HOW TO CONNECT

dah01.novaims.unl.pt (10.10.80.3)

- **Author**: IT Services
- **Version**: 2
- **Last reviewed**: 04/04/2025

To properly connect to **dah01** you will need to use an **SCP client** (to copy files to the server), as well as an **SSH client** (to interact with the server).

For this purpose, we suggest **WinSCP** and **PuTTY** respectively.

The following pages show how to install and use both, in a step-by-step guide, with all the connections to the server being exemplified using a **guest** account (you must use your own NOVA IMS account).

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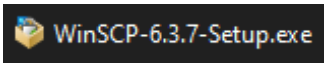
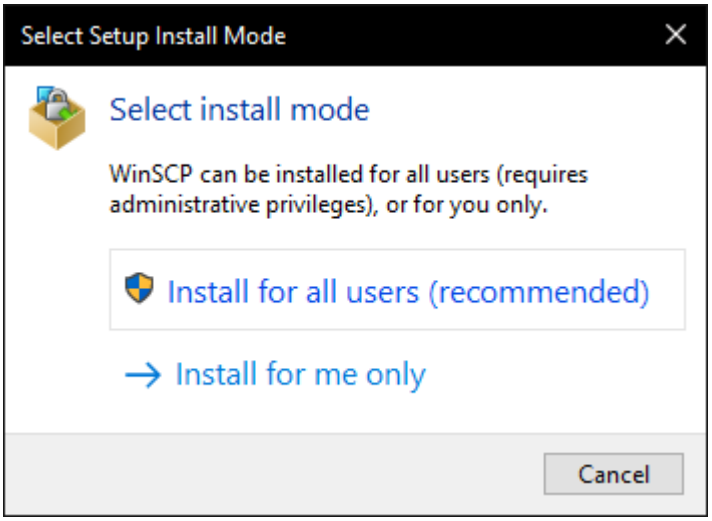
WinSCP Installation Tutorial

1. Download **WinSCP**: https://winscp.net/eng/download.php

2. Open the **setup file**



3. Click "**Install for all users (recommended)**"



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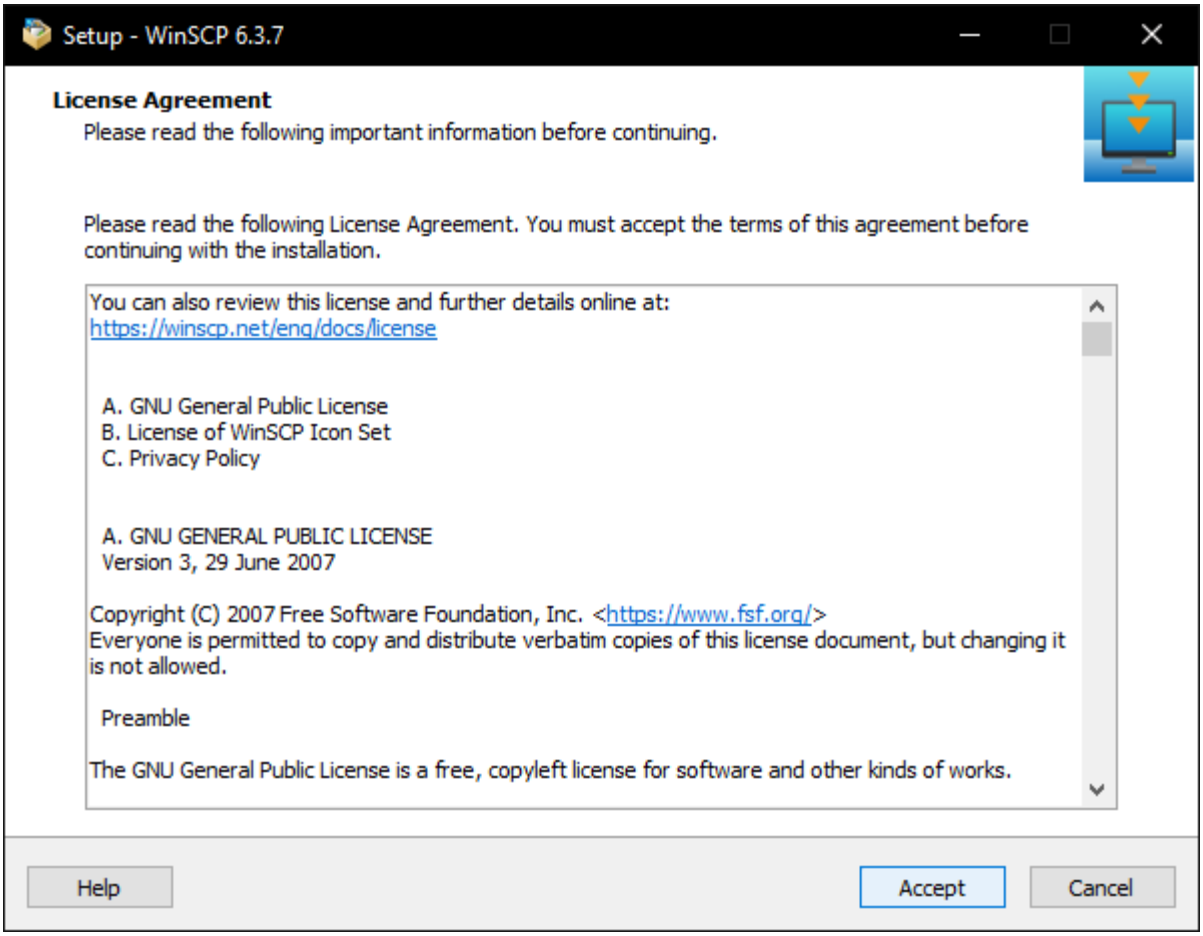
4. Click "**Accept**"



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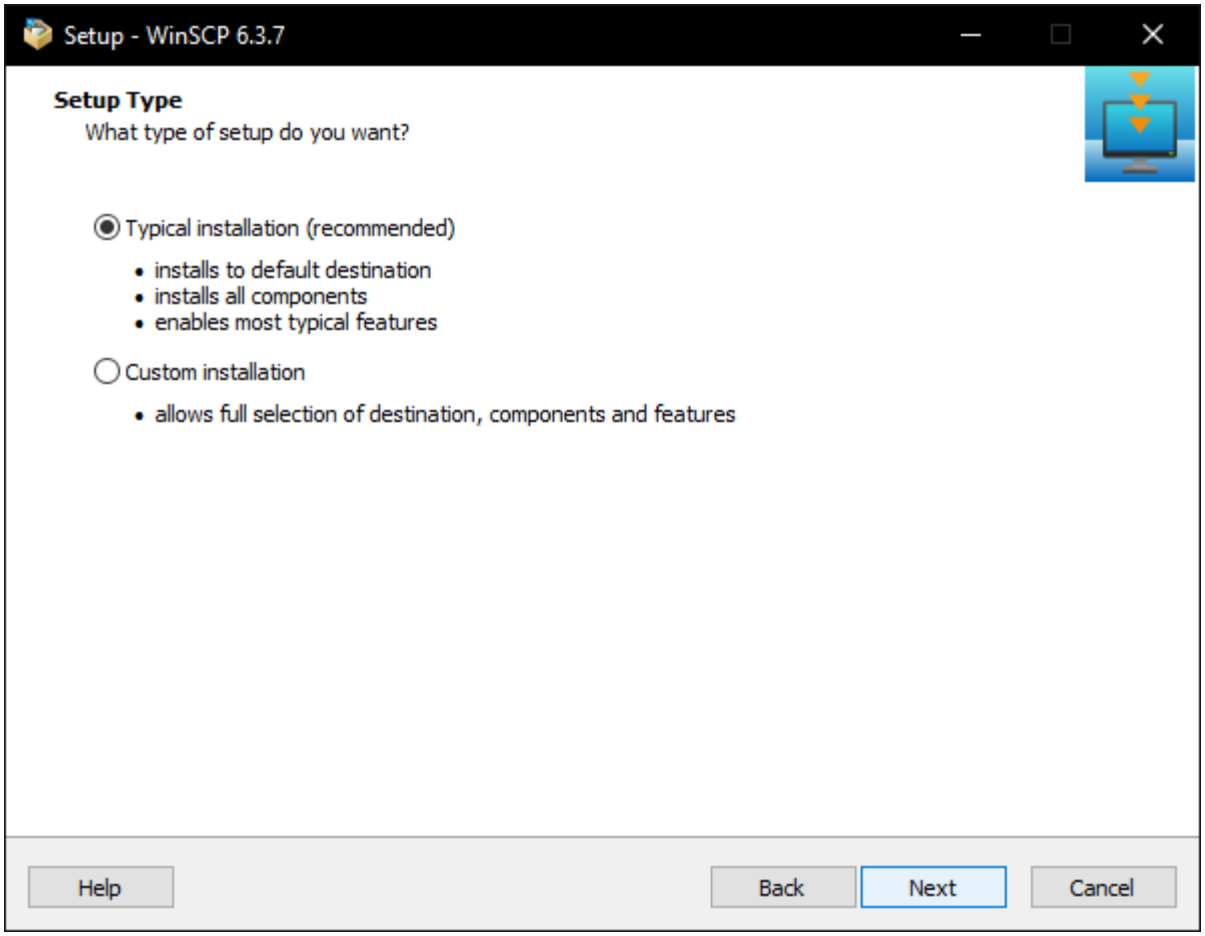
5. Choose "Typical installation (recommended)" and click "**Next**"



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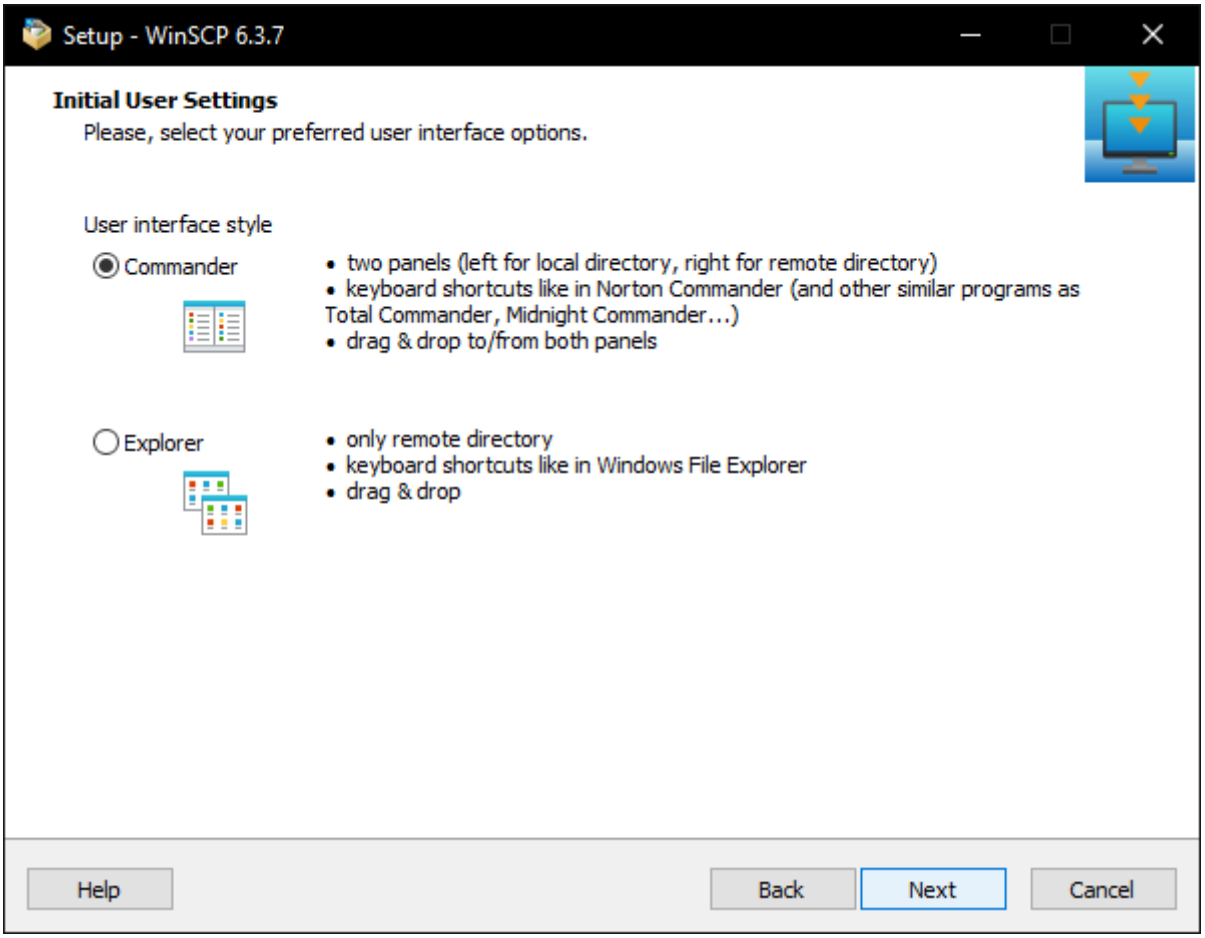
6. Choose the user interface style “Commander” and click "**Next**”



