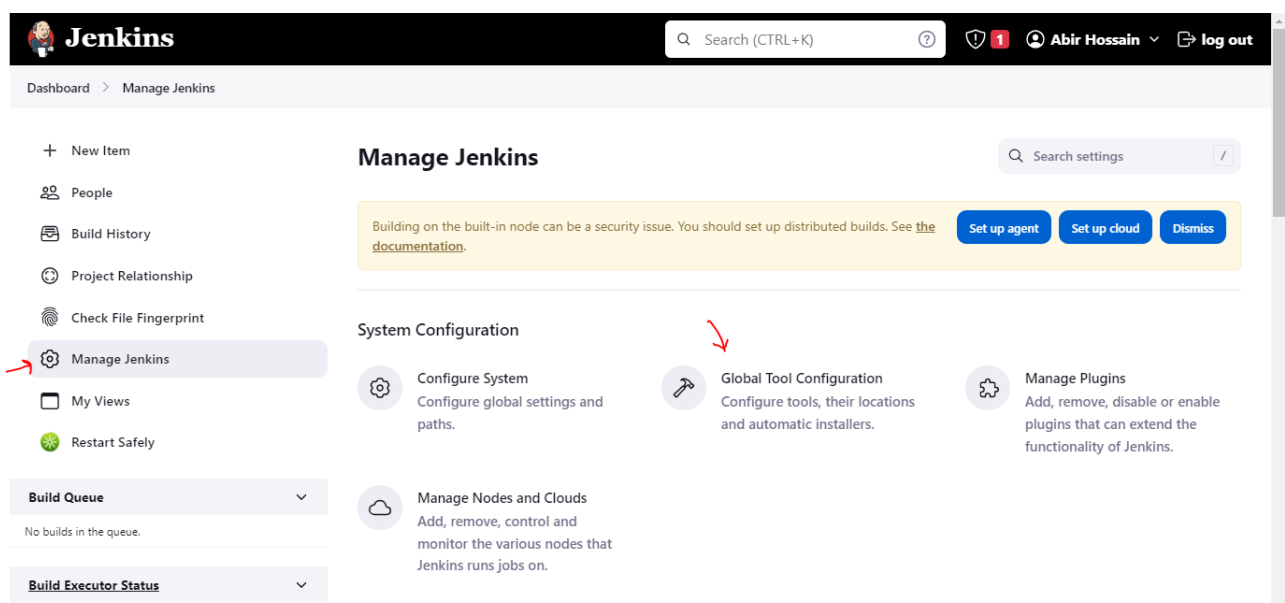
```
# add the CAP_NET_BIND_SERVICE capability to the AmbientCapabilities
# directive below.
Environment="JENKINS_PORT=8090"
# IP address to listen on for HTTPS requests. Default is disabled
```

5. Start the jenkins service

```
systemctl start jenkins.service
systemctl enable jenkins.service
```

6. Go to the the master machine ip in port 8090. For my case `192.168.20.246:8090` use the password found in `/var/lib/jenkins/secrets/initialAdminPassword` also make a new user. Add Ansible plugin.

7. Some configuration is needed in `Global Tool Configuration`



Git installations

≡ Git

Name

Default


Path to Git executable ?

/usr/bin/git

☐ Install automatically ?

Add Git ▾

Ansible

Ansible installations ^  Edited

Ansible installations

List of Ansible installations on this system

Add Ansible

Ansible

Name

ansible

Path to ansible executables directory

/usr/bin

☐ Install automatically ?

Add Ansible

Note: I have also setup jenkins reverse proxy for jenkins using nginx as per the documentation found in the jenkins website.

Step 4

Github project code modifications

The project source code required some slight modifications to work for my project. The db connection has been changed as per the following image. 2 files needed this change which are as follows, the `config.php` file in includes and admin/includes directory.

```

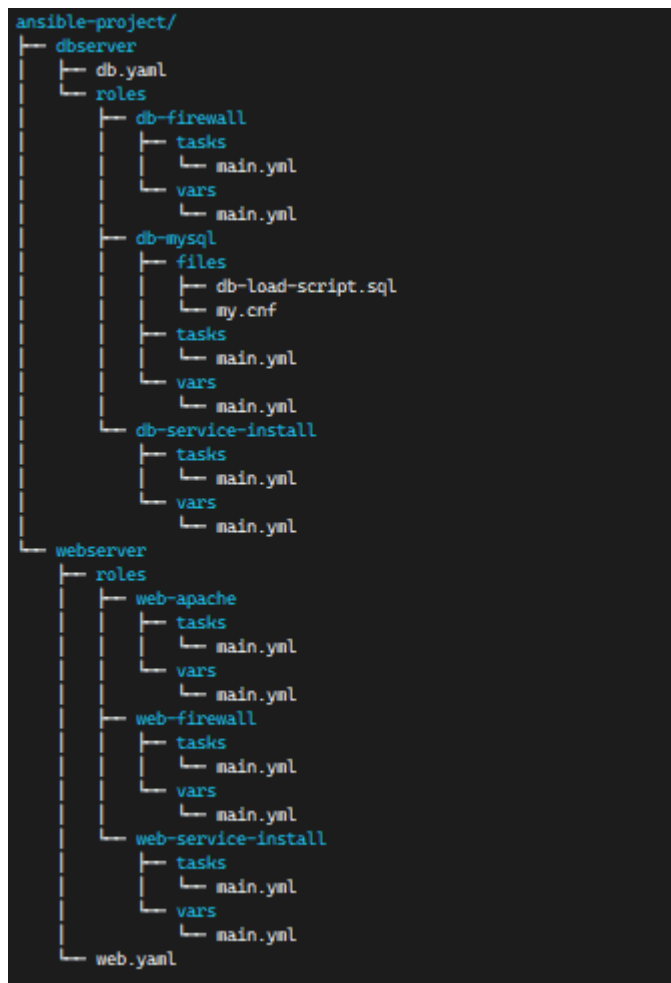
Code Blame 16 lines (16 loc) · 397 Bytes
1  <?php
2  // DB credentials.
3  define('DB_HOST','192.168.20.124');
4  define('DB_USER','librarian');
5  define('DB_PASS','librarypass');
6  define('DB_NAME','library');
7  // Establish database connection.
8  try
9  {
10 $dbh = new PDO("mysql:host=".DB_HOST.";dbname=".DB_NAME,DB_USER, DB_PASS,array(PDO::MYSQL_ATTR_INIT_COMMAND => "SET NAMES 'utf8'"));
11 }
12 catch (PDOException $e)
13 {
14     exit("Error: " . $e->getMessage());
15 }
16 ?>

```

Step 5

Ansible playbook

1. We will use the command `ansible-galaxy init file-name` to create roles
2. The roles created sum up to the following tree. The tree structure shows my ansible playbooks with roles implemented.



We created dbserver and webserver directory in ansible-project. Then we created role directory and created role with the command.

