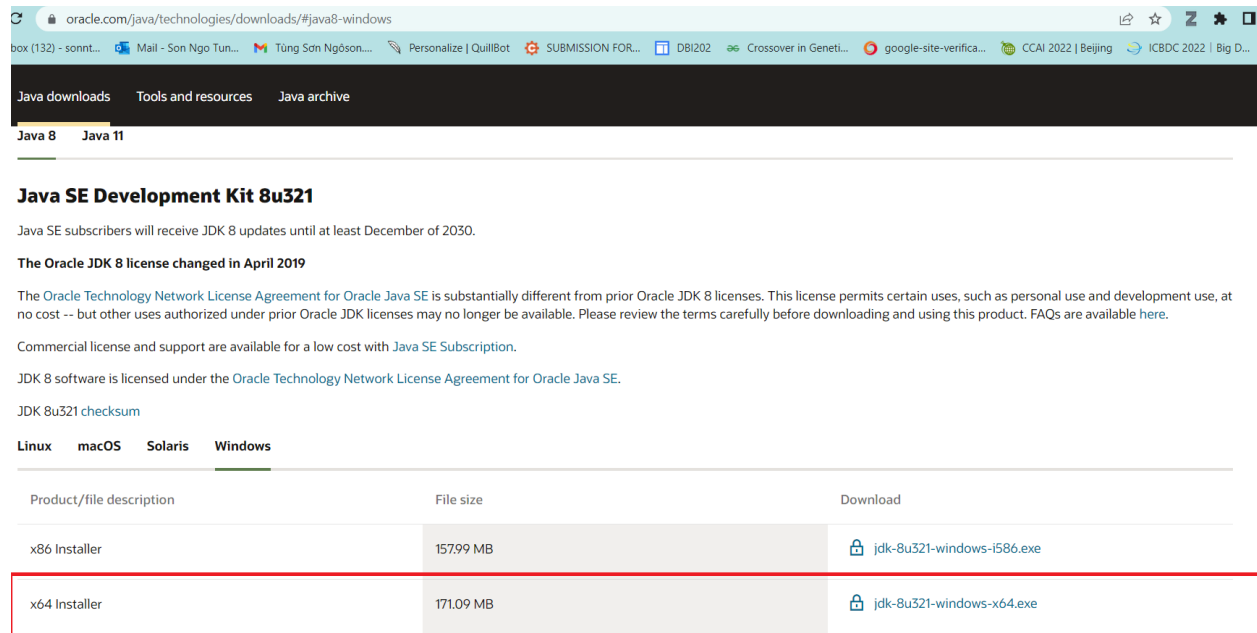


# Instructions for setting up the environment for java web

## 1.Installing JDK 8u321

Page: <https://www.oracle.com/java/technologies/downloads/>

Scroll down to find the version you need.



oracle.com/java/technologies/downloads/#java8-windows

Java downloads Tools and resources Java archive

Java 8 Java 11

### Java SE Development Kit 8u321

Java SE subscribers will receive JDK 8 updates until at least December of 2030.

**The Oracle JDK 8 license changed in April 2019**

The Oracle Technology Network License Agreement for Oracle Java SE is substantially different from prior Oracle JDK 8 licenses. This license permits certain uses, such as personal use and development use, at no cost -- but other uses authorized under prior Oracle JDK licenses may no longer be available. Please review the terms carefully before downloading and using this product. FAQs are available [here](#).

Commercial license and support are available for a low cost with Java SE Subscription.


JDK 8 software is licensed under the Oracle Technology Network License Agreement for Oracle Java SE.


JDK 8u321 [checksum](#)

Linux	macOS	Solaris	Windows
Product/file description			
		File size	Download
x86 Installer		157.99 MB	<a href="#">jdk-8u321-windows-i586.exe</a>
x64 Installer		171.09 MB	<a href="#">jdk-8u321-windows-x64.exe</a>

After installing, let check the installation folder:

Normally it will be located at: C:\Program Files\Java. It contains 2 folders JDK and JRE.

