CIS 255 • Java Programming
Configuration for Windows

If you want to be able to compile and run your Java programs on your own computer, you'll need to install Sun's Java Development Kit (JDK). Additionally, you'll probably want to use a text editor that highlights Java syntax; TextPad is one such program. Remember: you may use any Java environment when coding on your own computer, but it may be helpful to know how to use TextPad in conjunction with the JDK in the classroom.

> Certain operating systems, such as Mac OS X, may have a specific way to install and update Java and the JDK that does not entail going through Oracle's web site. Consult the documentation for your OS.

The download page for the JDK is http://www.oracle.com/technetwork/java/javase/downloads/index.html

> The downloads page also contains links to download the Java Runtime Environment (JRE). The JRE will only allow you to run Java applets and programs, not to compile your own code. Make sure the download you select contains the JDK.

Either run the installer file immediately, or download the installer to a location on your computer and launch the installer from that location.

For the next step, you'll need to download and install a text editor that highlights Java syntax. One such text editor is TextPad.

> In order for your text editor to recognize the presence of the JDK tools, be sure to install the JDK before you install the text editor. Otherwise, you may be required to manually adjust the settings on your computer to allow the execution of the JDK tools from within the text editor program.

The download page for TextPad is http://www.textpad.com/download/index.html

TextPad Downloads:

Please note that TextPad 5.4.2 is only available in English, French, German, Italian, Dutch and Japanese at present. Other language editions will be released as they are translated.

These self-extracting files contain TextPad, with the English user interface, plus one other language, and a dictionary for the spell checker, as shown in the table. (Other dictionaries may be downloaded separately.) If the online help is not available in a given language, it is supplied in English.

Choose the language version you require, then click on one of the download methods. (FTP is recommended, but may be blocked by your firewall.)

Please read the Installation Instructions, while the file is downloading.

User Interface:	Online Help/ Spelling:	Version/ Date:	Size (KB):	Download Method:
English (EXE)	English/ American, British & Canadian	5.4.2 13-Jan-11	2864	FTP (USA) HTTP (USA 1) HTTP (USA 2)

Again, you may choose to run the installer file immediately, or you may download the installer to a location on your computer and launch the installer from that location. When you install TextPad, a shortcut to TextPad is placed near the top of the All Programs list in the Start Menu.
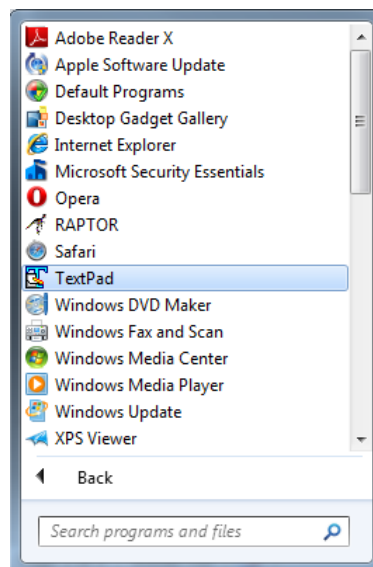
Launching TextPad opens a blank window in which you may enter text.

Although TextPad is not free software, the dialog that pops up when you launch the program dismisses itself after a few seconds, so there are no immediate consequences to using the program without paying for it. Still, it might be nice to show your appreciation for the program by purchasing a license for your own computer that will get rid of that annoying dialog.

Because TextPad supports syntax highlighting for several different languages, it does not highlight your text in any particular language until you save the document with a particular file extension.
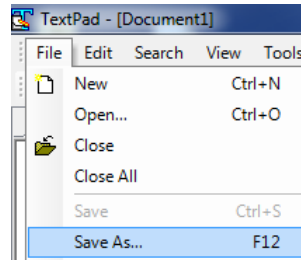
In the **Save As** dialog, navigate to the location where you want your code to be saved (preferably on a USB flash drive), enter a file name, and select **Java (*.java)** in the **Save as type:** combo box.
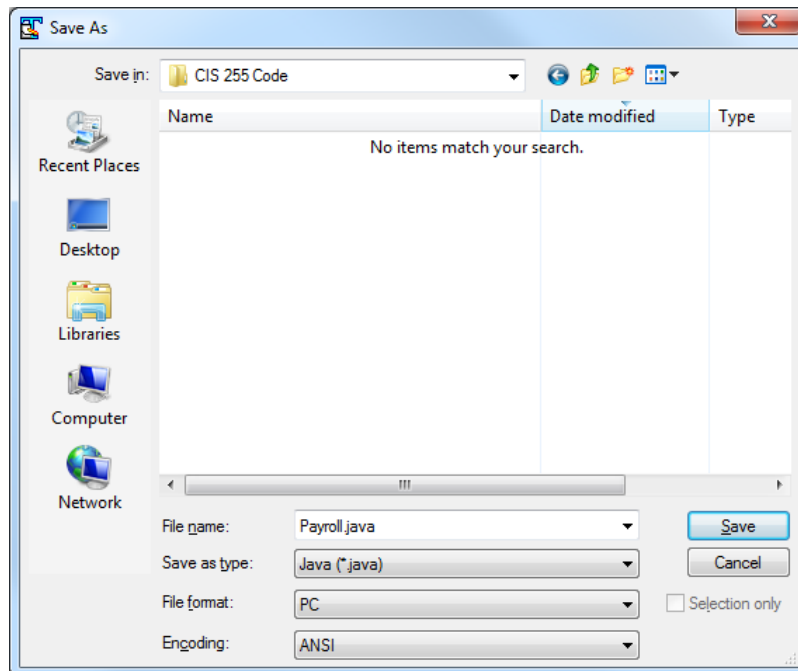
The file name you use must correspond to a particular element in your code for the program to compile successfully. You'll find out more about this in chapter 2.

