|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | **Installation** |  | | Tool name | Apache + Tomcat | | Tool version | 2.4 + 8.0.18 | | Objective | Apache + Tomcat Kit Manual Installation and Verification | |  |  | |  |  | |  |  | | **Manual Installation:**  1). Installation of java  **Step 1 Download jdk-8u171-linux-x64.tar**  <https://www.oracle.com/technetwork/java/javase/downloads/java-archive-javase8-2177648.html>  **Step 2 Make Directory**  *sudo* *mkdir* /usr/lib/jvm  **Step 3 Extract jdk file in that directory**  *sudo* tar -xvzf ~/Downloads/jdk-8u201-linux-x64.tar.gz    **Step 4 Get Enviornment and set**  **Variable**  *sudo* gedit /etc/environment  /usr/lib/jvm/jdk1.8.0\_201/bin  /usr/lib/jvm/jdk1.8.0\_201/db/bin  /usr/lib/jvm/jdk1.8.0\_201/jre/bin      **2). Installation of Apache Web Server** | | | **Step 1** : **Install Apache Web Server** | | | # yum install httpd | | | **Step 2: Enable Apache Server and Start**  # systemctl start httpd  # systemctl enable httpd  # systemctl status httpd | | |  | | |  | | | **Step – 3 : Test Apache HTTP Server on Centos**  <http://Server_Domain_Name_OR_IP>    **3). Installation of Tomcat** | |   **Step 1: Download Package of Tomcat 8**  $ wget <https://www-eu.apache.org/dist/tomcat/tomcat-8/v8.5.37/bin/apache-tomcat-8.5.37.tar.gz>  **Step 2: Make a Directory then extract archive to it**  $ sudo mkdir /opt/tomcat  $ sudo tar xvf apache-tomcat-8\*tar.gz -C /opt/tomcat --strip-components=1  **Step 3: Change to the Tomcat installation path:**  $ cd /opt/tomcat  **Step 4: Give the tomcat group ownership over the entire installation directory:**  $ sudo chgrp -R tomcat /opt/tomcat  **Step 5: Next, give the tomcat group read access to the conf directory and all of its contents, and execute access to the directory itself:**  $ sudo chmod -R g+r conf  $ sudo chmod g+x conf  **Step 6: Then make the tomcat user the owner of the webapps, work, temp, and logs directories:**  $ sudo chown -R tomcat webapps/ work/ temp/ logs/  **Step 7: Create and open the unit file by running this command:**  $ sudo vi /etc/systemd/system/tomcat.service    **Step 8: Now reload Systemd to load the Tomcat unit file:**  $ sudo systemctl daemon-reload    **Step 9: Now you can start the Tomcat service with this systemctl command:**  $ sudo systemctl start tomcat    **Step 10: Check that the service successfully started by typing:**  $ sudo systemctl status tomcat |