

# Java JDK and VSCode Installation Guide

**Goal:** This guide will help you get a Java editor, VSCode, up and running on your machine!

## 1 Overview

An **IDE** (Integrated Development Environment) is an editor used to help us write code. Though we could write our Java code in a barebones text editor like *Notepad* or *Textedit*, an IDE makes our lives easier by providing handy features like auto-correction, code suggestions, debugging tools, etc.

In this course, our editor of choice will be **VSCode** (short for *Visual Studio Code*); a robust IDE that supports many different operating systems and programming language. VSCode may be used in future courses and is also industry-grade, meaning familiarity with it can be helpful for interviews, internships, and jobs!

## 2 Installation Guide

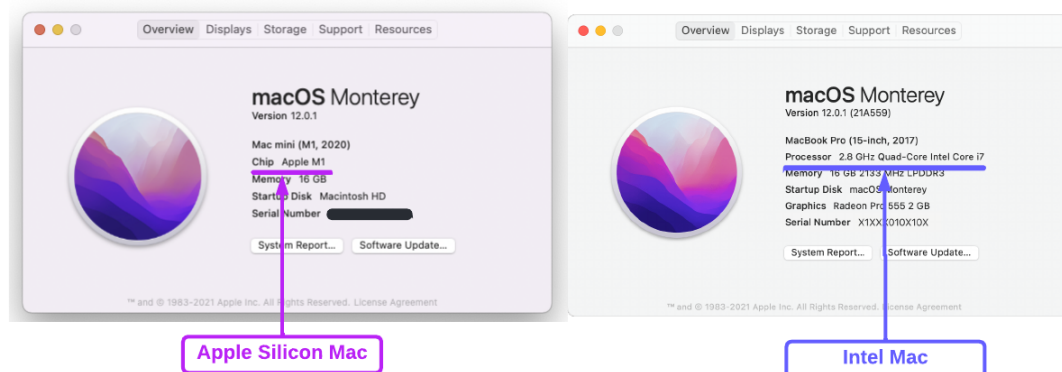
The following sections will walk you installing and configuring Java and the VSCode editor on your computer.

### 2.1 Installing the VSCode Application

First, install VSCode by following the steps below:

1. Head to the *Visual Studio Download* page: [code.visualstudio.com/download](https://code.visualstudio.com/download)
2. Select the appropriate download per your Operating System. Specifically:
  - **If you are on a PC (running Windows):** select the x64 version of the User Installer
  - **If you are on a Mac:** select either the Intel Chip or Apple Silicon version of .zip per your computer.

To determine which kind of Mac you have, click on the **Apple** Icon in the top left corner of your screen and select **About This Mac**. Near the top of the window there should be listed either *Chip* or *Processor*

