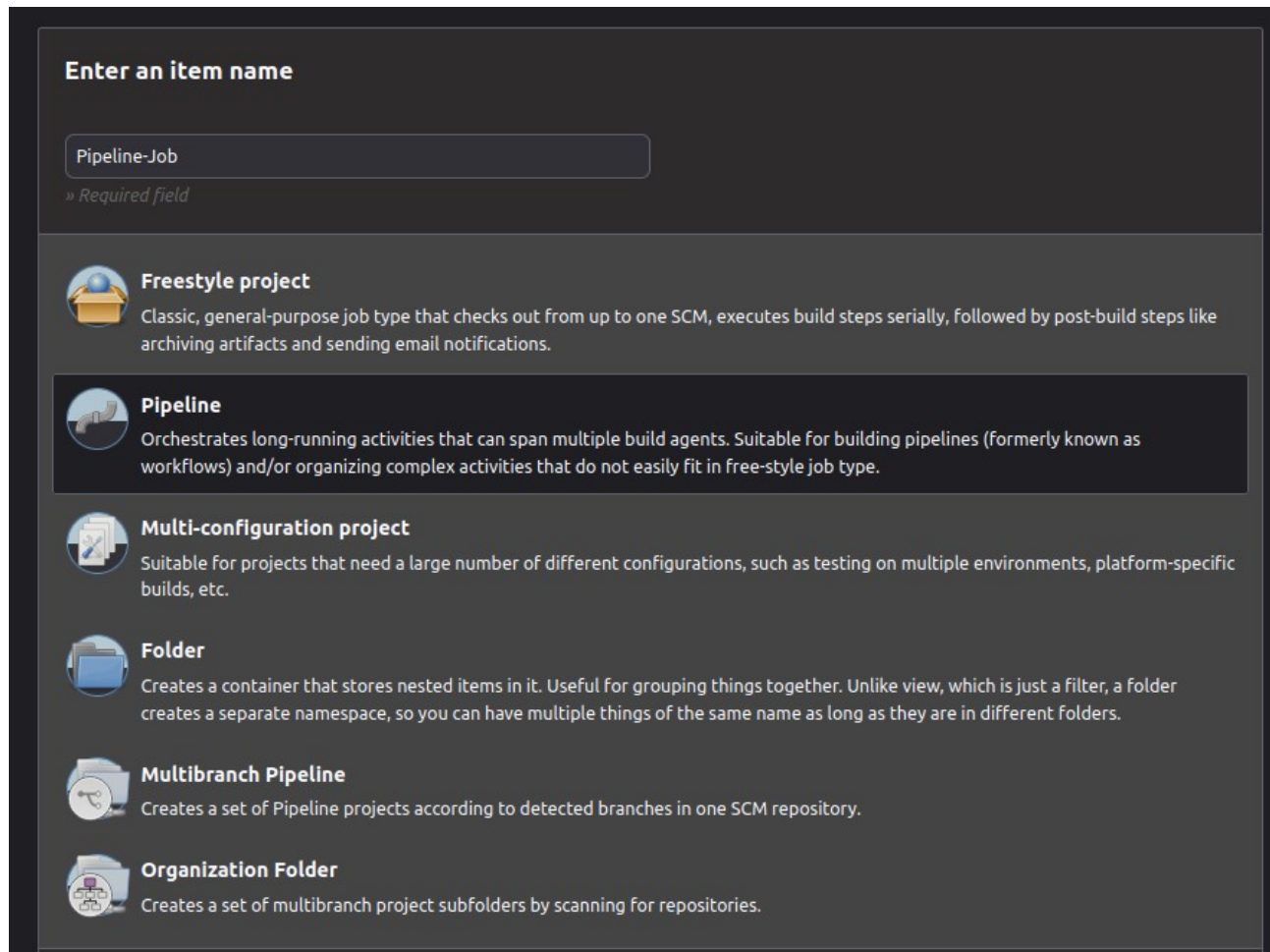


Day 12

Pipeline Job



The screenshot shows the Jenkins 'Enter an item name' dialog. At the top, there is a text input field containing 'Pipeline-Job' and a small red asterisk icon with the text '» Required field' below it. Below the input field, there is a list of item types, each with an icon and a description. The 'Pipeline' option is highlighted with a dark background. The other options are 'Freestyle project', 'Multi-configuration project', 'Folder', 'Multibranch Pipeline', and 'Organization Folder'.

