

# Getting Started with IntelliJ

COMSM0086

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# Overview

- Downloading and installing IntelliJ IDE
- Dealing with User Agreement and Licensing
- Open an existing template project
- Install the Java Development Kit (JDK)  
(including compiler, runtime and libraries)
- Running your first Java program !

# Download from JetBrains

Make sure you get the download for your platform !  
(Website \_should\_ autodetect to the right option)

Windows macOS Linux



## IntelliJ IDEA Ultimate

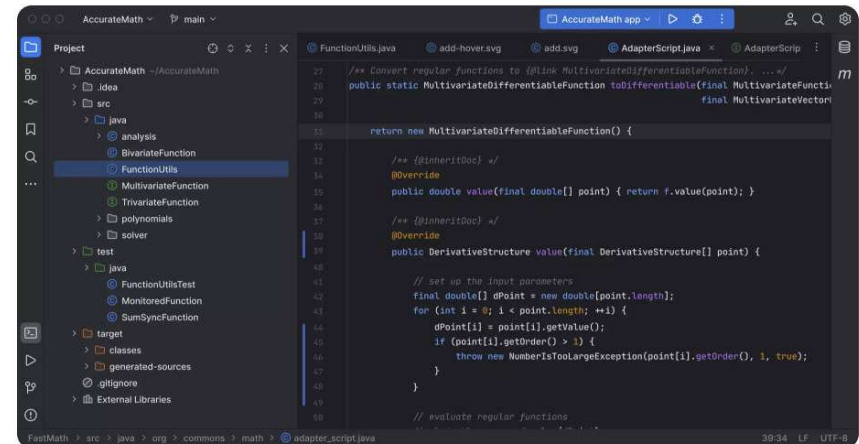
The Leading Java and Kotlin IDE

Download

.dmg ▼

Free 30-day trial

Select an installer for Intel or Apple Silicon



Version: 2023.3.2  
Build: 233.13135.103  
20 December 2023

[System requirements](#)

[Installation instructions](#)

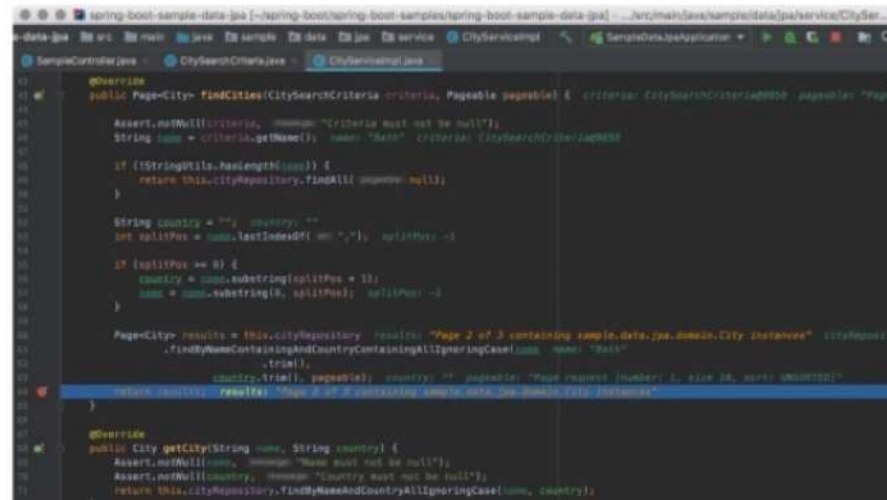
[Other versions](#)

[Third-party software](#)

Open the download and install as normal !

# Alternative Approach

IntelliJ might be available through your platform's Package Manager (if it has one !)



# User Agreement

First time you run IntelliJ, you'll see User Agreement

Tick the box and click continue if you are happy !

## JETBRAINS USER AGREEMENT

Version 1.4, effective as of September 22, 2021

IMPORTANT! READ CAREFULLY:

THIS IS A LEGAL AGREEMENT. BY CLICKING ON THE "I AGREE" (OR SIMILAR) BUTTON THAT IS PRESENTED TO YOU AT THE TIME OF YOUR FIRST USE OF THE JETBRAINS SOFTWARE, SUPPORT, OR PRODUCTS, YOU BECOME A PARTY TO THIS AGREEMENT, YOU DECLARE YOU HAVE THE LEGAL CAPACITY TO ENTER INTO SUCH AGREEMENT, AND YOU CONSENT TO BE BOUND BY ALL THE TERMS AND CONDITIONS SET FORTH BELOW.

### 1. PARTIES

1.1. "JetBrains" or "we" means JetBrains s.r.o., having its principal place of business at Na Hrebenech II 1718/10, Prague, 14000, Czech Republic, registered in the Commercial Register maintained by the Municipal Court of Prague, Section C, File 86211, ID No. 265 02 275.