3. For the dbserver we will run the roles through the `db.yaml` file.

```
- name: DB Service
hosts: dbservers
roles:
  - db-service-install
  - db-firewall
  - db-mysql
```

The db-service-role installs the packages from vars.

```
---
- name: Installation packages and services for DB server
  yum:
    name: '{{ item }}'
    state: installed
  loop: '{{ packages }}'
  tags: installation
```

```
---
packages:
  - libselinux-python
  - libsemanage-python
  - mariadb-server
  - MySQL-python
  - php-mysql
```

The db-firewall role adds rule exception and restarts it.

```
---
- name: Start firewalld
  service:
    name: firewalld
    state: started
    enabled: true
  tags: started firewalld

- name: Insert firewalld rule for mysql
  firewalld:
    port: '{{ mysql_port }}/tcp'
    permanent: true
    immediate: true
    state: enabled
  tags: open port for mysql

- name: Restart firewalld
  service:
    name: firewalld
```

```
state: reloaded
enabled: true
tags: restarted firewalld
```

```
---
mysql_port: 3306
```

The db-mysql role imports database

```
---
- name: Copy mysql configuration file
  copy:
    src: files/my.cnf
    dest: /etc/my.cnf
    tags: mysql conf copy

- name: Start MariaDB service
  service:
    name: mariadb
    state: started
    enabled: true
    tags: started mariadb

- name: Create Application Database
  mysql_db:
    name: '{{ dbname }}'
    state: present
    tags: created database

- name: Create Application DB User
  mysql_user:
    name: '{{ dbuser }}'
    password: '{{ dbpassword }}'
    priv: '*.*:ALL'
    host: '{{ sql_host }}'
    state: present
    tags: created user

- name: Move db-load-script to db host
  copy:
    src: files/db-load-script.sql
    dest: /tmp/db-load-script.sql
    tags: copy sql

- name: Load db data
  mysql_db:
    name: library
    encoding: latin1
    target: /tmp/db-load-script.sql
```

```
state: import
tags: run sql
```

```
---
dbname: library
dbuser: librarian
dbpassword: librarypass
sql_host: 192.168.20.124
```

```
GRANT ALL PRIVILEGES ON *.* TO 'librarian'@'192.168.20.135' IDENTIFIED BY
'librarypass' WITH GRANT OPTION;
FLUSH PRIVILEGES;
USE library;

CREATE TABLE `admin` (
  `id` int(11) NOT NULL,
  `FullName` varchar(100) DEFAULT NULL,
  `AdminEmail` varchar(120) DEFAULT NULL,
  `UserName` varchar(100) NOT NULL,
  `Password` varchar(100) NOT NULL,
  `updatetime` timestamp NOT NULL DEFAULT '0000-00-00 00:00:00' ON UPDATE
current_timestamp()
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

--
-- Dumping data for table `admin`
--

INSERT INTO `admin` (`id`, `FullName`, `AdminEmail`, `UserName`, `Password`,
`updatetime`) VALUES
(1, 'Kumar Pandule', 'kumarpandule@gmail.com', 'admin',
'e6e061838856bf47e1de730719fb2609', '2021-06-28 16:06:08');

--
-- Table structure for table `tblauthors`
--

CREATE TABLE `tblauthors` (
  `id` int(11) NOT NULL,
  `AuthorName` varchar(159) DEFAULT NULL,
  `creationDate` timestamp NULL DEFAULT current_timestamp(),
  `Updatetime` timestamp NULL DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

--
-- Dumping data for table `tblauthors`
--
```



```

INSERT INTO `tblauthors` (`id`, `AuthorName`, `creationDate`,
`UpdationDate`) VALUES
(1, 'Kumar Pandule', '2017-07-08 12:49:09', '2021-06-28 16:03:28'),
(2, 'Kumar', '2017-07-08 14:30:23', '2021-06-28 16:03:35'),
(3, 'Rahul', '2017-07-08 14:35:08', '2021-06-28 16:03:43'),
(4, 'HC Verma', '2017-07-08 14:35:21', NULL),
(5, 'R.D. Sharma ', '2017-07-08 14:35:36', NULL),
(9, 'fwdfrwer', '2017-07-08 15:22:03', NULL);

-- -----

--
-- Table structure for table `tblbooks`
--

CREATE TABLE `tblbooks` (
`id` int(11) NOT NULL,
`BookName` varchar(255) DEFAULT NULL,
`CatId` int(11) DEFAULT NULL,
`AuthorId` int(11) DEFAULT NULL,
`ISBNNumber` int(11) DEFAULT NULL,
`BookPrice` int(11) DEFAULT NULL,
`RegDate` timestamp NULL DEFAULT current_timestamp(),
`UpdationDate` timestamp NULL DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

--
-- Dumping data for table `tblbooks`
--

INSERT INTO `tblbooks` (`id`, `BookName`, `CatId`, `AuthorId`, `ISBNNumber`,
`BookPrice`, `RegDate`, `UpdationDate`) VALUES
(1, 'PHP And MySql programming', 5, 1, 222333, 20, '2017-07-08 20:04:55',
'2017-07-15 05:54:41'),
(3, 'physics', 6, 4, 1111, 15, '2017-07-08 20:17:31', '2017-07-15
06:13:17');

-- -----

--
-- Table structure for table `tblcategory`
--

CREATE TABLE `tblcategory` (
`id` int(11) NOT NULL,
`CategoryName` varchar(150) DEFAULT NULL,
`Status` int(1) DEFAULT NULL,
`CreationDate` timestamp NULL DEFAULT current_timestamp(),
`UpdationDate` timestamp NULL DEFAULT '0000-00-00 00:00:00'
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

--
-- Dumping data for table `tblcategory`

