KIE Workbench
KIE Execution Server

Installation & Configuration Guide

Java v8
Tomcat v9
KIE-DROOLS Workbench v7.11.0.Final
KIE-DROOLS Execution Server v7.11.0.Final

CHANGE HISTORY

Author	Version	Change Date
Mallesh Nagothi	Initial Draft	09/27/2020

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1. Introduction

This guide is prepared for Proof of Concept for KIE Workbench, KIE Execution Server installation and configuration on Java v8 and Tomcat v9 or v8. This guide provides step by step instructions to prove the below concept.
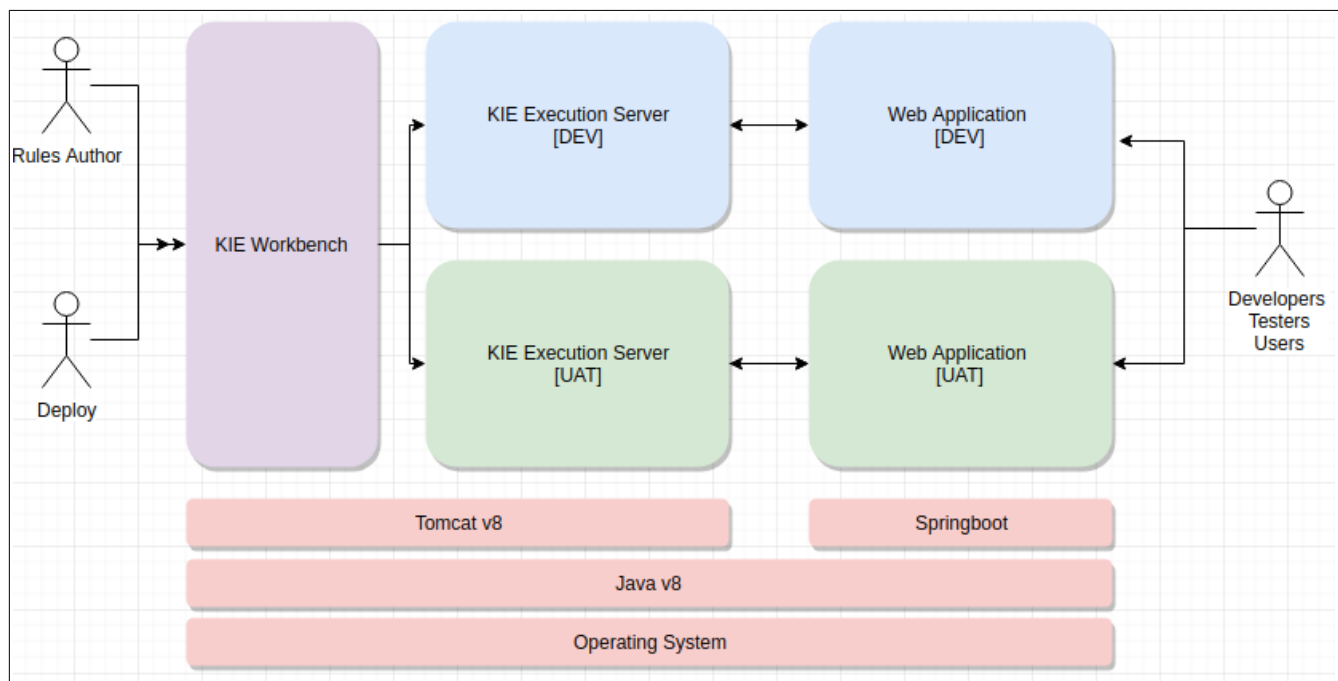
- A centralized KIE Workbench
  - to author the rules
  - deploy changes to target Kie Execution Server for Rules Execution
- Call Authored Rules from a Sample Springboot and retrieve the Rule Results using REST API

Please refer Section#3 Context of Proof Of Context for more details

2. Environment Details

- KIE Drools Workbench 7.11.0_Final
- KIE Server 7.11.0_Final
- Tomcat v8 or v9
- Java v8
- Ubuntu/Linus/Windows
- Maven

3. Context of Proof of Concept

4. Installation Step: 1 – Installing Java v8

Please follow standard Java installation steps

5. Installation Step: 2 – Installing Tomcat v9

Download appropriate tomcat software from https://tomcat.apache.org/download-80.cgi
Create a folder for KIE Workbench Tomcat Server
and create X no of folders for KIE Servers.