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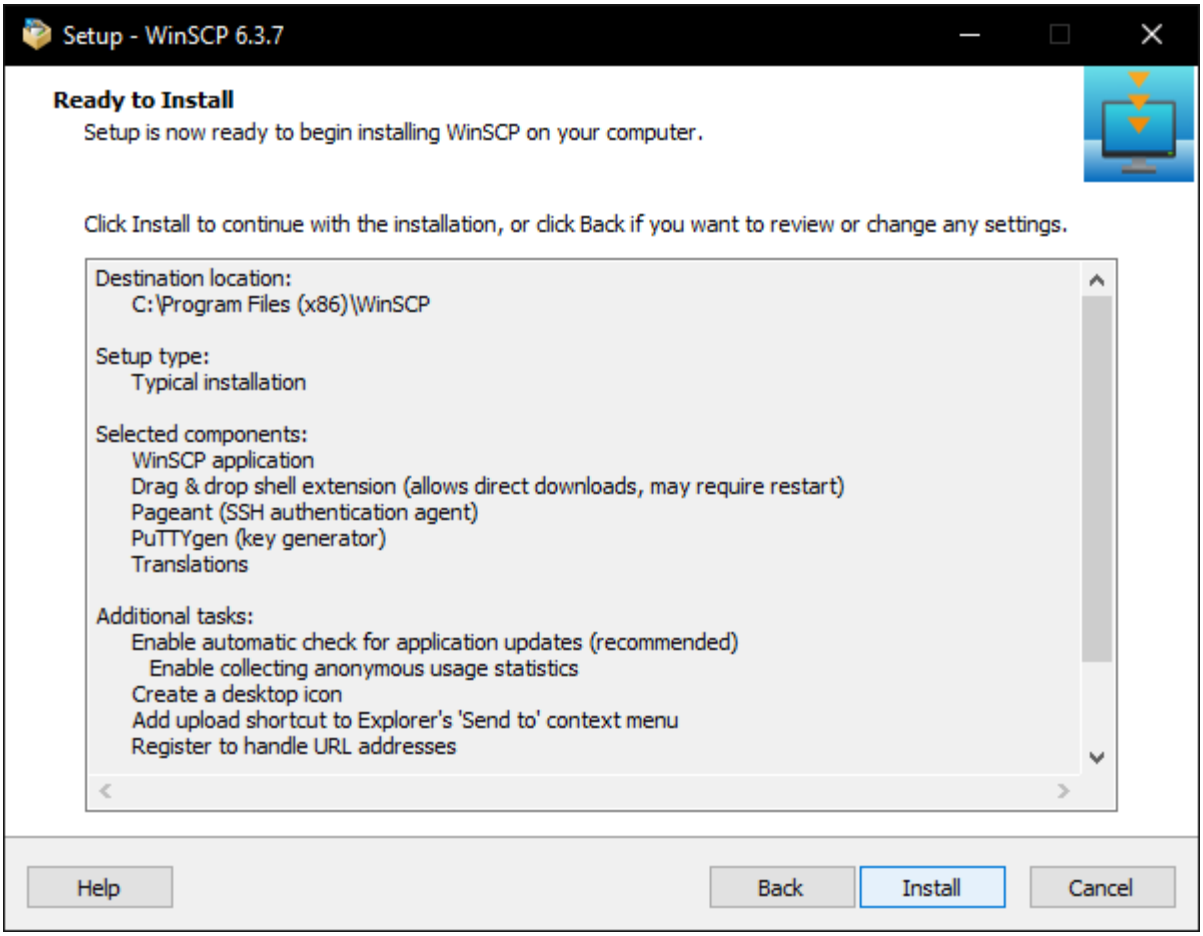
7. Click "**Install**"



8. Click "**Finish**"

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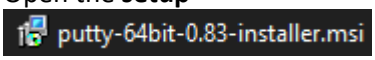
PuTTY Installation Tutorial

1. Download **PuTTY**: https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html

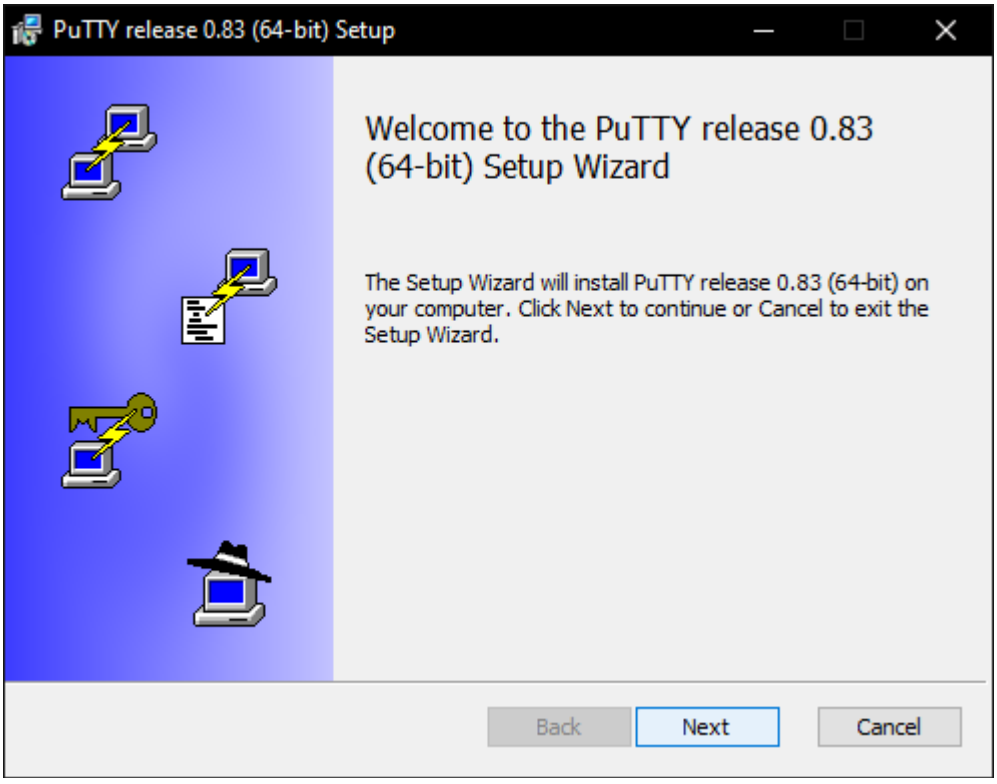
MSI ('Windows Installer')	
64-bit x86:	putty-64bit-0.83-installer.msi
64-bit Arm:	putty-arm64-0.83-installer.msi

(Ex: **Intel and AMD processors**)
(Ex: **Qualcomm**)

2. Open the **setup**



3. Click "**Next**"



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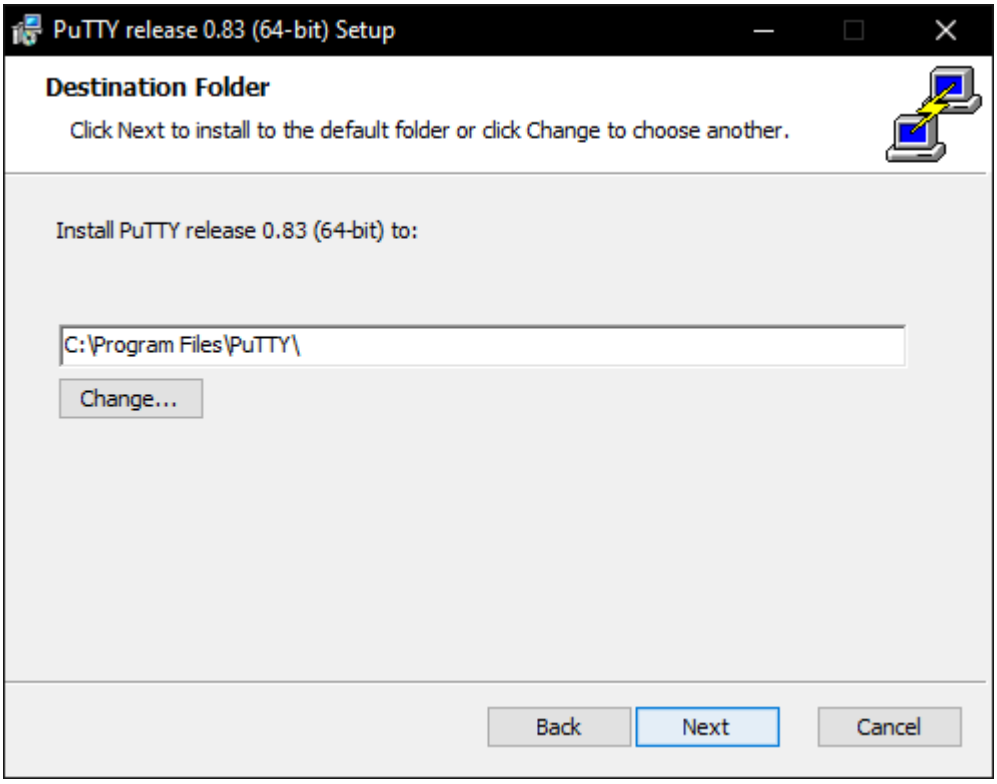
5. Choose the default installation path and click "**Next**"



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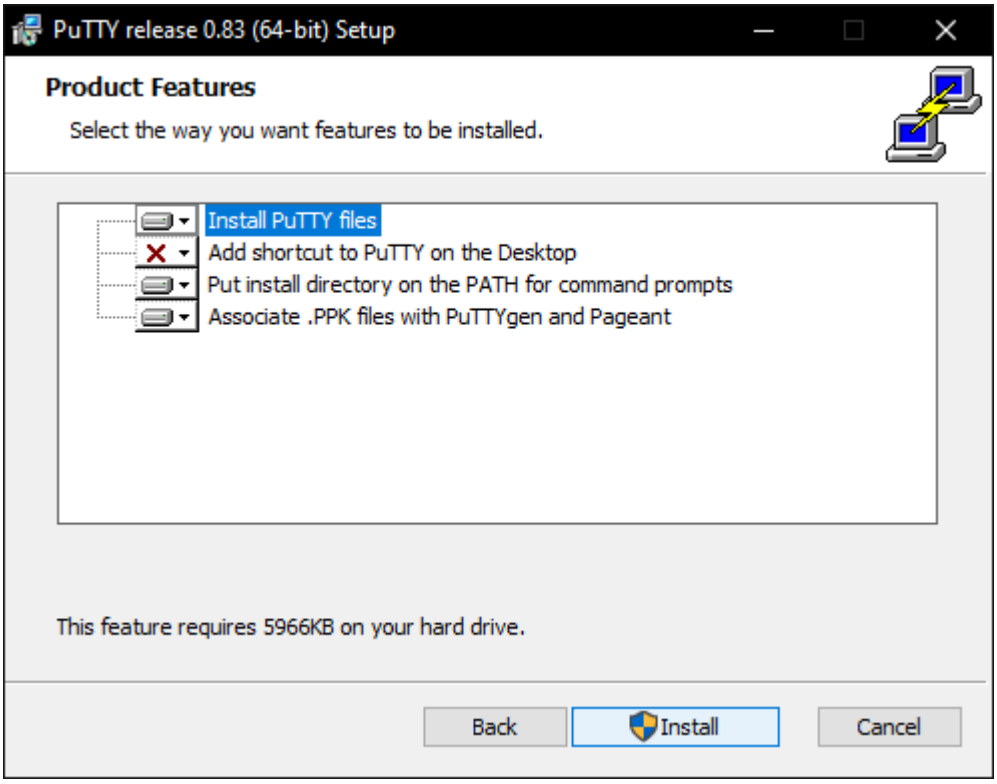
6. Click "**Install**"



