**Purpose:**

To install alternative Java versions, and select a particular one for use with certain applications such as Openjdk 8 required for Geonetwork. This is done by checking that the installed version is installed and active, then selecting it if not active, then using a package manager to install it, and finally downloading it from the Internet.

The following description uses the package manager DNF, which works on Centos. Other application package managers that could be used are RPM, APT (dpkg), Aptitude, Pacman and Portage.

| **Step** | **Major Activity** | **References, Forms and Details** |
| --- | --- | --- |
| **1** | java -version | Identify Java version currently active  If desired version is currently active, then Done. |
| **2** | update-alternatives --list java | list available versions of java. |
| **3** | Update-alternatives –config java | If desired version available and installed, choose it and Done. |
| **4** | Ubuntu or Debian:  sudo apt update  CentOS: | Update repository |
| **5** | Ubuntu or Debian:  sudo apt search openjdk | less  CentOS:  sudo dnf ????? | Search for suitable Java versions first using a package manager for that OS. |
| **6** | Ubuntu or Debian:  sudo apt install <desired java>  CentOS:  sudo dnf install <desired java> | If available in a Package Manager, use it to install |
| **7** | sudo apt install wget | If not available through a Package Manager, must download it.  Ensure [wget](https://www.gnu.org/software/wget/wget.html) installed |
| **8** | wget https://download.java.net/openjdk/jdk11/ri/openjdk-11+28\_linux-x64\_bin.tar.gz | If not, then download required version of openjdk |