

Course: Web Application Development
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Lab 1: Setup Environment

Date: February 17th, 2025

Content:

- Setup IDE: NetBeans (using the latest version, server: Tomcat/Glassfish)
- Setup database: MySQL (database server), others
- Implement a website using HTML

Duration: 2 hours

Part 1: Setup visual code:

Install VSCode: [Setup Visual Studio Code for Web Development in 2022 \(youtube.com\)](#)


- Install live server extensions
- Run First HTML file

Part 2: Setup NetBeans IDE

NOTE: You can also use Eclipse or IntelliJ

Download Tomcat server: [Apache Tomcat® - Apache Tomcat 10 Software Downloads](#)

Unzip to specific folder: example *C:\apache-tomcat-10.1.29*




Search...

GO

COMMUNITY

THE ASF CONFERENCE

CODE



Denver, Colorado

October 7-10, 2024

Apache Tomcat

Home

Taglibs

Maven Plugin

Download

Which version?

Tomcat 11 (beta)

Tomcat 10

Tomcat 9

Tomcat Migration Tool for Jakarta EE

Tomcat Connectors

Tomcat Native

Taglibs

Archives

Documentation

Tomcat 11.0 (beta)

Tomcat 10.1

Tomcat 9.0

Upgrading

Tomcat Connectors

Tomcat Native 2

Tomcat Native 1.3

Wiki

Migration Guide

Presentations

Specifications

Apache Tomcat®

Tomcat 10 Software Downloads

Welcome to the Apache Tomcat® 10.x software download page. This page provides do
Unsure which version you need? Specification versions implemented, minimum Java ve
Users of Tomcat 10 onwards should be aware that, as a result of the move from Java EE
will almost certainly require code changes to enable applications to migrate from Tomc

Quick Navigation

[KEYS](#) | [10.1.29](#) | [Browse](#) | [Archives](#)

Release Integrity

You **must** [verify](#) the integrity of the downloaded files. We provide OpenPGP signatures
checksums for every release file. After you download the file, you should calculate a ch

Mirrors

You are currently using <https://dlcdn.apache.org/>. If you encounter a problem with th
Other mirrors:

10.1.29

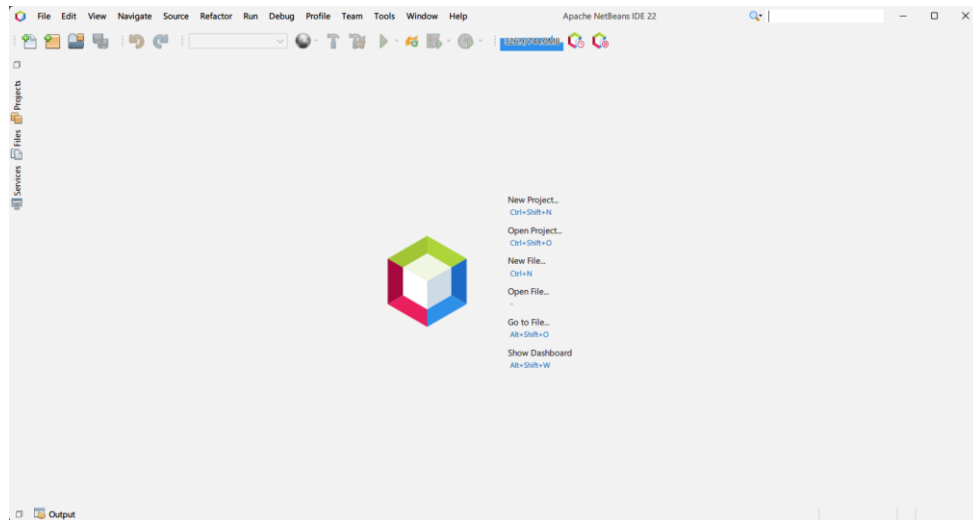
Please see the [README](#) file for packaging information. It explains what every distributi