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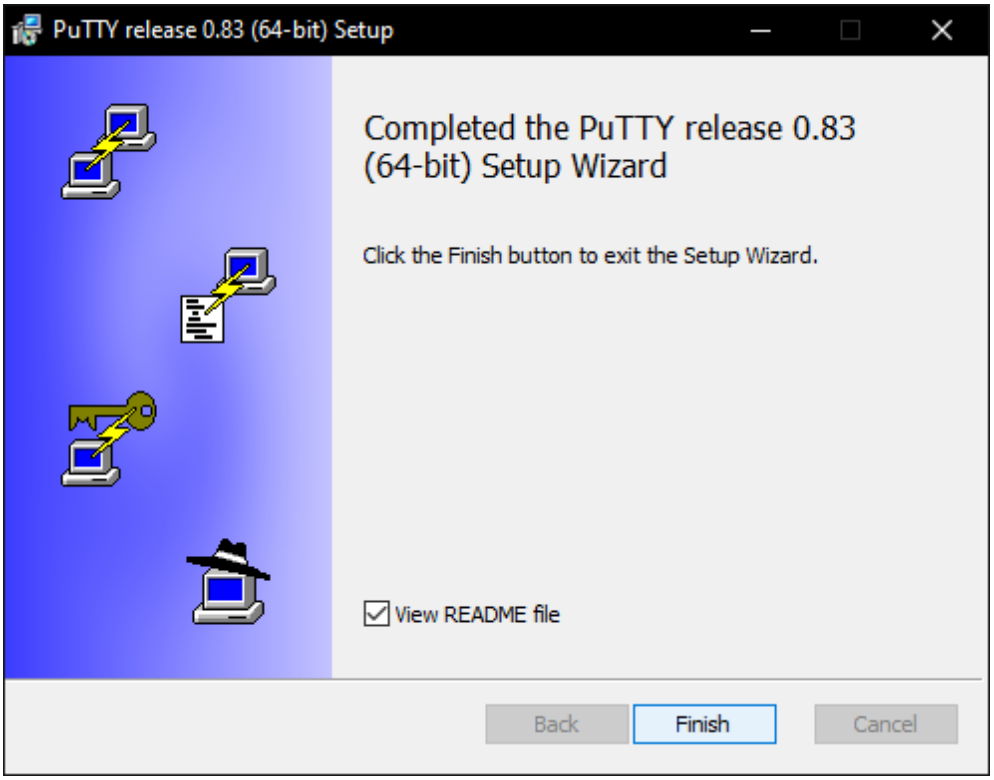
7. Click "**Next**"



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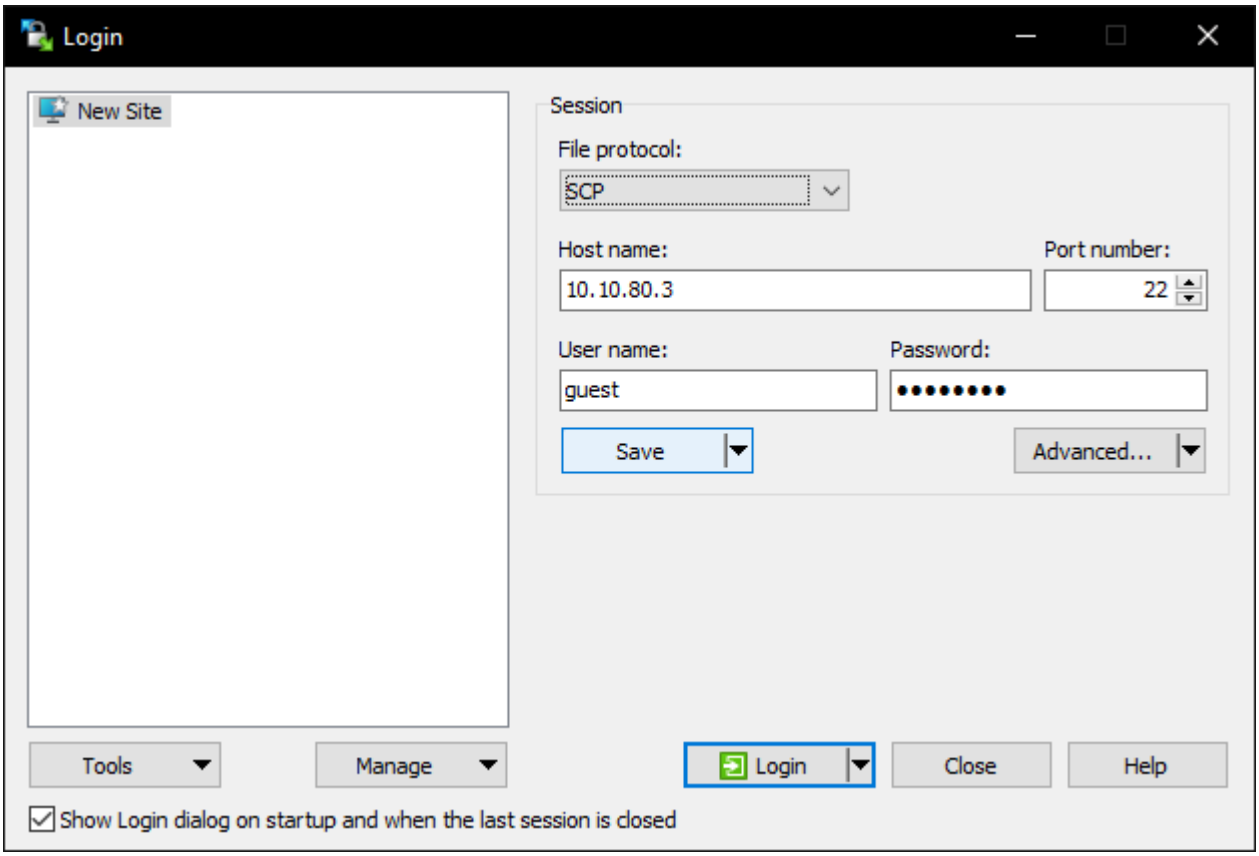
Transfer files via WinSCP

1. File protocol: **SCP**
2. Host name: **10.10.80.3**
3. Port number: **22**
4. User name: ***[your NOVA IMS username]***
5. Password: ***[your NOVA IMS password]***
6. Click "**Save**"



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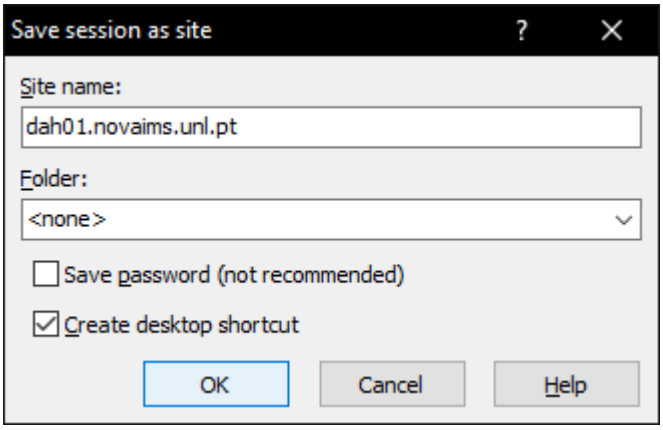
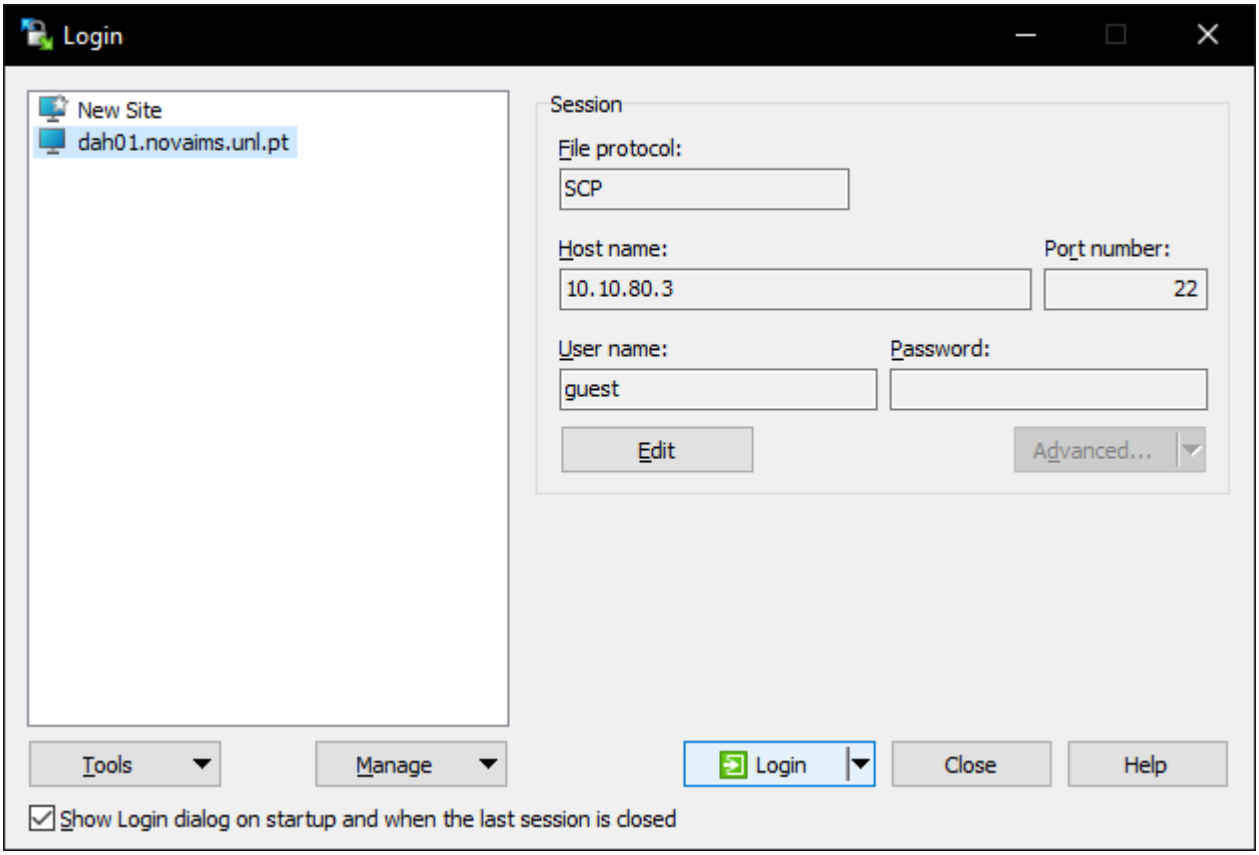
7. Site name: **dah01.novaims.unl.pt**
8. Check "**Create desktop shortcut**"
9. Click on "**OK**"



10. Select the server and click on "**Login"**



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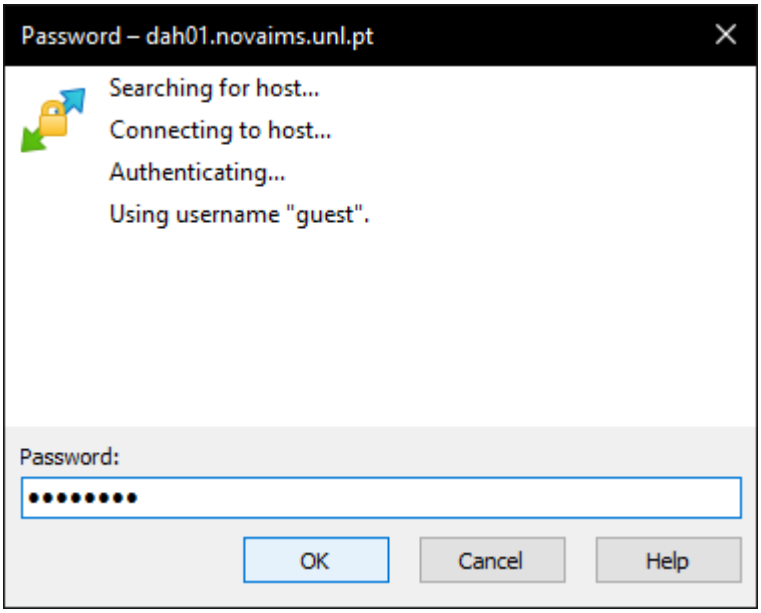
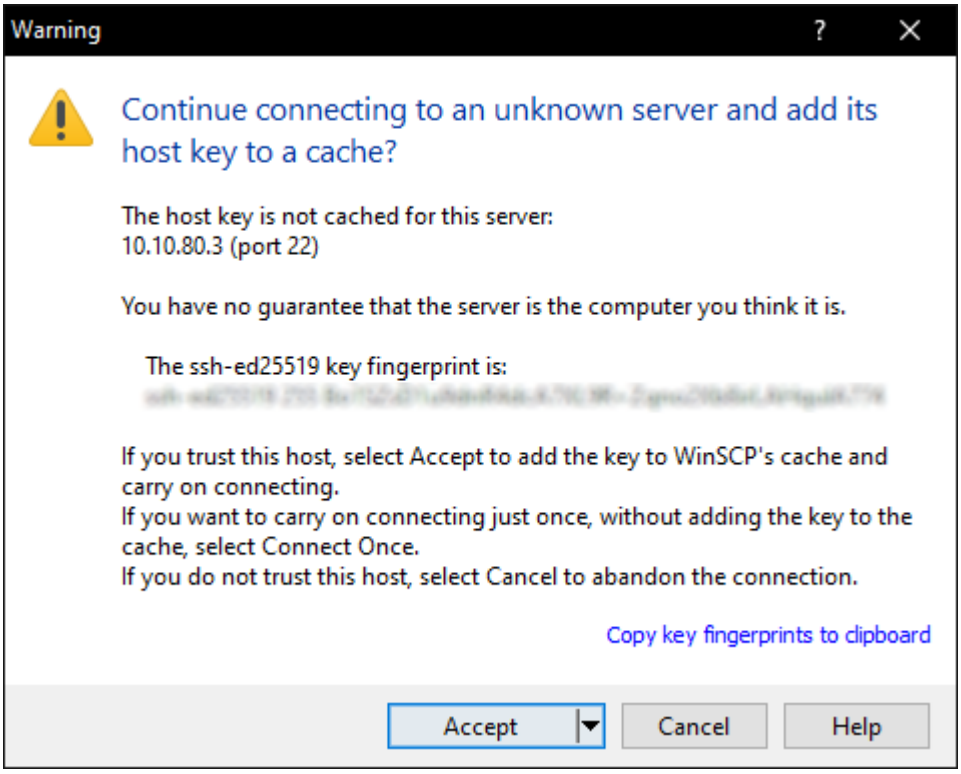
11. Write your password and click "**OK**"



12. If the warning "Continue connecting to an unknown server and add its host key to a cache?" appears on your screen, click on "**Accept**".



