Setup Troubleshooting

General troubleshooting guide

Here are some general debugging tips to walk through if VSCode, Java and or Gradle are not working on your machines.

VSCode with SSH or SSHFS

> ❌ VSCode with SSH or SSHFS **will not** work with the Java Extensions required for this course. Please work locally or through CSE VLab.

Quota Exceeding (If you are using VLAB/CSE machines)

> ⚠ **Ensure that you are not over your disk quota on CSE.**

On CSE, you can use the command `rquota` as such:

```
z1234567@vx03:~$ rquota
Disk quotas for user z1234567:
         Filesystem          space          quota            limit
grace          files          quota
     /import/adams/2         1238M          2184M
2403M              -         28056          224k
```

If your `space` is exceeding `limit`, you will not be able to create/save any more files. As such, VSCode, Java and Gradle may stop working.

The solution is to free up space on your CSE account. The easiest and quickest way is to delete temporary/cached files in your home directory. You can use the command `du -h -d1 . | sort -rh` to see what is taking up the most amount of space.

```
z1234567@vx03:~$ cd ~
z1234567@vx03:~$ du -h -d1 . | sort -rh
1.3G        .
360M        ./.vscode
332M        ./.gradle
92M         ./.config
```

- `.gradle`: can be deleted with no consequences. Will be rebuilt once Gradle is run again.
- `.vscode`: can be deleted however extensions need to be re-installed again. If you're very limited on space, ensure that you are only downloading the java extensions and nothing else.
- `.config`: can be deleted but may have some consequences. You may need to restart VLAB/CSE machine after deleting this. This is not recommended during the exam.
- We suggest removing all your files from previous courses to free up space on VLAB/CSE machines

See https://taggi.cse.unsw.edu.au/FAQ/Disk_Quota/ for more information.
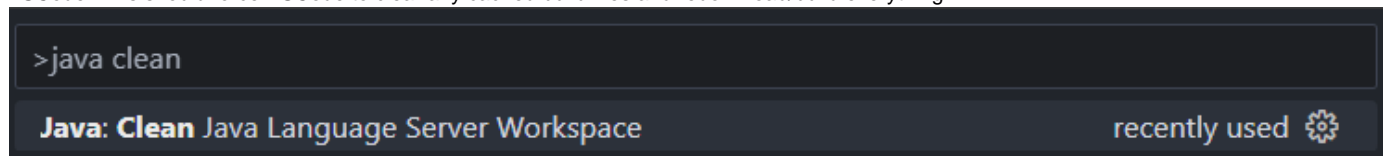
Vscode

VSCode version

> ⚠️ **Ensure you are using the correct version of VSCode on CSE/VLAB. (**`2511 code` **instead of** `code`**) and all your extensions are up-to-date.**

The `code` command is an older version of VSCode on CSE machines. As such, the Java Test Runner extension does not work properly. It may look like a test is stalling/running for an infinite amount of time.

Solution: Use `2511 code` which is a newer version of `code`. You may need to re-install extensions and rebuild the Java environment seen in the following section.

Clean your Java environment in VSCode

Open up the command palette using `control + shift + p` (`command + shift + p`) and search for `java clean` then hit enter & restart VSCode. This should force VSCode to clear any cached build files and redownload/build everything.

Gradle

> ⚠️ If you are working on **VLAB/CSE machines**, replace `gradle` with `2511 gradle`

1. You can use the command `gradle clean` to remove any cached build files. Then `gradle build` or `2511 gradle test` to recompile and run specific tasks.

Note: `gradle clean` deletes the `build` folder.

2. **Ensure you are running Gradle from the root project of your lab/assignments**

On the command line, it should look like this

```
z1234567@vx03:~/lab01$ 2511 gradle test
```

See the **VSCode setup** session below for more details on VSCode.

Gradle missing `.jar`

Your Gradle build folder may have been corrupted. Use `gradle clean` to remove it and then try rebuilding.