 jre1.8.0\_321

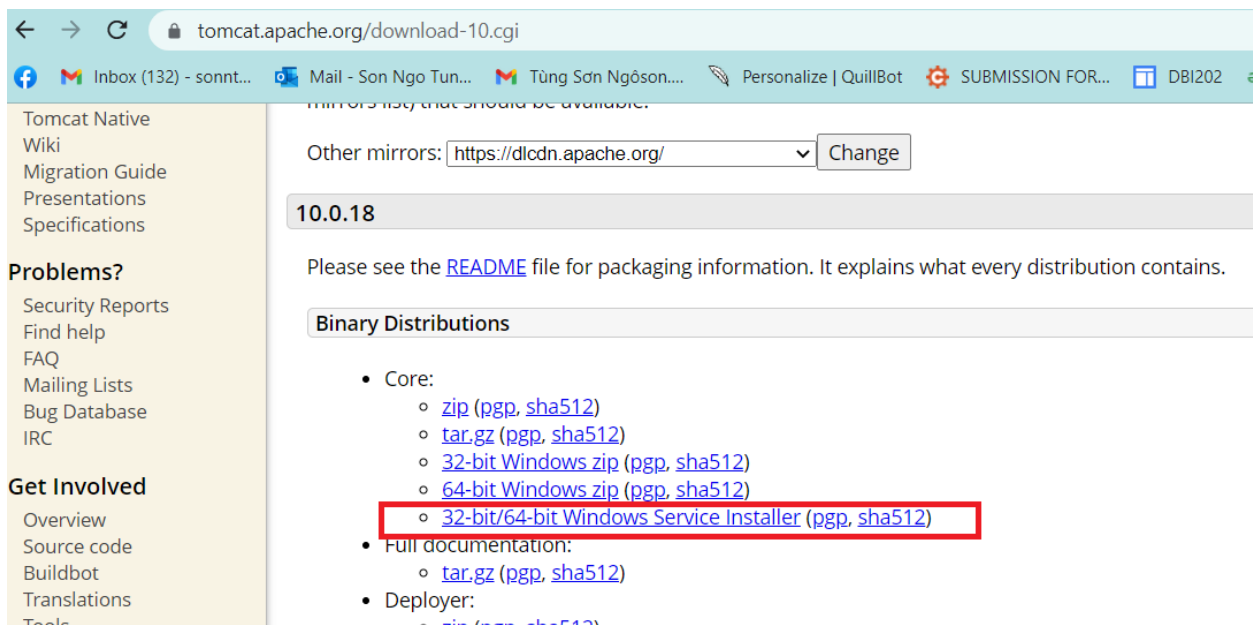
 jdk1.8.0\_311

If you see these folders, it is ok for now.

For more details, you can read <https://www.oracle.com/java/technologies/javase-jdk8-doc-downloads.html>

## 2.Installing Apache Tomcat 10.0.18

Download page: <https://tomcat.apache.org/download-10.cgi>



The screenshot shows the Apache Tomcat download page for version 10.0.18. The browser address bar shows the URL [tomcat.apache.org/download-10.cgi](https://tomcat.apache.org/download-10.cgi). The page has a left sidebar with navigation links: Tomcat Native, Wiki, Migration Guide, Presentations, Specifications, Problems?, Security Reports, Find help, FAQ, Mailing Lists, Bug Database, IRC, Get Involved, Overview, Source code, Buildbot, Translations, and Tools. The main content area shows the version 10.0.18 and a message to see the README file. Under the 'Binary Distributions' section, there is a list of download options. The '32-bit/64-bit Windows Service Installer (pgp, sha512)' link is highlighted with a red box.

Tomcat Native  
Wiki  
Migration Guide  
Presentations  
Specifications

**Problems?**  
Security Reports  
Find help  
FAQ  
Mailing Lists  
Bug Database  
IRC

**Get Involved**  
Overview  
Source code  
Buildbot  
Translations  
Tools

Other mirrors:

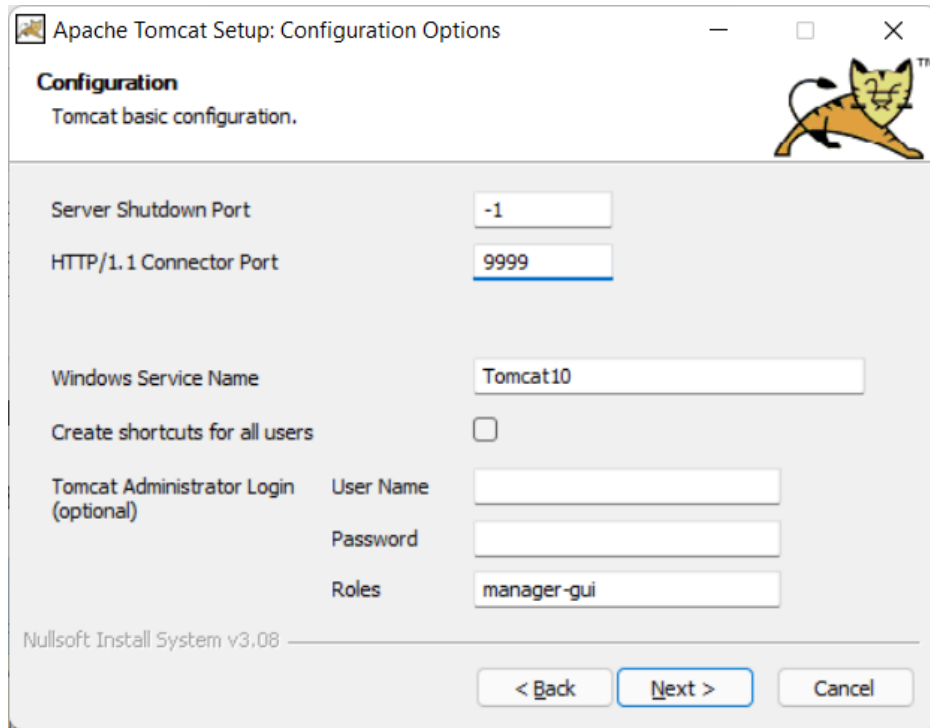
**10.0.18**

Please see the [README](#) file for packaging information. It explains what every distribution contains.

**Binary Distributions**

- Core:
  - [zip \(pgp, sha512\)](#)
  - [tar.gz \(pgp, sha512\)](#)
  - [32-bit Windows zip \(pgp, sha512\)](#)
  - [64-bit Windows zip \(pgp, sha512\)](#)
  - [32-bit/64-bit Windows Service Installer \(pgp, sha512\)](#)
- Full documentation:
  - [tar.gz \(pgp, sha512\)](#)
- Deployer:
  - [zip \(pgp, sha512\)](#)

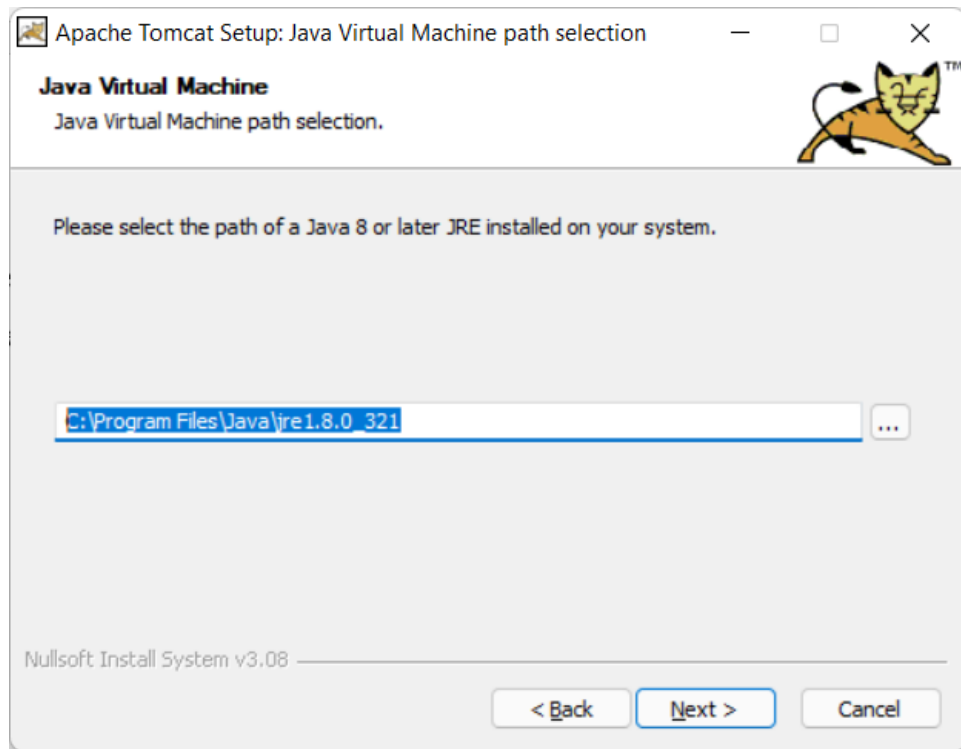
Open the installer file then click “Next” button, until you see the below screen:



By default, the HTTP port is set as 8080, but I prefer to change it to 9999. You can keep it as 8080 or change it as you desire. Same for Window Service Name.