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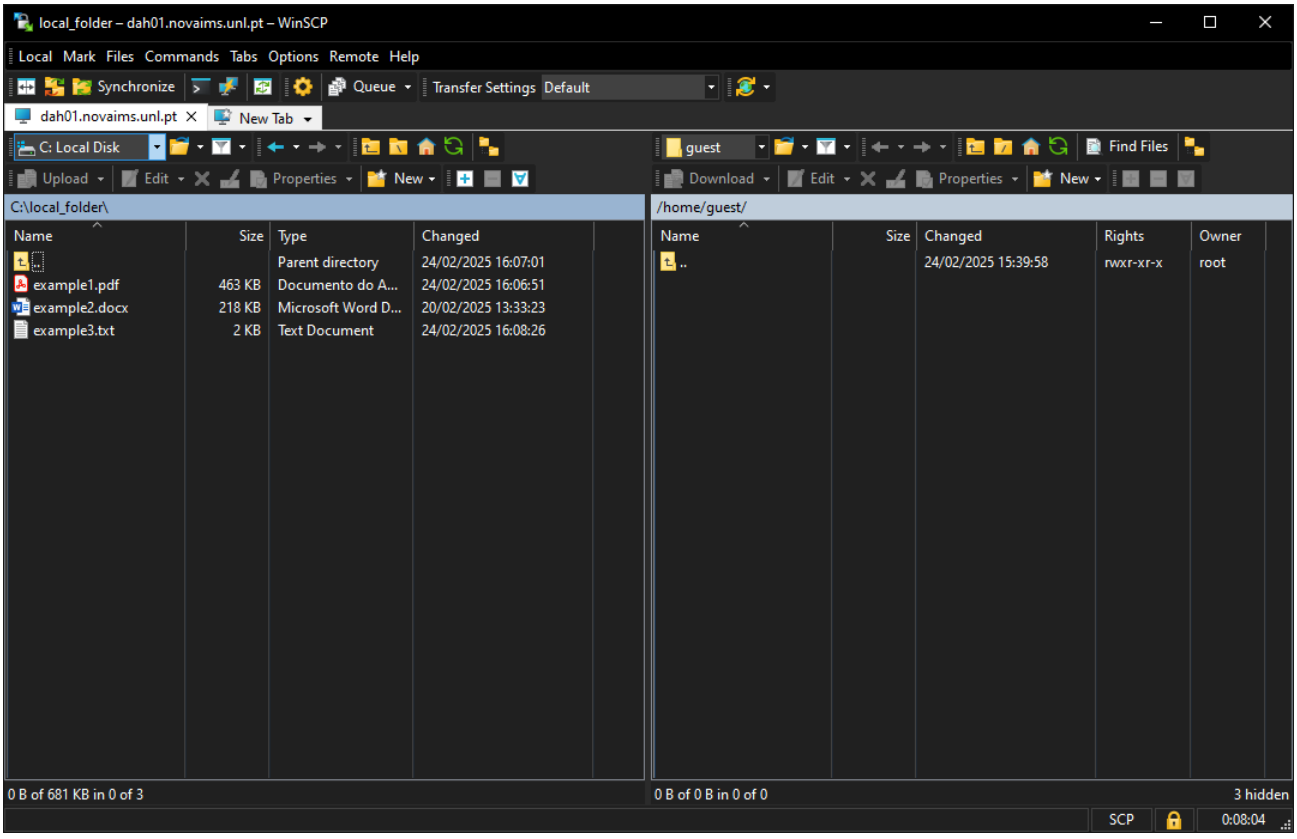
13. After successfully connecting you will then find a window with 2 explorers, the **left** one being your **local** computer and the **right** one being the **remote** server.



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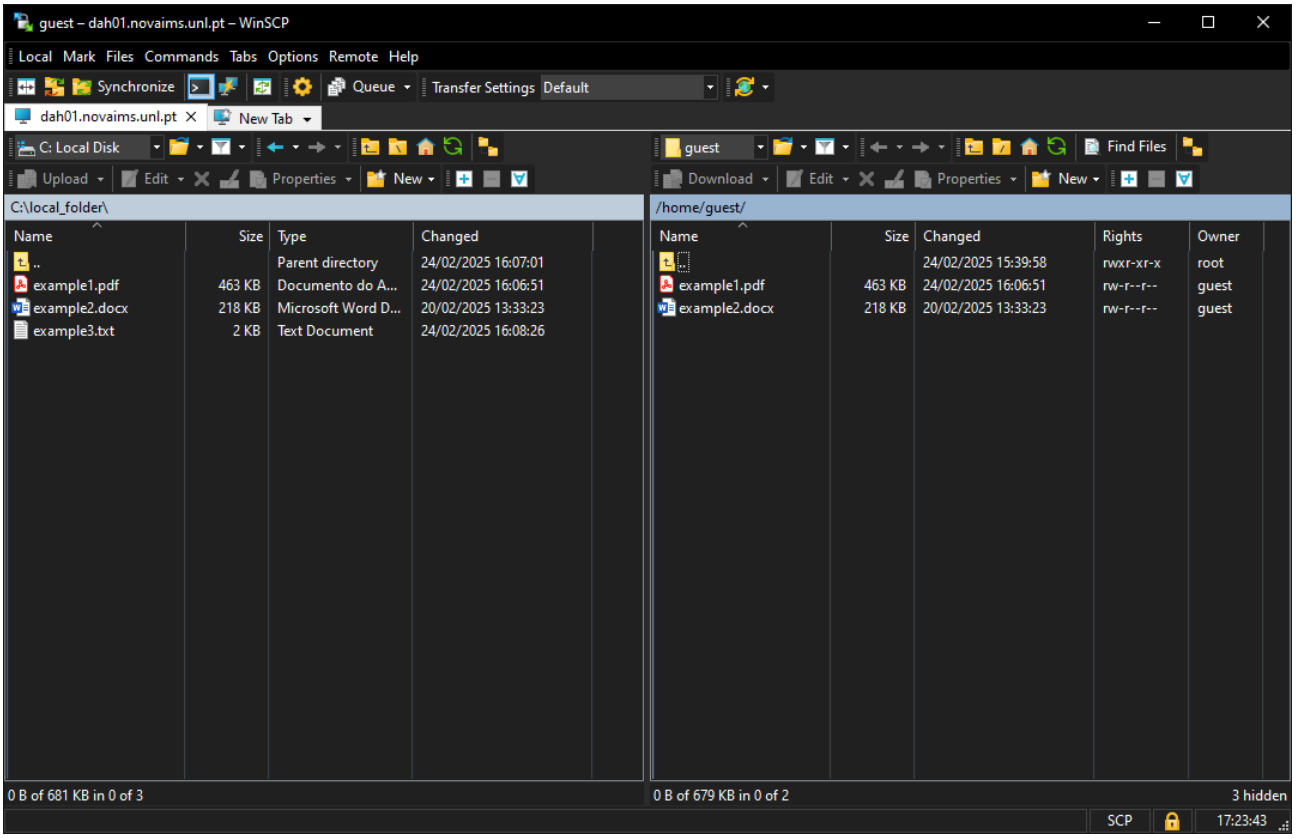
14. You can simply **drag and drop** (or copy-paste) one or multiple files from one side to another, as deemed necessary



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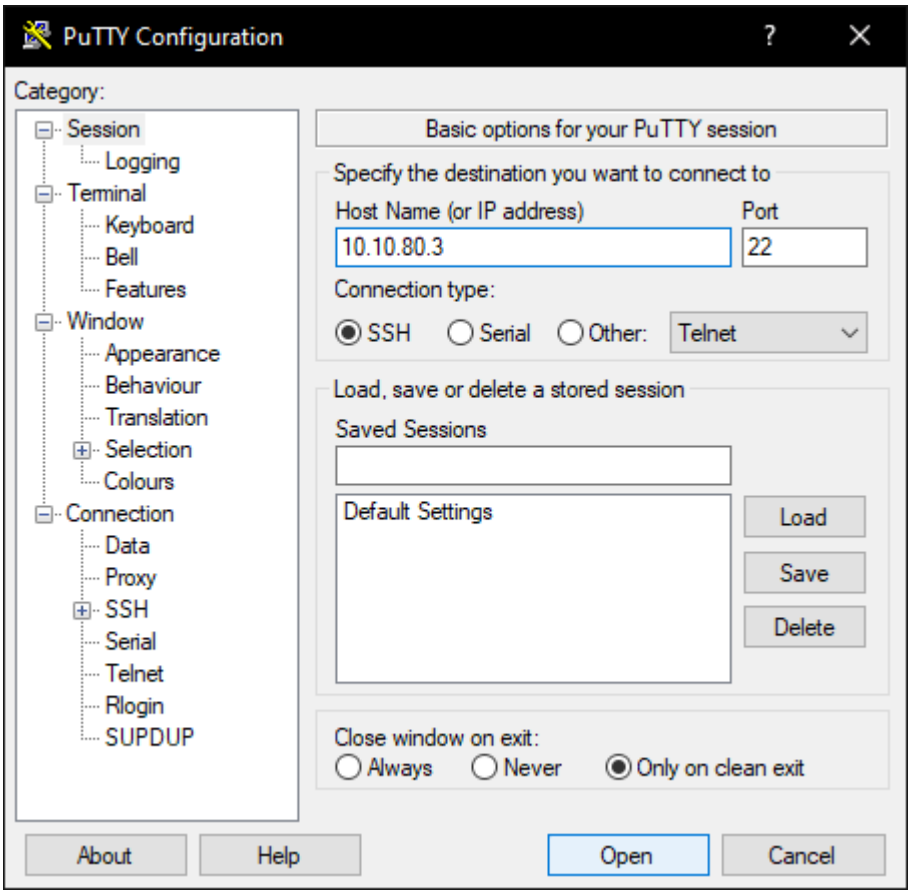
Interact via PuTTY

1. Host Name: **10.10.80.3**
2. Port: 22
3. Connection type: **SSH**
4. Click "**Open**"



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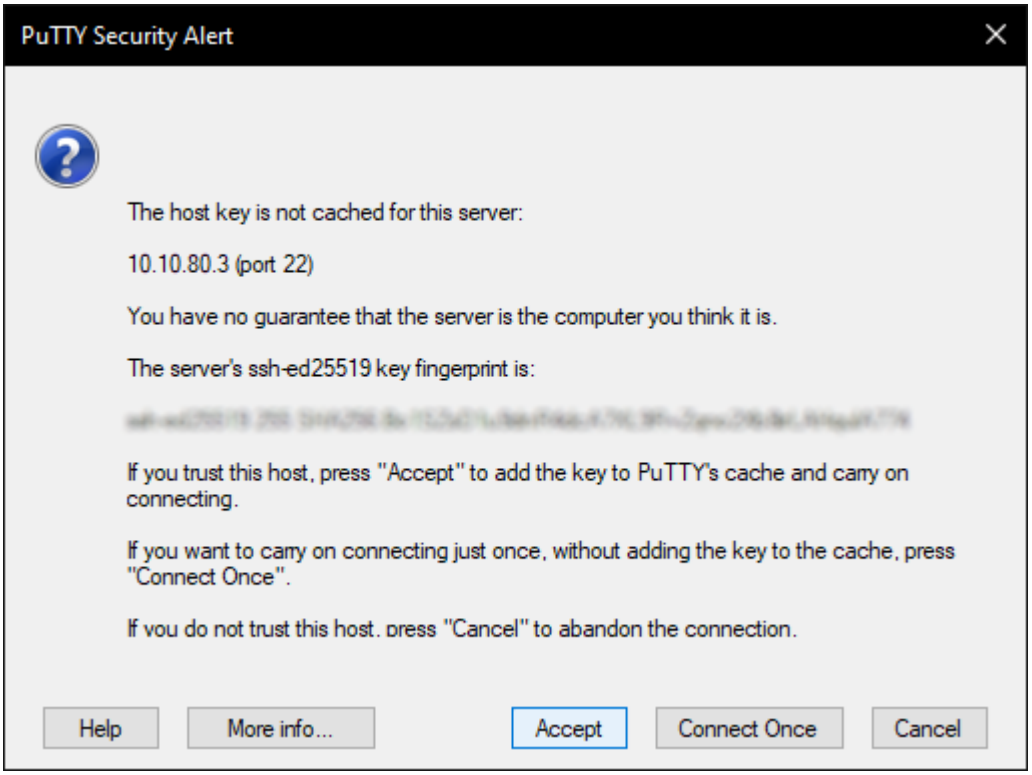
5. If the warning “The host key is not cached for this server” appears on your screen, click “**Accept**”.