Binary Distributions

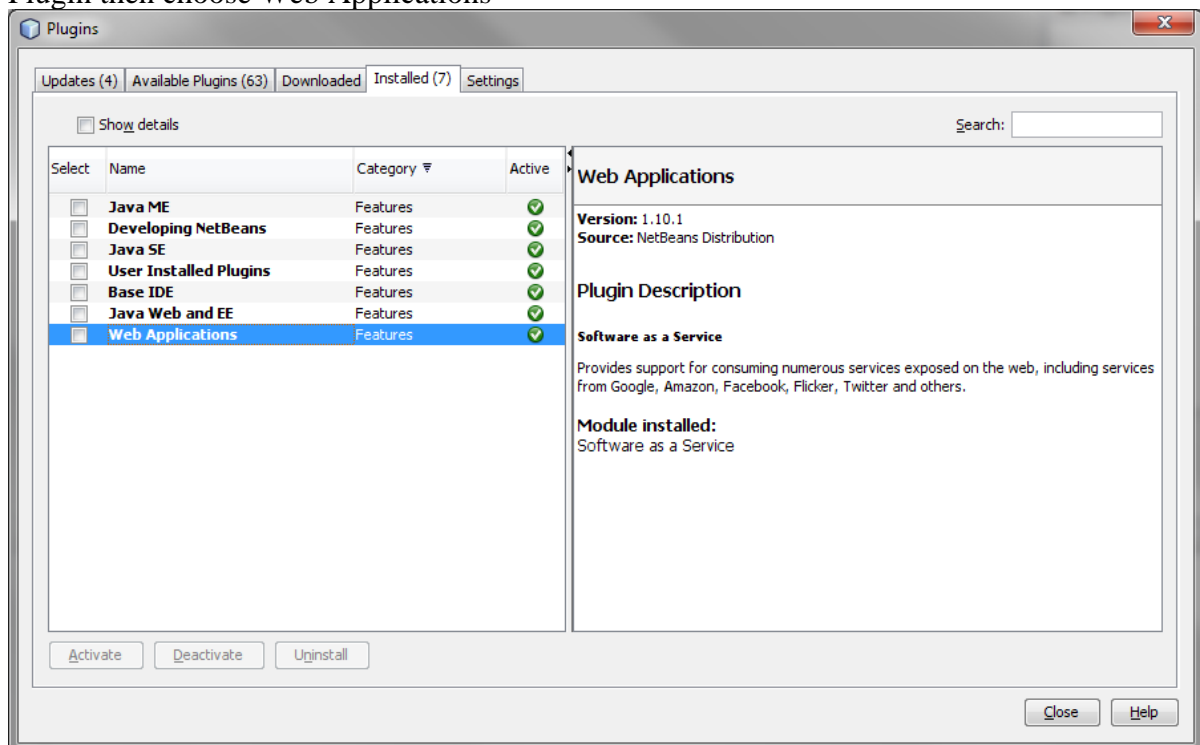
- Core:
 - [zip \(pgp, sha512\)](#)
 - [tar.gz \(pgp, sha512\)](#)
 - [32-bit Windows zip \(pgp, sha512\)](#)
 - [64-bit Windows zip \(pgp, sha512\)](#)
 - [32-bit/64-bit Windows Service Installer \(pgp, sha512\)](#)
- Full documentation:
 - [tar.gz \(pgp, sha512\)](#)
- Deployer:

Download and install Netbeans www.netbeans.org/ The latest version

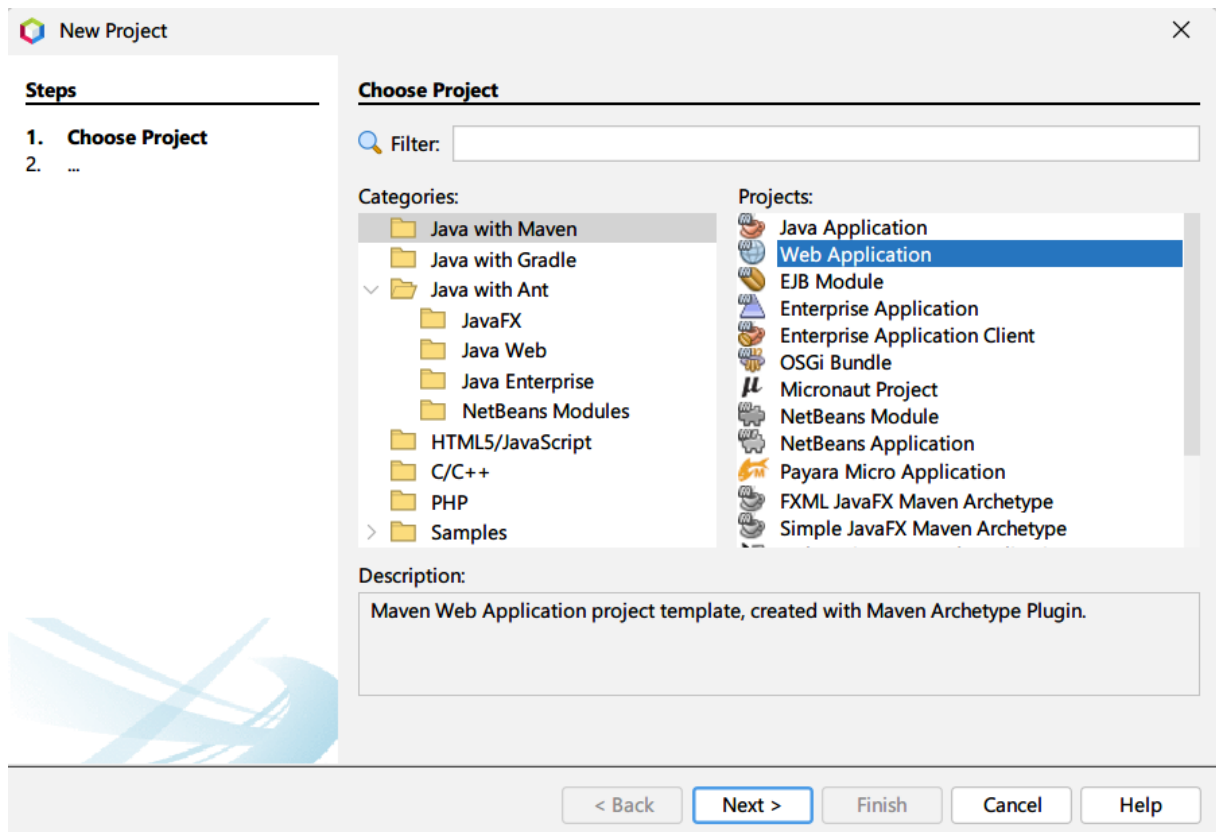
This is an example of Interface when finish installation: (note: you should download the latest version)



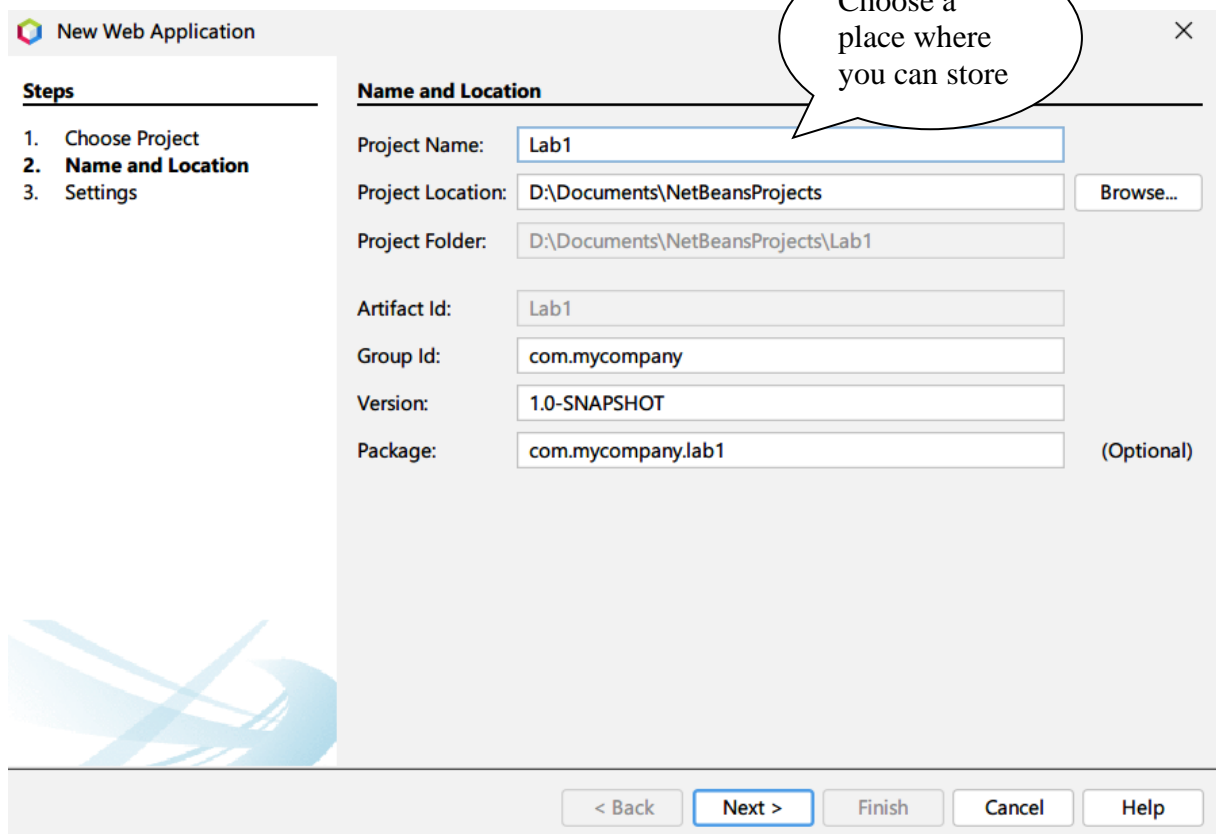
Create a website to test Netbeans environment: Select File > New Project > Java with Maven > Web Application: If Web Application project template does not exist, that means Web Applications plugin is not installed. You can install it by choosing Tool>Plugin>Available Plugin then choose Web Applications