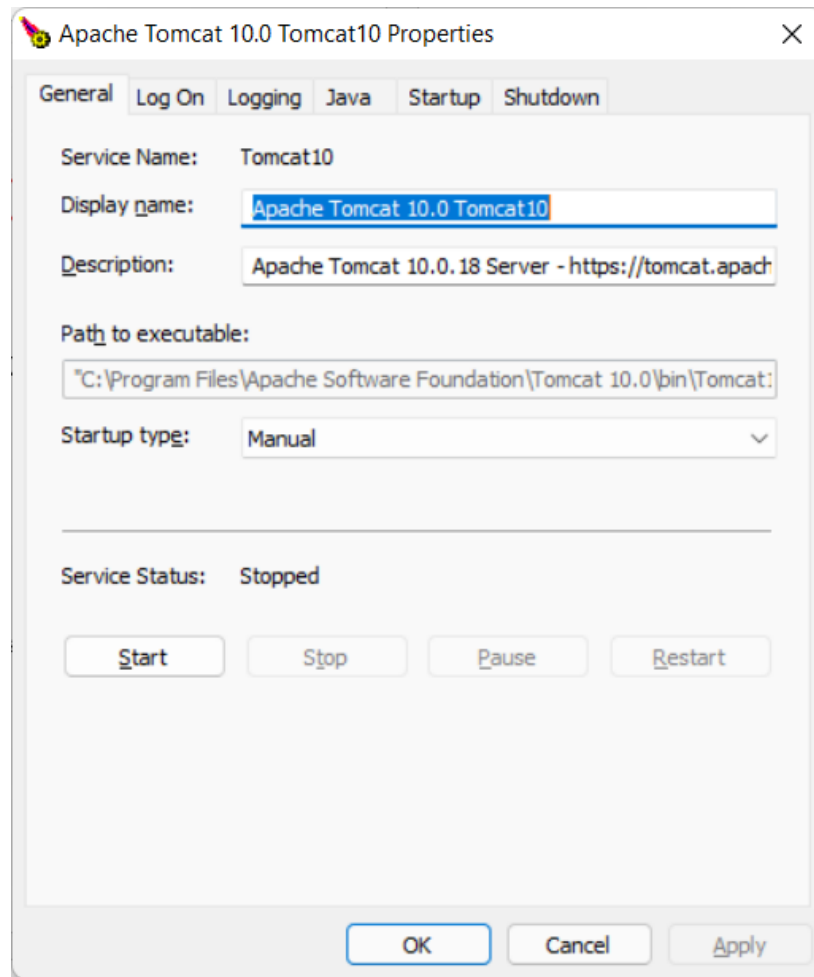
You can also set username and password at this step, but it is an optional and you can do it later.

Click "Next", then the installer will ask you for JRE folder. Basically, the installer can automatically detect JRE folder, but in the case it cannot, you can add it manually.



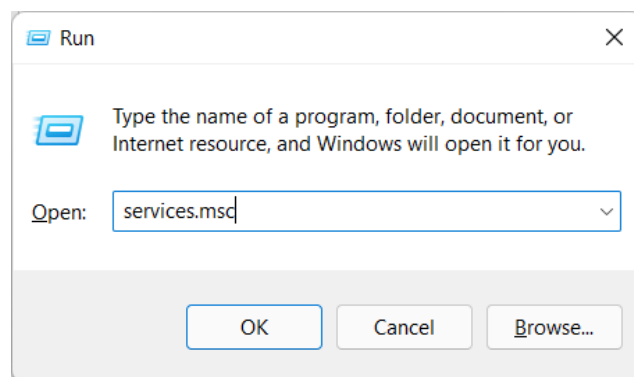
Click “Next” .... Again then “Finish”.

