VLAB UNIPD

Summary

VLAB Intro

This document summarizes the methods of access to the virtual laboratories foreseen by the VLab project, promoted by the School of Engineering of the University of Padova. The virtual laboratory is a remote space (a virtual machine) that you can access using your computer. All the necessary software for the courses and some disk space are already available in the remote laboratory.

These are the steps to carry out to make a connection to the VLab.
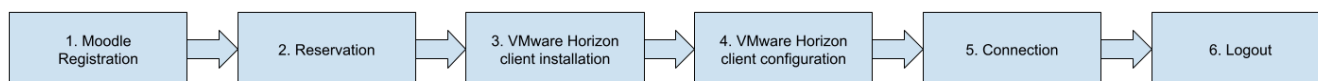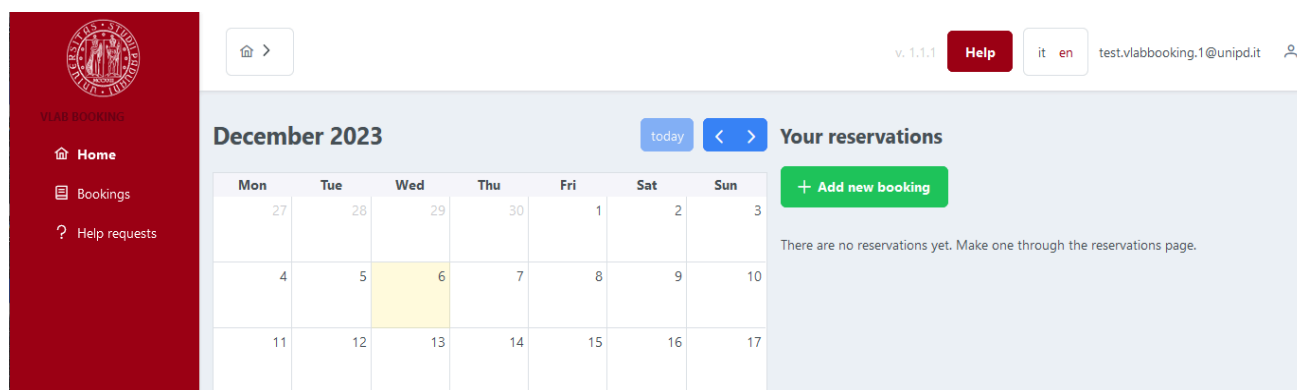
1. Registration in Moodle

Before you can use the VLabs it is **mandatory to register** on the Moodle page of the department to which your degree course belongs or on the pages of the respective Moodle courses.
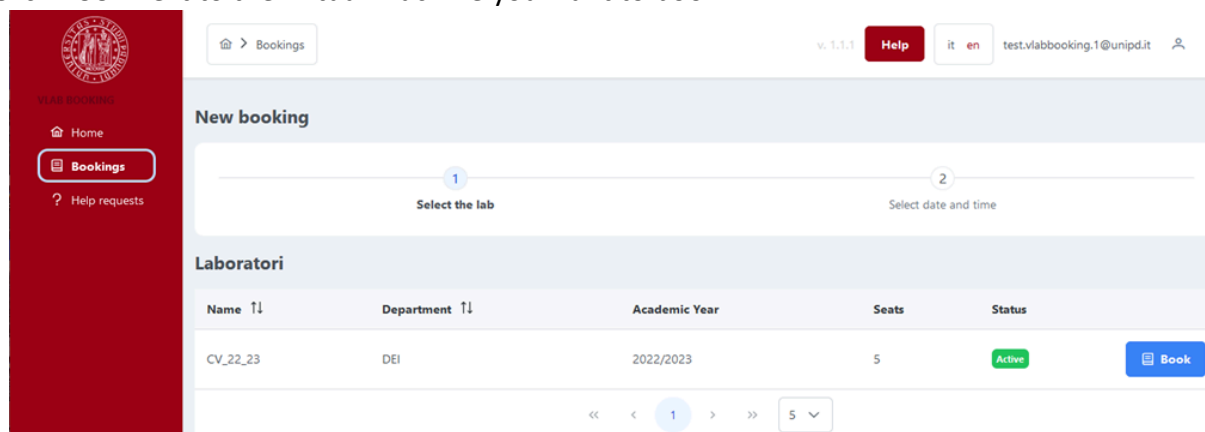
2. Vlab booking

During the teaching activities carried out in classroom, the reservations are typically carried out by the instructor, therefore no action is required from the student. You can then move on to connection section.