To compile Java source code from within TextPad, select the item **Compile Java** from the **External Tools** submenu of the **Tools** menu:
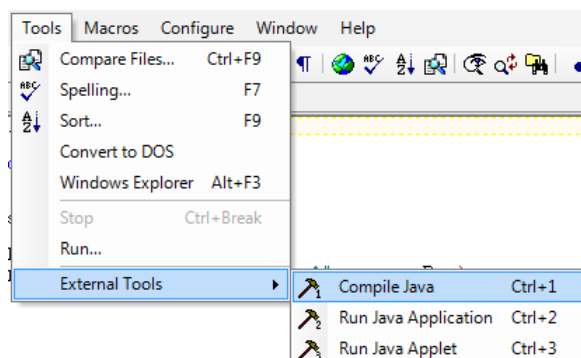
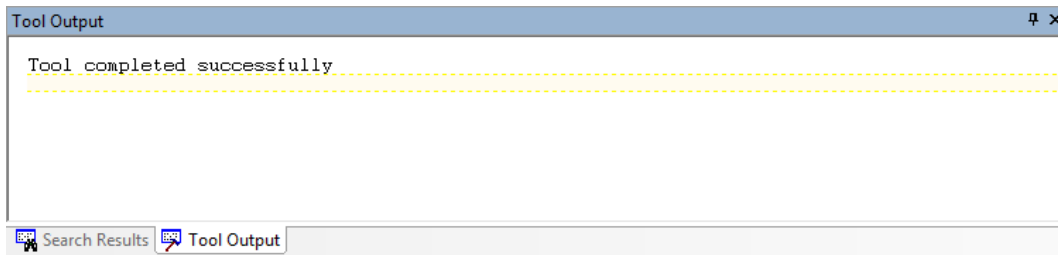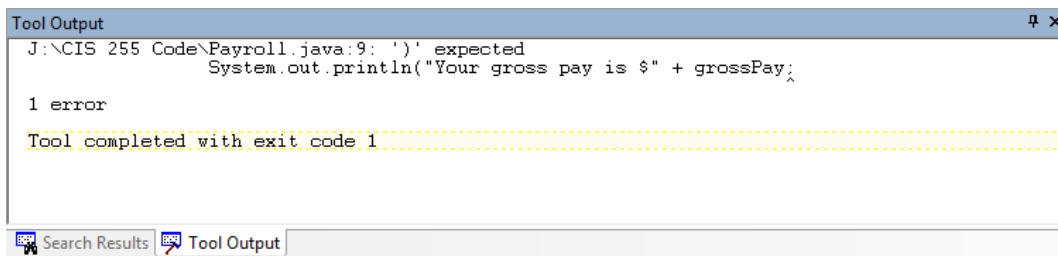> If the Java-related items in the previous figure do not appear in your External Tools submenu, there may be a configuration issue with your computer. The TextPad web site includes a guide to solving problems with the integration of the JDK tools into the External Tools submenu.

The results of the build process will appear in the **Tool Output** area below your code:

```
Tool Output                                                              ⏻ ✕

   Tool completed successfully


   Search Results   Tool Output
```

If the Tool Output area indicates that there are syntax errors in your code, you may double-click the line that describes the syntax error to see the line that contains the error (or, in some cases, the line after the error).

```
Tool Output                                                              ⏻ ✕
   J:\CIS 255 Code\Payroll.java:9: ')' expected
                   System.out.println("Your gross pay is $" + grossPay;
                                                                       ^
   1 error

   Tool completed with exit code 1

   Search Results   Tool Output
```

There are two additional commands in the **External Tools** submenu related to executing Java programs. For the majority of the semester, you'll be using the second command, **Run Java Application**, but at the end of the semester, you'll also be using the command **Run Java Applet**.

> A Java application is a standalone program that can be executed locally on a computer. A Java applet is designed to be embedded in a web page. The syntax of a Java applet will vary somewhat from the syntax of a Java application. Initially you'll be coding Java applications.

Running a Java application produces a console window.

```
C:\Windows\system32\cmd.exe                              _  □  ✕

Your gross pay is $1000.0
Press any key to continue . . .
```