

Jenkins Pipeline Setup and Configuration and Build Results

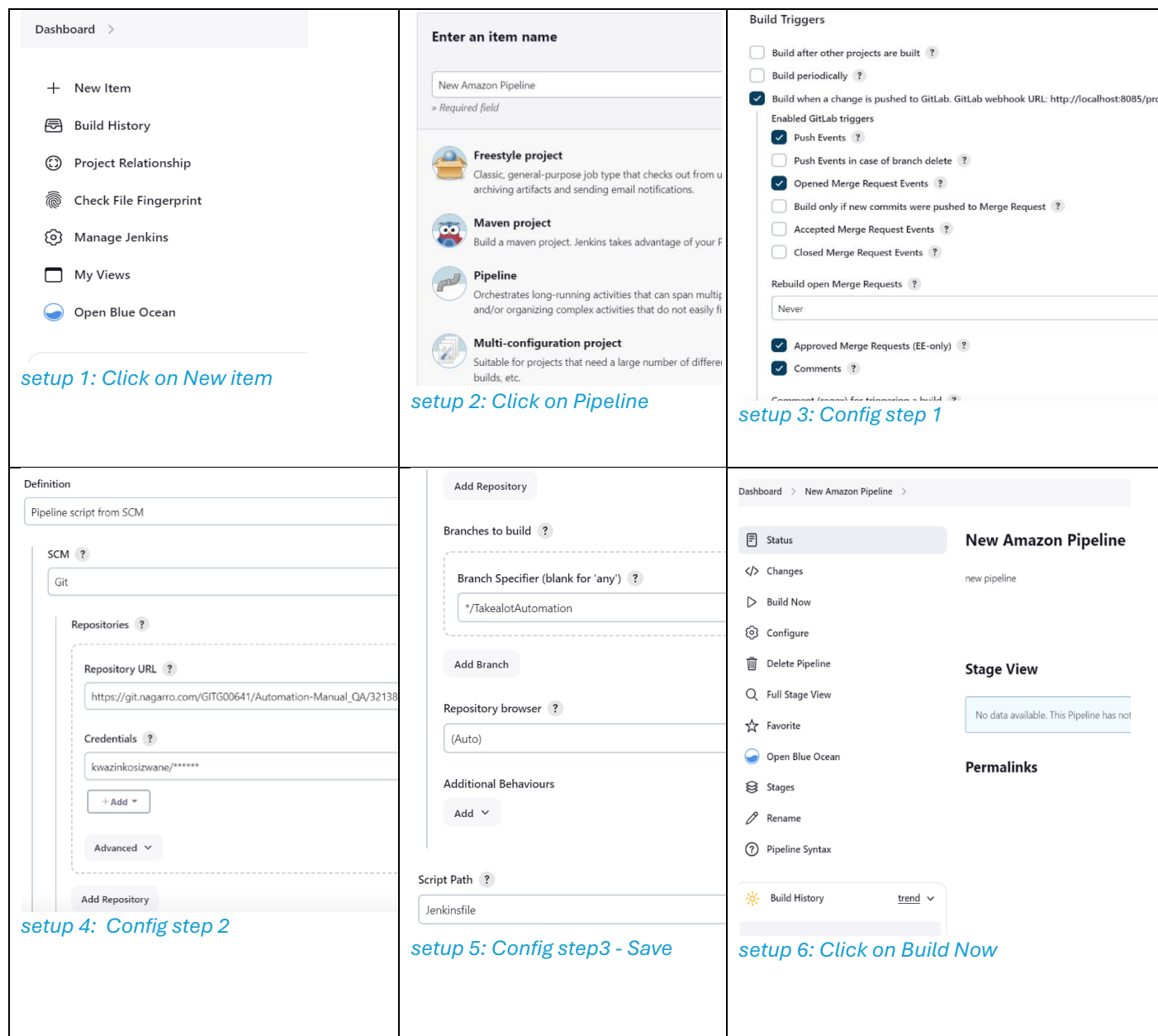


Figure 1: Pipeline Configuration Steps

The screenshots in figure 1 show the setup and configuration process of a pipeline.

Pipeline Results

Figure 2 shows screenshots of process of the testing framework.

Takealot Automation - Stage View

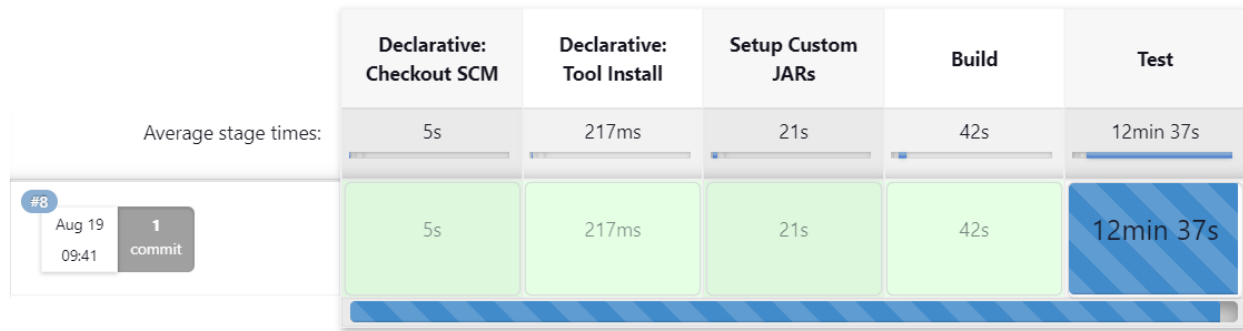


Figure 2: Build process running

There are 6 stages involved in this pipeline, as shown in figure 3.