Enter an item name

Pipeline-Job
» Required field

- Freestyle project**
Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.
- Pipeline**
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.
- Multi-configuration project**
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.
- Folder**
Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different folders.
- Multibranch Pipeline**
Creates a set of Pipeline projects according to detected branches in one SCM repository.
- Organization Folder**
Creates a set of multibranch project subfolders by scanning for repositories.

Creating a pipeline job under creating the item, enter the item name as pipeline job.

Create a Jenkinsfile for the same.

```
pipeline {  
  agent any  
  
  environment {  
    MAVEN_HOME = tool 'Maven-3.9.0' // Ensure this matches your Maven tool name  
  }  
  
  stages {  
    stage('Checkout') {  
      steps {  
        // Checkout code from GitHub repository  
        git url: 'https://github.com/yashmahi88/jenkins-declarative.git', branch: 'main',  
credentialsId: 'Git-Access-2'  
      }  
    }  
  
    stage('Build') {
```

```

steps {
    // Build the project using Maven
    script {
        withEnv(["PATH+MAVEN=${MAVEN_HOME}/bin"]) {
            sh 'mvn clean package'
        }
    }
}

stage('Archive Artifacts') {
    steps {
        // Archive the built artifacts
        archiveArtifacts artifacts: '**/target/*.jar', allowEmptyArchive: true
    }
}

post {
    always {
        echo 'Pipeline finished.'
    }
    success {
        echo 'Pipeline succeeded.'
    }
    failure {
        echo 'Pipeline failed.'
    }
}

```

The above code should be the part of the jenkinsfile.

Create a new github repository where the jenkinsfiles should be there along with the pom.xml, build.xml and build.properties.

Clone the repository <https://github.com/nkheria/DevOpsClassCodes> into your own repo.

Pipeline

Definition

Pipeline script from SCM

SCM ?

Git

Repositories ?

Repository URL ?

https://github.com/yashmahi88/jenkins-declarative

Credentials ?

ghp_y3mYOlz7iZC5SUGtF7kFphMdW5YYa0dV0lj/***** (Git-Access-2)

+ Add

Advanced

Add Repository

Branches to build ?

Branch Specifier (blank for 'any') ?

*/main

Add Branch

Repository browser ?

The above image refers to the pipeline creation, where we have to select definition as pipeline script from SCM

SCM should be Git.

Under Repository mention your private repository URL and provide the credentials that have been generated .

Specify the branch as main.

And save the changes.

Build the Pipeline-Job and navigate through the build history to check the console output.

Images for the same are attached below.

```

Started by user Yash Rajkumar Mahindrakar
Obtained Jenkinsfile from git https://github.com/yashmah188/jenkins-declarative
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/Pipeline-Job
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Checkout SCM)
[Pipeline] checkout
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
using credential Git-Access-2
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/Pipeline-Job/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/yashmah188/jenkins-declarative # timeout=10
Fetching upstream changes from https://github.com/yashmah188/jenkins-declarative
> git --version # timeout=10
> git --version # 'git version 2.34.1'
using GIT_ASKPASS to set credentials Git-Access-2
> git fetch --tags --force --progress -- https://github.com/yashmah188/jenkins-declarative +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision b92b990b0be7536ac3cba2c8367d74e5e490f2fe (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f b92b990b0be7536ac3cba2c8367d74e5e490f2fe # timeout=10
Commit message: "Update Jenkinsfile"
> git rev-list --no-walk c1f5584bcd8b179377f587c6eef8486a654e286e # timeout=10
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] tool
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Checkout)
[Pipeline] git
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
using credential Git-Access-2
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/Pipeline-Job/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/yashmah188/jenkins-declarative.git # timeout=10
Fetching upstream changes from https://github.com/yashmah188/jenkins-declarative.git
> git --version # timeout=10
> git --version # 'git version 2.34.1'