When students want to independently use the virtual laboratories (for example to carry out exercises at home), **they must make a reservation** using the following steps:
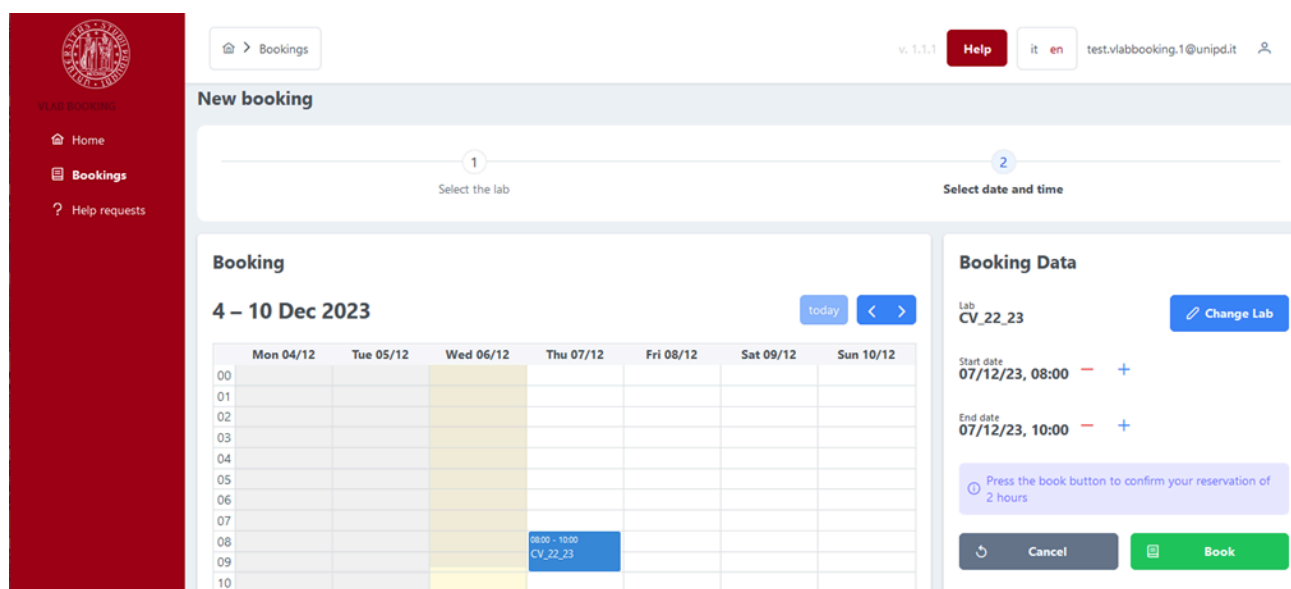
1. Connect to the website https://vlabbooking.vdi.ict.unipd.it and insert the SSO access credentials of the university. The reservations made by the instructor (not modifiable by the student) for teaching activities carried out in the classroom are visible in the calendar.

2. Click the voice **Bookings** in the vertical menu on the left, or click the green button **Add new reservations.**

3. In the page **New bookings,** a list of virtual machines available for each laboratory is visible. Click **Book** next to the virtual machine you want to book.

4. Select a time slot from those available in the calendar (hold down the left mouse button to select contiguous time slots): in the **Booking data** box, it is possible to adjust the actual duration of the reservation with a precision +/- 15 minutes.