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6. Login as: ***[your NOVA IMS username]***

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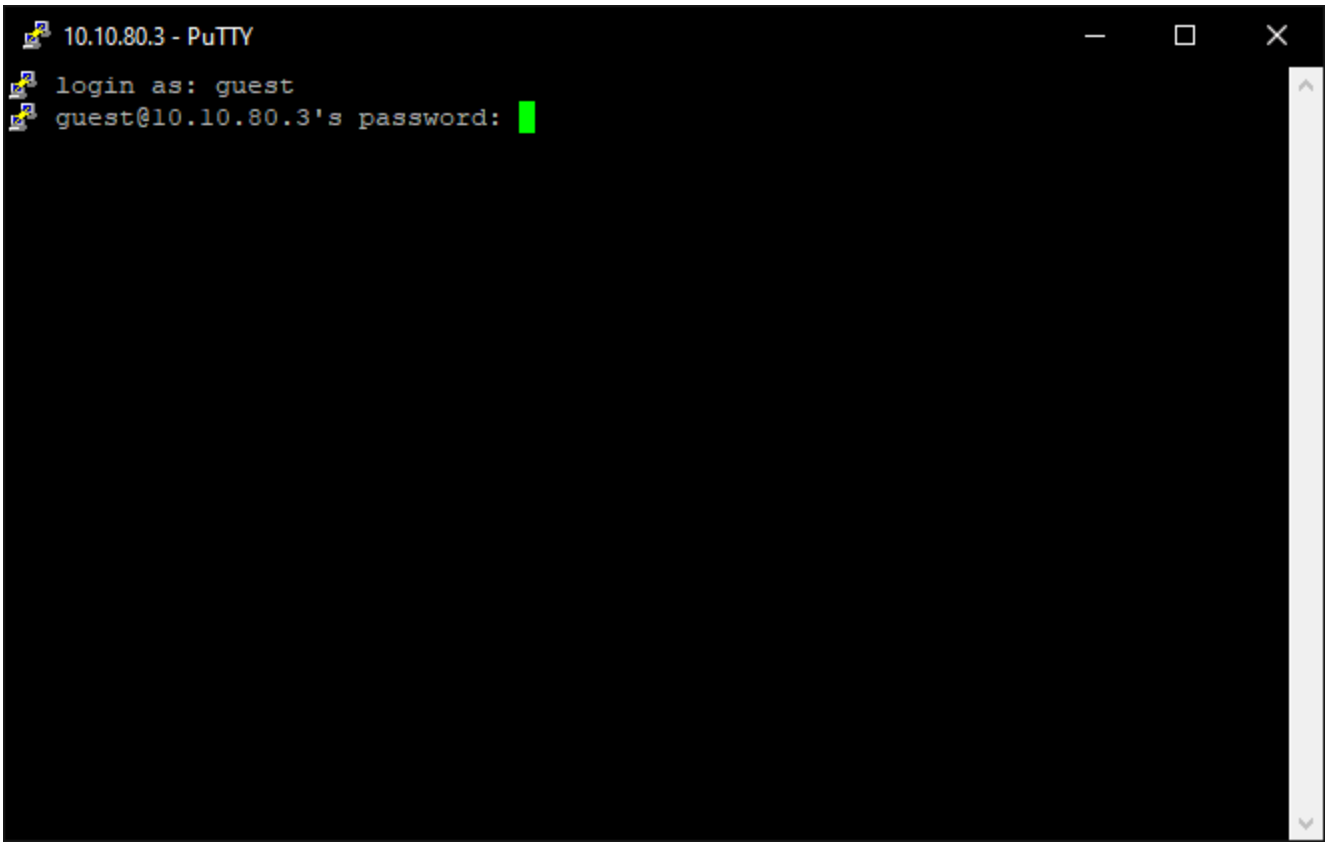
7. [your NOVA IMS username]@10.10.80.3's password: ***[your NOVA IMS password]*** (invisible while typing)



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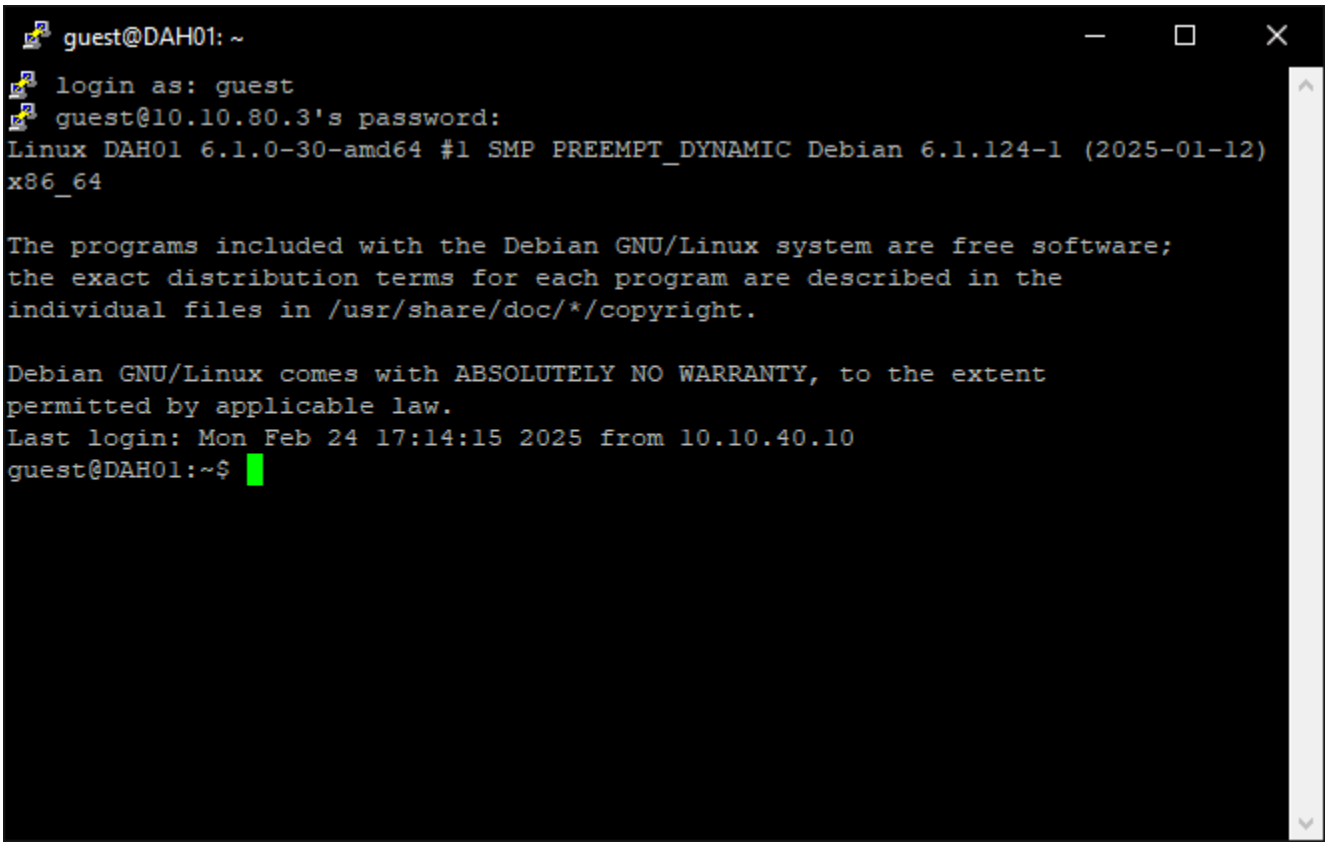
8. You are now successfully connected to the server and **ready** to use it



Python Environment Management with Anaconda on Linux

- **Initialize Anaconda:**
  - Run `conda init bash` in the terminal to configure the environment.
- **Check if Anaconda is installed:**
  - Type `conda --version` in the terminal to verify the installation.
- **Create a new virtual environment:**
  - Command: `conda create --name my_environment python=3.8`
  - Replace `my_environment` with your desired name and `python=3.8` with the version you want.
- **Activate the virtual environment:**
  - Command: `conda activate my_environment`
- **Deactivate the virtual environment:**
  - Command: `conda deactivate`
- **Manage packages:**
  - Install a package: `conda install package`
  - Update all packages: `conda update --all`
  - Remove a package: `conda remove package`
- **Run Python scripts:**
  - Command: `python script.py`
- **Other useful commands:**
  - `conda info`: Shows information about the current environment.
  - `conda list`: Lists all installed packages.
  - `conda search`: Search for available packages in the Anaconda repository.

Launching a Process in the Background with *nohup*

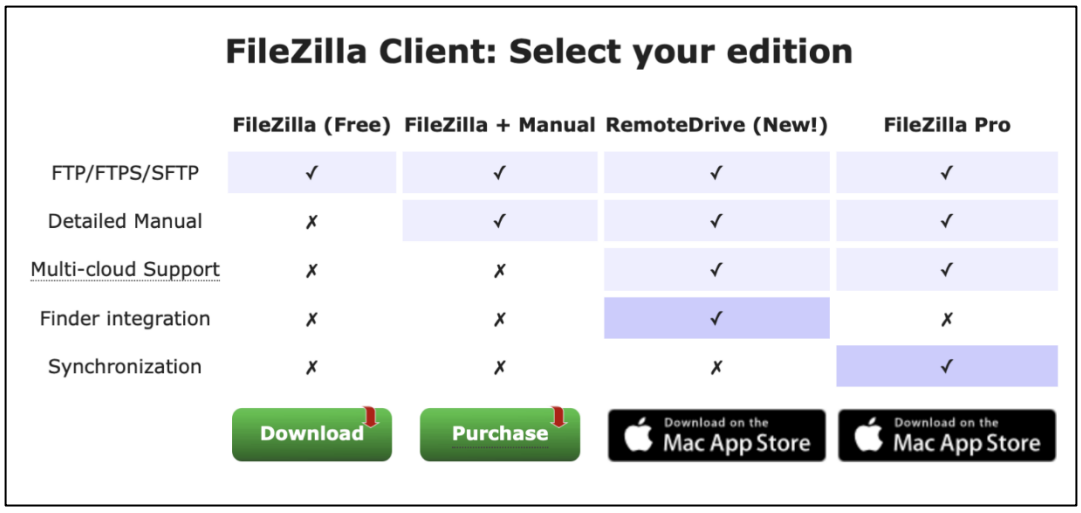
- **Run a command in the background:**
  - Command: `nohup python my_script.py &` (runs the script and returns to the command prompt).
- **Verify the Process ID (PID):**
  - Command: `ps -ef` or `ps -ef | grep my_script.py` (lists all running processes and shows respective PIDs).
- **Recover a process:**
  - Command: `nohup -p <PID>`
  - Example: `nohup -p 1234` will recover the process with PID 1234.
- **Stopping a background process:**
  - Command: `kill <pid>`
  - Replace `<pid>` with the PID of the process you want to stop.
- **Notes:**
  - Be cautious when using `nohup` to avoid running incorrect commands.
  - Always verify the PID before recovering or stopping a process.

