

# Installing Java and Notepad++

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This exercise will lead you through installing Java and Notepad++. Print this page for handy instructions.

## 1. Install the Java JRE and JDK on your machine

You will need the Java Runtime Environment (JRE) and the Java Development Kit (JDK) for this course. More than likely the JRE is already installed on your machine. To determine if/which version of the JRE you have, open up a command prompt Window (Terminal console for Mac or Unix). The command prompt is often found in the Accessories folder in Windows. From the command prompt window, type: **Java - version**

Down and install the JDK (and JRE if needed) from the following website:

- <http://www.oracle.com/technetwork/java/javase/downloads/index.html>

## 2. Install Notepad++ on your machine

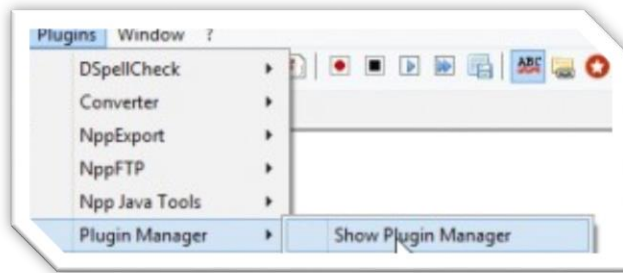
You will need a development environment to key, compile, and test Java applications. If you are familiar with Eclipse (or other IDEs that can compile and run Java), you may use that. If you are not familiar with Eclipse, one of the easiest to use is Notepad++.

You can find the latest version of at: <https://notepad-plus-plus.org>

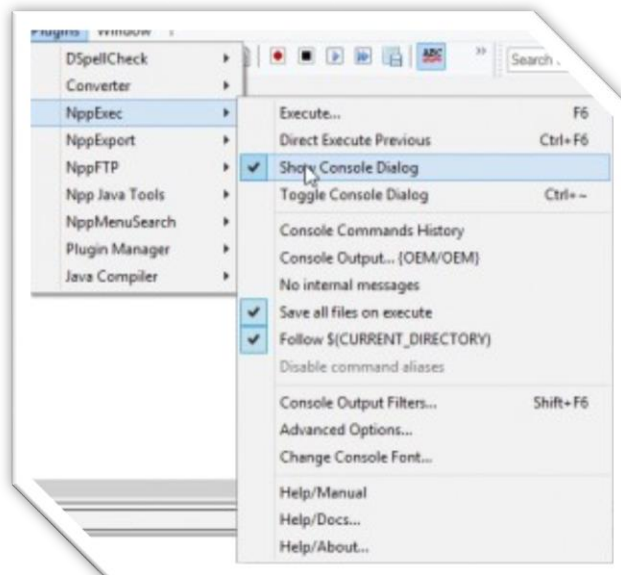
- Click on the **download** link to find the latest version to download
- After it downloads, run the installer. You can accept all the defaults shown.

## 3. Configure Notepad++ to Compile and Run Java

- Open Notepad++ and close the file it automatically opened.
- Click on **Plugins**. Select **Plugin Manager**. Click on **Show Plugin Manager**



- Under the **Available** tab, scroll through the available plugins and select **NppExec** and click on Install. A popup window appears and prompts you to restart Notepad++ to complete the plugin install. Click on **Yes** to restart Notepad++.
  - After restating Notepad++, click on the **Plugin** menu (Alt+P) you will see the installed plugin **NppExec** in the plugin menu.
  - Apply each of these settings one by one (you will see them when you mouse over **NppExec** in the **Plugin** menu)
    - Disable **Console command history** (the check mark should now be gone)
    - Enable **Save all files on execute** (the check mark should now appear)
    - Enable **Follow \$(CURRENT\_DIRECTORY)** (the check mark should now appear)
- You should now see:



- **Open the execute window [F6]** and enter these commands.

For compiling Java enter this (**replacing the red text, include the quotes, with the actual location of your javac file**):

```
cd $(CURRENT_DIRECTORY)
"C:\Program Files\Java\jdk1.8.0_45\bin\javac" $(FILE_NAME)
```

The first line change the directory to the current directory (where your program resides). The second line invokes the Java compile.

- Save the commands as: **Compile JAVA**  
This allows you to use the script again without having to type it.
- **Open the execute window [F6]** again and enter these commands.

For compiling Java enter this:

```
cd $(CURRENT_DIRECTORY)
"C:\Program Files\Java\jdk1.8.0_45\bin\java" $(NAME_PART)
```

The first line change the directory to the current directory. The second line invokes the Java virtual machine to execute your code (**replace the red text with the path where your program resides**).