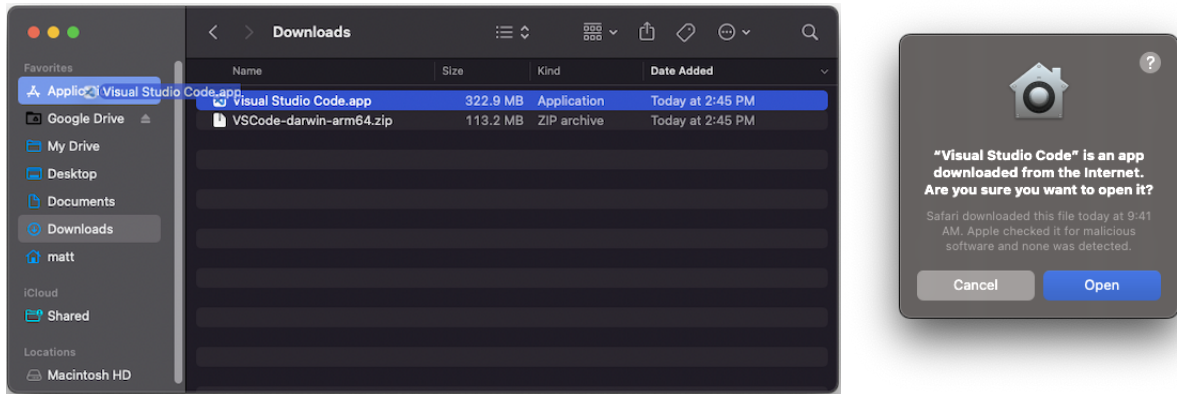


If *Chip/Processor* says **Apple M...** your Mac has Apple Silicon (most Macs bought the in last few years).  
If *Chip/Processor* says **... Intel Core ...** your Mac has an Intel Chip (most Macs three+ years old).

3. **If you are on a PC (running Windows):** Once the installer is finished downloading, double-click on the download to launch the installer and complete the installation. You can leave any options on their defaults and click the **Next** button to complete the installation process. Once done, launch VSCode.

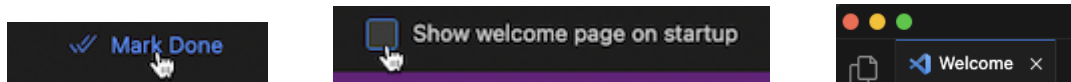
**If you are on a Mac:** your download will be a **.zip** file which will extract the VSCode app: **Visual Studio Code.app** (per your browser, it may extract automatically or you may need to double click the zip file).

Once you have the .app file, **move** the app into your Applications folder. You can do this by clicking and dragging as shown in the screenshot below. Finally, VSCode by double clicking on the Visual Studio Code app **inside the Applications folder**; if you receive a confirmation prompt (shown below), click Open.



4. Once VSCode loads, it will display a *Welcome Screen* where you can choose your color theme.

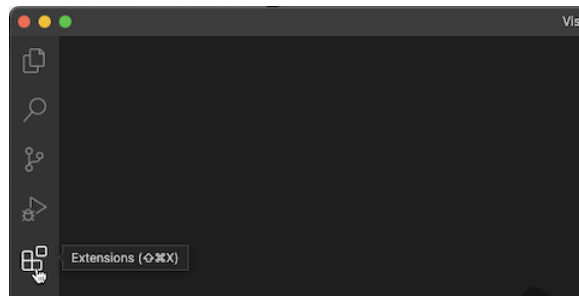
The remaining "tasks" on the startup page (i.e. "Sync to and from...", "One shortcut...", etc) you can skip – **scroll down** and click the **Mark Done** link near the bottom of the window, then uncheck **Show welcome page on startup** at the bottom-center of the window. You can then **close** the Welcome tab in the upper left corner.



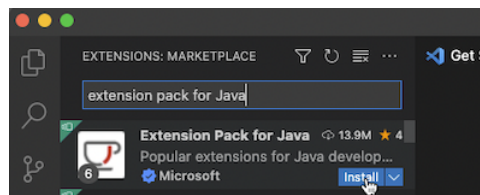
## 2.2 Setting Up Java for VSCode

Next, you will install the necessary Java tools and configure VSCode to compile/run Java code:

1. First, you must install the *Java Extensions Pack* which will add Java support to VSCode. Click on the **Extensions** button on the left side of the window (four squares):



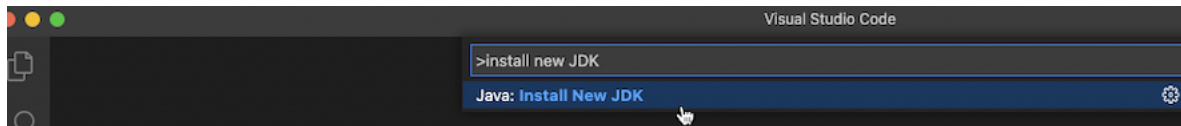
2. In the panel that opens up, search for "**Extension Pack for Java**". The Java Pack should be the top result; click the blue **Install** button:



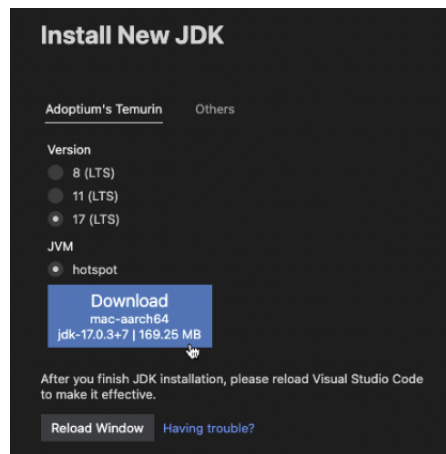
3. Once the Extension Pack is installed, next you will install the **Java Development Kit (JDK)**. The JDK is what allows you to both write and run Java code on your computer.

You can install the JDK via VSCode's **Command Palette**. The Command Palette is text prompt that allows you to perform various operations. Open the Command Palette either by clicking on **View -> Command Palette** or by pressing the **Ctrl+Shift+P** / **Cmd+Shift+P** on Windows/Mac Respectively.

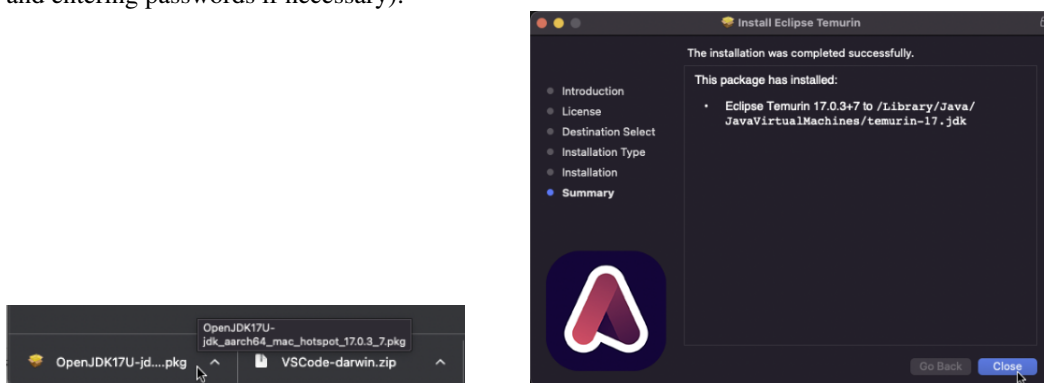
In the text prompt that opens, type "**Install new Java JDK**" and select the option that auto-completes:



In the following window, leave all of the options on their default and click the blue **Download** button:

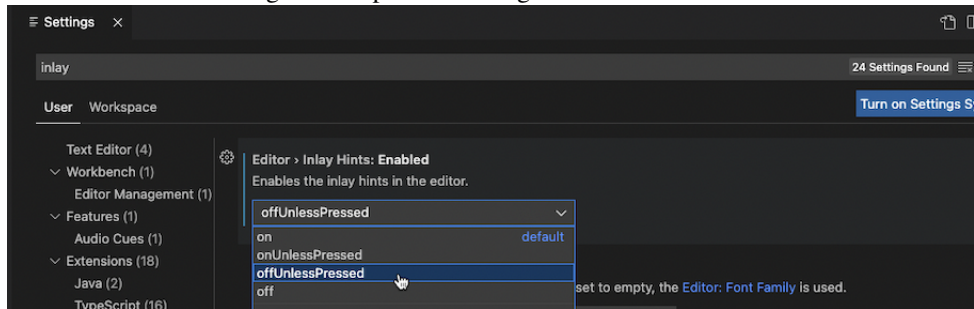


After clicking the button, the JDK installer will start downloading via your web browser. Run the installer once the download is completed; you don't need to change any configurations and can simply click **next** (agreeing and entering passwords if necessary):