☒ I confirm that I have read and accept the terms of this User Agreement

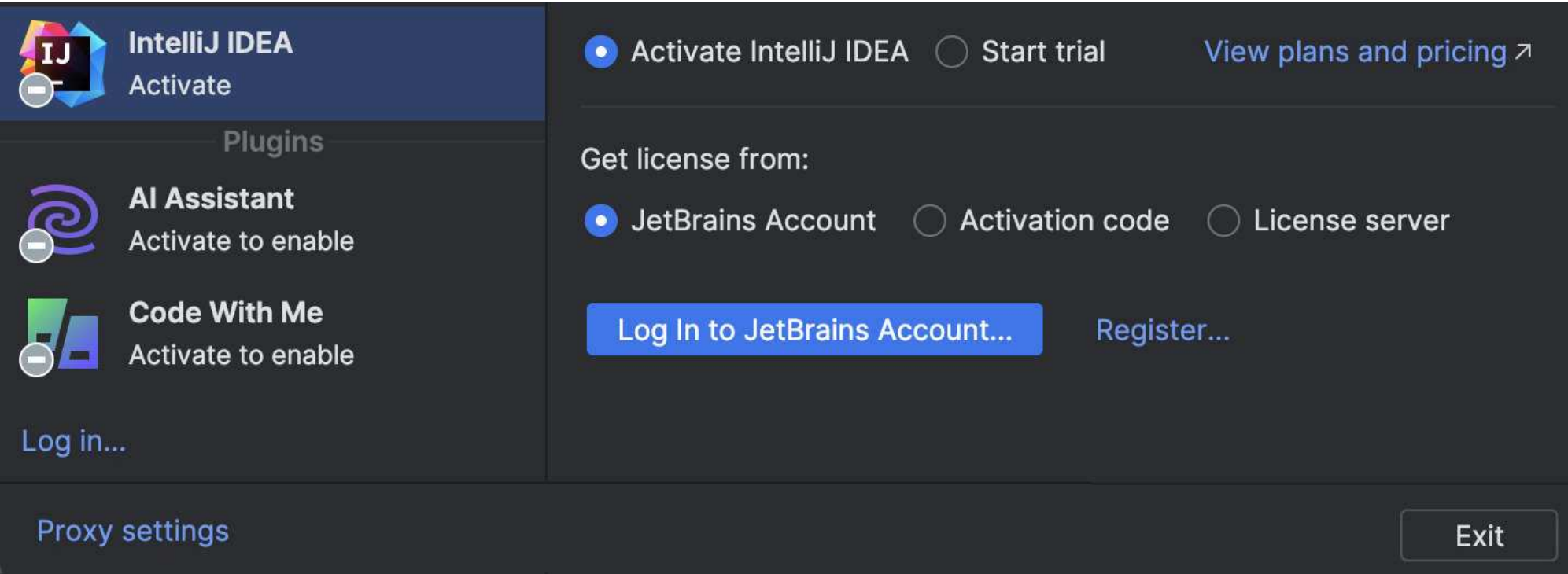
Exit

Continue

# License Settings

"Start Trial" if you haven't registered with JetBrains

"Log In to JetBrains" if you have educational license



The screenshot shows the 'License Settings' window in IntelliJ IDEA. On the left is a sidebar with icons and labels for 'IntelliJ IDEA', 'AI Assistant', and 'Code With Me', each with an 'Activate' button. Below these is a 'Log in...' link and a 'Proxy settings' link at the bottom. The main area on the right has two radio buttons: 'Activate IntelliJ IDEA' (selected) and 'Start trial'. A link 'View plans and pricing' is to the right. Below this, 'Get license from:' is followed by three radio buttons: 'JetBrains Account' (selected), 'Activation code', and 'License server'. At the bottom of the main area are two buttons: 'Log In to JetBrains Account...' (highlighted in blue) and 'Register...'. An 'Exit' button is in the bottom right corner.

**IntelliJ IDEA**  
Activate

**Plugins**

- AI Assistant**  
Activate to enable
- Code With Me**  
Activate to enable

[Log in...](#)

[Proxy settings](#)

☒ Activate IntelliJ IDEA ☐ Start trial [View plans and pricing ↗](#)

Get license from:


☒ JetBrains Account ☐ Activation code ☐ License server

[Log In to JetBrains Account...](#) [Register...](#)


[Exit](#)


# Extra Step


Make sure you click the "Activate" button !

**IntelliJ IDEA**  
Active until October 1, 2024

Plugins

**AI Assistant**  
Activate to enable

**Code With Me**  
Active until October 1, 2024

 Simon Lock

☒ **Activate IntelliJ IDEA** ☐ Start trial [View plans and pricing ↗](#)

Get license from:

☒ **JetBrains Account** ☐ Activation code ☐ License server

**Active license:** Licensed to Simon Lock, For educational use only  
Subscription is active until 01/10/2024

Activate

Cancel

[Refresh license list](#)

[Proxy settings](#) [Activate plugin to enable paid functions](#)

Continue



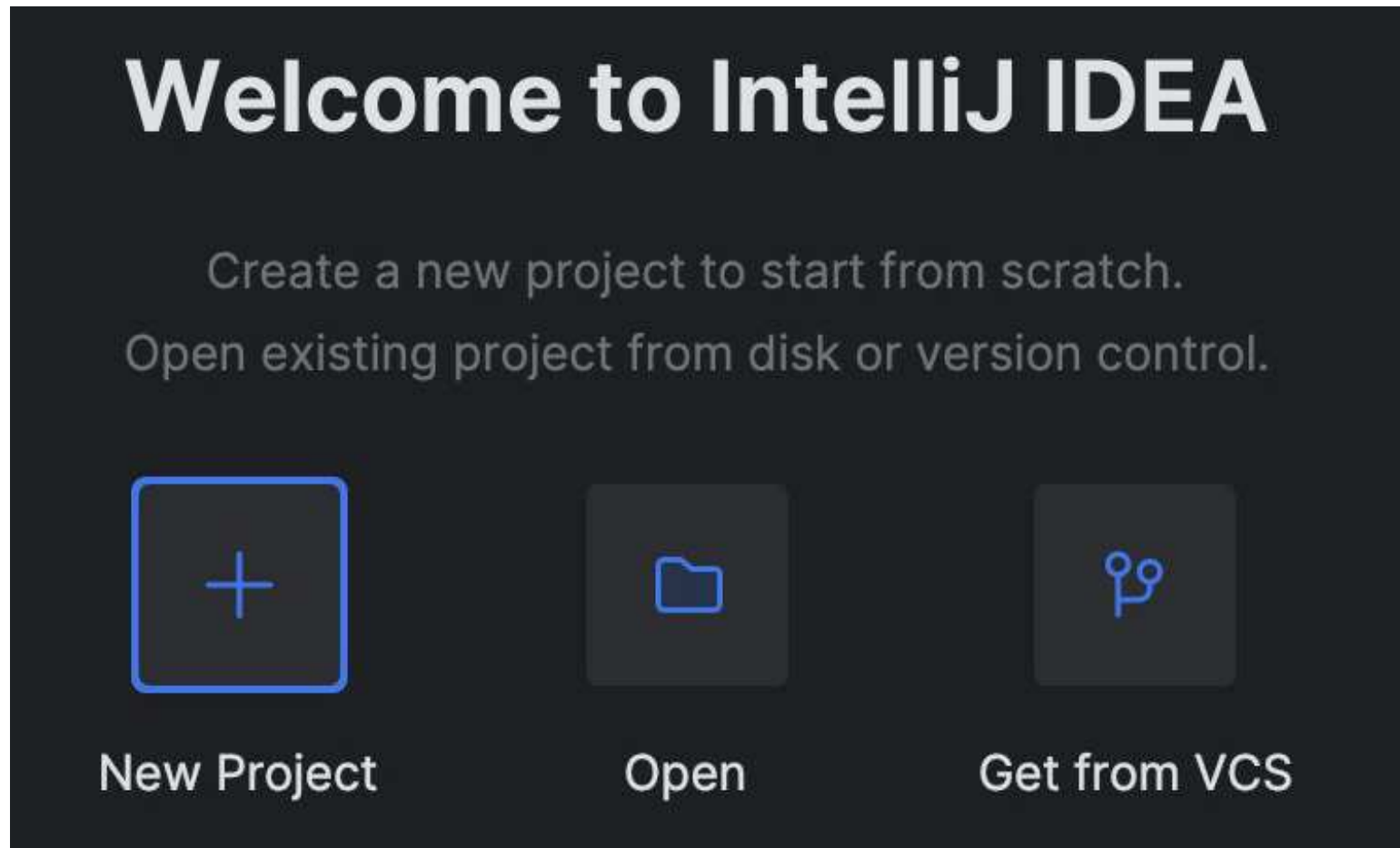
# Register for an Educational License

<https://jetbrains.com/community/education/#students>

Apply with	<u>University email address</u>	ISIC/ITIC membership	Official document
Status:	<input checked="" type="radio"/> I'm a student <input type="radio"/> I'm a teacher		
Level of study	<div>Undergraduate ▼</div>		
	<p>Is Computer Science or Engineering your major field of study?</p> <input checked="" type="radio"/> Yes <input type="radio"/> No		
Email address:	<div>University email address, e.g. js@mit.edu</div>		
<p>I certify that the university email address provided above is valid and belongs to me.</p>			