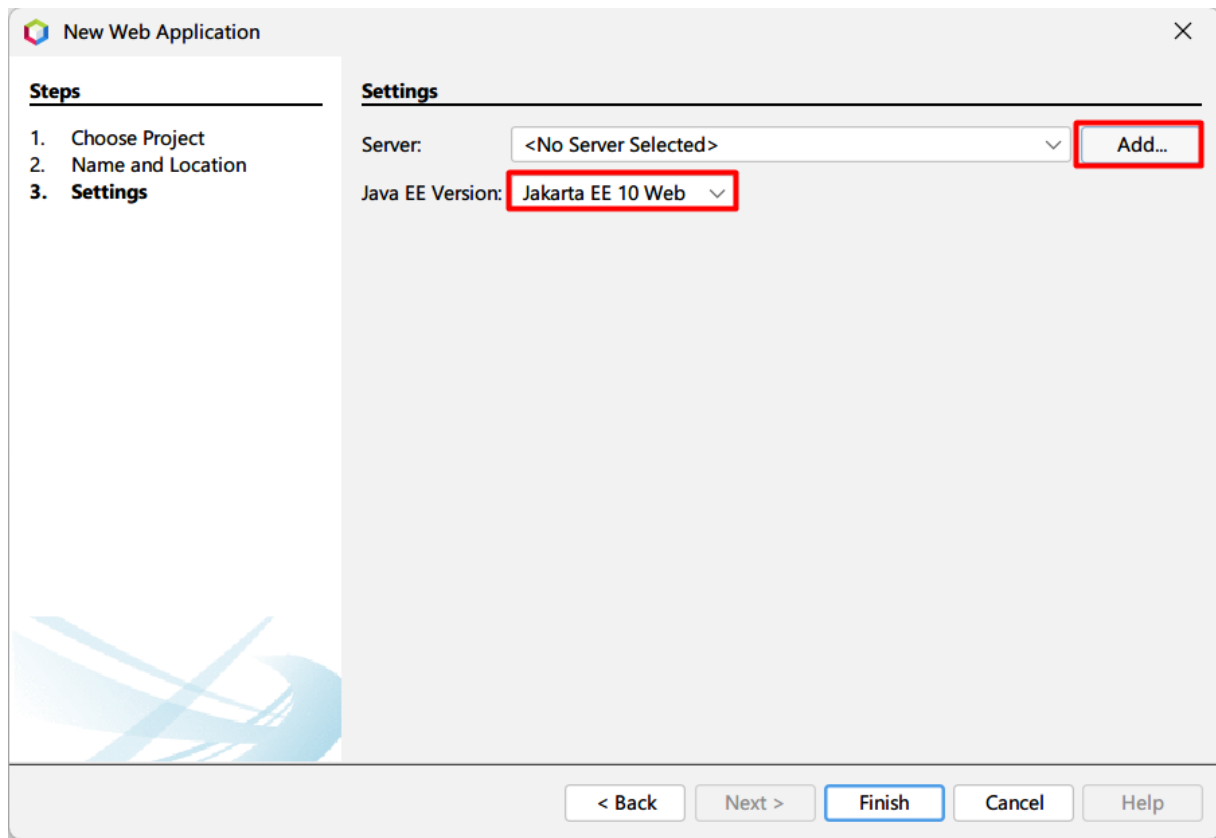
Screen of plugin installation



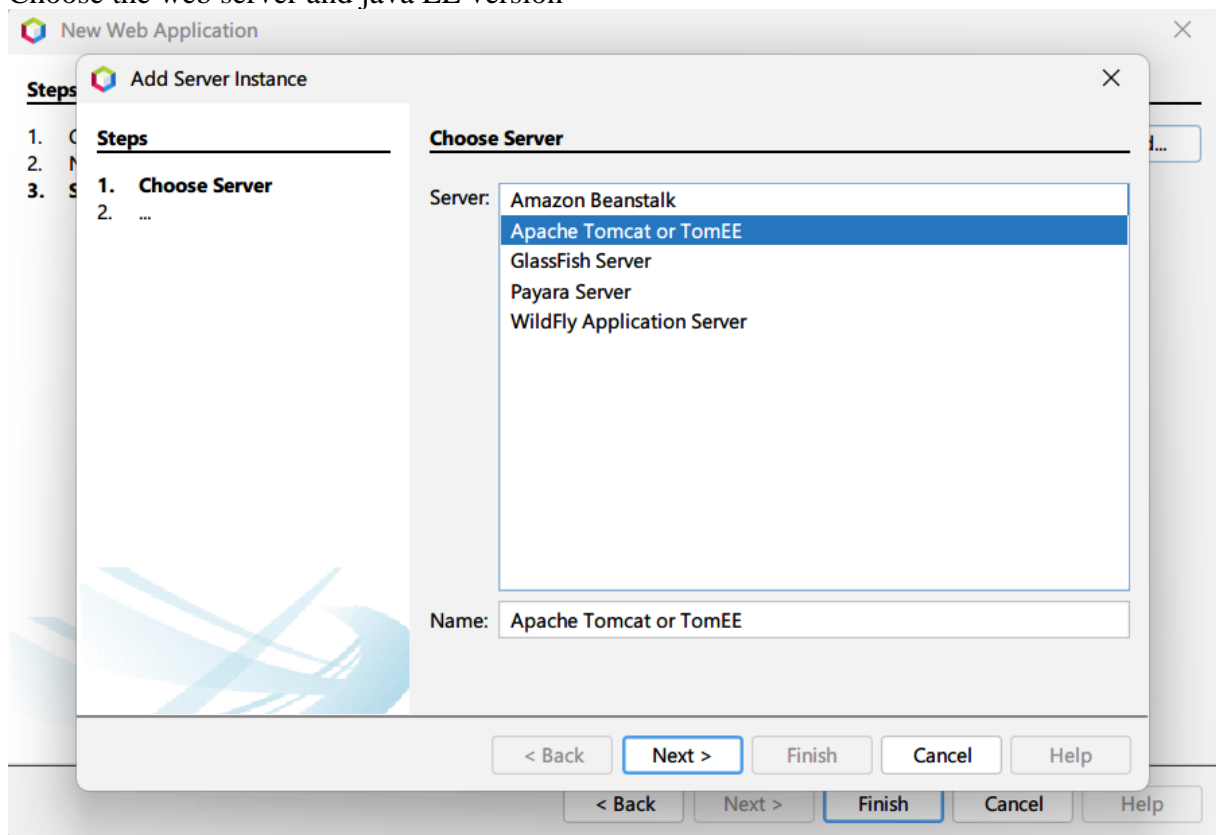
Click to “Next”, then fill in the Project Name; Name and Location of the Project. Then click the Next button.

