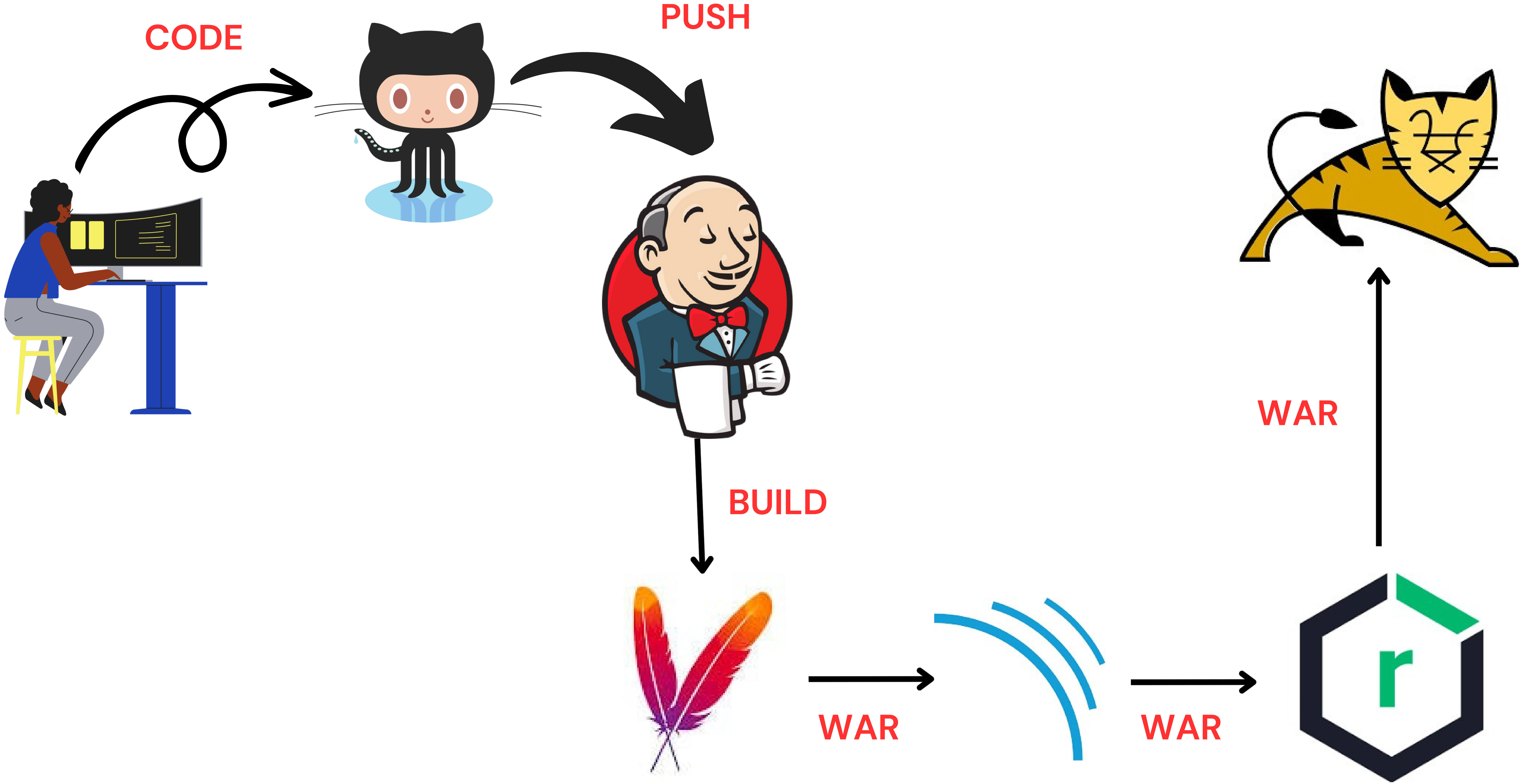
Project-1

DEPLOY AN APPLICATION IN TOMCAT APPLICATION SERVER USING CI/CD (Nexus, SonarQube)

Tool used : Maven , Nexus, Tomcat ,SonarQube, Git, Jenkins



CODE

PUSH

BUILD

WAR

WAR

WAR

STEP-1:

LAUNCH 4 INSTANCES WITH SAME PEM FILE
1.JENKINS: T2.MICRO 2.TOMCAT: T2.MICRO
3.SONAR: T2.MEDIUM , NEXUS: T2.MEDIUM (2O GB OF EBS VOLUME)

SETUP SERVICES IN THEIR RESPECTIVE SERVERS.

STEP-2:

LOGIN INTO JENKINS DASHBOARD AND INSTALL THESE FOLLOWING PLUGINS

1.SONAR SCANNER: to scan the code
2.NEXUS ARTIFACTORY UPLOADED: to store the files in nexus
3.Deploy to Container: To send the war files to tomcat server

STEP-3:

Create a jenkins pipeline job and write a Jenkins file for deploy a web application, usually we have 2 types of pipelines,

- scripted
- declarative

Here i am using scripted pipeline for the Jenkins file

STAGE-1 : GET THE CODE FROM GITHUB TO CI-SERVER

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```
node {
stage ("code") {
git "https://github.com/devops0014/one.git"
}
}
```

STAGE-2 : BUILD THE SOURCE CODE:

GO TO MANAGE JENKINS >> TOOL >> MAVEN
ADD INSTALLER WITH THE NAME OF maven WITH VERSION (3.8.6)
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```
node {
stage ("build"){
 sh ‘mvn clean package’
}
}
```

STAGE-3 : SCAN THE SOURCE CODE:

LOGIN INTO SONAR
GO TO MY ACCOUNT >> SECURITY >> ENTER A TOKEN NAME AND GENERATE A TOKEN
NOW INTEGRATE THE SONAR TO JENKINS
MANAGE JENKINS >> CONFIGURE SYSTEM >> SONAR SERVER :
NAME: mysonar
Url: PublicIP:9000/
credentials: —— (secretkey)
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```
node {
stage("Test") {
withSonarQubeEnv('mysonar')
   {
     def mavenHome = tool name: "maven", type: "maven"
     def mavenCMD = "${mavenHome}/bin/mvn"
     sh "${mavenCMD} sonar:sonar"
   }

}
}
```

STAGE-4 : UPLOAD WAR FILE INTO ARTIFACTORY:

CREATE A REPO IN NEXUS :
Name: mustafa-releases
formar: maven2 hosted
Version policy: releases
Deployment policy: allow redeploy
INSTALL NEXUS ARTIFACTORY UPLOAD PLUGIN
To GENERATE THE PIPELINE SYNTAX, WE NEED TO USE NEXUS ARTIFACTORY UPLOADER IN PIPELINE SYNTAX AND GIVE ALL INPUTS AND GENERATE PIPELINE SYNTAX
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```
node {
stage ("upload") {
nexusArtifactUploader artifacts: [[artifactId: 'myweb', classifier: ", file: 'target/myweb-8.3.5.war', type: '.war']], credentialsId: '4949746a-34ae-4d80-acaa-a73815fda645', groupId: 'in.javahome', nexusUrl: '18.117.135.27:8081', nexusVersion: 'nexus3', protocol: 'http', repository: 'mustafa-releases', version: '8.3.5'
}
}
```

STAGE-5 : DEPLOY THE APPLICATION INTO TOMCAT WEB SERVER:

AND USE PIPELINE SYNTAX

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```
node {
stage ("deploy") {
    generate a script and paste it here
   }

}
}
```