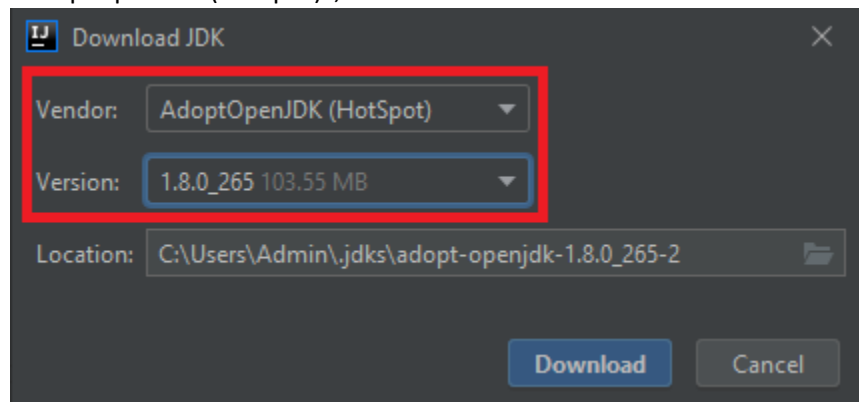


Getting started with IntelliJ IDEA Integrated Development Environment for Java

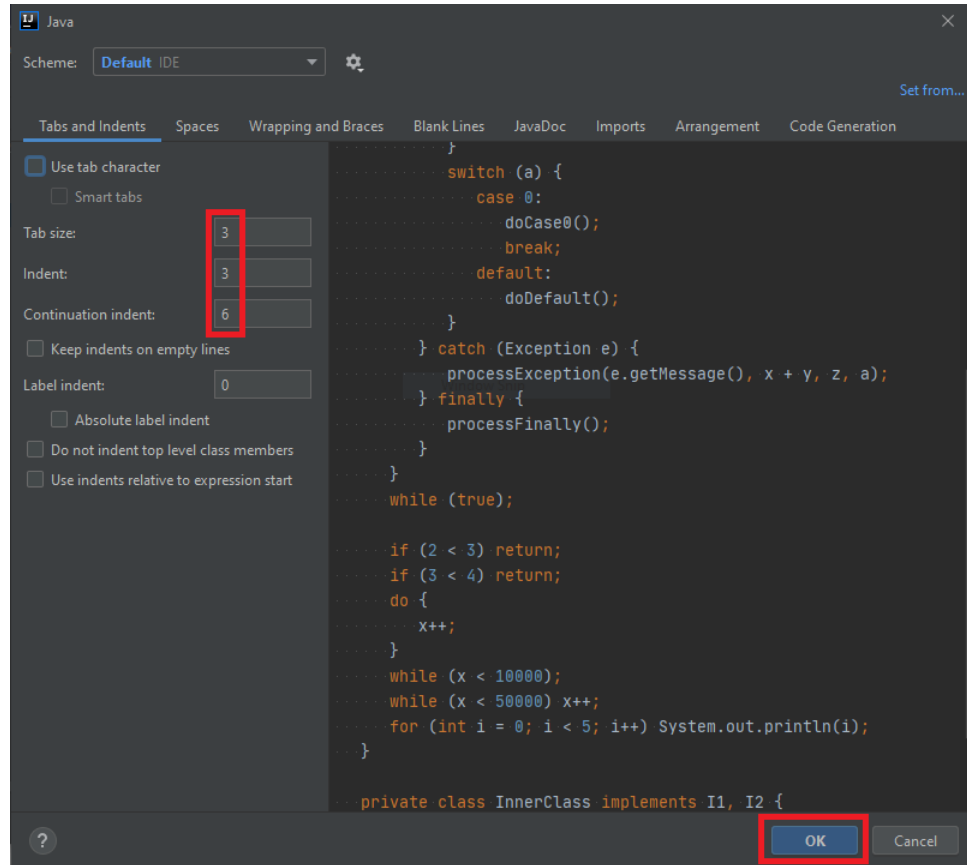
by Guanyang Luo for CSCI 455

1. [Download](#) IntelliJ IDEA. As a student, you can use the “Ultimate” edition for free.
 - a. To use the “Ultimate” edition (beyond the 30-day trial), you need to register for a free license using your USC email address [here](#). (On the web page, you should find a button to “Apply now”.)
 - b. After registering, follow the email instruction to add “IntelliJ IDEA Ultimate” to your account. The steps should be similar to the following:
 - i. Open the link in the email
 - ii. When you get to the page about the license, click “JetBrains Product Pack for Students”
 - iii. Choose the option for “IntelliJ IDEA Ultimate”, and then choose Ultimate again (not Community).
2. Install IntelliJ IDEA following [this instruction](#) for “standalone installation”. If you are not sure about any settings, just keep the default.
3. Run IntelliJ IDEA following [this instruction](#). If you are not sure about any of the “first-time” settings, just keep the default.
4. Follow [this tutorial](#) to familiar yourself with IntelliJ IDEA. Before you start, please note the following differences for this course:
 - a. For the JDK, if you already have a version 1.8 JDK installed on your computer, you can add or select that JDK for your projects. Otherwise, you should download the “AdoptOpenJDK (Hotspot)”, version 1.8