- Save the commands as: **Run Java**  
This allows you to use the script again without having to type it.
- **Open the execute window [F6]** again and enter these commands.

For running the appletviewer enter this:

```
cd "$(CURRENT_DIRECTORY)"
"C:\Program Files\Java\jdk1.8.0_45\bin\appletviewer" $(NAME_PART).html
```

The first line change the directory to the current directory. The second executes an appletviewer in Notepad++ (**replace the red text with the path where your program resides**).

- Save the commands as: **Run Java Applet**  
This allows you to use the script again without having to type it.

#### 4. Create Shortcuts to Compile and Run Java

- Open the **Plugin** menu
- And click on **NppExec- > Advanced Options**
- Check the check box: **Place to the Macros submenu**
- Look in the **Associated script** dropdown menu. Select **Compile Java**. In the **Item Name:** text box type in **Compile Java**. Click the **Add/Modify** button
- Look in the **Associated script** dropdown menu. Select **Run Java**. In the **Item Name:** text box type in **Run Java**. Click the **Add/Modify** button.
- Look in the **Associated script** dropdown menu. Select **Run Java Applet**. In the **Item Name:** text box type in **Run Java Applet**. Click the **Add/Modify** button. Click the **OK** button.
- Click on **Settings > Shortcut Mapper**. Look under the **Plugin commands** tab. Click on **Compile Java**. Click on the **CTRL** checkbox. Select **1** from the dropdown menu. (This sets CTRL+1 as the shortcut for compiling). Click **OK**
- Click on **Run Java**. Click on the **CTRL** checkbox. Select **2** from the dropdown menu. (This sets CTRL+2 as the shortcut for executing). Click **OK**.
- Click on **Run Java Applet**. Click on the **CTRL** checkbox. Select **3** from the dropdown menu. (This sets CTRL+2 as the shortcut for executing). Click **OK**. Close the Shortcut Mapper window.

## 5. Test Java Compile and Execution in Notepad++

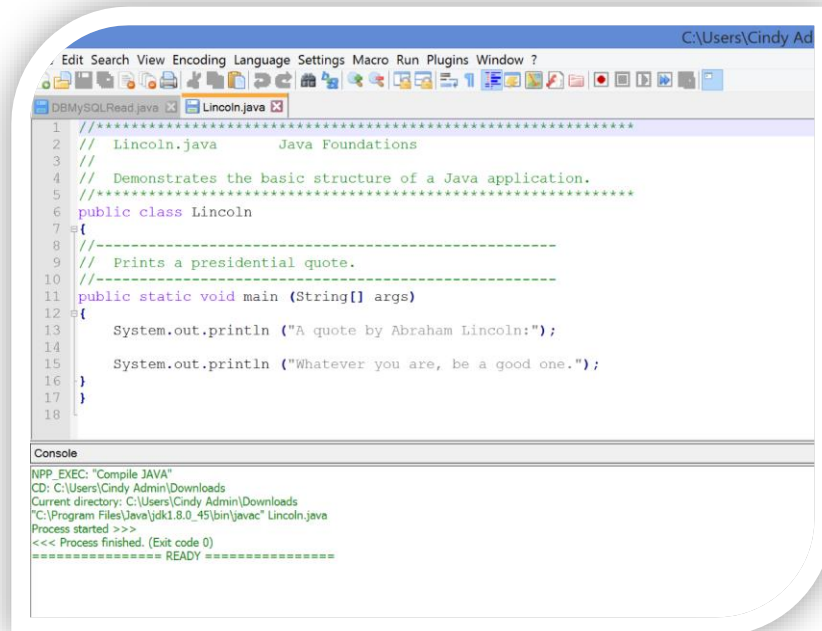
- Open the **Lincoln.java** application found in Chapter 1 folder of the source code that you downloaded from the textbook companion website (from step 1). A copy of this file is attached to this assignment in Blackboard.