```

```

using GIT_ASKPASS to set credentials Git-Access-2
> git fetch --tags --force --progress -- https://github.com/yashmah188/jenkins-declarative.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision b92b990b0be7536ac3cba2c8367d74e5e490f2fe (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f b92b990b0be7536ac3cba2c8367d74e5e490f2fe # timeout=10
> git branch -a -v --no-abbrev # timeout=10
> git branch -D main # timeout=10
> git checkout -b main b92b990b0be7536ac3cba2c8367d74e5e490f2fe # timeout=10
Commit message: "Update Jenkinsfile"
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Build)
[Pipeline] script
[Pipeline] {
[Pipeline] withEnv
[Pipeline] {
[Pipeline] sh
+ mvn clean package
[INFO] Scanning for projects...
[WARNING]
[WARNING] Some problems were encountered while building the effective model for com.edurekademo.tutorial:addressbook:war:2.0
[WARNING] Reporting configuration should be done in <reporting> section, not in maven-site-plugin <configuration> as reportPlugins parameter. @ line 298, column 40
[WARNING]
[WARNING] It is highly recommended to fix these problems because they threaten the stability of your build.
[WARNING]
[WARNING] For this reason, future Maven versions might no longer support building such malformed projects.
[WARNING]
[INFO] -----< com.edurekademo.tutorial:addressbook >-----
[INFO] Building Vaadin Addressbook example 2.0
[INFO] from pom.xml
[INFO] -----[ war ]-----
[INFO]
[INFO] --- clean:3.2.0:clean (default-clean) @ addressbook ---
[INFO] Deleting /var/lib/jenkins/workspace/Pipeline-Job/target
[INFO]
[INFO] --- enforcer:1.0:enforce (enforce-versions) @ addressbook ---
[INFO]
[INFO] --- resources:3.3.0:resources (default-resources) @ addressbook ---
[INFO] skip non existing resourceDirectory /var/lib/jenkins/workspace/Pipeline-Job/src/main/resources
[INFO]
[INFO] --- compiler:3.2:compile (default-compile) @ addressbook ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 13 source files to /var/lib/jenkins/workspace/Pipeline-Job/target/classes

```

```

[INFO] /var/lib/jenkins/workspace/Pipeline-Job/src/main/java/com/edurekademo/tutorial/addressbook/AddressbookUI.java: Some input files use or override a deprecated API.
[INFO] /var/lib/jenkins/workspace/Pipeline-Job/src/main/java/com/edurekademo/tutorial/addressbook/AddressbookUI.java: Recompile with -Xlint:deprecation for details.
[INFO] /var/lib/jenkins/workspace/Pipeline-Job/src/main/java/com/edurekademo/tutorial/addressbook/backend/ContactService.java: /var/lib/jenkins/workspace/Pipeline-Job/src/main/java/co
tutorial/addressbook/backend/ContactService.java uses unchecked or unsafe operations.
[INFO] /var/lib/jenkins/workspace/Pipeline-Job/src/main/java/com/edurekademo/tutorial/addressbook/backend/ContactService.java: Recompile with -Xlint:unchecked for details.
[INFO]
[INFO] --- resources:3.3.0:testResources (default:testResources) @ addressbook ---
[INFO] Copying 1 resource
[INFO]
[INFO] --- compiler:3.2:testCompile (default:testCompile) @ addressbook ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 5 source files to /var/lib/jenkins/workspace/Pipeline-Job/target/test-classes
[INFO] /var/lib/jenkins/workspace/Pipeline-Job/src/test/java/com/edurekademo/utilities/TestGenericComparator.java: /var/lib/jenkins/workspace/Pipeline-Job/src/test/java/com/edurekademo
TestGenericComparator.java uses or overrides a deprecated API.
[INFO] /var/lib/jenkins/workspace/Pipeline-Job/src/test/java/com/edurekademo/utilities/TestGenericComparator.java: Recompile with -Xlint:deprecation for details.
[INFO]
[INFO] --- surefire:2.19.1:test (default-test) @ addressbook ---

-----
T E S T S
-----
Running com.edurekademo.utilities.TestHexAsciiConversion
74657374696e6720617363696920636f6e76657274696f6e20696e746f2068657861646563696d616c
testing ascii conversion into hexadecimal
Tests run: 4, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.003 sec - in com.edurekademo.utilities.TestHexAsciiConversion
Running com.edurekademo.utilities.TestLogger
[pool-1-thread-5] INFO com.edurekademo.utilities.TestLogger - java.lang.ArithmeticException: / by zero
Cause:at com.edurekademo.utilities.TestLogger.testGetErrorMessage1(TestLogger.java:14)
Cause:at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
[pool-1-thread-6] INFO com.edurekademo.utilities.TestLogger - java.lang.ArithmeticException: / by zero
Cause:at com.edurekademo.utilities.TestLogger.testGetErrorMessage2(TestLogger.java:30)
Cause:at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
[pool-1-thread-7] INFO com.edurekademo.utilities.TestLogger - java.lang.ArithmeticException: / by zero
Cause:at com.edurekademo.utilities.ExceptionThrower.getCounter(ExceptionThrower.java:13)
Cause:at com.edurekademo.utilities.TestLogger.testGetErrorMessage3(TestLogger.java:45)
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/var/lib/jenkins/.m2/repository/org/slf4j/slf4j-simple/1.7.7/slf4j-simple-1.7.7.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/var/lib/jenkins/.m2/repository/org/slf4j/slf4j-log4j12/1.7.7/slf4j-log4j12-1.7.7.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple\_bindings for an explanation.
SLF4J: Actual binding is of type [org.slf4j.impl.SimpleLoggerFactory]
[pool-1-thread-8] INFO com.edurekademo.utilities.TestLogger - java.io.IOException: TESTIOEXCEPTION
Cause:at com.edurekademo.utilities.ExceptionThrower.doNothing(ExceptionThrower.java:18)
Cause:at com.edurekademo.utilities.TestLogger.testGetErrorMessage4(TestLogger.java:60)
[pool-1-thread-9] ERROR com.edurekademo.utilities.ExceptionThrower - java.lang.Exception: DEAR
Cause:at com.edurekademo.utilities.ExceptionThrower.doYYY(ExceptionThrower.java:35)
Cause:at com.edurekademo.utilities.ExceptionThrower.doXXX(ExceptionThrower.java:23)