```

```
--

INSERT INTO `tblcategory` (`id`, `CategoryName`, `Status`, `CreationDate`,
`UpdationDate`) VALUES
(4, 'Romantic', 1, '2017-07-04 18:35:25', '2017-07-06 16:00:42'),
(5, 'Technology', 1, '2017-07-04 18:35:39', '2017-07-08 17:13:03'),
(6, 'Science', 1, '2017-07-04 18:35:55', '0000-00-00 00:00:00'),
(7, 'Management', 0, '2017-07-04 18:36:16', '0000-00-00 00:00:00');

-- -----

--
-- Table structure for table `tblissuedbookdetails`
--

CREATE TABLE `tblissuedbookdetails` (
`id` int(11) NOT NULL,
`BookId` int(11) DEFAULT NULL,
`StudentID` varchar(150) DEFAULT NULL,
`IssuesDate` timestamp NULL DEFAULT current_timestamp(),
`ReturnDate` timestamp NULL DEFAULT NULL,
`RetrunStatus` int(1) DEFAULT NULL,
`fine` int(11) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

--
-- Dumping data for table `tblissuedbookdetails`
--

INSERT INTO `tblissuedbookdetails` (`id`, `BookId`, `StudentID`,
`IssuesDate`, `ReturnDate`, `RetrunStatus`, `fine`) VALUES
(1, 1, 'SID002', '2017-07-15 06:09:47', '2017-07-15 11:15:20', 1, 0),
(2, 1, 'SID002', '2017-07-15 06:12:27', '2017-07-15 11:15:23', 1, 5),
(3, 3, 'SID002', '2017-07-15 06:13:40', NULL, 0, NULL),
(4, 3, 'SID002', '2017-07-15 06:23:23', '2017-07-15 11:22:29', 1, 2),
(5, 1, 'SID009', '2017-07-15 10:59:26', NULL, 0, NULL),
(6, 3, 'SID011', '2017-07-15 18:02:55', NULL, 0, NULL);

-- -----

--
-- Table structure for table `tblstudents`
--

CREATE TABLE `tblstudents` (
`id` int(11) NOT NULL,
`StudentId` varchar(100) DEFAULT NULL,
`FullName` varchar(120) DEFAULT NULL,
`EmailId` varchar(120) DEFAULT NULL,
`MobileNumber` char(11) DEFAULT NULL,
`Password` varchar(120) DEFAULT NULL,
`Status` int(1) DEFAULT NULL,
`RegDate` timestamp NULL DEFAULT current_timestamp(),
`UpdationDate` timestamp NULL DEFAULT NULL
```

```
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

--
-- Dumping data for table `tblstudents`
--

INSERT INTO `tblstudents` (`id`, `StudentId`, `FullName`, `EmailId`,
`MobileNumber`, `Password`, `Status`, `RegDate`, `UpdationDate`) VALUES
(1, 'SID002', 'Anuj kumar', 'anuj.lpu1@gmail.com', '9865472555',
'f925916e2754e5e03f75dd58a5733251', 1, '2017-07-11 15:37:05', '2017-07-15
18:26:21'),
(4, 'SID005', 'sdfsd', 'csfsd@dfsfsks.com', '8569710025',
'92228410fc8b872914e023160cf4ae8f', 0, '2017-07-11 15:41:27', '2017-07-15
17:43:03'),
(8, 'SID009', 'test', 'test@gmail.com', '2359874527',
'f925916e2754e5e03f75dd58a5733251', 1, '2017-07-11 15:58:28', '2017-07-15
13:42:44'),
(9, 'SID010', 'Amit', 'amit@gmail.com', '8585856224',
'f925916e2754e5e03f75dd58a5733251', 1, '2017-07-15 13:40:30', NULL),
(10, 'SID011', 'Sarita Pandey', 'sarita@gmail.com', '4672423754',
'f925916e2754e5e03f75dd58a5733251', 1, '2017-07-15 18:00:59', NULL);

--
-- Indexes for dumped tables
--

--
-- Indexes for table `admin`
--
ALTER TABLE `admin`
ADD PRIMARY KEY (`id`);

--
-- Indexes for table `tblauthors`
--
ALTER TABLE `tblauthors`
ADD PRIMARY KEY (`id`);

--
-- Indexes for table `tblbooks`
--
ALTER TABLE `tblbooks`
ADD PRIMARY KEY (`id`);

--
-- Indexes for table `tblcategory`
--
ALTER TABLE `tblcategory`
ADD PRIMARY KEY (`id`);

--
-- Indexes for table `tblissuedbookdetails`
--
ALTER TABLE `tblissuedbookdetails`
```

```
ADD PRIMARY KEY (`id`);

--
-- Indexes for table `tblstudents`
--
ALTER TABLE `tblstudents`
ADD PRIMARY KEY (`id`),
ADD UNIQUE KEY `StudentId` (`StudentId`);

--
-- AUTO_INCREMENT for dumped tables
--

--
-- AUTO_INCREMENT for table `admin`
--
ALTER TABLE `admin`
MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=2;

--
-- AUTO_INCREMENT for table `tblauthors`
--
ALTER TABLE `tblauthors`
MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=10;

--
-- AUTO_INCREMENT for table `tblbooks`
--
ALTER TABLE `tblbooks`
MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=4;

--
-- AUTO_INCREMENT for table `tblcategory`
--
ALTER TABLE `tblcategory`
MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=8;

--
-- AUTO_INCREMENT for table `tblissuedbookdetails`
--
ALTER TABLE `tblissuedbookdetails`
MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=7;

--
-- AUTO_INCREMENT for table `tblstudents`
--
ALTER TABLE `tblstudents`
MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=11;
COMMIT;
```

```
[mysqld]
datadir=/var/lib/mysql
socket=/var/lib/mysql/mysql.sock
symbolic-links=0
[mysqld_safe]
log-error=/var/log/mariadb/mariadb.log
pid-file=/var/run/mariadb/mariadb.pid
!includedir /etc/my.cnf.d
```

4. For the websrver we will run the the roles through the `web.yaml` file.

```
- name: Web Service
  hosts: webservers
  roles:
    - web-service-install
    - web-firewall
    - web-apache
```

The web-service-install role is for installation

```
---
- name: Installation packages and services for Web server
  yum:
    name: '{{ item }}'
    state: installed
  loop: '{{ packages }}'
  tags: installaton
```

```
---
packages:
- libselinux-python
- libsemanage-python
- httpd
- git
- php
- php-mysql
```

The web-firewall role allows exception for port 80 and 3306

```
---
- name: Start firewallld
  service:
    name: firewallld
    state: started
```

```
    enabled: true
    tags: started firewalld

- name: Insert firewalld rule for apache
  firewalld:
    port: '{{ httpd_port }}/tcp'
    permanent: true
    immediate: true
    state: enabled
    tags: open port for apache

- name: Insert firewalld rule for mysql
  firewalld:
    port: '{{ mysql_port }}/tcp'
    permanent: true
    immediate: true
    state: enabled
    tags: open port for mysql
```

```
---
httpd_port: 80
mysql_port: 3306
```

The web-apache role configures apache and sets up the webpage

```
---
- name: document root exist
  file:
    path: '/var/www/{{ http_host }}'
    state: directory
    owner: root
    mode: '0755'
    tags: make root directory

- name: Set index.php as the default page
  replace:
    path: /etc/httpd/conf/httpd.conf
    regexp: 'DirectoryIndex index.html'
    replace: '#DirectoryIndex index.html \nDirectoryIndex index.php'
    tags: changed apache index from html to php file

- name: Start Apache service
  service:
    name: httpd
    enabled: true
    state: started
    tags: started apache

- name: Configuration of apache server
```

```

template:
  src: myconf.conf.j2
  dest: '/etc/httpd/conf.d/{{http_host}}.conf'
  mode: '0644'
notify: apache restart
tags: configure apache

- name: Copy the code from repository
  git:
    repo: '{{ repository }}'
    dest: '/var/www/{{ http_host }}/'
    force: true
    tags: copy repo

