

1. Install Java Development Kit (JDK):

- * Visit the Oracle website: <https://www.oracle.com/java/technologies/downloads/>
- * Download the latest JDK for your operating system (Windows, macOS, or Linux).
- * Follow the installation instructions provided on the Oracle website.

The three x64 download options for Java, Compressed Archive, Installer, and MSI installer, differ in their installation method and format:

x64 Compressed Archive:

- * Format: Usually a ZIP or RAR file.
- * Installation: Requires manual extraction and configuration.
- * Use case: Suitable for advanced users who prefer more control over the installation process.

x64 Installer:

- * Format: An executable file (e.g., .exe for Windows).
- * Installation: Guides you through the installation process with a user interface.
- * Use case: Easy to install for most users.

x64 MSI Installer:

- * Format: A Microsoft Installer package.
- * Installation: Provides a more standardized installation experience, often used for enterprise deployments.
- * Use case: Suitable for organizations that need to manage Java installations centrally.

Choosing the right option depends on your preferences and needs:

- * If you're comfortable with manual extraction and configuration, the Compressed Archive might be a good choice.
- * If you prefer a guided installation process, the Installer is a convenient option.
- * If you're part of an organization that needs to manage Java installations centrally, the MSI installer is often preferred.

Ultimately, all three options will result in the same Java installation on your system. Choose the one that best suits your installation method and preferences.

2. Install Visual Studio Code (VSCode):

- * Download VSCode from the official website: <https://code.visualstudio.com/>
- * Install it according to the provided instructions.

3. Install the Java Extension Pack:

- * Open VSCode.
- * Press Ctrl+Shift+X (or **Cmd+Shift+X** on **macOS**) to open the Extensions panel.
- * Search for "Java Extension Pack" by Microsoft.

- * Click the Install button to install the extension.

4. Configure Java in VSCode *if necessary*:

- * Open the command palette by pressing Ctrl+Shift+P (or **Cmd+Shift+P on macOS**).
- * Type "Java: Configure Java Runtime" and select it.
- * Choose the JDK you installed earlier from the list.

5. Create a New Java Project:

- * Open the command palette and type "Java: Create Java Project" or create a new desktop folder and create a new Java file from Visual Studio Code and save file to specified desktop folder(make sure file is saved as Java extension).

- * Select a project name and location.
- * Choose the appropriate project type (e.g., **Maven**, **Gradle**) *if prompted to do so*.
 - Maven's convention over configuration approach makes it easier to set up and use for simple projects.
 - For this installation, we will use Maven.

6. Write Java Code:

- * Create a new Java file (e.g., Main.java).
- * Write your Java code.

7. Run Java Code:

- * Right-click the Java file and select "Run Java File".
- * The output will appear in the integrated terminal.