- Declarative: Checkout SCM - In this stage Jenkins clones the project from gitlab to its own environment.
- Declarative: Tool Install – Jenkins installs all the required dependencies, specified in the pom file.
- Setup Custom Jars – In this stage Jenkins installs the required custom jars, specified in the Jenkins file. The following code shows how the installation of the custom jars was specified in the Jenkins file.

```
stage('Setup Custom JARs') {
  steps {
    script {
      bat "mvn install:install-file -Dfile=libs/wait-utils-0.0.1-SNAPSHOT.jar -DgroupId=com.kwazi -DartifactId=wait-utils -Dversion=0.0.1-SNAPSHOT -Dpackaging=jar -DgeneratePom=true"
      bat "mvn install:install-file -Dfile=libs/file-utils-0.0.1-SNAPSHOT.jar -DgroupId=com.kwazi -DartifactId=file-utils -Dversion=0.0.1-SNAPSHOT -Dpackaging=jar -DgeneratePom=true"
      bat "mvn install:install-file -Dfile=libs/logs-report-util-0.0.1-SNAPSHOT.jar -DgroupId=com.kwazi -DartifactId=logs-report-util -Dversion=0.0.1-SNAPSHOT -Dpackaging=jar -DgeneratePom=true"
    }
  }
}
```

- Build – This stage is responsible for the compilation of the testing framework.
- Test – In the testing stage Jenkins executes the “mvn test” command and runs the tests specified in the test.xml file.
- Clean up – cleans up

Takealot Automation - Stage View

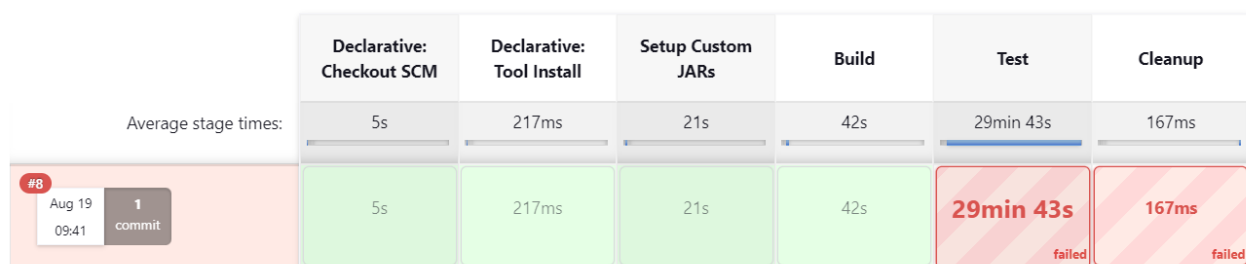


Figure 3: Complete pipeline build

As shown in figure 3, the testing stage failed. The reason for this is that there are test cases that failed. The following table shows the logs from Jenkins which shows the test cases that failed.

Table 1: Summary of results and test case failures

Results Summary	[ERROR] Tests run: 44, Failures: 8, Errors: 0, Skipped: 0
Errors	<div>0[ERROR] Failures:</div> <div>[ERROR] CartPageTest.verifyCartIsEmpty:63 The cart is not empty. expected [true] but found [false]</div> <div>[ERROR] CartPageTest.verifyItemDetailsInCart:113 The cart item should be present in the cart. expected object to not be null</div> <div>[ERROR] CartPageTest.verifyMoveItemToWishlist:162 The cart item should be present in the cart before moving to wishlist. expected object to not be null</div> <div>[ERROR] CartPageTest.verifyRemovalOfItemFromCart:147 The cart item should be present in the cart before removal. expected object to not be null</div> <div>[ERROR] ProductsPageTest.verifyProductDetails:179 Product price does not match expected [690.00] but found [850.00]</div> <div>[ERROR] ProductsPageTest.verifyProductDetails:179 Product price does not match expected [27595.00] but found [27082.00]</div> <div>[ERROR] RegistrationPageTest.verifyRegistration:90 » ElementClickIntercepted element click intercepted: Element <input name="first_name" type="text" id="register_customer_first_name" autocomplete="on" value=""> is not clickable at point (512, 96). Other element would receive the click: <div class="ab-page-blocker" style="background-color: rgba(51, 51, 51, 0.75);"></div></div>

Figure 4 shows the stage view of the pipeline build. If all 44 test cases were to pass, all the stages would have a green check mark.



Figure 4:Pipeline stages

A complete log file for the takealot framework generated by Jenkins is attached in the same directory as this document.