Normally, you are going to see the below window app displayed:

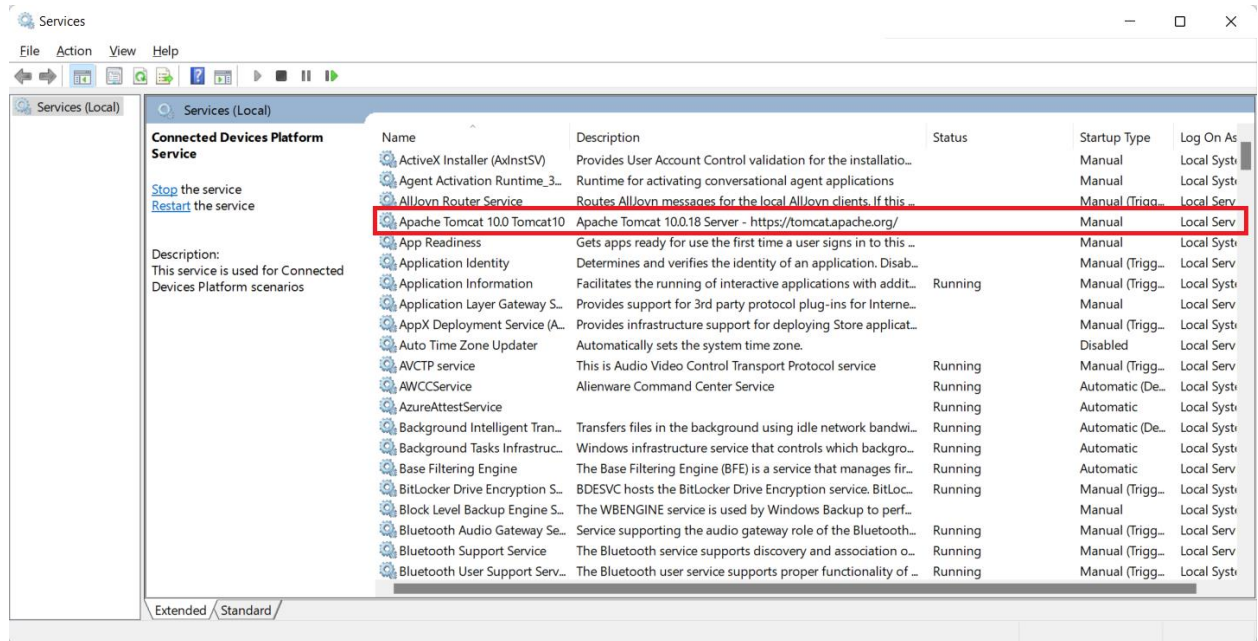


It is ok, this application used to control your TOMCAT webserver, but if you do not see it, do not worry. I recommend you follow below instructions:

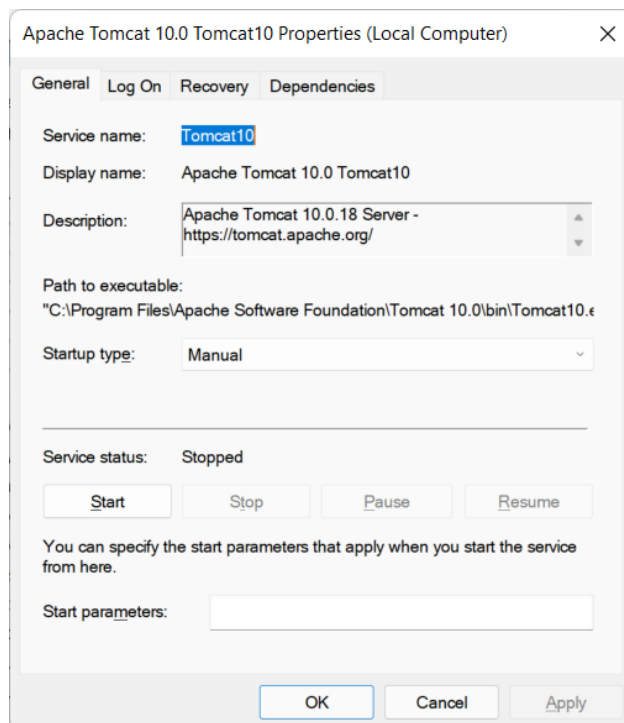
1. TOMCAT now is installed as a Window Service (It is a software, but it does not have a graphic user interface).
2. To work with Window Service, press window+R, fill service.msc