The code is:

```
//*****  
// Lincoln.java    Java Foundations  
//  
// Demonstrates the basic structure of a Java application.  
//*****  
public class Lincoln  
{  
    //-----  
    // Prints a presidential quote.  
    //-----  
    public static void main (String[] args)  
    {  
        System.out.println ("A quote by Abraham Lincoln:");  
  
        System.out.println ("Whatever you are, be a good one.");  
    }  
}
```

***Notice the file is named Lincoln.java and the name of the class in the red line above in Lincoln. The spelling of the file name and the class name must match, INCLUDING upper and lowercase letters.***

- Press CTRL+1 to compile the program. You should see the following in the console window. If you do not, carefully review the steps above.



```

1 //*****
2 // Lincoln.java      Java Foundations
3 //
4 // Demonstrates the basic structure of a Java application.
5 //*****
6 public class Lincoln
7 {
8 //-----
9 // Prints a presidential quote.
10 //-----
11 public static void main (String[] args)
12 {
13     System.out.println ("A quote by Abraham Lincoln:");
14
15     System.out.println ("Whatever you are, be a good one.");
16 }
17 }
18

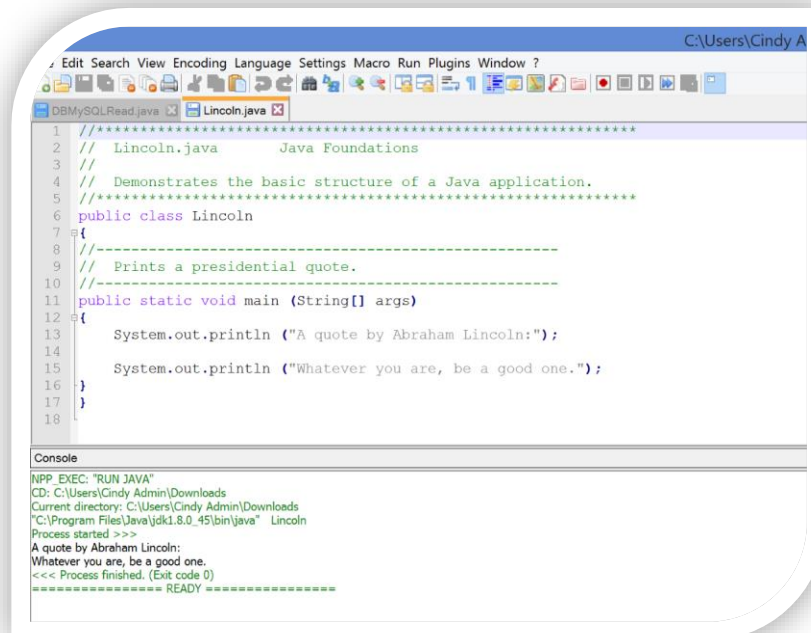
```

```

NPP_EXEC: "Compile JAVA"
CD: C:\Users\Cindy Admin\Downloads
Current directory: C:\Users\Cindy Admin\Downloads
"C:\Program Files\Java\jdk1.8.0_45\bin\javac" Lincoln.java
Process started >>>
<<< Process finished. (Exit code 0)
===== READY =====

```

- If the above was successful, press CTRL+2 to execute the program. You should see the following in the console window. If you do not, carefully review the steps above.



```

1 //*****
2 // Lincoln.java      Java Foundations
3 //
4 // Demonstrates the basic structure of a Java application.
5 //*****
6 public class Lincoln
7 {
8 //-----
9 // Prints a presidential quote.
10 //-----
11 public static void main (String[] args)
12 {
13     System.out.println ("A quote by Abraham Lincoln:");
14
15     System.out.println ("Whatever you are, be a good one.");
16 }
17 }
18

```

```

NPP_EXEC: "RUN JAVA"
CD: C:\Users\Cindy Admin\Downloads
Current directory: C:\Users\Cindy Admin\Downloads
"C:\Program Files\Java\jdk1.8.0_45\bin\java" Lincoln
Process started >>>
A quote by Abraham Lincoln:
Whatever you are, be a good one.
<<< Process finished. (Exit code 0)
===== READY =====

```

Note the output:

A quote from Abraham Lincoln:  
Whatever you are, be a good one.

## 6. Submitting your Work

- When you have successfully installed Java, compiled, and run the Lincoln.java application, take a screen snapshot and paste into a Word document (use the printScreen button on your keyboard to copy to the clipboard and then paste in Word). This lets me know you have successfully installed Java. Submit the Word document which contains your image to be graded.
- **DO NOT attach image files (GIF, JPEG, TIFF, etc.). It takes FOREVER for Blackboard to process these files when downloading for grading. If you do not have Word, make sure you save the image within a file of some kind which can then be saved as a PDF file. Attach the PDF file for grading. The only file formats which will accepted for grading are doc, docx, and PDF files.**