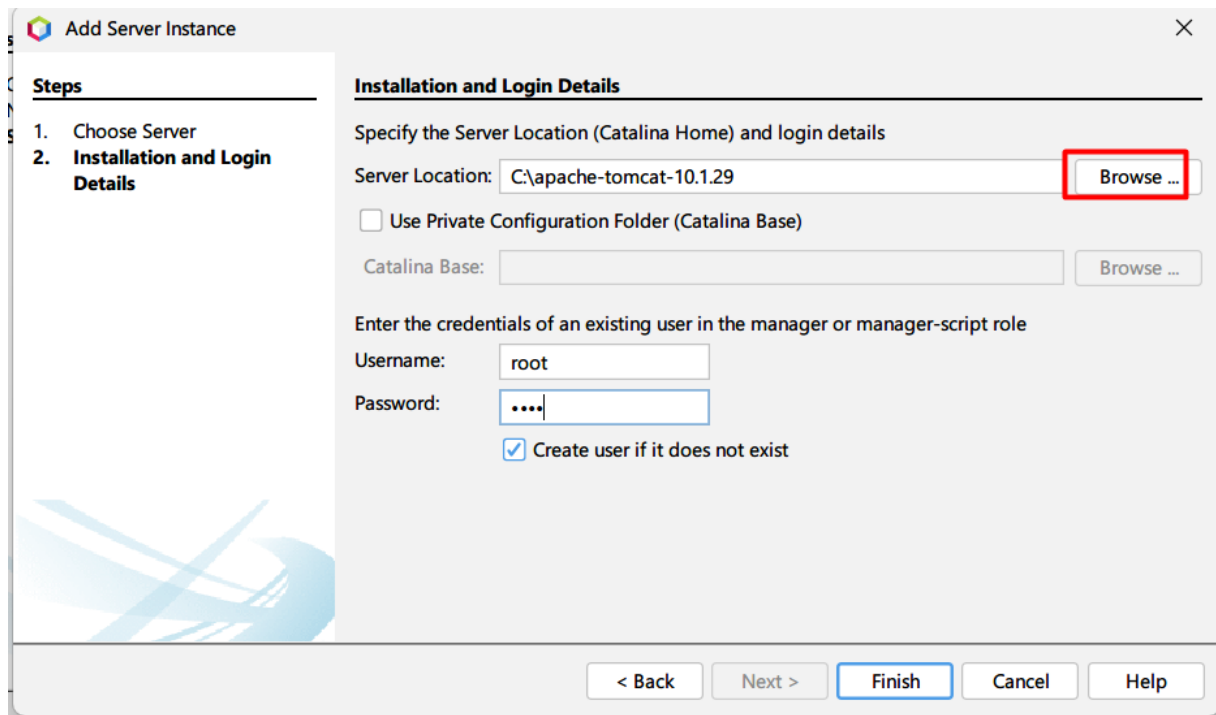


Choose the web server (there are two web server: Apache Tomcat & GlassFishV2)



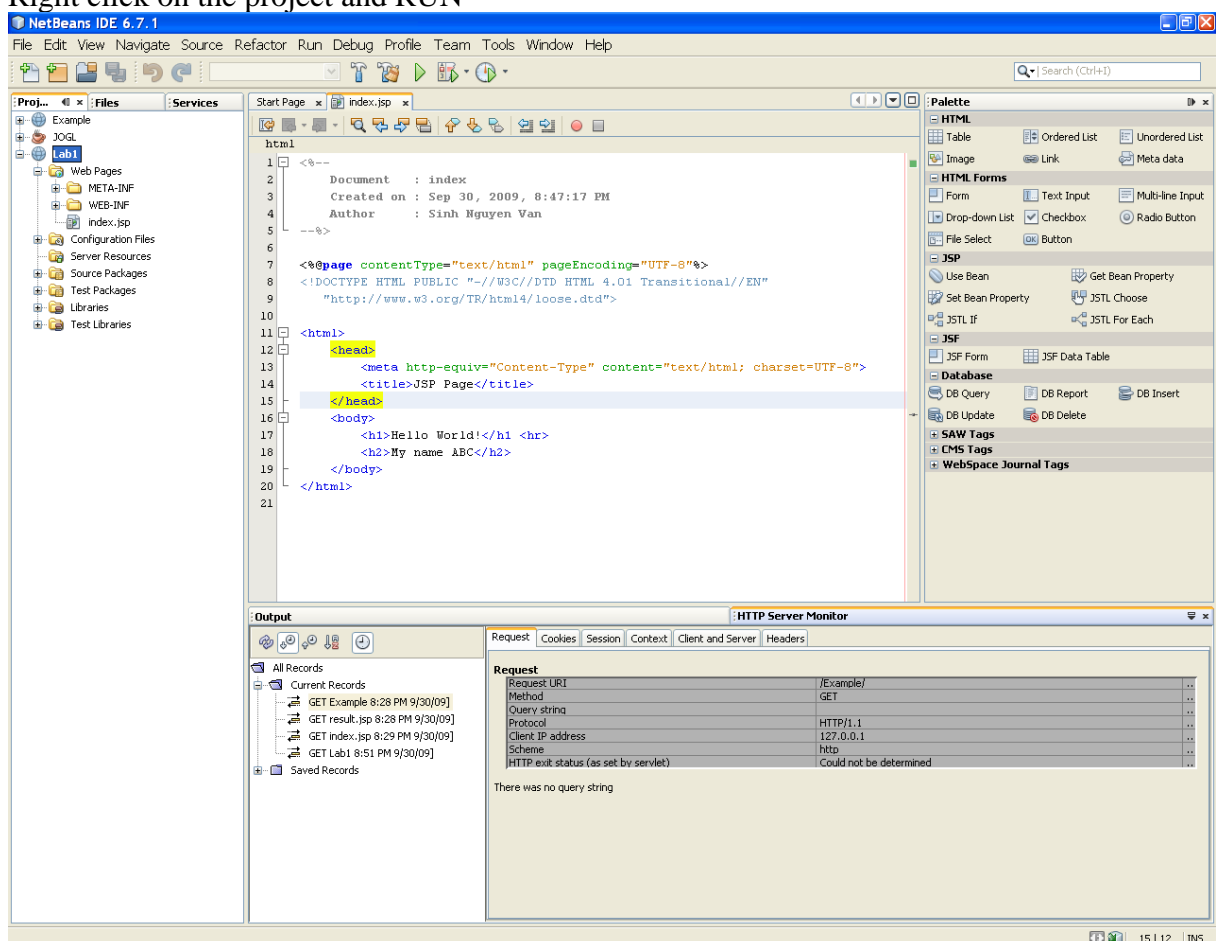
Choose the web server and java EE version