FileZilla Client Installation Tutorial

1. Download **FileZilla Client**: https://filezilla-project.org

2. Choose the **FilleZilla Client** version, according to your Mac's processor architecture (**Apple Silicon** or **Intel**).
(for more detailed instructions on how to check this step access: https://support.apple.com/en-us/116943)

3. Select the option **FilleZilla (Free)** and click "**Download"**.



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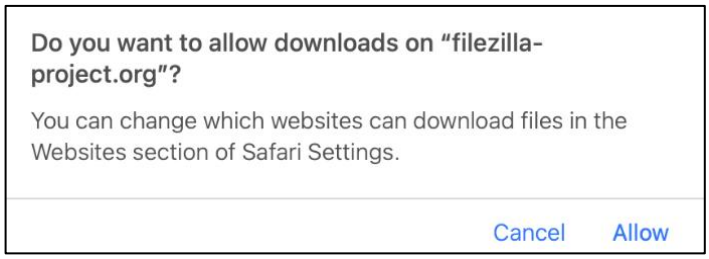
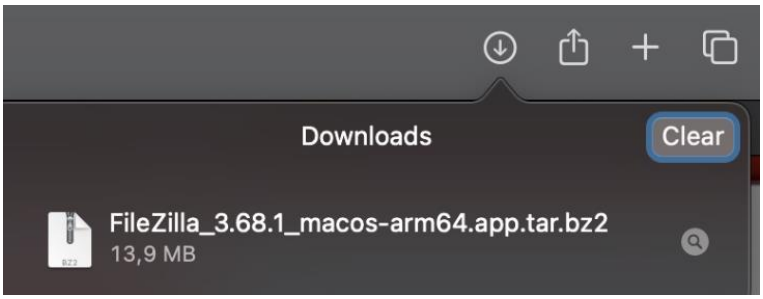
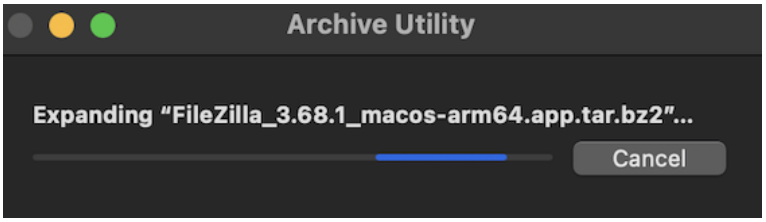
4. If prompted to allow downloads, click "**Allow**"



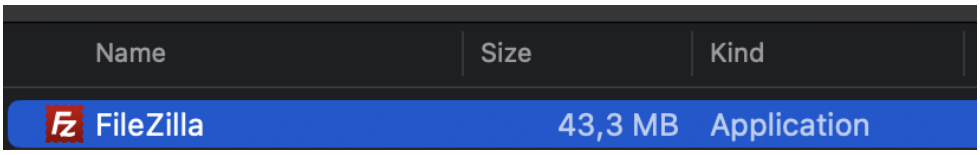
5. Double click on the **downloaded file**.



6. **Wait** until it finishes **expanding** the file.



7. Open **downloads folder** and double click on the **application**.



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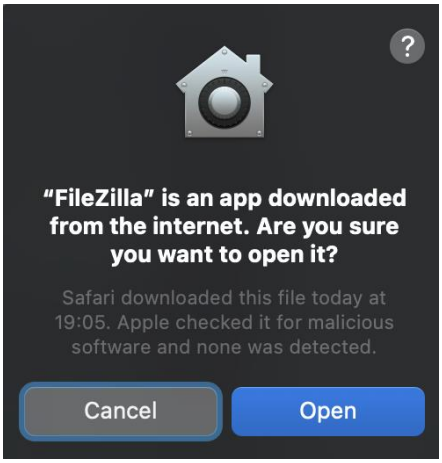
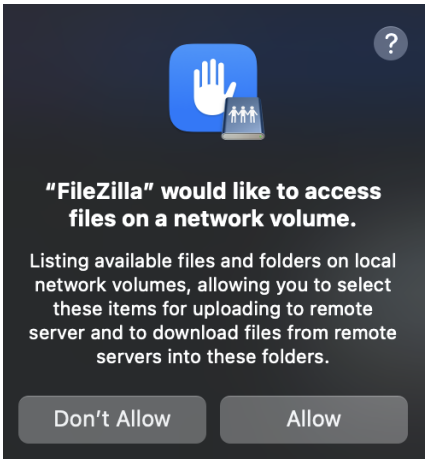
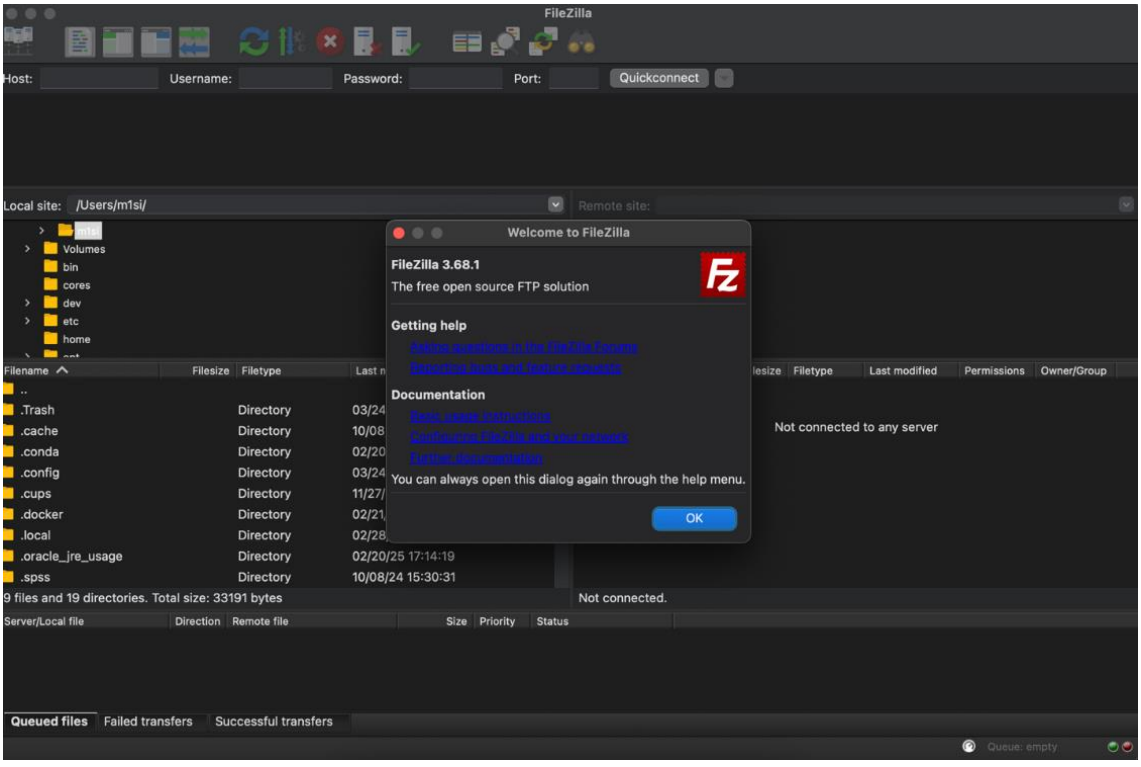
8. Click “**Open”** and then click “**Allow”**.





9. You can close the “welcome message” by clicking “**OK”**.



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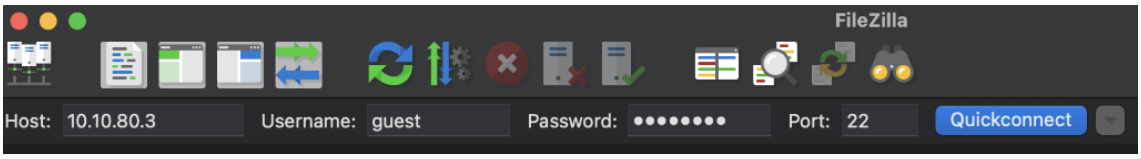
10. Connect to the **server**:

- Hostname: **10.10.80.3**
- Username: ***[your NOVA IMS username]***
- Password: ***[your NOVA IMS password]***
- Port: ***22***
- Click "**Quickconnect**"



11. Choose the option "**Save passwords**" and then click "**Ok**".

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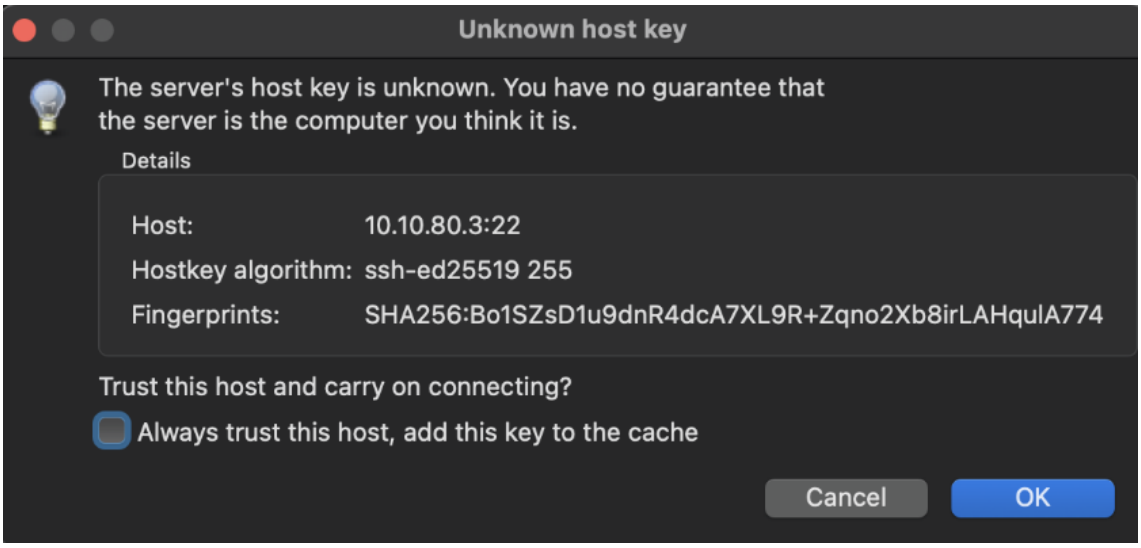
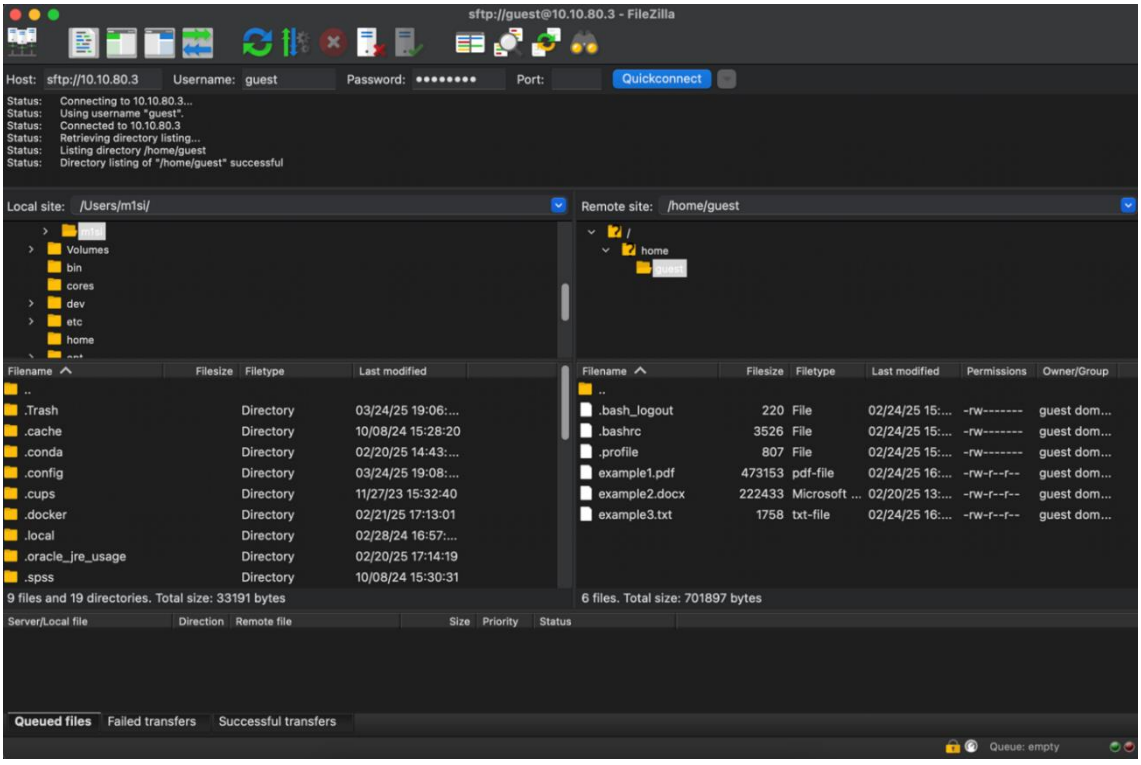
12. If the warning “The server’s host key is unknown” appears on your screen, check the option “**Always trust this host, add this key to the cache**” and then click “**Ok**”