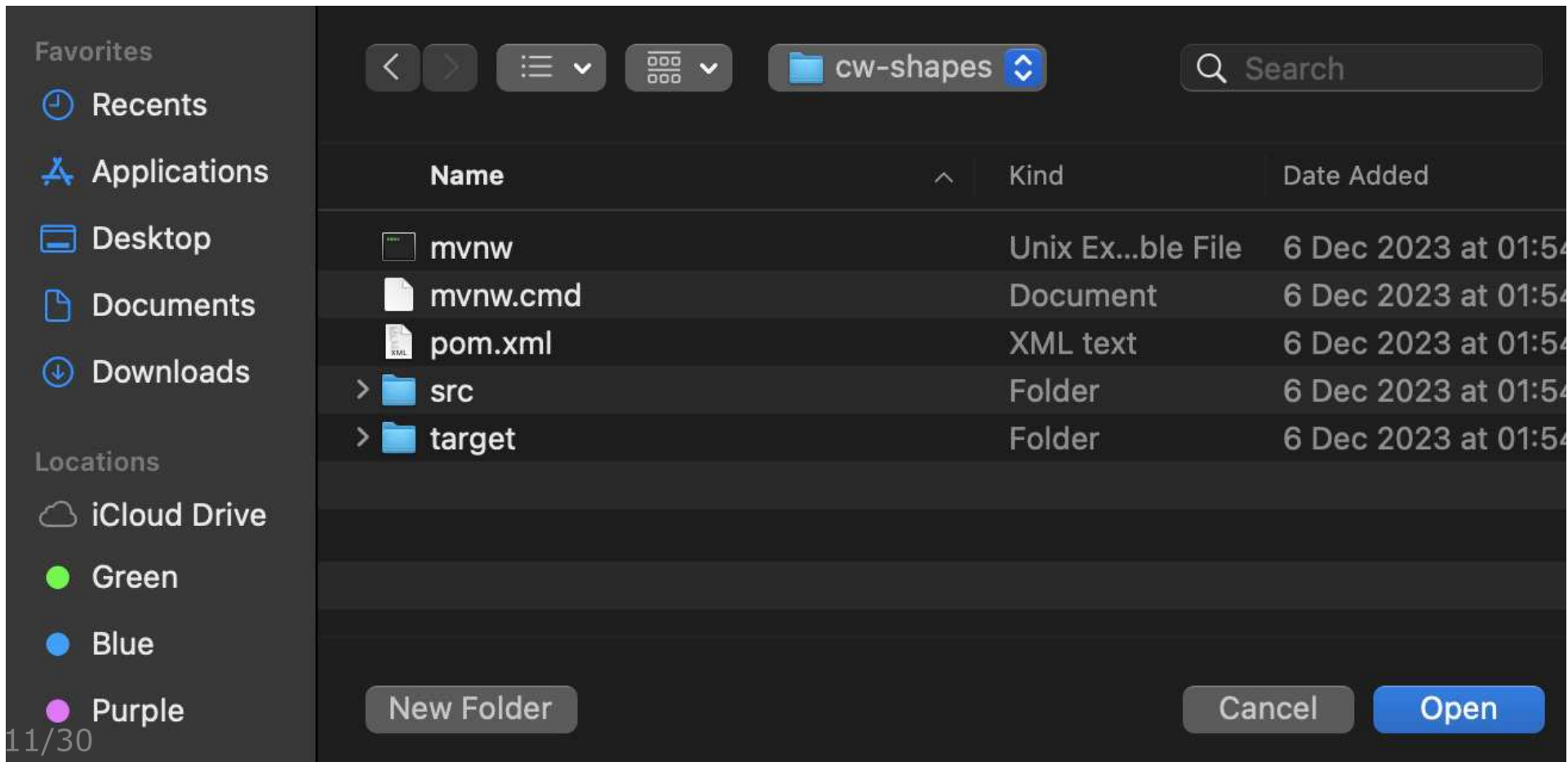
# Welcome Screen

Most of the time on this unit you'll need "Open"



# Project Template

Find and open folder containing the pom.xml file



# Do You Trust Us ?

Be careful with project from other sources !



## Trust and Open Project 'cw-shapes'?

IntelliJ IDEA provides features that may execute potentially malicious code from this folder.

If you don't trust the source, preview the project in the safe mode to only browse its code.

☐ Trust projects in ~/Development/Weekly Workbooks/01 Introduction to OOP/IntelliJ Template