```

```

---
# This is a handler
- name: apache restart
service:
  name: httpd
  state: restarted
tags: restarted apache

```

```

# This is a virtual host configuration file using jinja2
<VirtualHost *:80>
  ServerName {{ server }}
  ServerAlias {{http_host}}
  DocumentRoot /var/www/{{http_host}}
  ErrorLog /var/www/{{http_host}}/error.log
  CustomLog /var/www/{{http_host}}/requests.log combined

  <Directory /var/www/{{http_host}}>
    Options Indexes FollowSymLinks
    AllowOverride None
    Require all granted
  </Directory>
</VirtualHost>

```

```

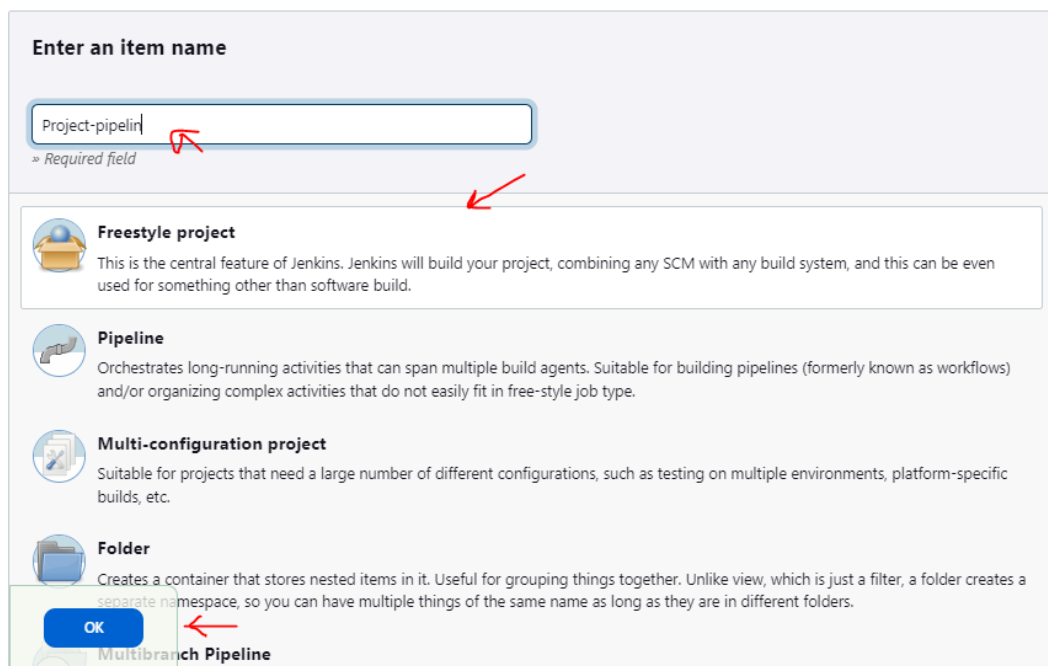
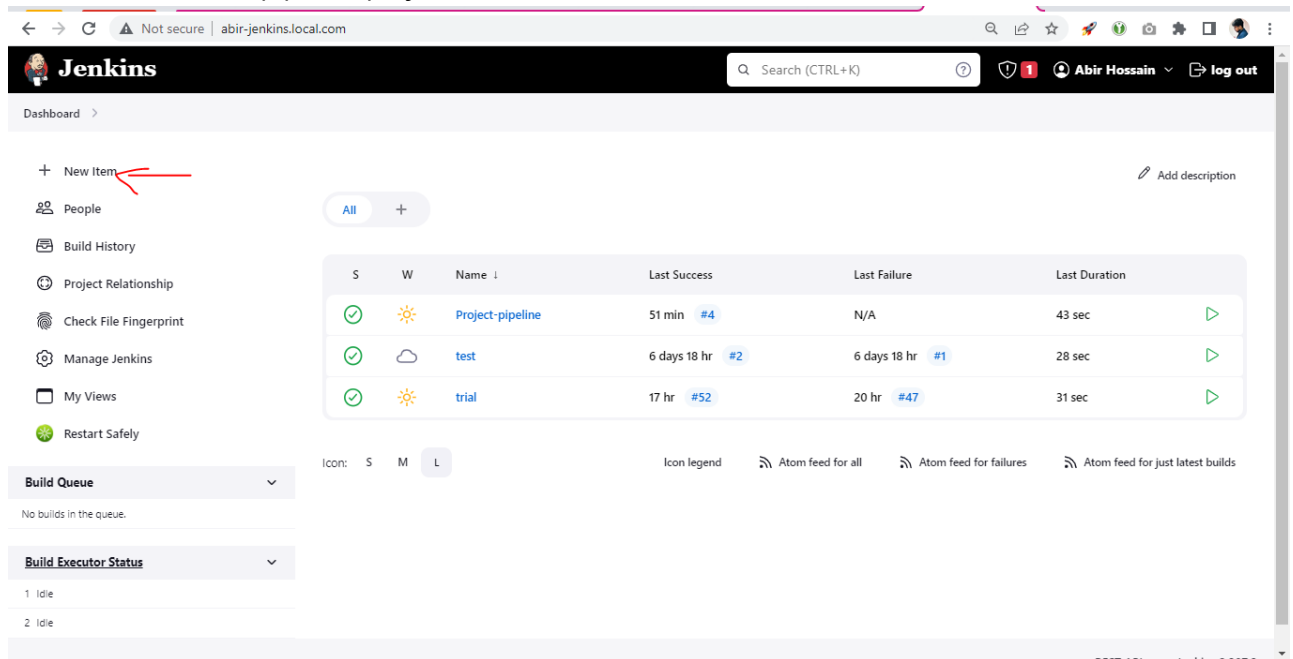
---
http_host: library.com
server: 192.168.20.135
repository: https://github.com/AbirHossainDevOps/library.git

```

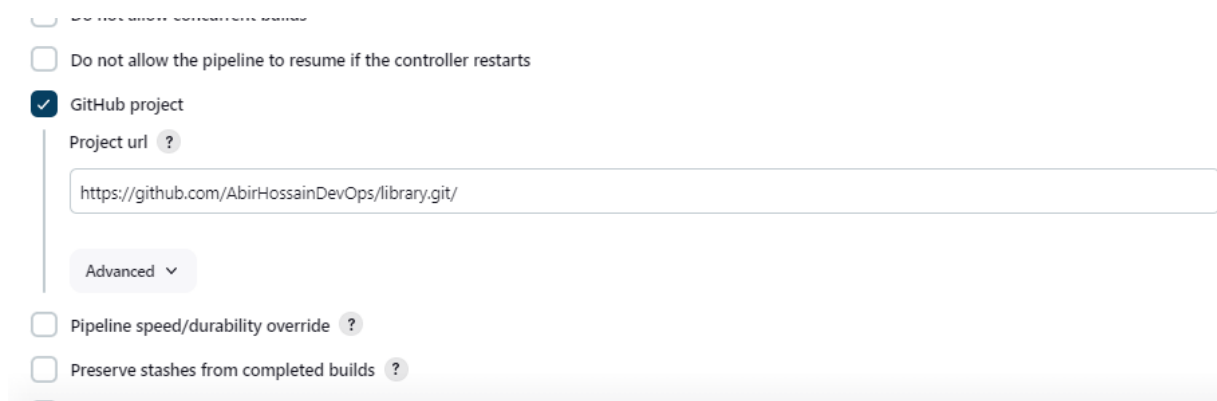
Step 5

Jenkins work

1. We have to create a pipeline project



2. Now doing the following



Build Triggers

- ☐ Build after other projects are built ?
- ☐ Build periodically ?
- ☐ GitHub hook trigger for GITScm polling ?
- ☒ Poll SCM ?

Schedule ?

H/2 * * * *

Would last have run at Friday, May 26, 2023 at 12:01:14 PM Bangladesh Standard Time; would next run at Friday, May 26, 2023 at 12:03:14 PM Bangladesh Standard Time.

- ☐ Ignore post-commit hooks ?
- ☐ Quiet period ?
- ☐ Trigger builds remotely (e.g., from scripts) ?

In the pipeline script I created this script using pipeline-syntax module from jenkins.

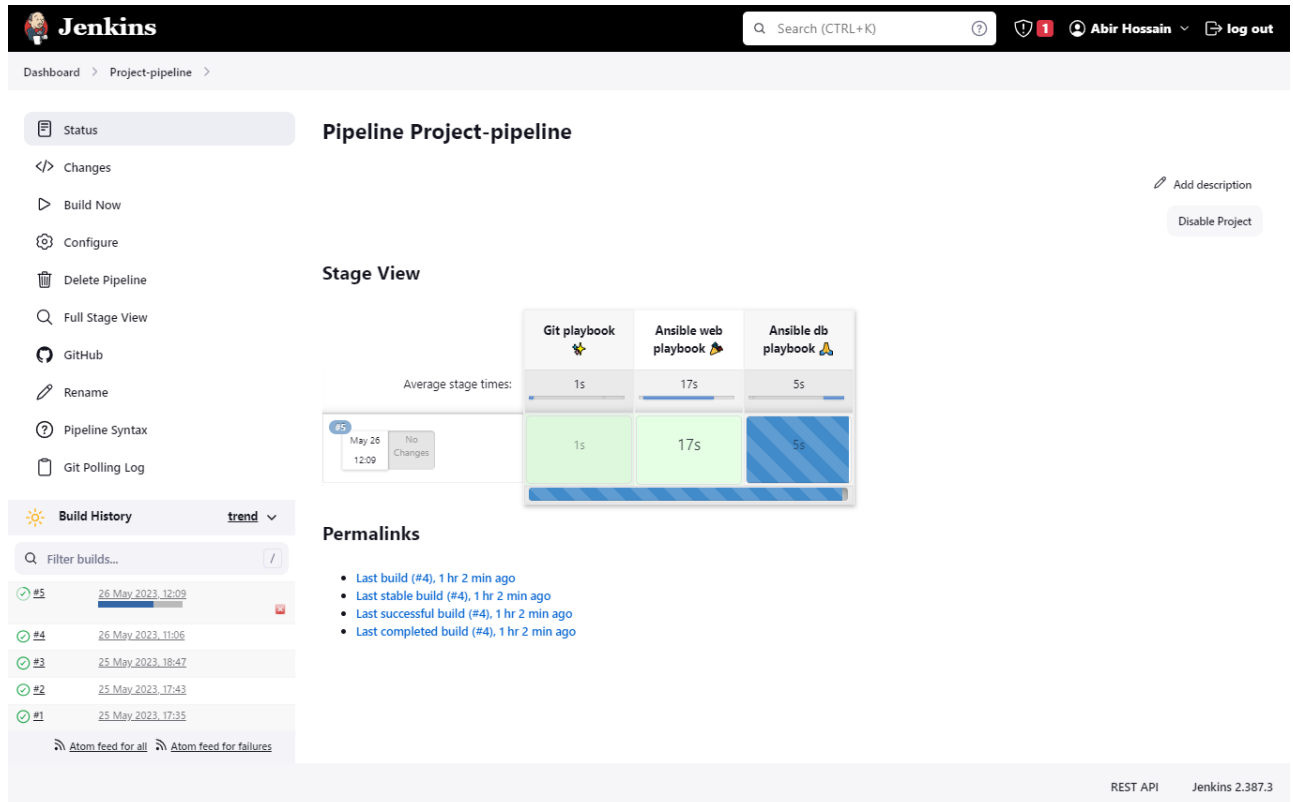
```

pipeline {
    agent any

    stages {
        stage('Git playbook 🚀') {
            steps {
                git branch: 'main', credentialsId: '12c630aa-5df4-4da9-b530-3b2c6404cf61', url: 'https://github.com/AbirHossainDevOps/library.git'
            }
        }
        stage('Ansible web playbook 🌐') {
            steps {
                ansiblePlaybook become: true, credentialsId: '12c630aa-5df4-4da9-b530-3b2c6404cf61', installation: 'ansible', inventory: '/etc/ansible/hosts', playbook: '/opt/ansible-project/webserver/web.yaml'
                echo 'DONE with the webpage 🎉'
            }
        }
        stage('Ansible db playbook 🙏') {
            steps {
                sh 'sudo ansible-playbook /opt/ansible-project/dbserver/db.yaml --vault-password-file /opt/pass.txt '
                echo 'DONE with the db 🙌'
            }
        }
    }
}

```

3. By using **Build Now** we run the pipeline



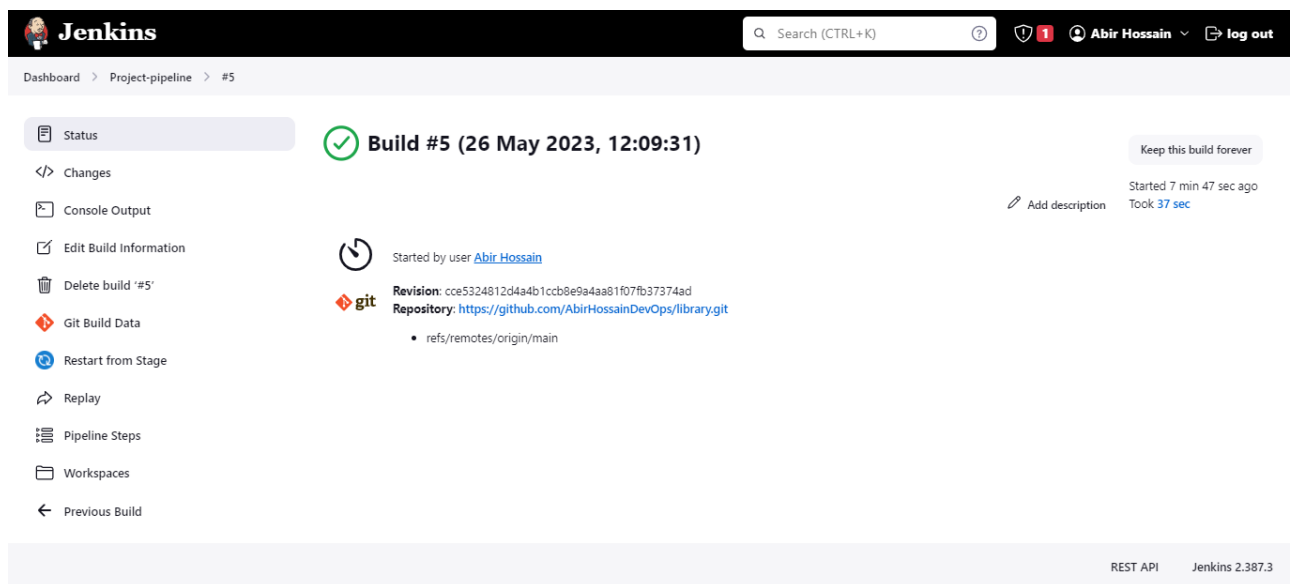
The Jenkins dashboard for the 'Project-pipeline' project. The left sidebar contains navigation links: Status, Changes, Build Now, Configure, Delete Pipeline, Full Stage View, GitHub, Rename, Pipeline Syntax, and Git Polling Log. The main area shows the 'Pipeline Project-pipeline' overview with a 'Stage View' table and a 'Permalinks' section.

Stage	Git playbook	Ansible web playbook	Ansible db playbook
Average stage times:	1s	17s	5s
25 May 26 12:09	1s	17s	5s

Permalinks

- Last build (#4), 1 hr 2 min ago
- Last stable build (#4), 1 hr 2 min ago
- Last successful build (#4), 1 hr 2 min ago
- Last completed build (#4), 1 hr 2 min ago

Build History: #5 (26 May 2023, 12:09), #4 (26 May 2023, 11:06), #3 (25 May 2023, 18:47), #2 (25 May 2023, 17:43), #1 (25 May 2023, 17:35). REST API Jenkins 2.387.3



The Jenkins dashboard for the 'Project-pipeline' project, showing details for Build #5 (26 May 2023, 12:09:31). The left sidebar contains navigation links: Status, Changes, Console Output, Edit Build Information, Delete build '#5', Git Build Data, Restart from Stage, Replay, Pipeline Steps, Workspaces, and Previous Build. The main area shows the build status, user, revision, and repository.

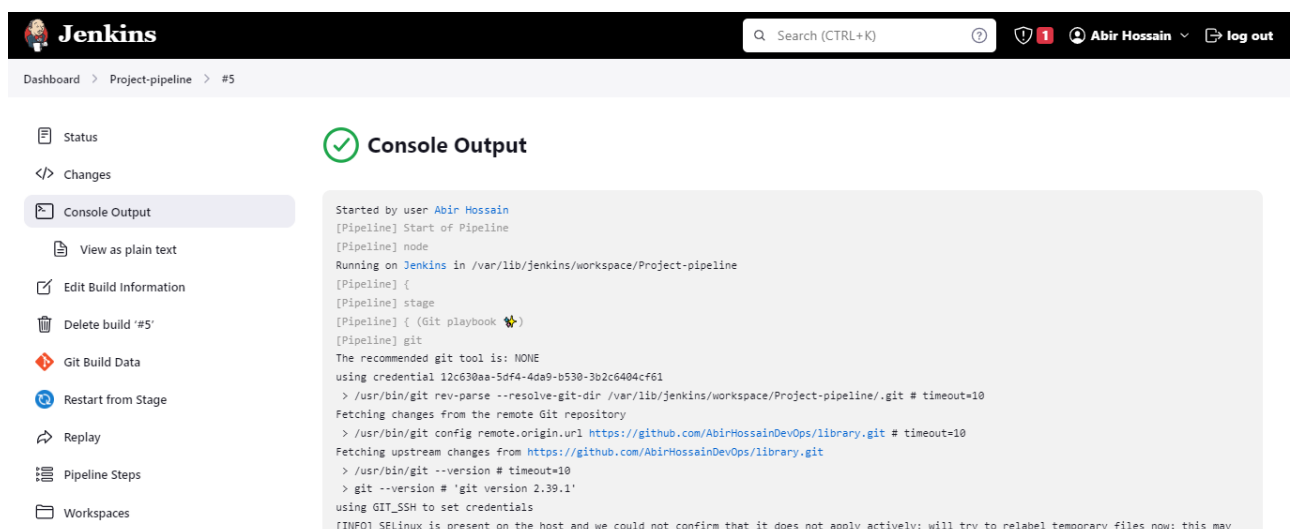
Build #5 (26 May 2023, 12:09:31)

Started by user [Abir Hossain](#)

Revision: cce5324812d4a4b1ccb8e9a4aa81f07fb37374ad
Repository: <https://github.com/AbirHossainDevOps/library.git>

- refs/remotes/origin/main

REST API Jenkins 2.387.3



The Jenkins dashboard for the 'Project-pipeline' project, showing the console output for Build #5. The left sidebar contains navigation links: Status, Changes, Console Output, View as plain text, Edit Build Information, Delete build '#5', Git Build Data, Restart from Stage, Replay, Pipeline Steps, and Workspaces. The main area shows the console output text.

Console Output

```
Started by user Abir Hossain
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/Project-pipeline
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Git playbook)
[Pipeline] git
The recommended git tool is: NONE
using credential 12c630aa-5df4-4da9-b530-3b2c6404cf61
> /usr/bin/git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/Project-pipeline/.git # timeout=10
Fetching changes from the remote Git repository
> /usr/bin/git config remote.origin.url https://github.com/AbirHossainDevOps/library.git # timeout=10
Fetching upstream changes from https://github.com/AbirHossainDevOps/library.git
> /usr/bin/git --version # timeout=10
> git --version # 'git version 2.39.1'
using GIT_SSH to set credentials
[INFO] SELinux is present on the host and we could not confirm that it does not apply actively: will try to relabel temporary files now; this may
```