15. After successfully connecting you will then find a window with 2 explorers, the **left** one being your **local** computer and the **right** one being the **remote** server. You can simply **drag and drop** (or copy-paste) one or multiple files from one side to another, as deemed necessary



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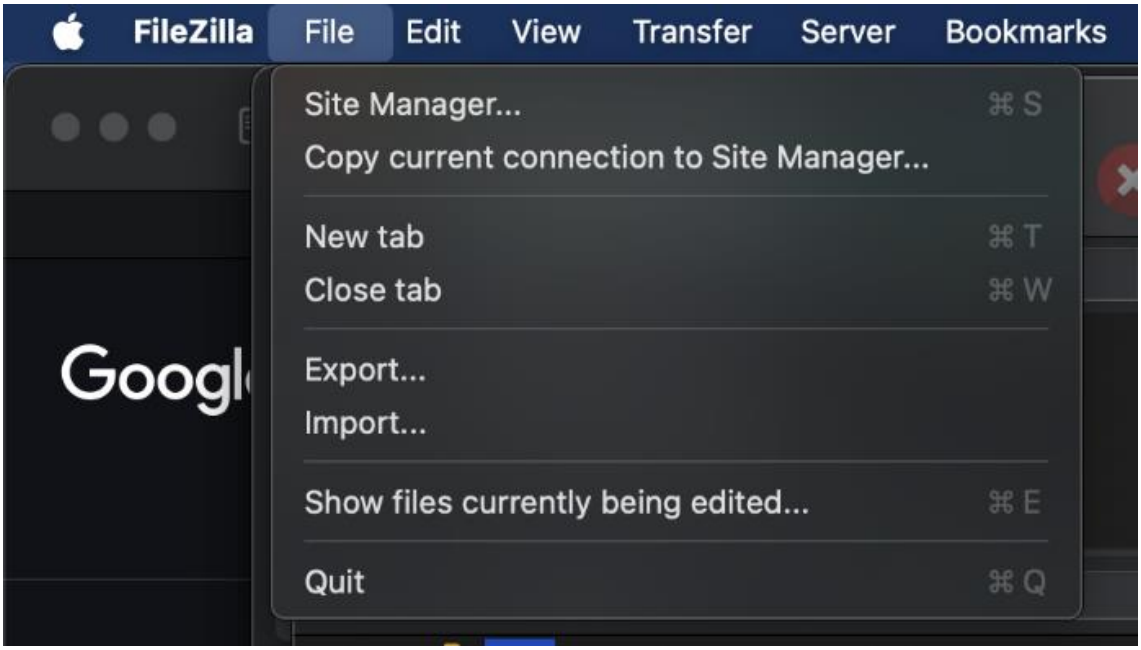
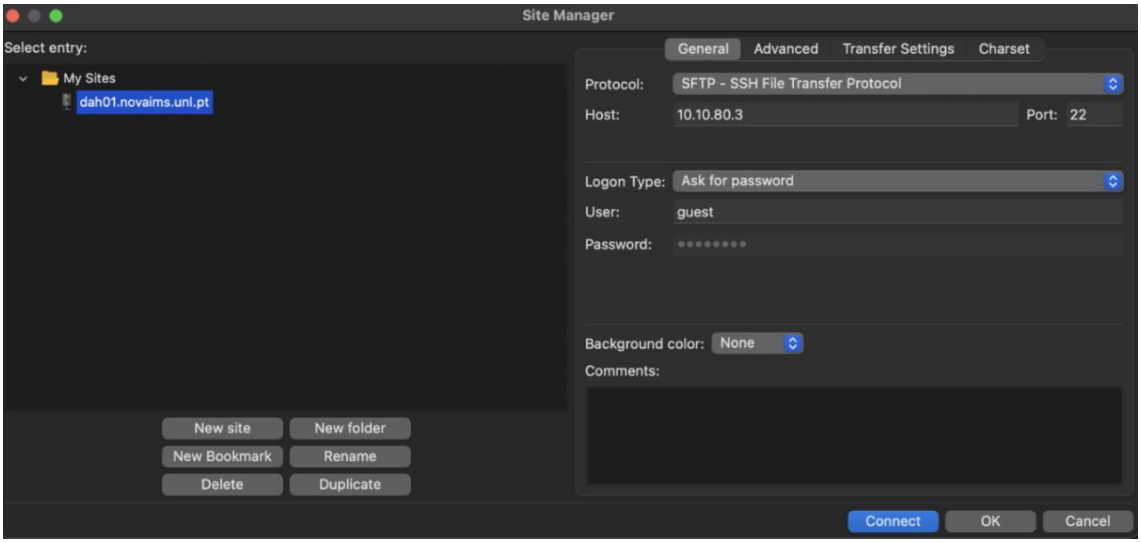
13. To save the server connection click "**File**" and then "**Copy current connection to Site Manager…**"



14. You are now successfully connected to the server and **ready** to use it



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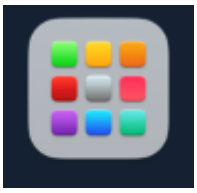
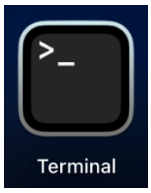
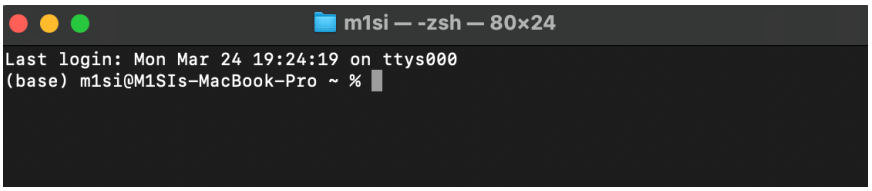
Interact via Terminal

1. Start **Launchpad** & open **Terminal**.

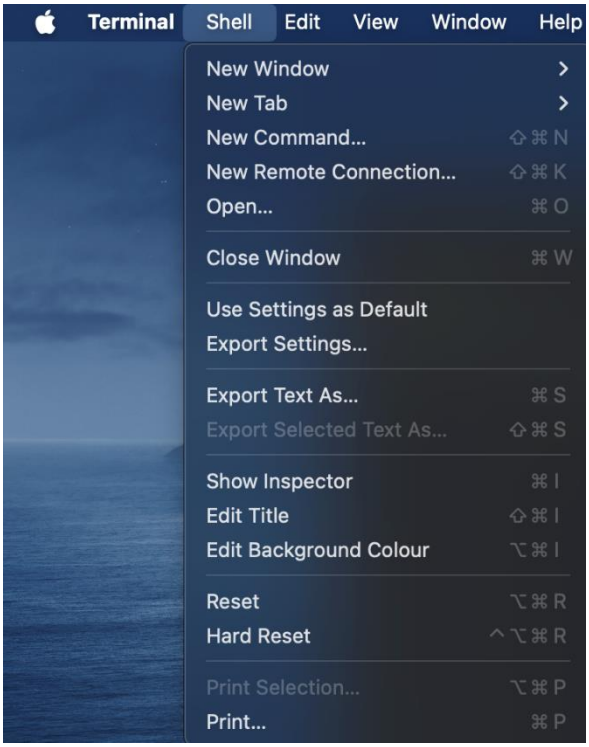




2. The terminal will open with **base** environment



3. On the **Terminal's menu** click "**Shell"** and then click "**New Remote Connection…"**



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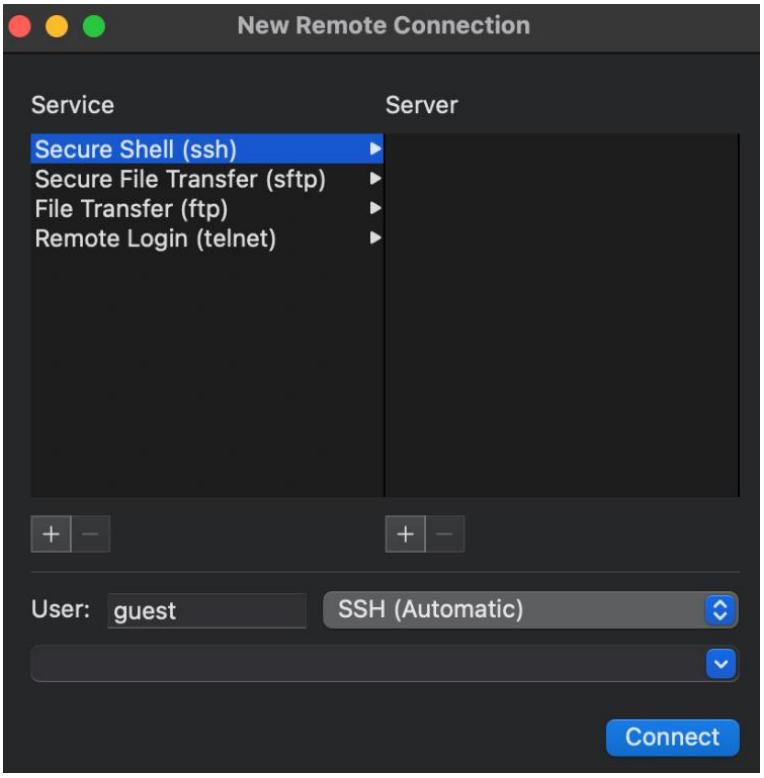
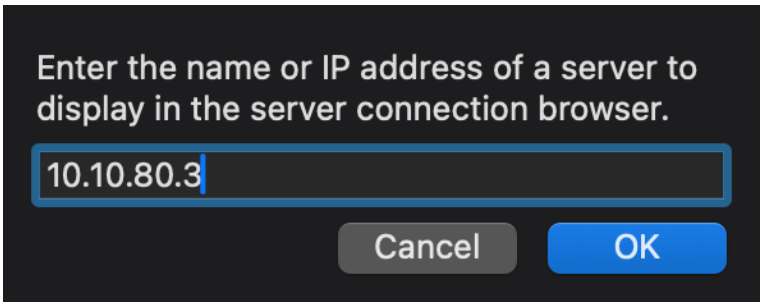
4. Connect to the **server**:

   - Service: **Secure Shell (ssh)**
   - Username: ***[your NOVA IMS username]***
   - SSH: ***(Automatic)***
   - Server: **Click "+"**



5. Enter the address **10.10.80.3** and click "**OK**"



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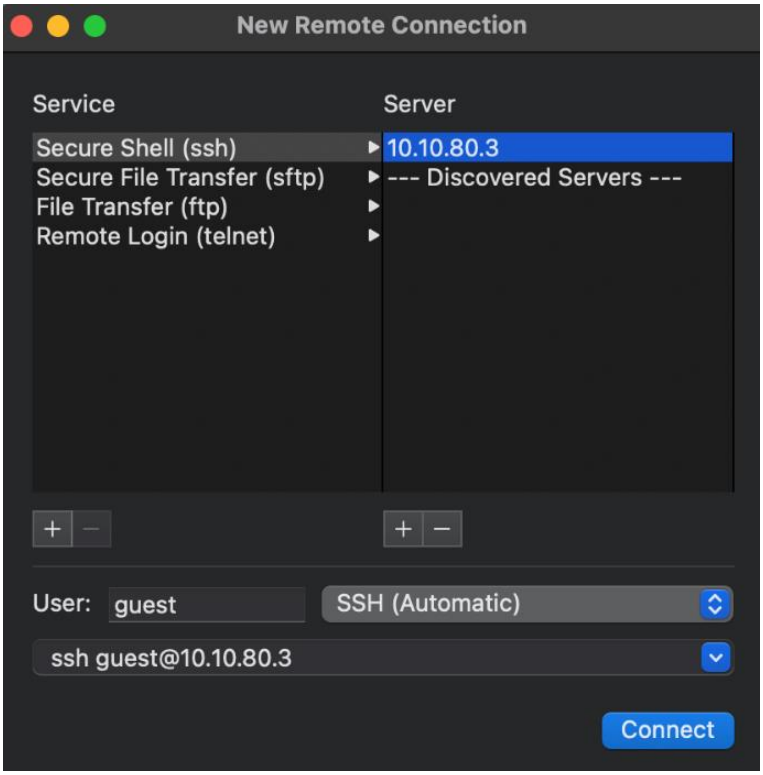
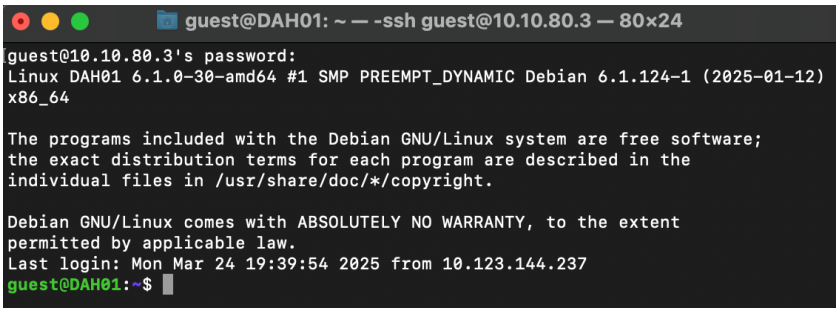
6. Click **Connect**



7. When prompted if "Are you sure you want to continue connecting" type "**yes**", click **enter** and then type **your NOVA IMS password** to connect to the server.