5. Press **Book** to confirm or **Cancel** to reset the reservation.
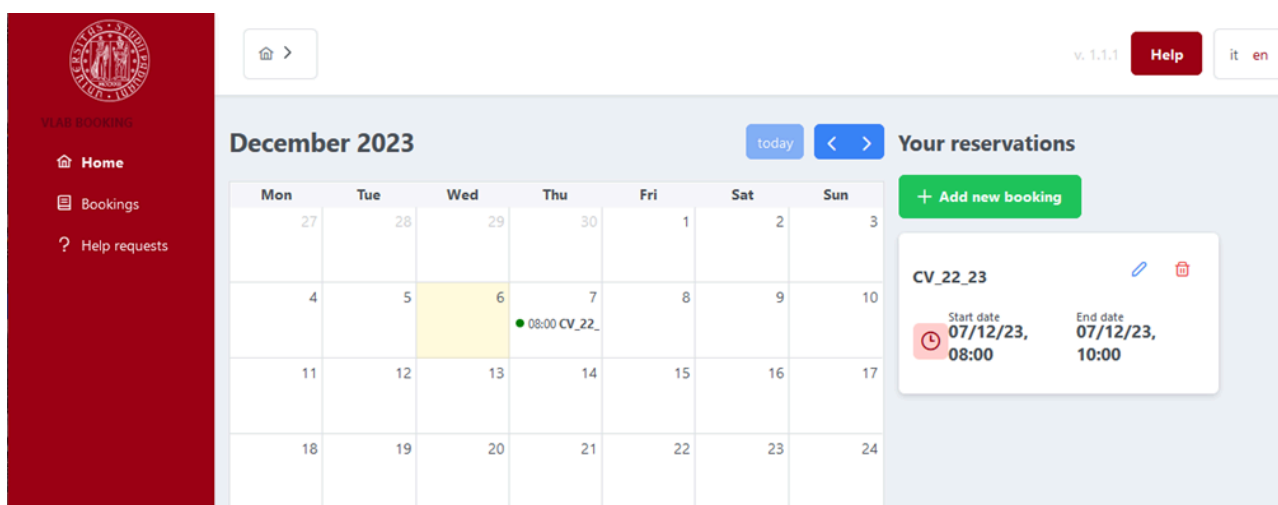
6. After confirming the reservation, the main page shows the reservations made.
7. To edit a reservation, click the pen icon in the **Your Reservations** pane, or directly click the reservation in the calendar and then click **Edit** and make the desired corrections.


8. Now that you have made your reservation you can proceed with the client installation.

3. Client Installation

In order to access the VM, **you must first install Omnissa Horizon Client**, according to the following instructions (if you have already installed the client, skip this step):

1. Visit the web site *https://vlab.vdi.ict.unipd.it*
2. Click **Install VMware Horizon Client**.
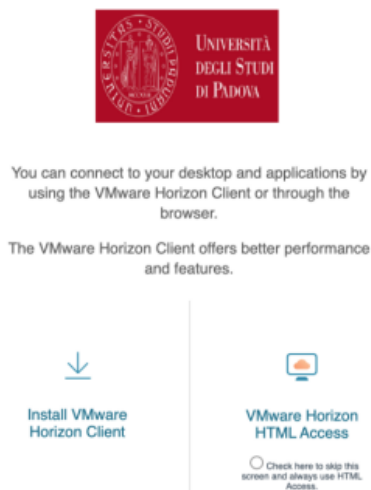
3. If you use Windows or MacOS/iOS, the respective executable to install will automatically appear. For Linux and Android, you will need to choose the type of installer as shown in the following screen.


4. Select the latest version (this is the default choice) and click **Download** to start downloading the client.
5. When the download process finishes, install the **Omnissa Horizon client.** This process depends on your platform (Windows/Mac/Linux); if asked, accept the default values to finish the installation process.
6. If you are prompted to restart your system, do it now.

4. Omnissa Horizon client configuration

After the client is installed in your pc, **you have to configure the Omnissa Horizon Client** (if you already configured the client, skip this step):

a. Start **Omnissa Horizon Client**.
b. Click **Add Server** (or **New Server**).

Windows   macOS   Linux
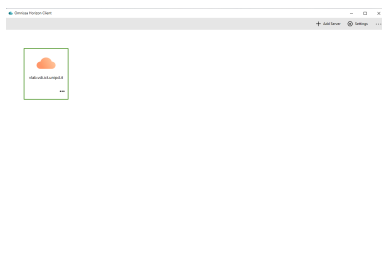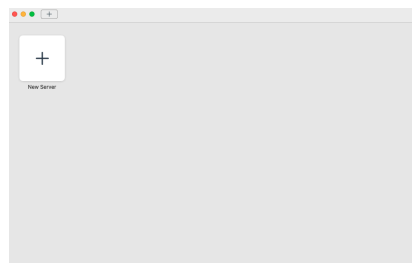
c. Enter the name of the connection server ***vlab.vdi.ict.unipd.it*** then click **Connect**.