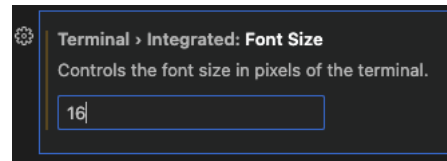
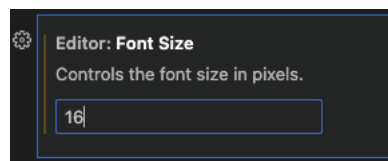


4. Next, open the **Settings** window, accessed via the top menu bar:  
If you are on Windows, click on **File -> Preferences -> Settings**  
If you are on Mac, click on **Code -> Settings -> Settings**

In the search bar at the top of the Settings page, type: **"inlay"**. The top result should read: *Enables the inlay hints in the editor*. Change the drop-down setting to **offUnlessPressed**. Don't close the settings page yet.



5. Lastly, as a courtesy to your tutor(s) and instructor(s), in the search bar at the top of the Settings page, type **"font size"**. You need to scroll through the results and find two settings: **Editor: Font Size** and **Terminal > Integrated: Font Size**. Change both to a value of **16** and close the Settings page.

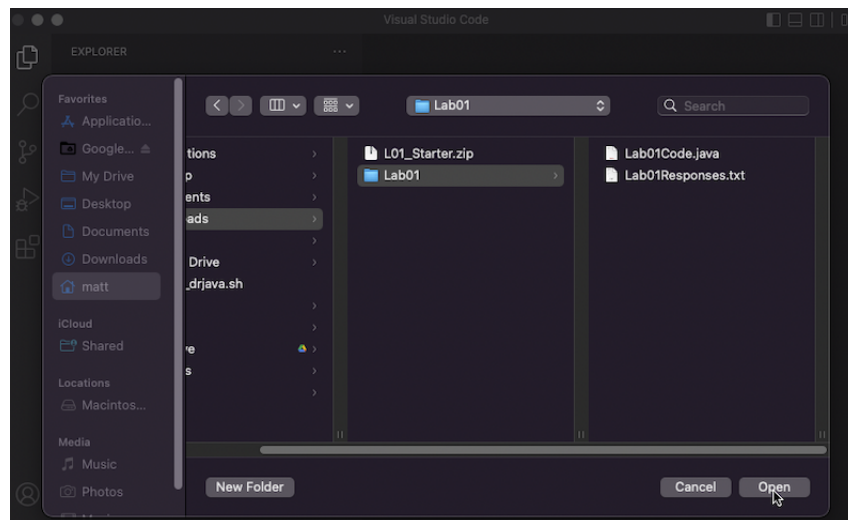


## 2.3 Opening and Running Java Code

To open and run your Java code in VSCode, follow the steps below:

1. First, identify the folder containing the .java files you wish to open/edit/run. It is recommended that you keep a separate folder containing all the .java files for each individual project/assignment.
2. Next, you will open these files in VSCode. To do so, navigate to the top menu bar and select **File -> Open Folder**. Navigate to the folder you identified in the previous step and open it:

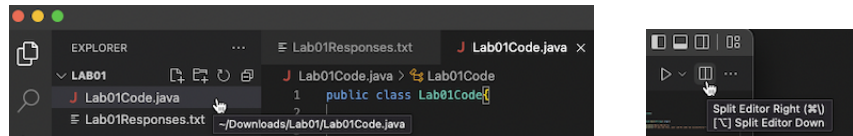
**NOTE: When opening code in VSCode, always open the folder the code is contained in, not the individual files. Likewise, get in the habit of organizing your code into folders!**



3. When opening the folder you *may* receive a prompt asking for trust permissions. If so, check the **Trust the authors of all files...** box and click the blue **Yes, I trust the authors** button.

4. In the EXPLORER sidebar on the left side of the window, you will see your file(s). Double-click to open them in the editor (you can switch between open files via the tabs at the top of the window).

Additionally, you can click the Split Editor button (two rectangles) in the upper-right corner of the windows to have multiple files open side-by-side:



5. Lastly, to run your code, click on the "play"-style button in the upper right corner of the window. If successful, you should see any output in your console at the bottom of the window:

