DevOps Assignment - Project

Install the below tools on the AWS EC2 Instance

- Jenkins
- Git
- Ansible
- Python
- Docker

Points to remember

- Install Jenkins on the EC2 instance
- Store the SSH Private key on Jenkins using “Manage Credentials” with “SSH Username with private key”
- Update “Host Key Verification Strategy” to “No Verification”.
  “Manage Jenkins” → “Configure Global Security” → “Git Host Key Verification Configuration”

Tips:

- Install “SSH agent” and “Git Credentials” plugins
- https://techviewleo.com/install-jenkins-server-on-amazon-linux/
- https://github.com/VishnuvardhanKrishnan/devops-aug-sep-batch/blob/devops/jenkins-sample-pipelines/10-gitPushSSHJenkinsfile
- https://github.com/VishnuvardhanKrishnan/devops-aug-sep-batch/tree/devops/docker-sample-project/docker-sample-application

Project Work

Perform the following through the Jenkins pipeline.

Whenever a user pushes/commits any changes to the GitHub repository’s **main** branch,

1) Jenkins Pipeline should get triggered automatically
2) Stage – 1: Clone the main branch
   - Create a Git tag with a commit
   - Push the tag to the main branch
3) Stage – 2: Maven stage
   - Use a maven docker image
   - Perform maven build and test
4) Stage – 3: Application build
   - Create a custom Docker image
   - Build a custom Docker image
   - Run the Docker image
5) Stage – 4: Ansible Execution
   - Place the Ansible playbook in a specific branch
   - Switch to the branch
   - Execute any playbook that would perform configuration management on localhost.