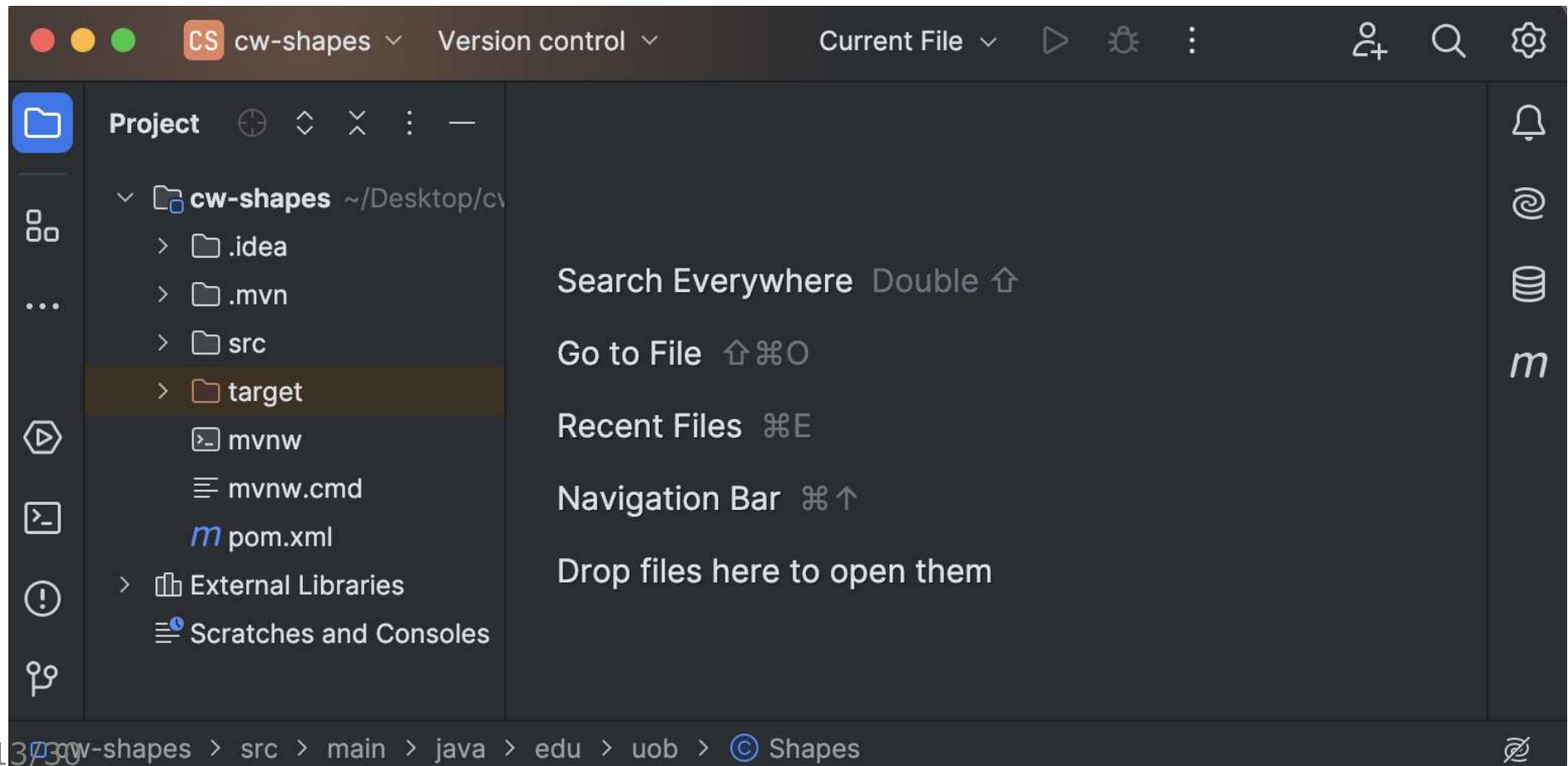
Don't Open

Preview in Safe Mode

Trust Project

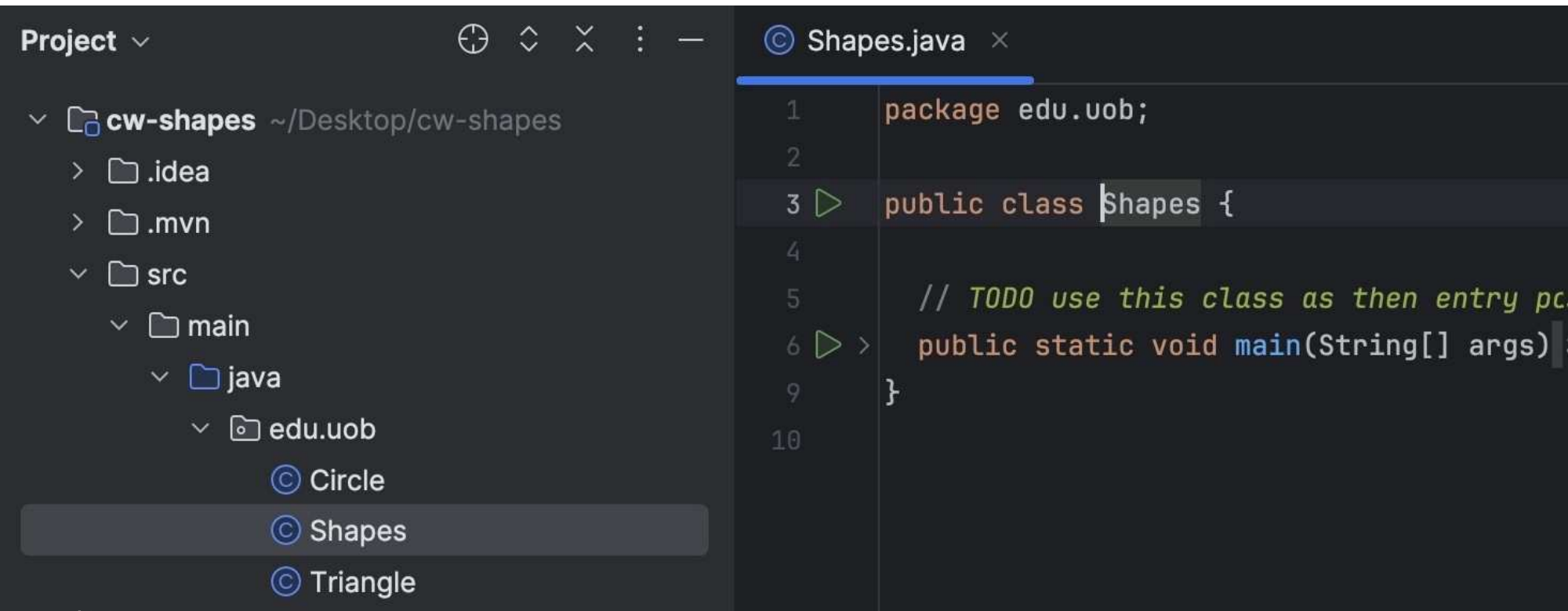
# Project Opened

A successfully opened project will look like this:



# Open the Main Class

Let's explore the project view to find the main class  
In this project, the main class is a file called "Shapes"