### 3. Find the TOMCAT service in the list:

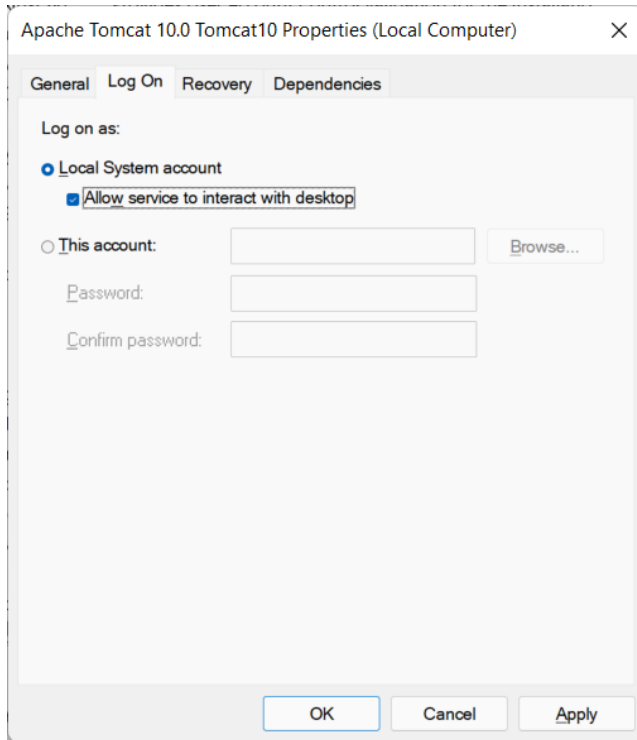


Right click -> properties ->



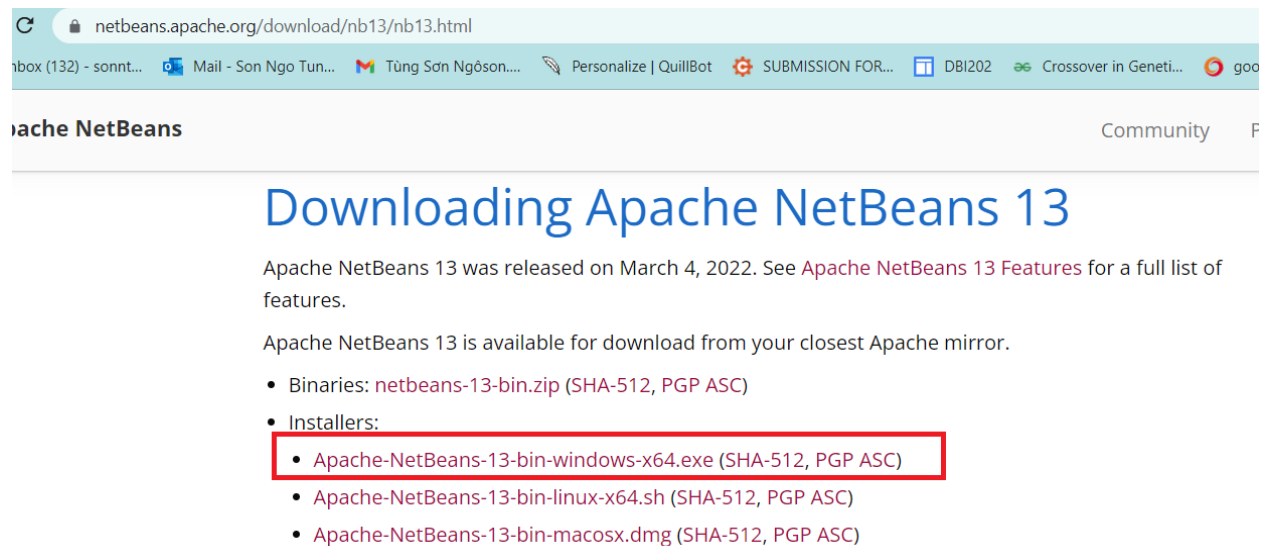
Now you can start/stop the TOMCAT service. Just make sure it is running before use.

You can grant permission for TOMCAT to run with Local System account on the same dialog.



### 3.Installing Apache NetBeans IDE 13.

Download: <https://netbeans.apache.org/download/nb13/nb13.html>



netbeans.apache.org/download/nb13/nb13.html

Apache NetBeans

Community

## Downloading Apache NetBeans 13

Apache NetBeans 13 was released on March 4, 2022. See [Apache NetBeans 13 Features](#) for a full list of features.

