



1 Installing ChemCollective Virtual Labs version 2.1.0 (Vlabs 2.1.0)

1.1 Getting ready for ChemCollective Vlabs installation

1. To follow the installation procedure, you need to be connected to the Internet.
2. The offline version of **ChemCollective Vlabs** requires **Java 1.4** or higher.

To check whether **Java** is installed on your system, do the following:

Open the terminal.

Procedure to open terminal in Windows: Open the terminal by typing **cmd** in the search bar in the **Start** Menu.

Procedure to open terminal in Ubuntu: Press **Ctrl, Alt** and **T** keys simultaneously to open the terminal.

Procedure to open terminal in Mac: In the **Finder**, open the **/Applications/Utilities** folder, then double-click on **Terminal**.

At the command prompt type, **java -version** and press **Enter** on your keyboard.

It will show the version number of **Java** already installed on your system.

If **Java** is not installed on your system, please follow the Instructions on how to install **Java on Windows, Ubuntu and Mac** given in **Section 2**.

1.2 Download Vlabs 2.1.0 on Windows, Mac and Linux Operating Systems

1. To download the **Vlabs 2.1.0** click here.
2. **Save** the file if prompted. In some systems **vlab.2.1.0.zip** file may automatically download to your downloads folder.
3. Depending on the Internet speed, it may take a few minutes to complete the download.
4. Go to the directory where you have downloaded the file.
5. Right-click on the **zip file**, from the context menu select **Extract Here**.
6. Double-click or click to open the extracted folder.

1.3 The procedure to install ChemCollective Virtual Labs on Windows OS

1. In the folder locate **VLab.exe** file.
2. Double-click on **VLab.exe** file to open Vlabs interface.

1.4 The procedure to install ChemCollective Virtual Labs on Mac OS

1. In the folder locate **vlab.jar** file.
2. Double-click on **vlab.jar** file to open Vlabs interface.
3. Usually, a software like **Vlabs** that isn't registered with Apple by an identified developer may not open, you will get a warning message. Do the following to change the system settings.
To change these preferences on your Mac, choose Apple menu, go to **System Preferences**, click on **Security & Privacy**, then click on **General** pane and click on **Open Anyway** button to open **Vlabs**.

1.5 The procedure to install ChemCollective Virtual Labs on Linux Ubuntu OS

1. Open the terminal.
2. Change the directory to the extracted vlab2.1.0 folder using the cd command. At the prompt type the following commands
cd Downloads, press **Enter**
cd vlab2.1.0, press **Enter**
3. Use the following commands to open Vlabs interface. **java -jar vlab.jar**, press **Enter**.
Vlabs interface opens.
Do not close the linux terminal while using Vlabs, as this will kill the process and close the vlabs interface.

1.6 The procedure to check Vlabs installation

1. Open Vlabs, Vlabs interface opens with the **Workbench** in the center and **Stockroom Explorer** panel on the left with cabinets for the various solutions.
2. Double-click on any of the cabinets. The cabinet opens with solution flasks, double-click on any of the the solution flasks.
3. The selected flask adds to the Workbench. This shows the installation is successfully done.

2 Installation of Java

2.1 Installation of Java on Windows

1. Open any web browser and go to java.com.
2. Click on **Java Download** button.
3. Download Java for Windows page opens. Read the license page. Click on **Agree and Start Free Download** button.
4. A prompt appears to save the executable .exe file. Click on **Save file** option.
5. Click on the downloaded .exe file. A window opens **Do you want to allow this app to make changes to your device**. Click on **yes**.
6. **License agreement** window opens. Click on **Install** button. Installation begins.
7. The progress of the installation is seen on the status bar in the window.
8. After the installation is complete a message is seen **You have successfully installed Java**. Close the window.
9. Verify the installation by typing the following command which will print the Java version:
java -version. Press **Enter**.

2.2 Installation of Java on Ubuntu

1. First, update the apt package index. Open the terminal by pressing Ctrl, Alt and T keys simultaneously.
2. At the prompt, type, **sudo apt update**. Give the system password when prompted.
3. Once the package index is updated, at the prompt type **sudo apt install default-jdk**
4. Verify the installation by typing the following command which will print the Java version:
java -version. Press **Enter**.

2.3 Installation of Java on Mac

1. Open any web browser and go to **Java.com**
2. Click on **Java Download** button.
3. Download Java for Mac OS X page opens. Read the license page. Click on **Agree and Start Free Download** button.
4. **JRE .dmg** file downloads to the Downloads folder.
5. From either the browser **Downloads** window or from the file browser, double-click the .dmg file to launch it.
6. A Finder window appears that contains an icon of an open box and the name of the .app file.
7. Double-click the **Java 10.app** icon to start the installation application.
The installation application displays the Welcome window.
8. Click **Open** button. Give the system permission if prompted.
9. Click on **Install** button in the Java installation window. The software is installed and a confirmation window is displayed. Click **Close**.
10. Verify the installation by typing the following command which will print the Java version:
java -version. Press **Enter**.