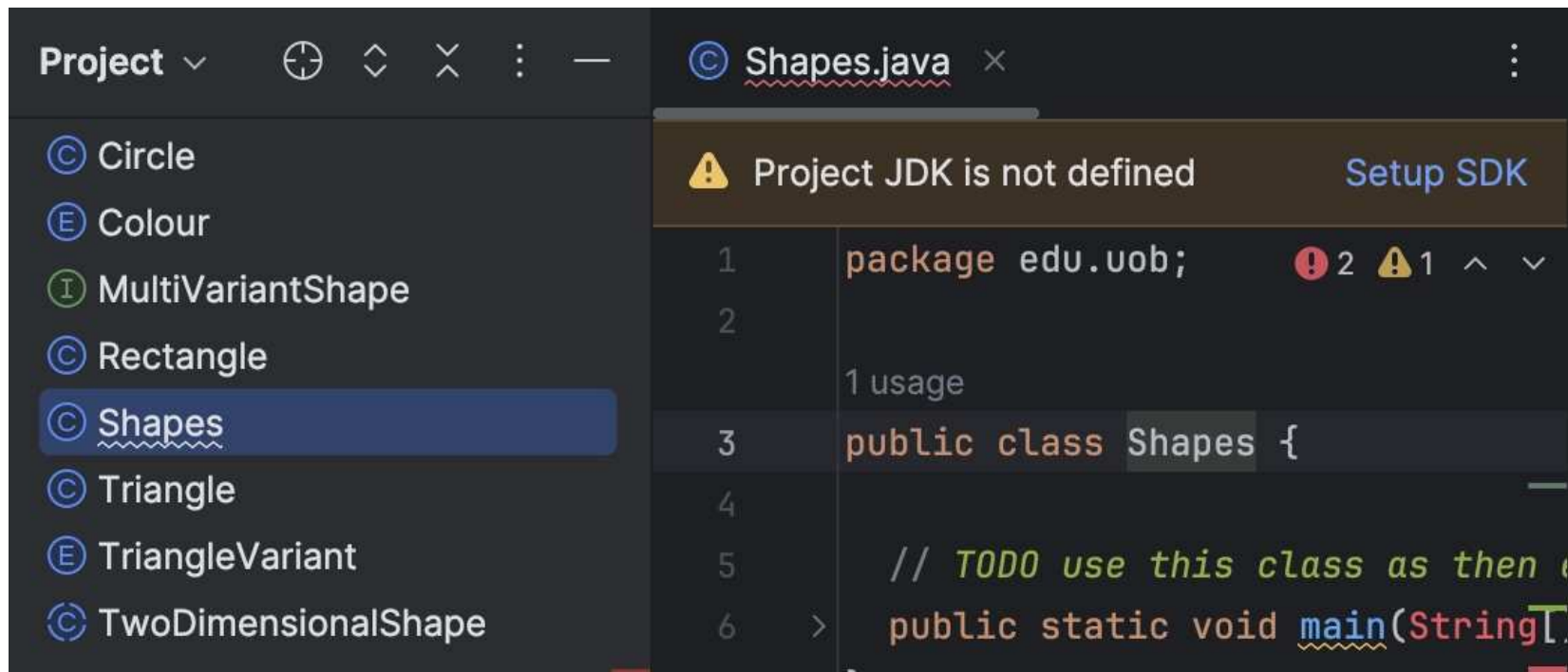


# Project JDK is not defined !

IntelliJ is just an IDE - it has no built-in compiler !

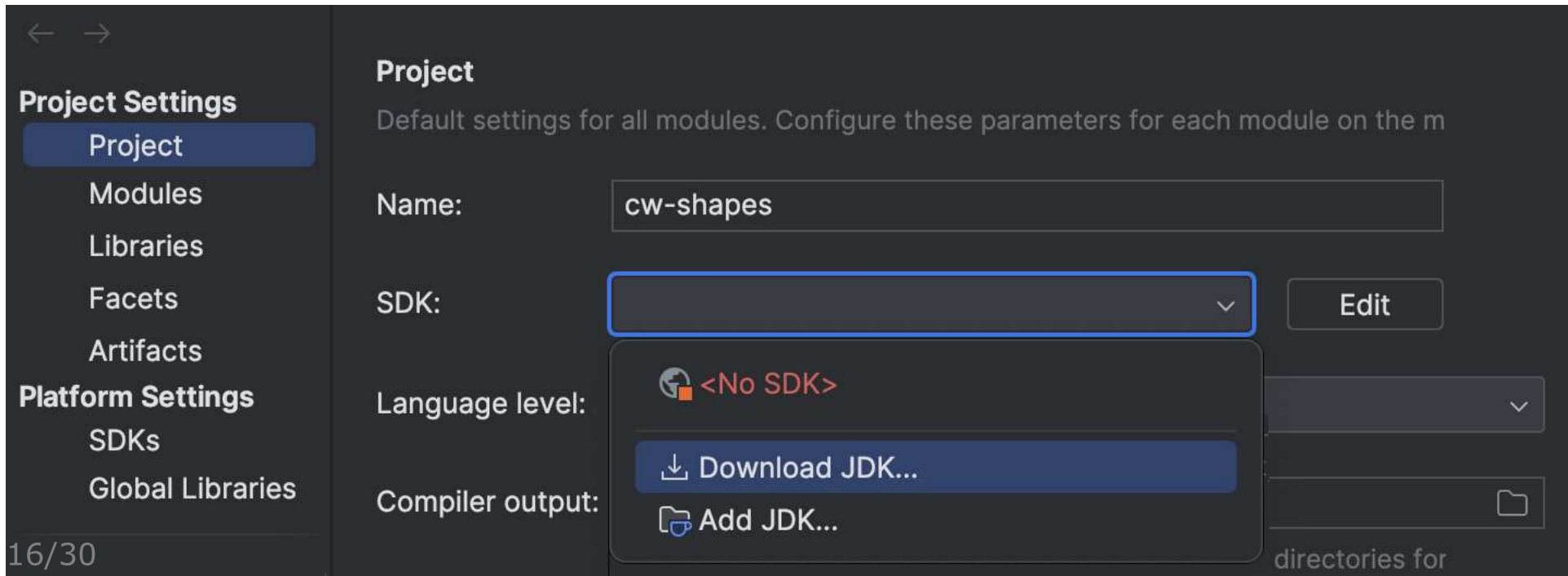
We need to install a Java Development Kit separately

This includes compiler, runtime and various libraries



# Project Settings

Need to select a JDK to use to compile & run project  
Could use an existing JDK (if you have one installed)  
Or download a new one from list of those available...





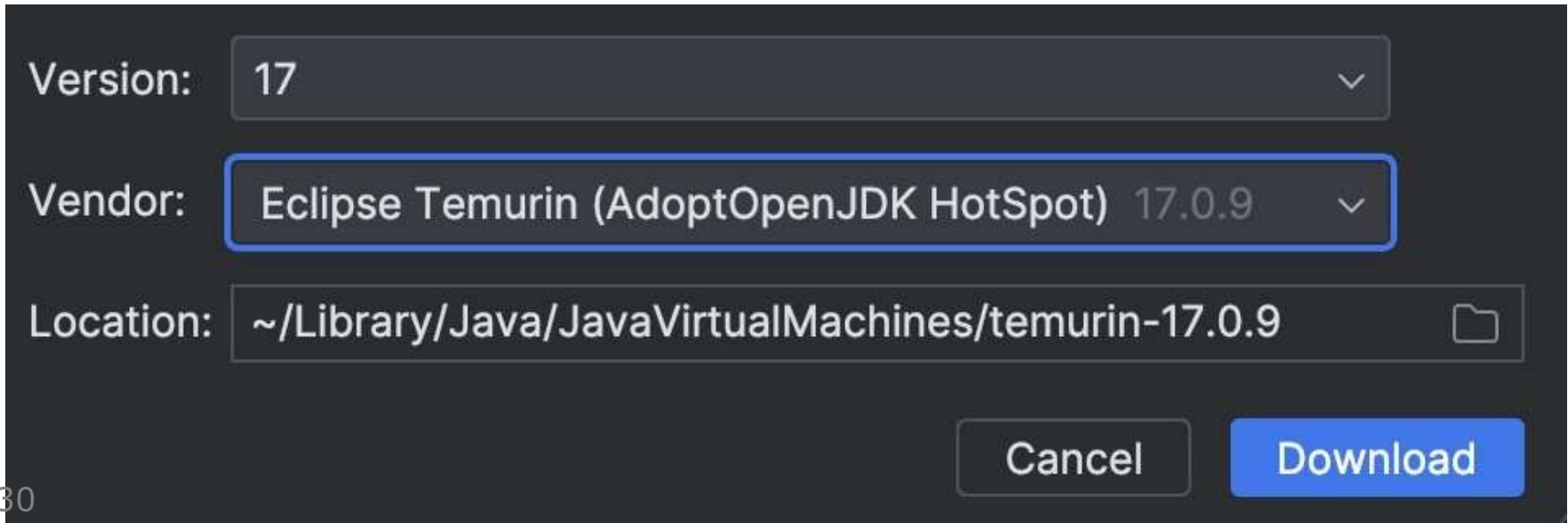
# Download JDK

Select JDK to automatically download & install

Lowest Common Denominator: Lab has Java 17

(That's where we are going to mark your code !)

