Day 12
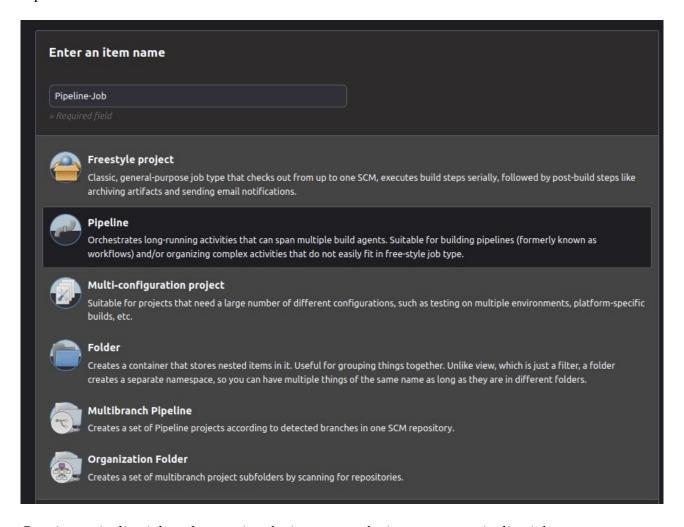
Pipeline Job

Creating a pipeline job under creating the item, enter the item name as pipeline job.
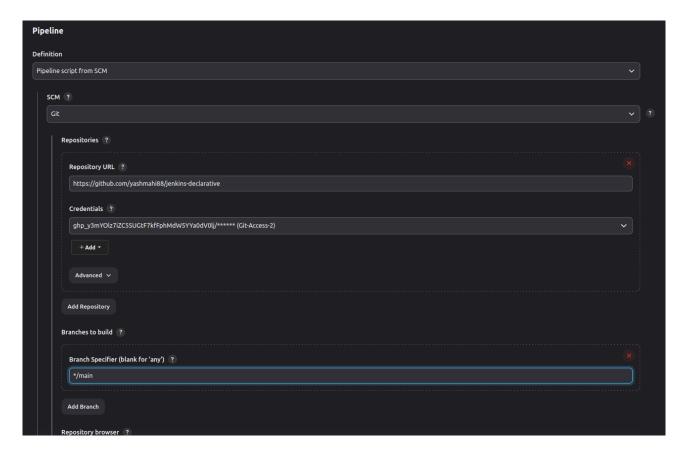
Create a Jenkinsfile for the same.

```
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.xm and build.properties.
Clone the repository https://github.com/nkheria/DevOpsClassCodes into your own repo.

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 .

Specifiy 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/yashmahi88/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/yashmahi88/jenkins-declarative # timeout=10
Fetching upstream changes from https://github.com/yashmahi88/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/yashmahi88/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 c1f5584bcedb179377f587c6eef8486a654e286e # 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/yashmahi88/jenkins-declarative.git # timeout=10
Fetching upstream changes from https://github.com/yashmahi88/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/yashmahi88/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]
[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] /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/edurekadem
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 ---
[INFO]
-------------------------------------------------
 T E S T S
-------------------------------------------------
Running com.edurekademo.utilities.TestHexAsciiConversion
74657374696e6720617363696920636f6e76657274696f6e20696e746f2068657861646563696d616c
testing ascii convertion 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

Rebuild Overview Configure

⊘ Checkout SCM
⊘ Checkout
⊘ Build
⊘ Archive Artifacts
⊘ Post Actions

Stage 'Post Actions'
🕐 Started 13 min ago
⏳ Queued 0 ms
⏱ Took 67 ms
ℹ Success
🔗 View as plain text

⊘ **Pipeline finished.**
  Print Message   21 ms ⤢ 🔗 ⌄

⊘ **Pipeline succeeded.**
  Print Message   16 ms ⤢ 🔗 ⌃
  0   Pipeline succeeded.

Jenkins 2.452.3