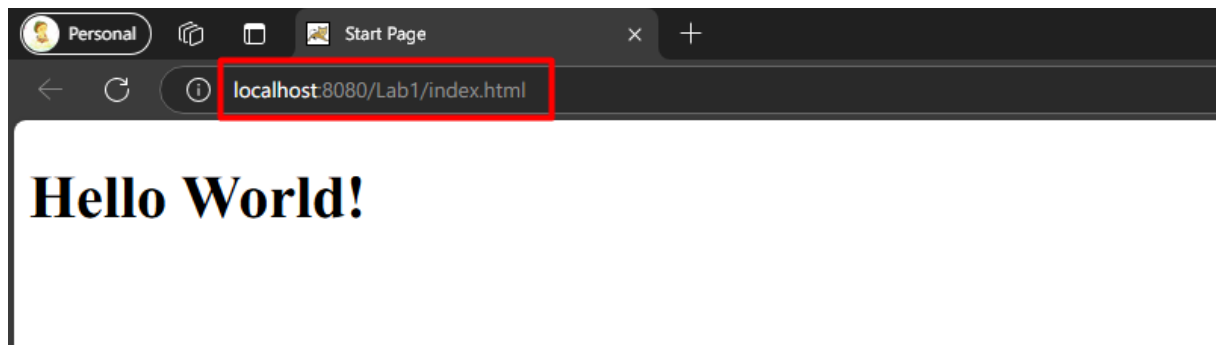




Browse to Tomcat folder you just download (in my case *C:\apache-tomcat-10.1.29*) then create username and password.

Now click on Finish button to complete an example of web application.
Right click on the project and RUN





Part 3: Setup MySQL (Database System) & Workbench (workplace)

Flow video to install MySQL and workbench:

[How to install MySQL on Windows 10/11 \[2024 Update \] MySQL Server & MySQL Workbench Complete guide \(youtube.com\)](#)

Download: [MySQL :: Download MySQL Installer](#)

MySQL can be controlled by two administration interfaces:

- Console (built-in console)
- Graphic User Interface (Third-Party Tools)

Third-party tools are softwares provided by many vendors, such as MySQL GUI, Navicat,... You can install Navicat Lite for MySQL. In this section, you will learn console and Navicat

a. MySQL console

Steps to launch console:

- Open window console by run “cmd” command on “Start” menu
- Locate directory contained file “mysql” (it is usually located in bin folder of installed folder). Do not forget your username and password of mysql when you was installing.
- Run mysql as figure bellow:
`mysql -u root -p`

```
C:\WINDOWS\system32\cmd.exe - mysql -u root -p

C:\Program Files\MySQL\MySQL Server 6.0\bin>mysql root -p
Enter password:
ERROR 1044 (42000): Access denied for user ''@'localhost' to database 'root'

C:\Program Files\MySQL\MySQL Server 6.0\bin>mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 4
Server version: 6.0.3-alpha-community MySQL Community Server (GPL)

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> shows databases;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that
corresponds to your MySQL server version for the right syntax to use near 'shows
databases' at line 1
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| funtasybook |
| mysql |
| student |
| test |
| weblab5 |
| webtest |
+-----+
7 rows in set (0.24 sec)

mysql> _
```

- After connecting to the database, you can test MySQL feature by typing something. The syntax and purposes of command can be found on the internet.

