**Automate WAR Deployment to JBoss from GitHub Using Jenkins with Backup**

**Prerequisites:**

1. Jenkins Installed on Windows (with required plugins)

* Git Plugin
* Pipeline Plugin (optional if using freestyle job)

1. JBoss Installed on Windows and running.
2. Git Installed and added to system PATH.
3. GitHub Repository with the WAR file.

**Step 1: Configure JBoss CLI**

1. Locate your JBoss installation directory.
2. Ensure jboss-cli.bat is available in C:\path\to\jboss\bin.
3. Test JBoss CLI shutdown:
4. C:\path\to\jboss\bin\jboss-cli.bat --connect command=:shutdown

**Step 2: Create the Deployment Script (deploy.bat)**

1. Open Notepad and paste the following script:

@echo off

set JBOSS\_HOME=C:\path\to\jboss

set DEPLOY\_DIR=%JBOSS\_HOME%\standalone\deployments

set BACKUP\_DIR=%JBOSS\_HOME%\backup

set JBOSS\_CLI=%JBOSS\_HOME%\bin\jboss-cli.bat

:: Step 1: Shutdown JBoss gracefully

echo Shutting down JBoss...

"%JBOSS\_CLI%" --connect command=:shutdown

:: Step 2: Backup existing WAR file

if exist "%DEPLOY\_DIR%\app.war" (

    echo Backing up existing WAR file...

    set datetime=%date:~10,4%%date:~4,2%%date:~7,2%\_%time:~0,2%%time:~3,2%%time:~6,2%

    if not exist "%BACKUP\_DIR%" mkdir "%BACKUP\_DIR%"

    move "%DEPLOY\_DIR%\app.war" "%BACKUP\_DIR%\app-backup-%datetime%.war"

) else (

    echo No existing WAR to back up.

)

:: Step 3: Deploy new WAR

echo Deploying new WAR file...

copy /Y app.war "%DEPLOY\_DIR%"

:: Step 4: Start JBoss

echo Starting JBoss...

start "" "%JBOSS\_HOME%\bin\standalone.bat"

echo Deployment completed.

1. Save it as deploy.bat in your project folder.

**Step 3: Create a Jenkins Job**

1. Open Jenkins and log in.
2. Click New Item > Freestyle Project.
3. Name your project and click OK.

Configure Source Code Management:

1. Under Source Code Management, select Git.
2. Enter your GitHub repository URL.

Configure Build Steps:

1. Click Add build step > Execute Windows batch command.
2. Enter the following command to run the script: deploy.bat

Save and Build:

1. Click Save and trigger the job by clicking Build Now.

**Step 4: Verify Deployment**

1. Check the Jenkins console output for errors.
2. Verify that:
   1. The old app.war is backed up in the backup directory.
   2. The new app.war is deployed.
   3. JBoss restarts and serves the updated WAR.

**Conclusion:**

**You’ve successfully automated WAR deployment to JBoss using Jenkins with backup. 🎉 Test thoroughly and handle errors as needed.**