Apache NetBeans 13 is available for download from your closest Apache mirror.

- Binaries: [netbeans-13-bin.zip](#) (SHA-512, PGP ASC)
- Installers:
  - [Apache-NetBeans-13-bin-windows-x64.exe](#) (SHA-512, PGP ASC)
  - [Apache-NetBeans-13-bin-linux-x64.sh](#) (SHA-512, PGP ASC)
  - [Apache-NetBeans-13-bin-macosx.dmg](#) (SHA-512, PGP ASC)

During your installation, remember to select JDK 1.8 (just in case, you have more than one version of Java).

After installation, run netbeans 13, File > New Project > Java with Ant > Select Web Application (It is disabled by default, just select it, netbeans will automatically enable the project template).



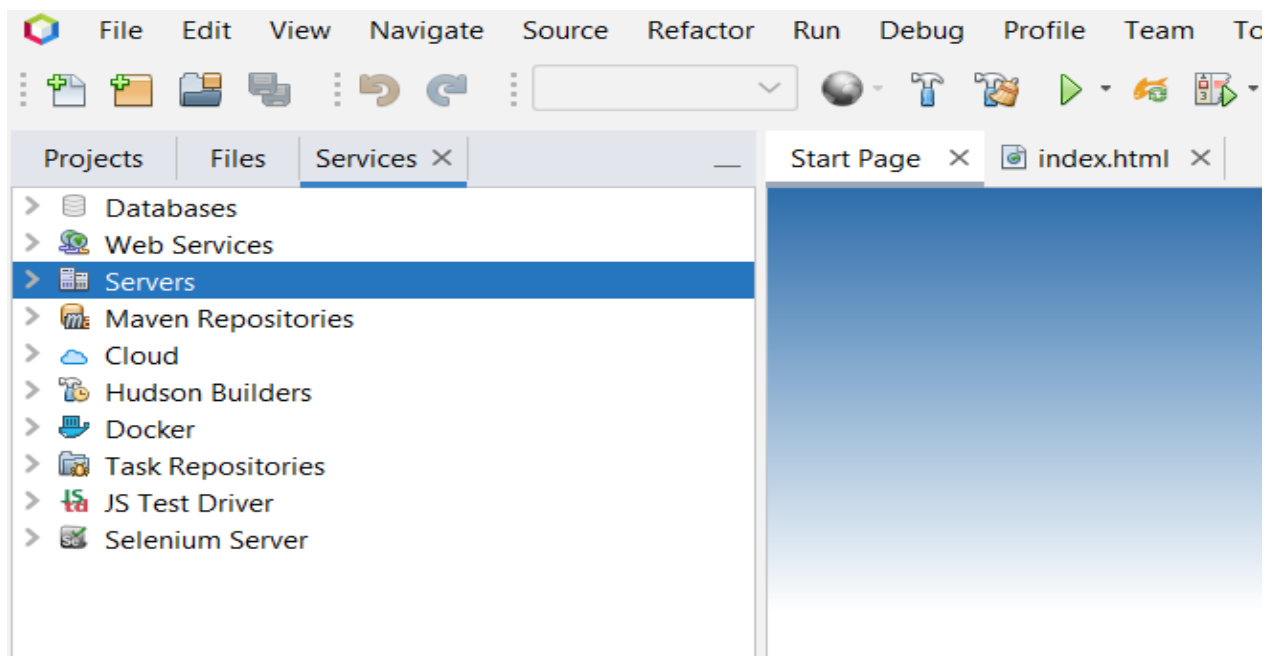
## 4.Integrating Apache NetBeans IDE 13 with Apache Tomcat.