[← Previous Build](#)

```

complain if context labeling not applicable after all
> /usr/bin/chcon --type=ssh_home_t /var/lib/jenkins/workspace/Project-pipeline/tmp/jenkins-gitclient-ssh13325146485080788589.key
Verifying host key using known hosts file
> /usr/bin/git fetch --tags --force --progress -- https://github.com/AbirHossainDevOps/library.git +refs/heads/*:refs/remotes/origin/* #
timeout=10
> /usr/bin/git rev-parse refs/remotes/origin/main^(commit) # timeout=10
Checking out Revision cce5324812d4a4b1ccb8e9a4aa81f07fb37374ad (refs/remotes/origin/main)
> /usr/bin/git config core.sparsecheckout # timeout=10
> /usr/bin/git checkout -f cce5324812d4a4b1ccb8e9a4aa81f07fb37374ad # timeout=10
> /usr/bin/git branch -a -v --no-abbrev # timeout=10
> /usr/bin/git branch -D main # timeout=10
> /usr/bin/git checkout -b main cce5324812d4a4b1ccb8e9a4aa81f07fb37374ad # timeout=10
Commit message: "Update signup.php"
> /usr/bin/git rev-list --no-walk cce5324812d4a4b1ccb8e9a4aa81f07fb37374ad # timeout=10
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Ansible web playbook 🐳)
[Pipeline] ansiblePlaybook
[Project-pipeline] $ /usr/bin/ansible-playbook /opt/ansible-project/webserver/web.yaml -i /etc/ansible/hosts -b --become-user root --private-key
/var/lib/jenkins/workspace/Project-pipeline/ssh10733255323253022145.key -u root

PLAY [Web Service] *****

TASK [Gathering Facts] *****
ok: [webserver]

TASK [web-service-install : Installation packages and services for Web server] ***
ok: [webserver] => (item=libselinux-python)
ok: [webserver] => (item=libsemanage-python)
ok: [webserver] => (item=httpd)
ok: [webserver] => (item=git)
ok: [webserver] => (item=php)
ok: [webserver] => (item=php-mysql)

TASK [web-firewall : Start firewall] *****
ok: [webserver]

TASK [web-firewall : Insert firewall rule for apache] *****
ok: [webserver]

TASK [web-firewall : Insert firewall rule for mysql] *****
ok: [webserver]

TASK [web-apache : document root exist] *****
ok: [webserver]

TASK [web-apache : Set index.php as the default page] *****
changed: [webserver]

TASK [web-apache : Start Apache service] *****
ok: [webserver]

TASK [web-apache : Configuration of apache server] *****
ok: [webserver]

TASK [web-apache : Copy the code from repository] *****
ok: [webserver]

PLAY RECAP *****
webserver          : ok=10  changed=1  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0

[Pipeline] echo
DONE with the webpage 🐳
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Ansible db playbook 🐳)
[Pipeline] sh
+ sudo ansible-playbook /opt/ansible-project/dbserver/db.yaml --vault-password-file /opt/pass.txt

PLAY [DB Service] *****

TASK [Gathering Facts] *****
ok: [dbserver]

TASK [db-service-install : Installation packages and services for DB server] ***
ok: [dbserver] => (item=libselinux-python)
ok: [dbserver] => (item=libsemanage-python)
ok: [dbserver] => (item=mariadb-server)
ok: [dbserver] => (item=MySQL-python)
ok: [dbserver] => (item=php-mysql)

TASK [db-firewall : Start firewall] *****
ok: [dbserver]

TASK [db-firewall : Insert firewall rule for mysql] *****
ok: [dbserver]

TASK [db-firewall : Restart firewall] *****
changed: [dbserver]

TASK [db-mysql : Copy mysql configuration file] *****
ok: [dbserver]

TASK [db-mysql : Start MariaDB service] *****
ok: [dbserver]

TASK [db-mysql : Create Application Database] *****
ok: [dbserver]

TASK [db-mysql : Create Application DB User] *****
ok: [dbserver]

TASK [db-mysql : Move db-load-script to db host] *****
ok: [dbserver]

TASK [db-mysql : Load db data] *****
changed: [dbserver]

PLAY RECAP *****


```





REST API Jenkins 2.387.3

Split	Unified
--------------	----------------

 Lock conversation

REST API jenkins 2 387 3

 **Jenkins**

Search (CTRL+K)   1  Abir Hossain  log out

Dashboard > Project-pipeline > #6

Status

Changes

Console Output

Edit Build Information

Polling Log

Git Build Data

Thread Dump

Pause/resume

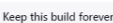
Replay


Pipeline Steps

Workspaces

Previous Build


Build #6 (26 May 2023, 12:23:10)


Progress: 

Started 36 sec ago 

Changes


1. Update index.php (commit: a2b427e) (details / githubweb)





 Started by an SCM change

 **Revision:** a2b427edfd8594ddaeeaa276aa0a52b27dbcaa39
Repository: <https://github.com/AbirHossainDevOps/library.git>

- refs/remotes/origin/main

REST API Jenkins 2.387.3

 **Jenkins**

Search (CTRL+K)   1  Abir Hossain  log out

Dashboard > Project-pipeline > #6

Status

Changes

Console Output

View as plain text

Edit Build Information

Delete build '#6'

Polling Log

Git Build Data

Restart from Stage

Replay

Pipeline Steps

Workspaces

Previous Build

Console Output

Started by an SCM change
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/Project-pipeline
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Git playbook)
[Pipeline] git
The recommended git tool is: NONE
using credential 12c630aa-5df4-4de9-b530-3b2c6404cf61
> /usr/bin/git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/Project-pipeline/.git # timeout=10
Fetching changes from the remote Git repository
> /usr/bin/git config remote.origin.url https://github.com/AbirHossainDevOps/library.git # timeout=10
Fetching upstream changes from https://github.com/AbirHossainDevOps/library.git
> /usr/bin/git --version # timeout=10
> git --version # 'git version 2.39.1'
using GIT_SSH to set credentials
[INFO] SELinux is present on the host and we could not confirm that it does not apply actively: will try to relabel temporary files now; this may complain if context labeling not applicable after all
> /usr/bin/chcon --type=ssh_home_t /var/lib/jenkins/workspace/Project-pipeline@tmp/jenkins-gitclient-ssh5619242344905349013.key
Verifying host key using known hosts file
> /usr/bin/git fetch --tags --force --progress -- https://github.com/AbirHossainDevOps/library.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> /usr/bin/git rev-parse refs/remotes/origin/main^(commit) # timeout=10
Checking out Revision a2b427edfd8594ddaeeaa276aa0a52b27dbcaa39 (refs/remotes/origin/main)
> /usr/bin/git config core.sparsecheckout # timeout=10
> /usr/bin/git checkout -f a2b427edfd8594ddaeeaa276aa0a52b27dbcaa39 # timeout=10
> /usr/bin/git branch -a -v --no-abbrev # timeout=10
> /usr/bin/git branch -D main # timeout=10
> /usr/bin/git checkout -b main a2b427edfd8594ddaeeaa276aa0a52b27dbcaa39 # timeout=10
Commit message: "Update index.php"
> /usr/bin/git rev-list --no-walk cce5324812d4a4b1ccb8e9a4aa81f07fb37374ad # timeout=10
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Ansible web playbook)
[Pipeline] ansiblePlaybook
[Project-pipeline] \$ /usr/bin/ansible-playbook /opt/ansible-project/webserver/web.yaml -i /etc/ansible/hosts -b --become-user root --private-key /var/lib/jenkins/workspace/Project-pipeline/ssh7683494360235899326.key -u root