```

```

Cause:at com.edurekademo.utilities.ExceptionThrower.doXXX(ExceptionThrower.java:23)
[pool-1-thread-9] INFO com.edurekademo.utilities.TestLogger - java.lang.Exception: TEST MESSAGE
Cause:at com.edurekademo.utilities.ExceptionThrower.doCheck(ExceptionThrower.java:43)
Cause:at com.edurekademo.utilities.TestLogger.testGetErrorMessage5(TestLogger.java:75)
***** java.lang.Exception: TEST MESSAGE
Cause:at com.edurekademo.utilities.ExceptionThrower.doCheck(ExceptionThrower.java:43)
Cause:at com.edurekademo.utilities.TestLogger.testGetErrorMessage5(TestLogger.java:75)
Tests run: 5, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.029 sec - in com.edurekademo.utilities.TestLogger
Running com.edurekademo.utilities.TestGenericComparator
Tests run: 14, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.022 sec - in com.edurekademo.utilities.TestGenericComparator

Results :

Tests run: 23, Failures: 0, Errors: 0, Skipped: 0

[INFO]
[INFO] --- war:3.3.2:war (default-war) @ addressbook ---
[INFO] Packaging webapp
[INFO] Assembling webapp [addressbook] in [/var/lib/jenkins/workspace/Pipeline-Job/target/addressbook]
[INFO] Processing war project
[INFO] Building war: /var/lib/jenkins/workspace/Pipeline-Job/target/addressbook.war
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 5.792 s
[INFO] Finished at: 2024-07-24T17:04:52+05:30
[INFO] -----
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Archive Artifacts)
[Pipeline] archiveArtifacts
Archiving artifacts
'*/target/*.jar' doesn't match anything: '*/' exists but not '*/target/*.jar'
No artifacts found that match the file pattern '*/target/*.jar'. Configuration error?
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Declarative: Post Actions)
[Pipeline] echo
Pipeline finished.
[Pipeline] echo

```



```
Results :

Tests run: 23, Failures: 0, Errors: 0, Skipped: 0

[INFO]
[INFO] --- war:3.3.2:war (default-war) @ addressbook ---
[INFO] Packaging webapp
[INFO] Assembling webapp [addressbook] in [/var/lib/jenkins/workspace/Pipeline-Job/target/addressbook]
[INFO] Processing war project
[INFO] Building war: /var/lib/jenkins/workspace/Pipeline-Job/target/addressbook.war
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 5.792 s
[INFO] Finished at: 2024-07-24T17:04:52+05:30
[INFO] -----
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Archive Artifacts)
[Pipeline] archiveArtifacts
Archiving artifacts
'*/target/*.jar' doesn't match anything: '*' exists but not '*/target/*.jar'
No artifacts found that match the file pattern '*/target/*.jar'. Configuration error?
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Declarative: Post Actions)
[Pipeline] echo
Pipeline finished.
[Pipeline] echo
Pipeline succeeded.
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
```

< Build #8 >

Success 13 min ago in 13 sec

Checkout SCM

Checkout

Build

Archive Artifacts

Post Actions

Stage 'Post Actions'

Started 13 min ago

Queued 0 ms

Took 67 ms

Success

View as plain text

Pipeline finished.

Print Message

21 ms

Pipeline succeeded.

Print Message

16 ms

0

Pipeline succeeded.

Jenkins 2.452.3