Adding Library and Jar to Netbeans Project

One of the major headaches to Java is the requirement to add libraries from one of a couple ways, Netbeans, maven, ant, etc. It's tiresome. This document shows how to do it using Netbeans (no maven or ant) that hunts the internet for a matching jar that is required to compile code. In this case, it was for a Pair (like C++ map) to pass back multiple return values (like Python) since I couldn't figure out how to pass by reference (like C++). As you can tell, I'm not a Java mensch, so I'm sure there are super easy ways.

When we ported the embedded CRCL test harness to Windows (using Netbeans version 11.2) we found that the jfx we used with the Oracle JDK was not available. This happens all the time, so you get used to multiple implementations, multiple installations, etc. So the first Internet search said, use the following import:

import org.apache.commons.lang3.tuple.Pair;

which when downloaded and installed gives an "abstract" error. So using https://stackoverflow.com/questions/45784119/cannot-instantiate-the-type-pair-although-not-abstract used

import org.apache.commons.math3.util.Pair;

instead. So now you download: <http://commons.apache.org/proper/commons-math/download_math.cgi> the jar file and install it as a library. The following steps show you how to install this library/jar file to support the import statement.

1. First over the Netbeans project library folder, right click on Add Library and this popup dialog should appear:

Graphical user interface, text, application, chat or text message

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1. Next input the library name, (often very hard to discern) but in this case it was commons-math3-3.6.1 because we needed the Pair data structure and the download page said it was the latest version, and it's just a name:

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1. Now you will have to attach a Java jar file containing the class binary definitions to import. So push the Add Jar/Folder button.

Graphical user interface, text, application

Description automatically generated

1. Then you need to browse to the folder containing the jar file, which was downloaded and then unarchived into the lib folder, as in the following popup:  
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2. Now you need to add the library to you netbeans project by pressing the newly installed library (that has an associated jar file) by pressing the "Add Library" button:

Graphical user interface, text, application, chat or text message

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And we are done. Now the import statement will work, and the code will compile and run.