Removing all build/temporary files

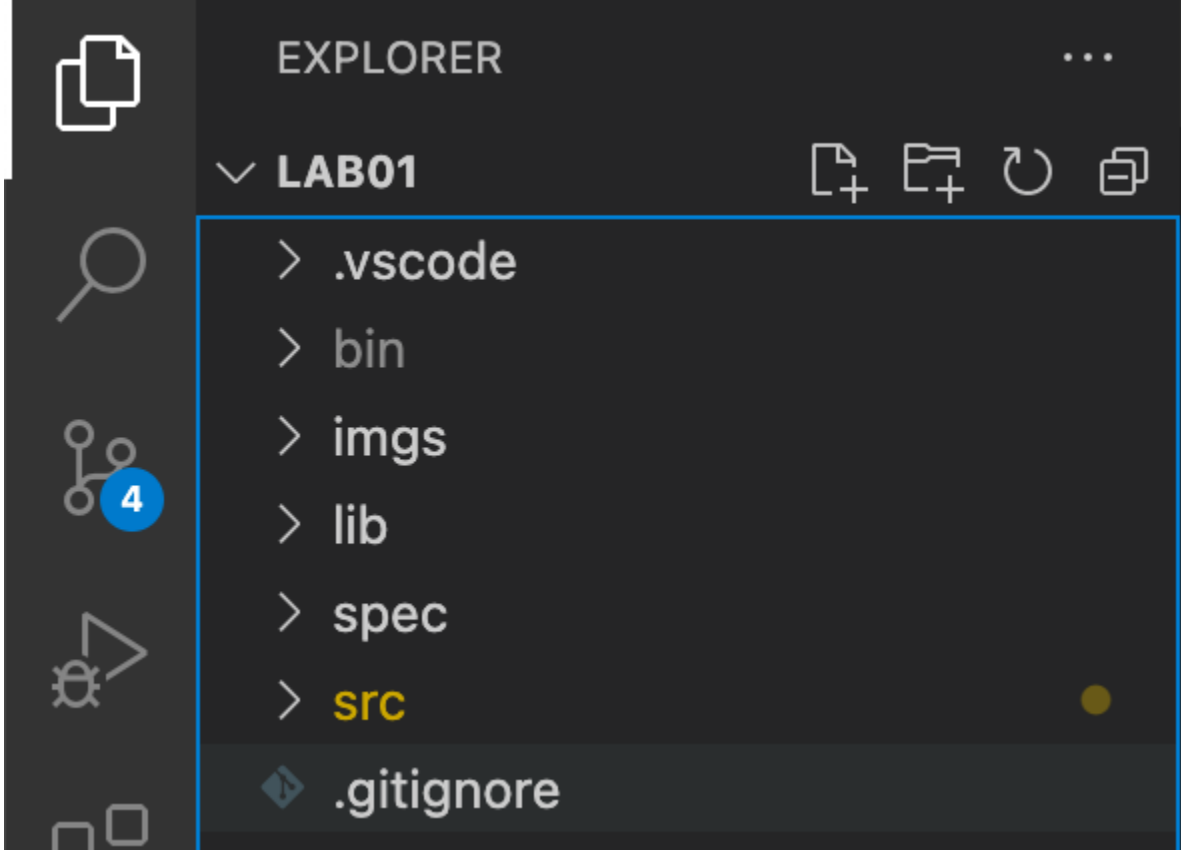It is a combination of VSCode and Gradle. Remove the following files in your current repo:

- `.gradle`
- `build`
- `bin`

Restart VSCode and use `gradle build` or `gradle test` to rebuild the files.