You should choose: Eclipse Temurin (AdoptOpenJDK)



Version: 17

Vendor: Eclipse Temurin (AdoptOpenJDK HotSpot) 17.0.9

Location: ~/Library/Java/JavaVirtualMachines/temurin-17.0.9

Cancel Download

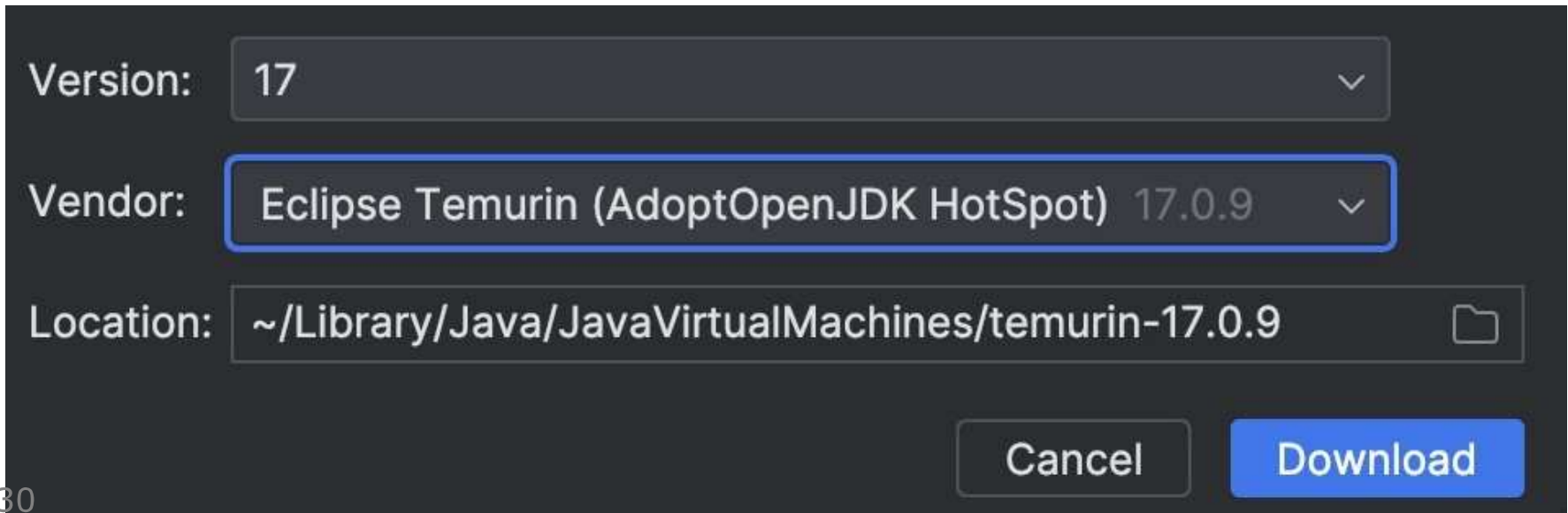
# Installation Location

Keep a note of where IntelliJ will install the JDK

The location will \_probably\_ be something like:

`~/Library/Java/JavaVirtualMachines/temurin-17.0.9`

You'll need this later (to compile on command line)



Version: 17

Vendor: Eclipse Temurin (AdoptOpenJDK HotSpot) 17.0.9

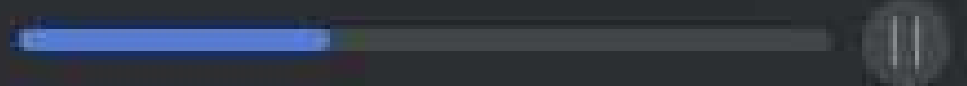
Location: ~/Library/Java/JavaVirtualMachines/temurin-17.0.9

Cancel Download

# Be Patient !

It takes a while for the JDK to download and install  
Don't worry, only happens once (when you first install)  
Keep an eye on how things are going on progress bar:

Indexing JDK 'temurin-17'