Part 3: Design your personal website using HTML

Exercise 1: To do this exercise you may need to read: [Welcome to Learn HTML! | web.dev](#)

In this project, you are required to create a single-page CV (Curriculum Vitae) using only HTML. Your webpage should look like the following image:

Your Name

Junior Frontend Developer

123 Your Street
Your City, ST 12345
(123) 456-7890
no_reply@example.com

Skills

HTML, CSS, JavaScript, Accessibility, Figma to Design, Responsive Web Design, Technical Writing, Presentation

Education

School Name, Location - Degree
Month 20xx to Month 20xx
List of exciting things you did at university

Experience

Company Name, Location - Job Title
Month 20xx to Month 20xx

- List of achievements
- List of achievements
- List of achievements

Skills: List of skills used or gained at this company

Company Name, Location - Job Title
Month 20xx to Month 20xx

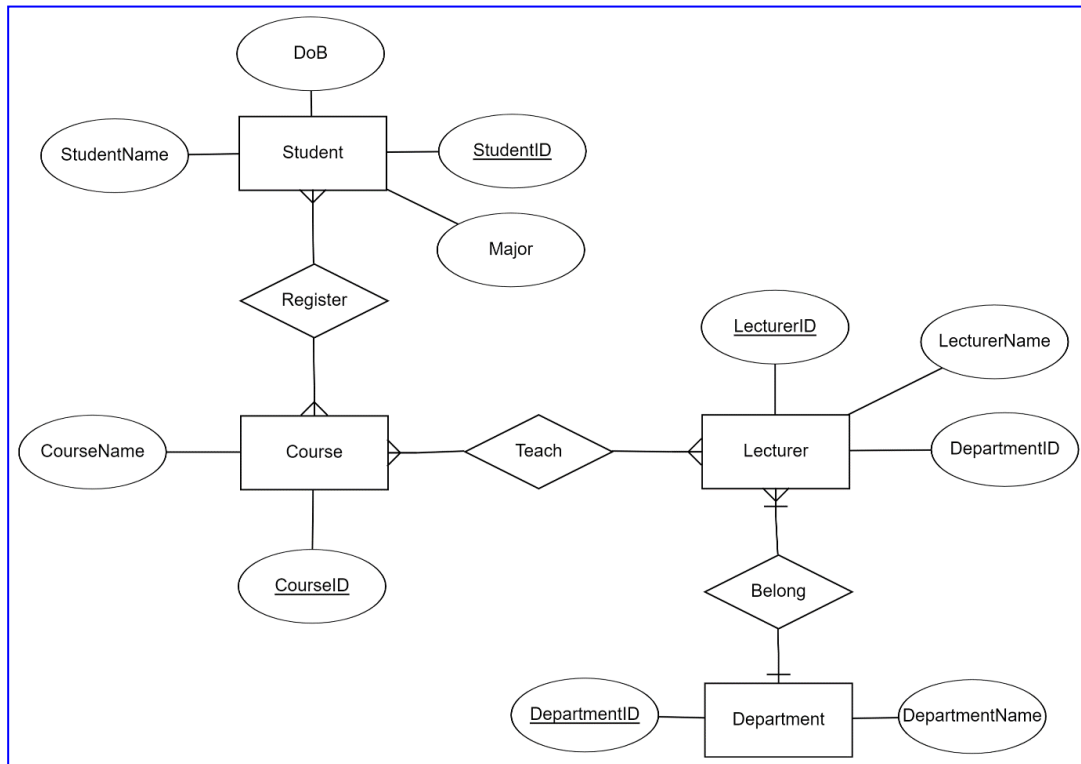
- List of achievements
- List of achievements
- List of achievements

Skills: List of skills used or gained at this company

Across the Internet

Add your LinkedIn, GitHub profile links

Exercise 2 (optional): Create a database (use the given ERD) using MySQL workbench and then export the data into one SQL file with format: **fullname_id.sql** (Ex: **ntnghia_ITITIUI13047.sql**)



How to submit your work:

- Capture all your pages and place them in the pdf file
- Compress all the HTML, CSS, PDF files, and SQL file with the format **fullname_id.zip** (Ex: **ntnghia_ITITIUI13047.zip**) and submit to the Blackboard.

NOTE: You can use Zip or Rar to compress files.