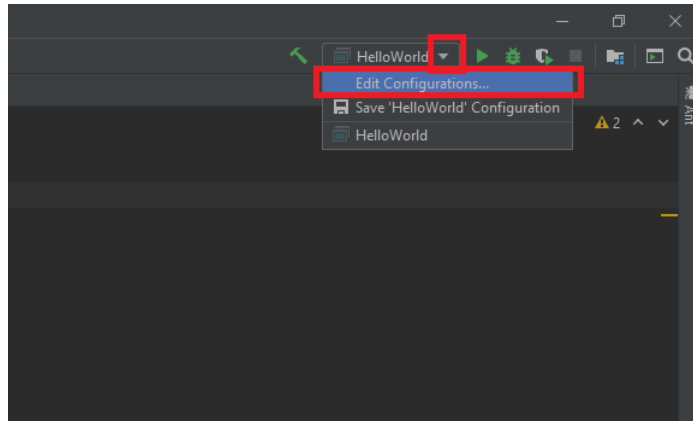
- b. Once you get to the part where you are adding a new Java class, for the class name, you can use a simple name such as `HelloWorld`, because you will not be building packages in this course.
 - c. You can skip the rest of the tutorial when you get to the “Package the application in a JAR” section. This is because you will not be building JARs in this course.
5. Change the IntelliJ indentation settings to match the style used in CSCI 455 (and on CSCI 455 starter code you will receive):

- a. From the main menu, select File → New Projects Settings → Settings/Preferences for New Projects.
 - i. In the dialog box select Editor → Code Style
 - ii. Change the indentation settings as shown in the screenshot:

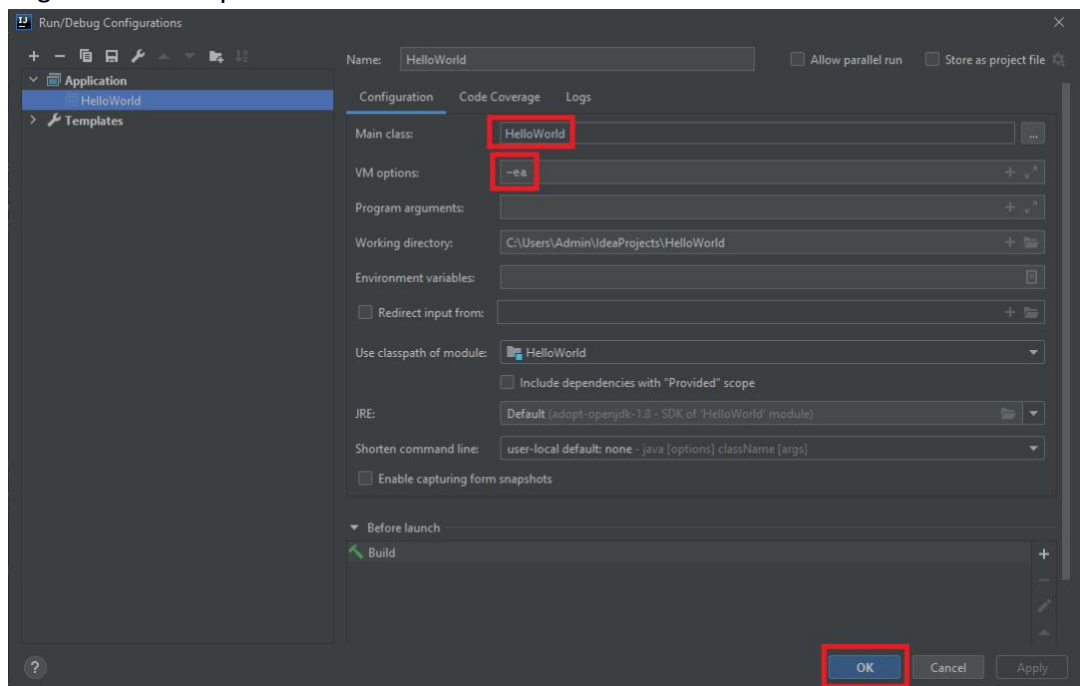


b.

6. To use the starter code for an assignment:
 - a. Create a project for the assignment.
 - i. From the main menu, select File → New → Project
 - b. Download the starter code and place them in the `src` folder for the project
7. To enable “assertion”, you need to change the “Run/Debug Configurations” for your main class (i.e. a class with a `main ()` method). These configurations are separate from each other, so you need to enable “assertion” for each main class. For example, if you have a program and a tester in the same project, you need to modify the configurations for the program and for the tester.
 - a. You can edit the configuration by clicking the configurations drop-down menu on the top-right of the window. (Note: you have to run the main class once before it appears in the drop-down.)



- b. Make sure you are changing the configuration for the desired main class. Add the `-ea` flag to the “VM options”



8. You can use the “Run/Debug Configurations” settings (as shown in the previous step) to change other things about how you run this program. This can be helpful when you want to use the debugger to run your program with some specific command-line arguments or inputs. Other times you may find it more convenient to just run the program from a terminal / command-prompt. Some common settings are:
 - a. “Program arguments”: add command-line arguments to your program
 - b. “Redirect input from”: use input redirection
 - c. Click the Logs tab → “Save console output to file”: output redirection

There are many other nice features of IntelliJ, such as a symbolic debugger and support for using JUnit, but this should be enough to get you started.