PLAY [Web Service] *****

TASK [Gathering Facts] *****
ok: [webserver]

TASK [web-service-install : Installation packages and services for Web server] ***
ok: [webserver] => (item=libselinux-python)
ok: [webserver] => (item=libsemanage-python)
ok: [webserver] => (item=httpd)
ok: [webserver] => (item=git)
ok: [webserver] => (item=php)
ok: [webserver] => (item=php-mysql)

TASK [web-firewall : Start firewall] *****
ok: [webserver]

TASK [web-firewall : Insert firewall rule for apache] *****
ok: [webserver]

TASK [web-firewall : Insert firewall rule for mysql] *****
ok: [webserver]

TASK [web-apache : document root exist] *****
ok: [webserver]

```

TASK [web-apache : Set index.php as the default page] *****
changed: [webserver]

TASK [web-apache : Start Apache service] *****
ok: [webserver]

TASK [web-apache : Configuration of apache server] *****
ok: [webserver]

TASK [web-apache : Copy the code from repository] *****
changed: [webserver]

PLAY RECAP *****
webserver          : ok=10  changed=2  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0

[Pipeline] echo
DONE with the webpage 🍌
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Ansible db playbook 🍌)
[Pipeline] sh
+ sudo ansible-playbook /opt/ansible-project/dbserver/db.yaml --vault-password-file /opt/pass.txt

PLAY [DB Service] *****

TASK [Gathering Facts] *****
ok: [dbserver]

TASK [db-service-install : Installation packages and services for DB server] ***
ok: [dbserver] => (item=libselinux-python)
ok: [dbserver] => (item=libsemanage-python)
ok: [dbserver] => (item=mariadb-server)
ok: [dbserver] => (item=MySQL-python)
ok: [dbserver] => (item=php-mysql)

TASK [db-firewall : Start firewall] *****
ok: [dbserver]

TASK [db-firewall : Insert firewall rule for mysql] *****
ok: [dbserver]

TASK [db-firewall : Restart firewall] *****
changed: [dbserver]

TASK [db-mysql : Copy mysql configuration file] *****
ok: [dbserver]

TASK [db-mysql : Start MariaDB service] *****
ok: [dbserver]

TASK [db-mysql : Create Application Database] *****
ok: [dbserver]

TASK [db-mysql : Create Application DB User] *****
ok: [dbserver]

TASK [db-mysql : Move db-load-script to db host] *****
changed: [dbserver]

TASK [db-mysql : Load db data] *****
changed: [dbserver]

PLAY RECAP *****
dbserver          : ok=11  changed=3  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0

[Pipeline] echo
DONE with the db 🍌
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS

```

REST API Jenkins 2.387.3

The website

The website look as such

USER LOGIN FORM

LOGIN FORM

Enter Email id

Password

[Forgot Password](#)

Verification code : 99999

LOGIN

 | [Not Register Yet](#)



USER SIGNUP

SINGUP FORM

Enter Full Name

Mobile Number :


Enter Email

Enter Password

Confirm Password

Verification code : 99999

Register Now




Online Library
Management System

LOG ME OUT


DASHBOARD CATEGORIES ▾ AUTHORS ▾ BOOKS ▾ ISSUE BOOKS ▾ REG STUDENTS CHANGE PASSWORD

ADMIN DASHBOARD




2

Books Listed




6

Times Book Issued




3

Times Books Returned




6

Registered Users




2

Authors Listed




6

Listed Categories



© 2017 Online Library Management System | Designed by : Kumar Pandule




Online Library
Management System

LOG ME OUT


DASHBOARDACCOUNT ▼ISSUED BOOKS

ADMIN DASHBOARD



1


Book Issued



1

Books Not Returned Yet

© 2019 Online Library Management System | Designed by : Kumar Pandule



Online Library
Management System

LOG ME OUT

DASHBOARDACCOUNT ▼ISSUED BOOKS

MY PROFILE

My Profile

Student ID : SID009

Reg Date : 2017-07-11 15:58:28

Last Updation Date : 2017-07-15 13:42:44

Profile Status : Active

Enter Full Name

test


Mobile Number :

2359874527

Enter Email

test@gmail.com

Update Now



Online Library
Management System

LOG ME OUT

DASHBOARD CATEGORIES ▼AUTHORS ▼BOOKS ▼ISSUE BOOKS ▼REG STUDENTSCHANGE PASSWORD

ADD BOOK

Book Info

Book Name*

Category*

Select Category ▼

Author*


Select Author ▼

ISBN Number*

An ISBN is an International Standard Book Number.ISBN Must be unique

Price*

Add



Online Library Management System

LOG ME OUT

DASHBOARD CATEGORIES ▾ AUTHORS ▾ BOOKS ▾ ISSUE BOOKS ▾ REG STUDENTS CHANGE PASSWORD

MANAGE AUTHORS

Authors Listing


10 ▾ records per page

Search:

#	Author	Creation Date	Updation Date	Action
1	Kumar Pandule	2017-07-08 12:49:09	2021-06-28 16:03:28	Edit Delete
2	Kumar	2017-07-08 14:30:23	2021-06-28 16:03:35	Edit Delete
3	Rahul	2017-07-08 14:35:08	2021-06-28 16:03:43	Edit Delete
4	HC Verma	2017-07-08 14:35:21		Edit Delete
5	R.D. Sharma	2017-07-08 14:35:36		Edit Delete
6	fwdfwrer	2017-07-08 15:22:03		Edit Delete

Showing 1 to 6 of 6 entries

[Previous](#) [1](#) [Next](#)



Online Library Management System

LOG ME OUT

DASHBOARD CATEGORIES ▾ AUTHORS ▾ BOOKS ▾ ISSUE BOOKS ▾ REG STUDENTS CHANGE PASSWORD

ADD AUTHOR

Author Info

Author Name

Add

MANAGE AUTHORS

Success : Author Listed successfully

Authors Listing

10 ▾ records per page

Search:

#	Author	Creation Date	Updation Date	Action
1	Kumar Pandule	2017-07-08 12:49:09	2021-06-28 16:03:28	✎ Edit ✖ Delete
2	Kumar	2017-07-08 14:30:23	2021-06-28 16:03:35	✎ Edit ✖ Delete
3	Rahul	2017-07-08 14:35:08	2021-06-28 16:03:43	✎ Edit ✖ Delete
4	HC Verma	2017-07-08 14:35:21		✎ Edit ✖ Delete
5	R.D. Sharma	2017-07-08 14:35:36		✎ Edit ✖ Delete
6	fwdfwrer	2017-07-08 15:22:03		✎ Edit ✖ Delete
7	John Cena	2023-05-26 12:48:46		✎ Edit ✖ Delete

Showing 1 to 7 of 7 entries

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