

Mac ARM (M1 or M2)

SSH-Extension

From the extensions-pane you should find and install the **'Remote - SSH'** extension from Microsoft.

Setting up your Virtual machine

To make sure that all handins conform to the same standard and avoid compatibility-issues we will supply you with a virtual machine the has the same specifications that we as TA's use for testing. This will ensure that if everything looks good on your end, it probably looks good on our end too.

In the following we will refer to your virtual computer as Guest, and your actual computer as Host. Only step 4 requires you to do something within the Guest, in all the other steps you will either interact with vscode on your Host or UTM/VirtualBox.

We will use git and GitHub to synchronise files between the Guest and Host. You must set up your GitHub repository before following this guide. We also recommend that you familiarise yourself with git and GitHub before setting up your VM.

Prerequisites:

- GitHub repository containing project
- Virtual machine host: UTM¹
- Appropriate virtual machine image: "SU23-Silicon"²
- VS Code
- 5 gb free space

Setup:

*Reminder: everything except for **step 4** takes place on your **host** computer.*

1. Create a folder for your SU projects: **SU23**.
2. Create a file "settings.config" containing the following code snippet (keep the indentations). Put the file in the **SU23** folder:

Host SU23
 HostName 127.0.0.1
 User student
 Port 2222
3. In VS Code press **fn+f1** and search for "ssh settings" and click **Remote-SSH: Settings**. Under the Remote.SSH: Config File input the path to the config file you just created.
4. Copy the virtual machine image into UTM and boot up the virtual machine. Username is "student" and there is no password.

¹<https://mac.getutm.app/>

²<https://absalon.ku.dk/courses/64721/assignments/178351>

Leave your VM running in the background, and return to VS Code (Ie. return to your Host computer)

5. In VS Code, Press **fn+f1** and search for "ssh connect" and click **Remote-SSH: Connect to Host...** It will suggest the name of the folder containing the .config file: **SU23**. Press **enter** to connect to the virtual machine via SSH.

6. In the VS Code menu click **Terminal -> New Terminal** to open a terminal that can execute code on the **Guest**.

Create a new folder for your local repository. Write **MKDIR SU23Guest** in the terminal to create a folder named **SU23Guest**. **CD** into the folder.

7. To clone your repository into the **Guest** write:

git clone https://github.com/YOUR-USERNAME/YOUR-REPOSITORY. You will be prompted to verify the **Guest**. Verify the **Guest** and allow the code to be downloaded.

8. The VM image comes preloaded with **DIKUArcade**, but we need to move it into your local repository:

```
$ cp -R DIKUArcade/ SU23Guest/DIKUGames/
$ rm -rf DIKUArcade/
```

You can now interact with your code through the virtual machine. The **Guest** must be turned on and you must be connected via SSH (step 5).

You can update the code to the latest version available on GitHub by writing **git pull** in the console.

Apart from entering the username you shouldn't need to interact with the **Guest** directly, instead always use the VS Code terminal on the Host.