Note: Before starting Tomcat Servers, <TOMCAT_HOME>/conf/server.xml needs to be configured to avoid Port conflicts among KIE Workbench and KIE Servers. These ports have to be different in order to run multiple Tomcat instances.

```
  -->
<Server port="8006" shutdown="SHUTDOWN">
  <Listener className="org.apache.catalina.startup.VersionLoggerListener" />
  <!-- Security listener. Documentation at /docs/config/listeners.html
  <Listener className="org.apache.catalina.security.SecurityListener" />
  -->
```

```
  <!-- A "Connector" represents an endpoint by which requests are received
       and responses are returned. Documentation at :
       Java HTTP Connector: /docs/config/http.html (blocking & non-blocking)
       Java AJP  Connector: /docs/config/ajp.html
       APR (HTTP/AJP) Connector: /docs/apr.html
       Define a non-SSL HTTP/1.1 Connector on port 8080
  -->
  <Connector port="8081" protocol="HTTP/1.1"
             connectionTimeout="20000"
             redirectPort="8444" />
  <!-- A "Connector" using the shared thread pool-->
```

- ○ **Tomcat v8 or v9 Configuration**

KIE-Workbench

                                                 <TOMCAT_HOME>/bin/setenv.sh or SetEnv.bat

                                                 CATALINA_OPTS="-Xmx2048M -Djava.security.auth.login.config=$CATALINA_HOME/webapps/ kie-drools-wb/WEB-INF/classes/login.config -Dorg.jboss.logging.provider=jdk"

 KIE-Execution Server
<TOMCAT_HOME>/bin/setenv.sh or SetEnv.bat

CATALINA_OPTS="-Xmx1024M
-Djbpm.tsr.jndi.lookup=java:comp/env/TransactionSynchronizationRegistry
-Dorg.kie.server.persistence.ds=java:comp/env/jdbc/jbpm
-Djbpm.tm.jndi.lookup=java:comp/env/TransactionManager
-Dorg.kie.server.persistence.tm=JBossTS
-Dhibernate.connection.release_mode=after_transaction
-Dorg.kie.server.id=tomcat-kieserver
-Dorg.kie.server.location=**http://localhost:8383**/kie-server/services/rest/server
-Dorg.kie.server.controller=**http://localhost:8080**/kie-drools-wb/rest/controller
-
Dcom.arjuna.ats.jta.recovery.XAResourceRecovery1=com.arjuna.ats.internal.jdbc.recovery.BasicXARecovery\;abs
://$CATALINA_HOME/conf/xa-recovery-properties.xml\ \;1"

Note: host: localhost and Port, replace with your local tomcat setup

6. Installation Step: 3 – Installing KIE-Workbench 7.11.0_Final

                           Copy following jar files in the <TOMCAT_HOME>/lib of KIE Workbench
1. btm-tomcat55-lifecycle-2.1.4.jar
2. h2-1.3.161.jar
3. jta-1.1.jar
4. slf4j-api-1.7.2.jar
5. slf4j-jdk14-1.7.2.jar
6. kie-tomcat-integration-7.11.0.Final.jar
7. javax.security.jacc-api-1.6.jar

copy following files to <TOMCAT_HOME>/conf/
server.xml
btm-config.properties
tomcat-users.xml   [note: DO NOT Change passwords for serveruser & kieserver]

       Note: Copy all the above files from the following git hub
https://github.com/Mallesh-Nagothi/kie-on-tomcat/tree/master/other_files/apache-tomcat-8.5.57

7. Installation Step: 4 – Installing KIE-Execution Server 7.11.0_Final

Copy following jar files in the <TOMCAT_HOME>/lib of KIE execution Server
1. h2-1.3.161.jar
2. slf4j-api-1.7.2.jar
3. slf4j-jdk14-1.7.2.jar
4. kie-tomcat-integration-7.11.0.Final.jar
5. javax.security.jacc-api-1.6.jar

copy following files to <TOMCAT_HOME>/conf/
server.xml
btm-config.properties
tomcat-users.xml   [note: DO NOT Change passwords for serveruser & kieserver]
      xa-recovery-properties.xml

Note: Copy all the above files from the following git hub
https://github.com/Mallesh-Nagothi/kie-on-tomcat/tree/master/other_files/apache-tomcat-9.0.37_2nd_KieServer

8. Installation Step: 5 – Installing Example Rule Project

Login into KIE-Workbench as admin user (admin/admin)
click on settings on right top corner 2nd icon from left to right

Click on Artifacts, using upload option, upload the following files

KIE-Drools-POC-1.0.0.jar & KIE-Drools-POC-1.0.0.pom

Note: Download the above file from the following git hub https://github.com/Mallesh-Nagothi/kie-on-tomcat

Go to Projects → Select KIE-Drools-POC Project, build and deploy

9. Installation Step: 6 – Installing Springboot PoC Code

Clone Springboot PoC drools client application from https://github.com/Mallesh-Nagothi/kie-on-tomcat.git
Login to Eclipse and import as existing maven project
Open *HandlingFormSubmissionApplication.java and* Run the Application

open browser and enter http://localhost:9090/person

Enter Name, Age (>=21), Gender (M), Target Container (KIE-Drools-POC) and Rule Name (Sample-Process)

Please see below screenshot for more details on Target Container and Rule Name