

# Lab Exercise 02: Setting up Java Dependencies for Drools Rule Engine

## Objective:

Set up the necessary Java dependencies for working with the Drools rule engine on a Windows system.

## Prerequisites:

- A Windows computer
- Internet connection

## Step 1: Download Amazon Corretto 17 for Windows

1. Open a web browser.
2. Go to the Oracle website or another trusted source for downloading the Java Development Kit (JDK).
3. Download the latest version of the JDK for Windows.

## Step 2: Run the JDK Installer

1. Locate the downloaded JDK msi installer (e.g., `amazon-corretto-17.x.x.x-x-windows-x64`) in your Downloads folder or the directory where you saved it.
2. Double-click the installer to run it.
3. Follow the installation wizard instructions to install the JDK. Make note of the installation path.

## Step 3: Set the JAVA\_HOME Environment Variable

1. After the JDK installation is complete, open the Windows Start menu and search for "Environment Variables."
2. Click on "Edit the system environment variables."
3. In the System Properties window, click the "Environment Variables" button.
4. Under the "System variables" section, find the "JAVA\_HOME" variable. Select it and click "Edit..."
5. Copy/Paste the path to the JDK installation folder (e.g., `C:\Program Files\Amazon Corretto\jdkxx.x.x_x`).
6. Click "OK" to close the windows and save the changes.

## Step 4: Add JDK to `Path` Environmental Variable

1. Navigate to your system variables
2. Open the Windows Start menu and search for "Environment Variables."
3. Click on "Edit the system environment variables."
4. In the System Properties window, click the "Environment Variables" button.

5. Under the "System variables" section, scroll down and find the "Path" variable. Select it and click "Edit..."
6. In the Edit Environment Variable window, open the `Path` system variable, click "New" and paste the path to the JDK binary folder (e.g., `C:\Program Files\Amazon Corretto\jdkxx.x.x_x\bin`).
7. Click "OK" to close the windows and save the changes.

## Step 5: Verify the Java Installation

1. Open a text editor (e.g., Notepad) and create a new Java file, e.g. `TestRun.java`.
2. Add the following example Java code to the file:

```
class TestRun {  
    public static void main(String[] args) {  
        System.out.println("Testing 123!");  
    }  
}
```

3. Save the file in a convenient location on your computer.

## Step 6: Compile and Run the Java Program

1. Open a Command Prompt (CMD) window.
2. Navigate to the directory where you saved the `TestRun.java` file.
3. Compile the Java program by running the following command:

```
javac TestRun.java
```

4. If there are no compilation errors, you should see a `TestRun.class` file in the same directory.
5. Run the compiled Java program by executing the following command:

```
java TestRun
```

6. You should see the output: "Testing 123!" displayed in the CMD window.

Congratulations! You have successfully set up the Java dependencies required for working with the Drools rule engine on your Windows system. This environment will allow you to develop and run Drools rules using Java.