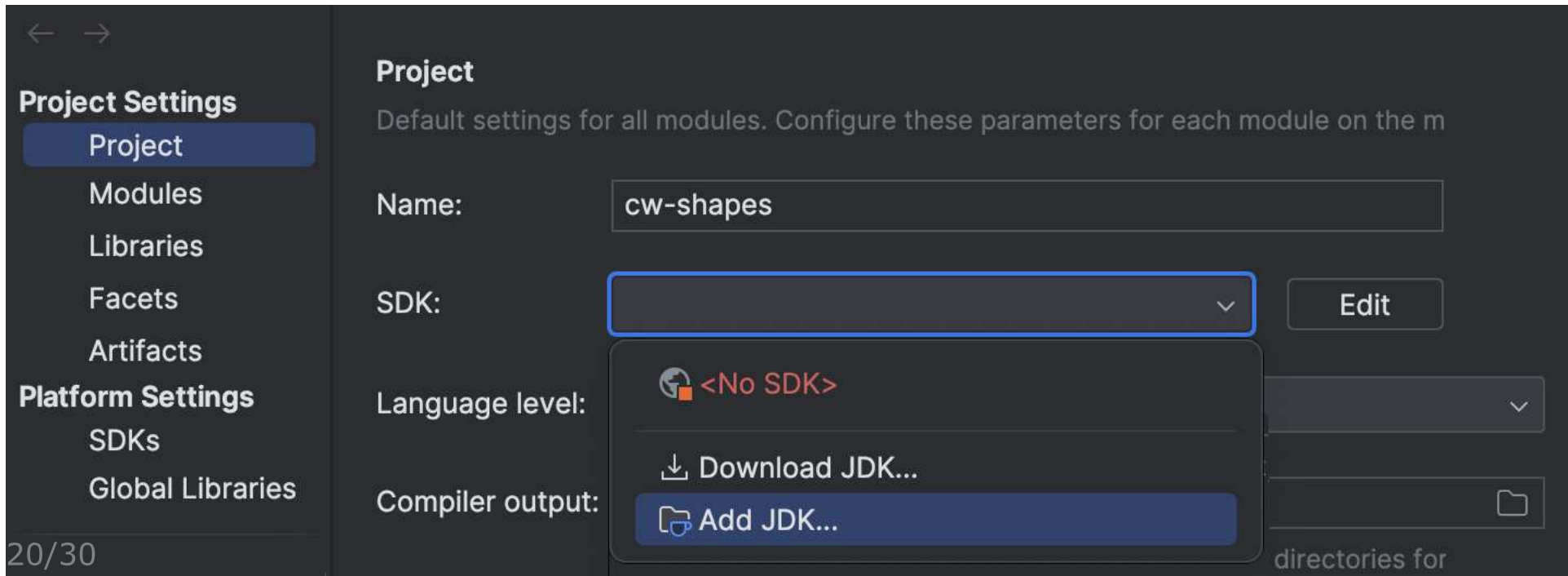


# Using Existing JDK

If you already have a JDK installed, you can use that

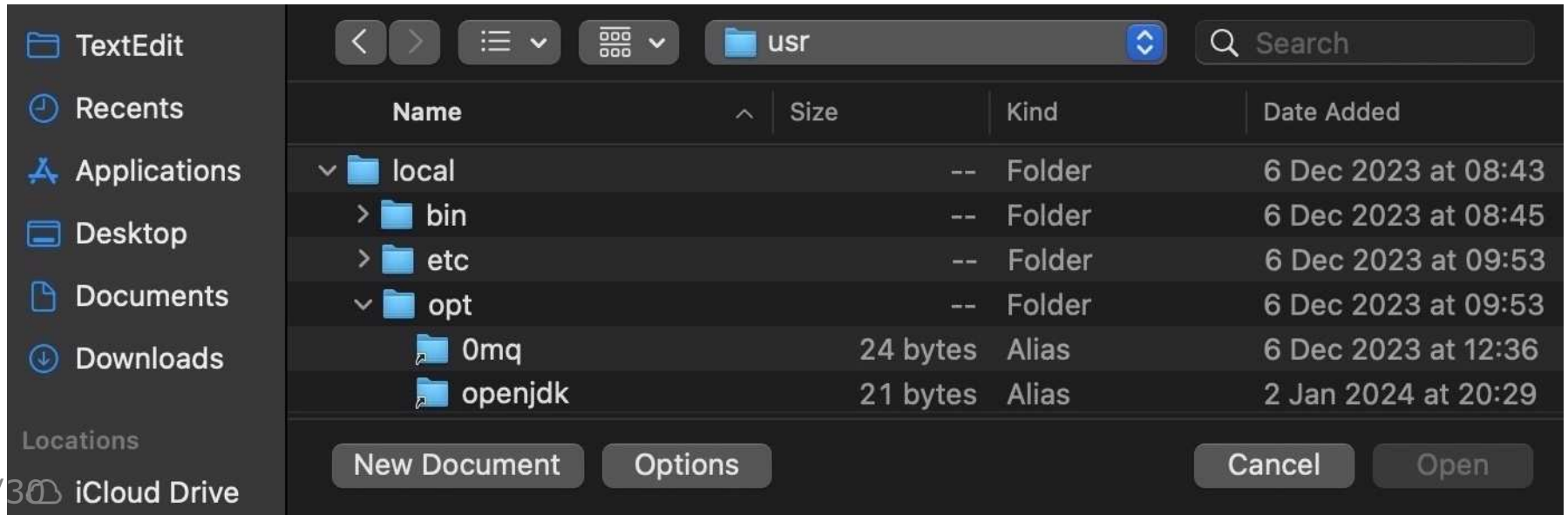
This will save you having multiple versions installed

It *might* be listed in dropdown, if not click "Add JDK"



# Hunting down Existing JDK

IntelliJ is clever and will usually find installed JDKs  
I installed JDK using "Homebrew" package manager  
Homebrew is good at hiding installed software ;o)  
So I needed to manually hunt around to find the JDK



# JDK Version

The version I have installed is more recent than 17

However, we should limit language features to 17

To prevent use of new features that won't work in lab

## Project

Default settings for all modules. Configure these parameters for each module on the module page as needed.

Name:

SDK:

Edit

Language level:

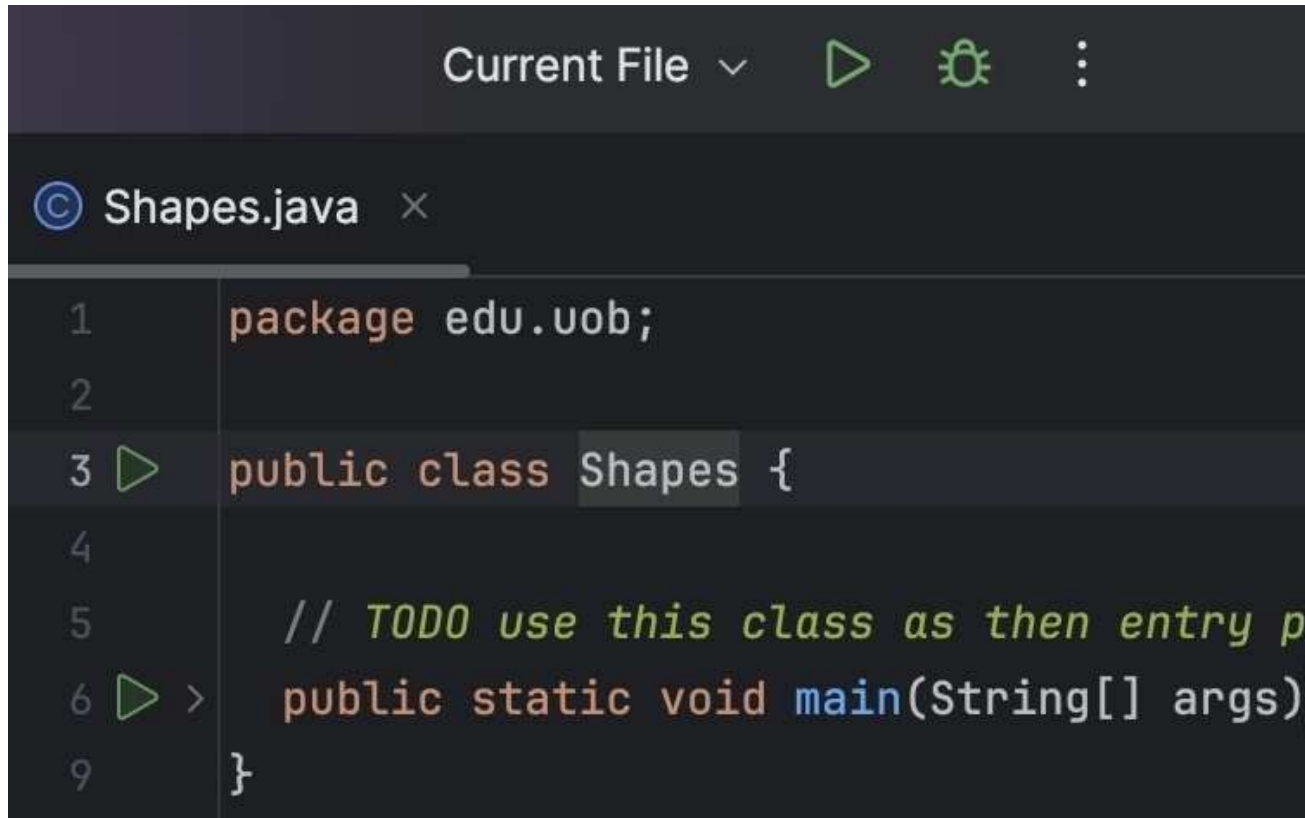
Compiler output:

Used for module subdirectories, Production and Test directories for the corresponding sources.