8. You are now successfully connected to the server and **ready** to use it



Environment setup for Jupyter Notebook Server

Make sure you are connected through **SSH to the server 10.10.80.3 .**

1. **Create a new virtual environment:**
   → Command: `conda create --name my_environment python=3.8`
   → Replace `my_environment` with your desired name and `python=3.8` with the version you want.

2. **Activate the virtual environment:**
   → Command: `conda activate my_environment`

3. **Install the kernel by running:**
   → Command: `conda install ipykernel`

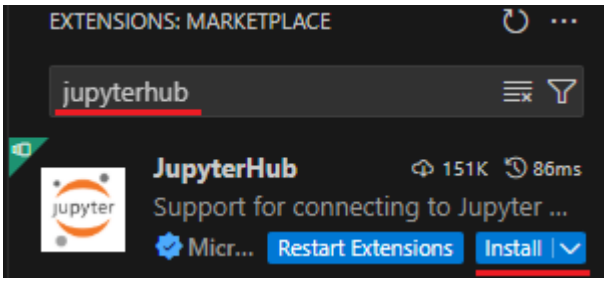
4. **Prepare Kernel for JupyterHub:**
   → Command: `ipython kernel install --user --name=my_environment`
   → Replace `user` with your username and `my_environment` with your desired name

5. **Access to JupyterHub Server** https://jupyterhub.novaims.unl.pt to verify that everything is working correctly.

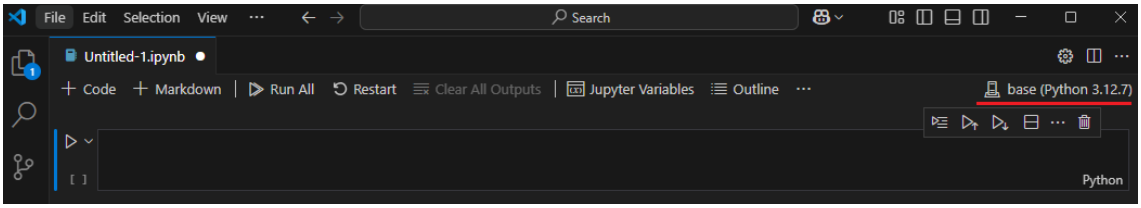
Configure VSCode with Jupyter Notebook

Make sure you are connected through **SSH to the server 10.10.80.3 .**

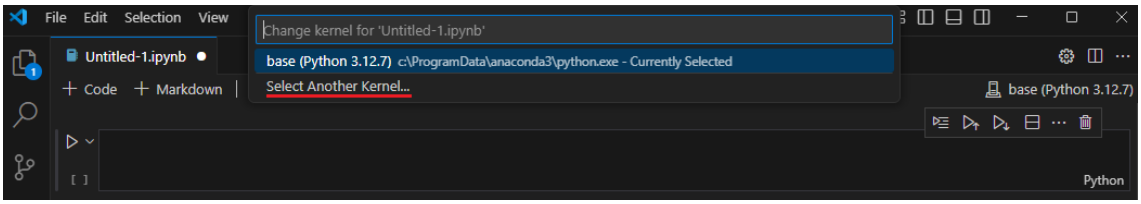
1. **Open VSCode** and Install **JupyterHub Extension.**



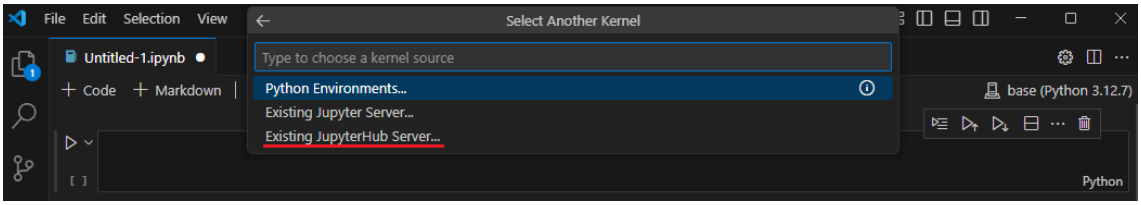
2. **Open Kernel Selector** by clicking on the kernel selector in the top right corner of the notebook.



3. Select the option "**Select Another Kernel...**"



4. Select the option **Existing JupyterHub Server....**



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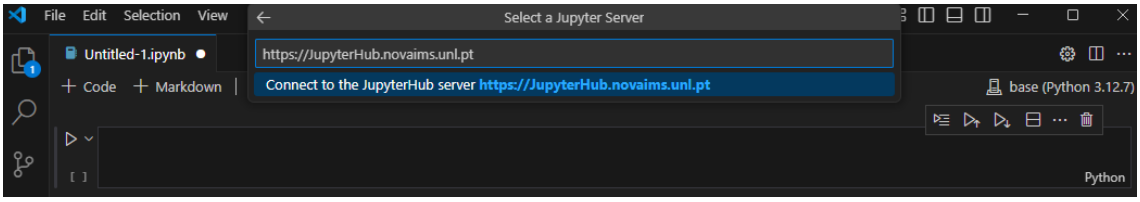
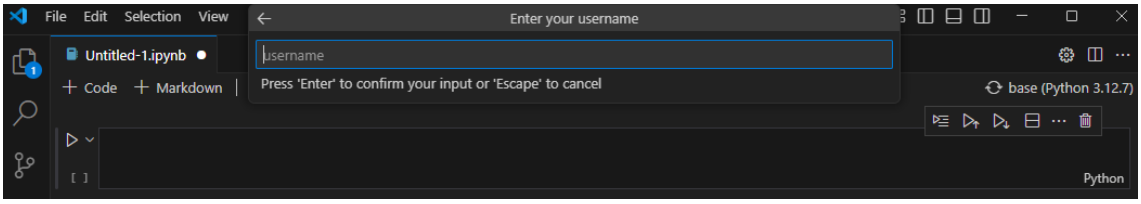
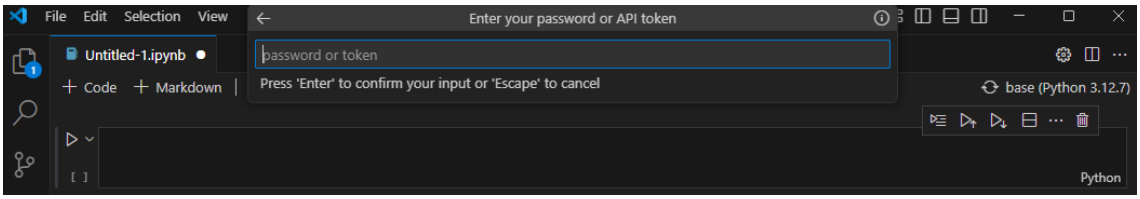
5. Follow the prompts to enter the **URL** of the JupyterHub server (https://JupyterHub.novaims.unl.pt).



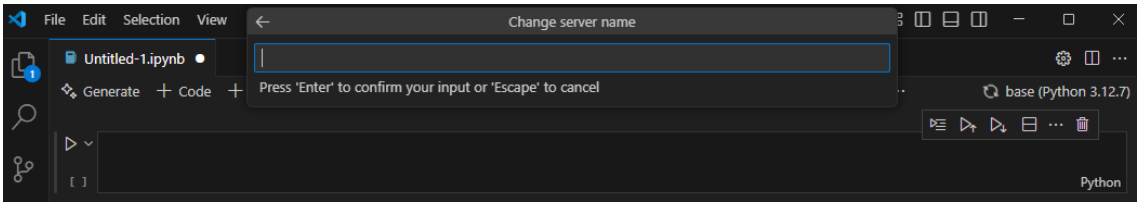
6. Enter your NOVA IMS**username**.



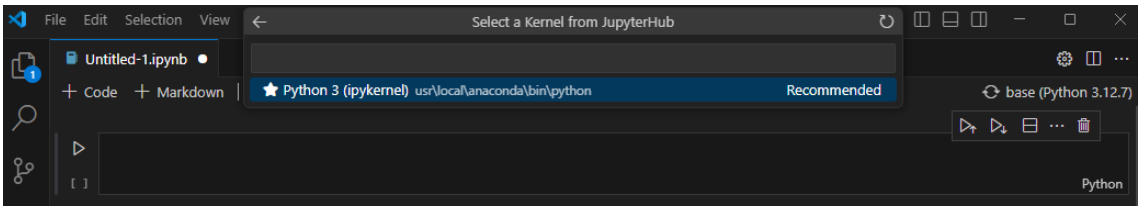
7. Enter your NOVA IMS **password** or an **API token**.



8. Choose a **server name**



9. Select **Kernel** and **Start Coding**.



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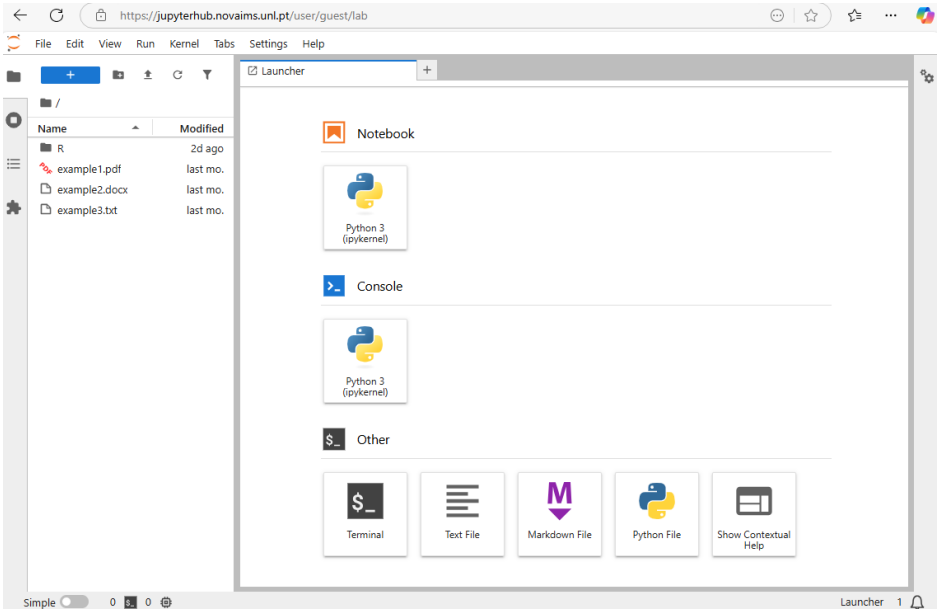
10. You can also check it via browser through: https://jupyterhub.novaims.unl.pt/



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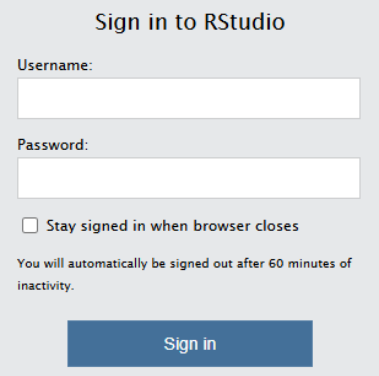
RStudio

This is a free version so it will certainly have some limitations compared to the professional version.
For starters, it does not create the working directory on the first login.
To work around this issue, you should, before using it, perform an interactive **SSH login** to the host **10.10.80.3** .
This interactive login once done will create the working directory and from then on you can start using **RStudio**:

1. Access to https://r.novaims.unl.pt

2. Login with your Nova IMS credentials.



3. After logging in, you will have the R IDE available in the browser.