VSCode Setup

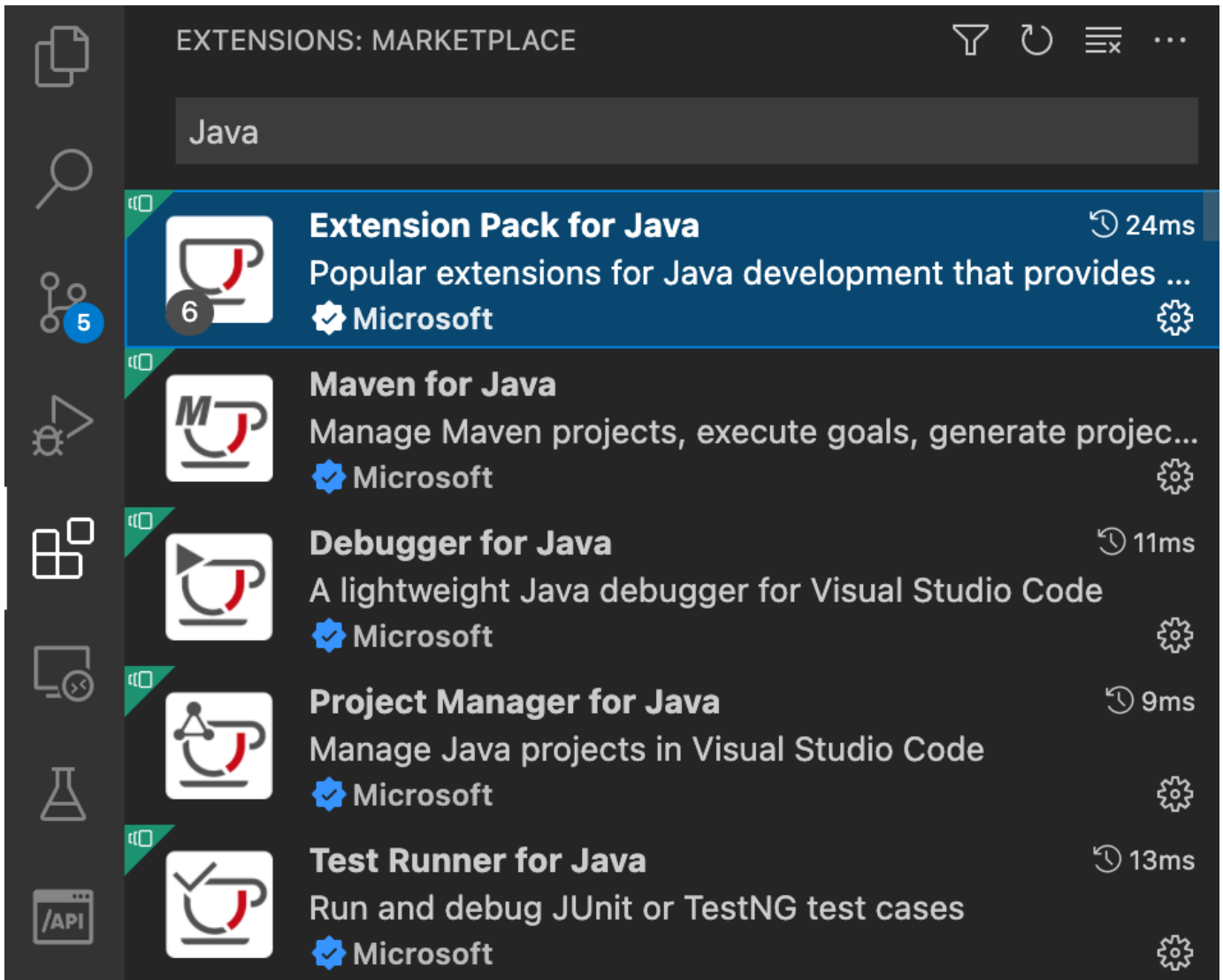Most of the steps are to do with imports not being resolved, though (1) and (2) are good as a general go-to.

- Before you do anything else - **make sure you have the repository folder itself open in VSCode and not a subfolder or a parent folder**. For example, if the repo is `lab01` you should see `LAB01` at the top of the project directory menu on the left panel (see the screenshot below). To open a particular folder go to File > Open and then select the folder you are working with.

- If your VSCode is acting strangely, everything else should be working fine you can refresh everything by going **View: Command Pallete > Java: Clean the Java language workspace** and then click the button that says **Restart and Delete**.

You can add/remove folders to the Java Source Path by right-clicking on them and clicking **Add/Remove Folder to Java Source Path**.

- Run/Debug button not showing above `public static void main(String[] args)`. Check you have the **Extension Pack for Java** extension for VSCode installed. To verify this, if you switch to the extension tab in VSCode and search for Java it should show at least the following extensions installed.

- If the `org.json` package isn't being imported - try uninstalling the "Java Language Support" extension. See this reference here: https://github.com/redhat-developer/vscode-java/issues/956
- If you are still running into problems, try cleaning the workspace data for VSCode manually (delete the contents of) `$HOME/Library/Application Support/Code/workspaceStorage`. This is what the Restart & Delete button does but that's how you can do it yourself.
- If you have spaces/special characters in your path, try putting your projects into a different path without those.