Back to the Project

# Ready to Run !

With the main class open in the editing panel  
You should now see the green "run" button at the top



```
Current File ▾ ▶ ⚙ ⋮  
© Shapes.java ×  
1 package edu.uob;  
2  
3 ▶ public class Shapes {  
4  
5     // TODO use this class as then entry p  
6 ▶ > public static void main(String[] args)  
9     }
```



# Success !

It might take a while for IntelliJ to run the code

It has to build a lot of files the first time around

If everything worked OK, you should see...



The screenshot shows a terminal window with a dark background. At the top, there is a toolbar with icons for running, debugging, and other IDE functions. The terminal output shows the Java command path and the output "Hello world!". Below that, it states "Process finished with exit code 0". On the left side of the terminal, there is a vertical toolbar with icons for navigating through the code and output.

```
/usr/local/Cellar/openjdk/21.0.1/libexec/openjdk.jdk/Contents/Home/bin/java  
Hello world!  
  
Process finished with exit code 0
```

# Command Line

Although we will be using IntelliJ most of the time  
It is useful to also be able to use the command line

Coursework will be marked on the command line  
It's essential that you check your code runs there !

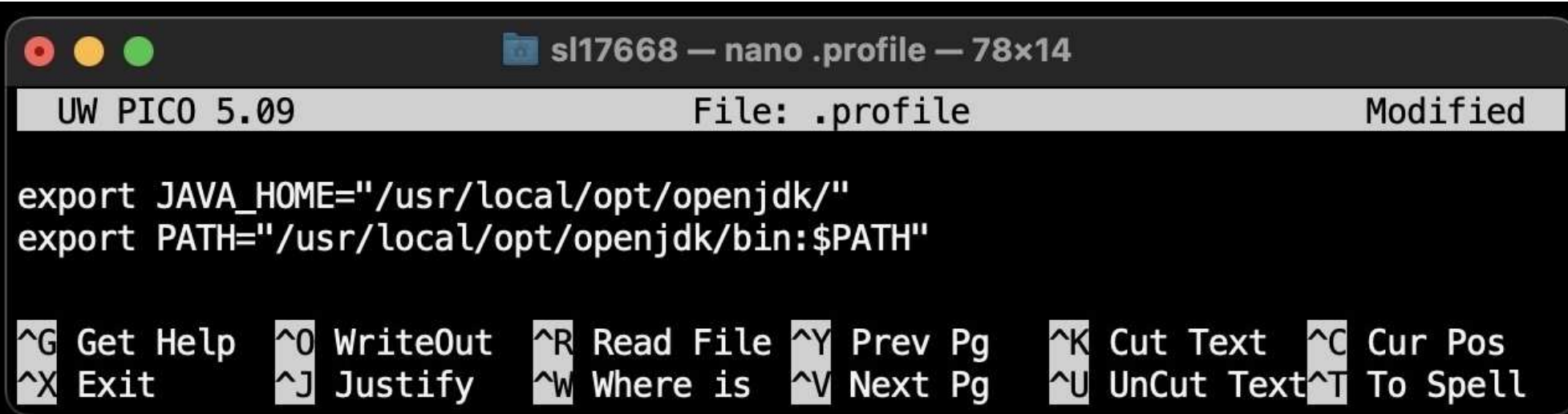
In order to be able to compile and run your code  
You must tell command line where to find the JDK...

# Environment Variables

Add two environment variables to your .profile file  
(this is found in your user home folder ~)

JAVA\_HOME must point to your installed JDK folder

You must also prepend the JDK \*bin\* folder to \$PATH



```
sl17668 — nano .profile — 78x14
UW PICO 5.09                               File: .profile                               Modified
export JAVA_HOME="/usr/local/opt/openjdk/"
export PATH="/usr/local/opt/openjdk/bin:$PATH"

^G Get Help  ^O WriteOut  ^R Read File ^Y Prev Pg   ^K Cut Text  ^C Cur Pos
^X Exit      ^J Justify   ^W Where is  ^V Next Pg   ^U UnCut Text ^T To Spell
```

Note:

`/usr/local/opt/openjdk/`

Is the location of MY installation of JDK

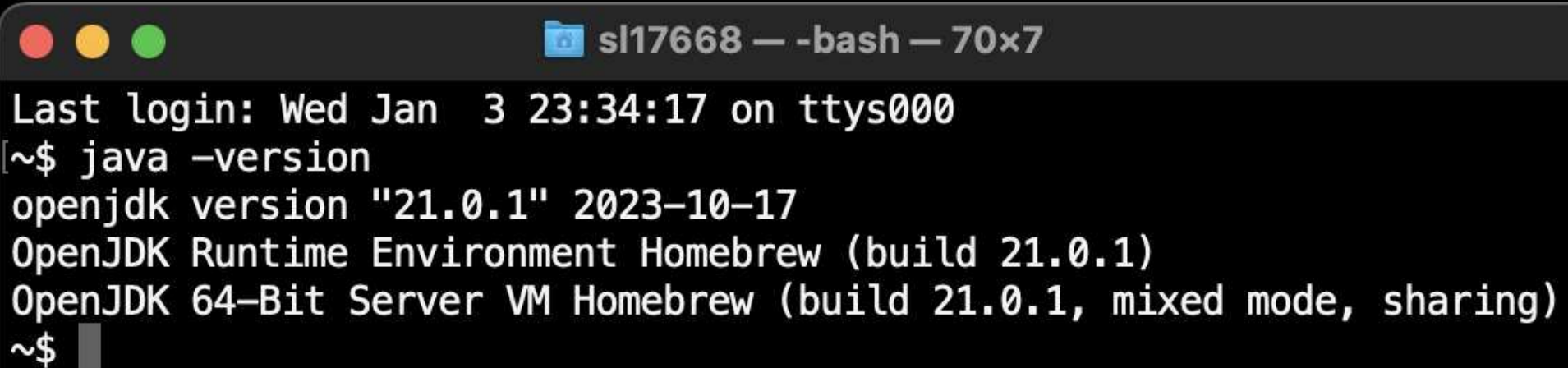
YOURS is going to be somewhere different !  
(wherever IntelliJ said it was going to put it)

# Testing Your Environment

Open up a fresh terminal window and type:

```
java -version
```

If everything worked, you'll see something like:

A screenshot of a macOS terminal window. The title bar shows three colored window control buttons (red, yellow, green) on the left, a folder icon and the text 'sl17668 — -bash — 70x7' in the center, and a dark grey background. The terminal content shows the last login time and the output of the 'java -version' command.

```
Last login: Wed Jan  3 23:34:17 on ttys000
[~$ java -version
openjdk version "21.0.1" 2023-10-17
OpenJDK Runtime Environment Homebrew (build 21.0.1)
OpenJDK 64-Bit Server VM Homebrew (build 21.0.1, mixed mode, sharing)
~$ █
```

# Windows

Environment Variables in Windows are set differently  
Using a graphical interface in system preferences  
See separate guide to setting up JDK on windows