+ First, open the Apache Tomcat folder:

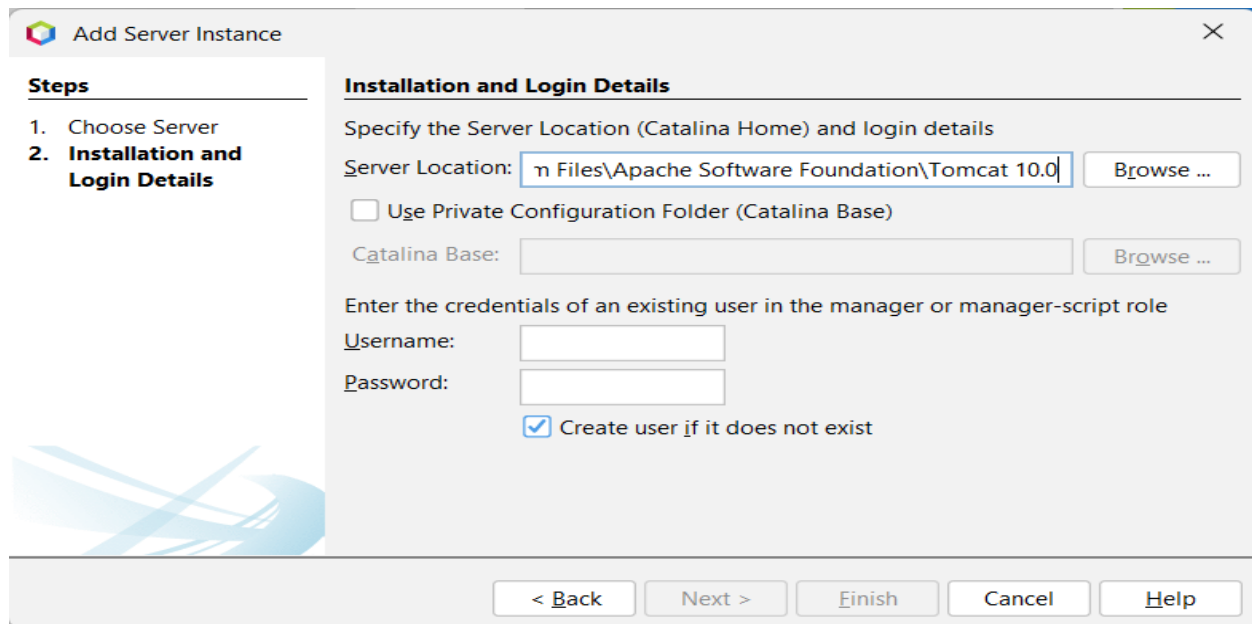
By default, it is located at: C:\Program Files\Apache Software Foundation\Tomcat 10.0

The system may ask you to grant permission, just click “Yes” button. This step aims to allows your account to access the Apache Tomcat folder for further tasks.

+ Open netbeans, on the menu bar, Window > Service (ctrl + 5) > select Service panel as following:



Server > Right click > Add Server > Apache Tomcat and TomEE >



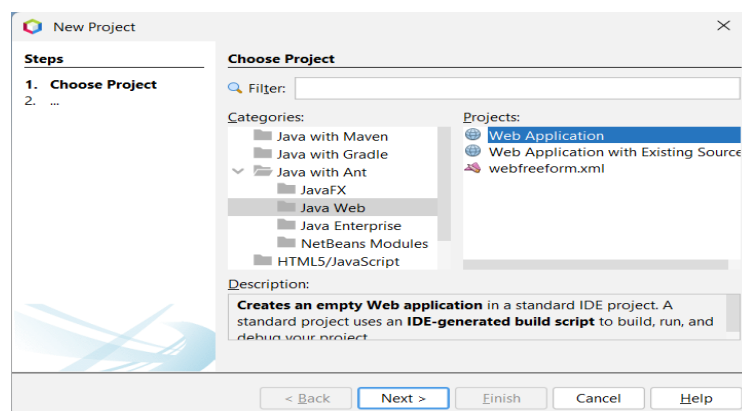
Here you can create your username and password, then finish. Now you can work with Java Web project in netbeans 13.

If you get an error related to “CATALINA\_base is Invalid”, check the first step.

Errors related to Tomcat will be logged to “C:\Program Files\Apache Software Foundation\Tomcat 10.0\logs”, check the catalina\*\*\*\* file for the detail logs.

## 5.Create Java Web project with Java with Ant, Servlet and Debug.

To create a new java web project: File > New Project > Java with Ant> Java Web > Web Application (See the below figure)



/// LET DO IT, IN THE SESSION OF SERVLET

Once you create new Servlet via Netbeans template file. By default, netbeans using javax, which is not included in Jarkata EE platform equipped by Tomcat 10. Just need to replace all javax by Jakarta package, then everything will be compiled.

## 5.Create Java Web project with Java with Maven