Windows   macOS   Linux
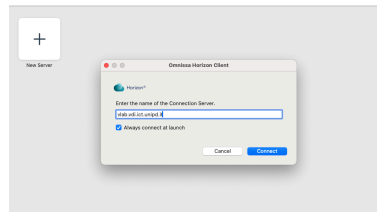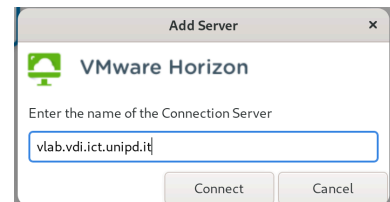
d. Fill in the **Username** field with your institutional email address (@unipd or @studenti.unipd.it) and fill in the **Password** field with your email password and then click **Login**.

Windows   macOS   Linux

5. Connecting to the virtual machine

Double click on the name of your VLab to access one of the available virtual machines;

A Windows or Linux virtual remote desktop appears: now you can start using the software required for your lab! When you are finished, please shutdown (or restart) the virtual machine. Please note that your personal data will not be deleted; you can use up to 10 GB. You will find them next time you make another connection to the virtual machine.
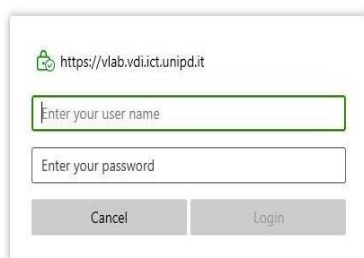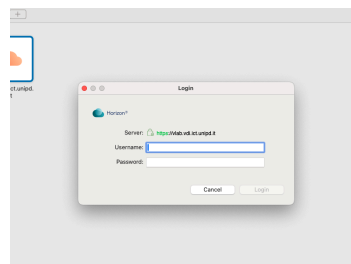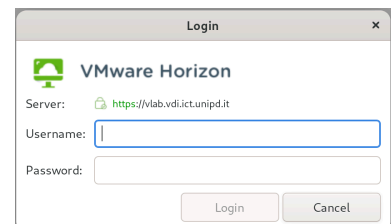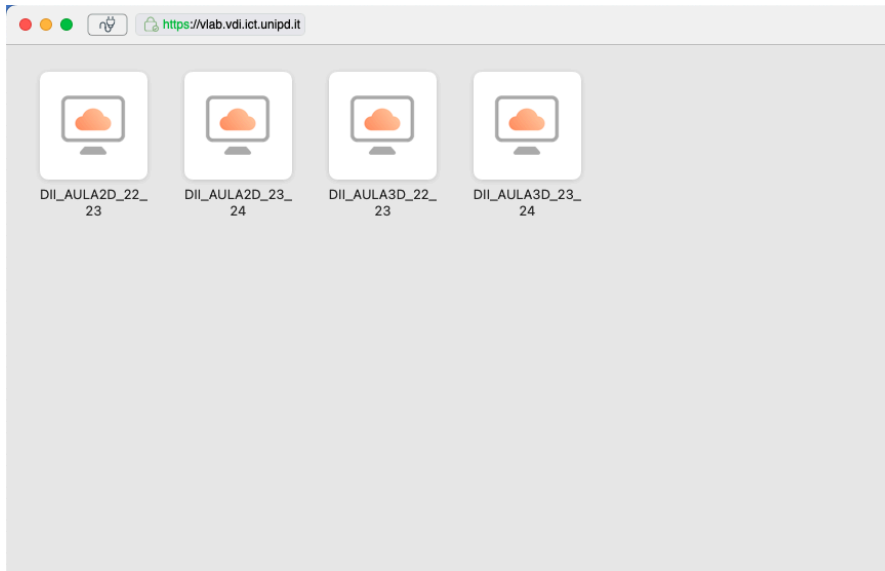
Additional comments for virtual desktops with Windows:
- For some virtual machine with Windows, it might appear a message asking whether you want to allow the drive sharing. By clicking on "Allow", you have access to a folder "Z", useful to share files between the VM and your own compute.
- You can exchange files between the VM and your own pc, either:
    a. by a single "drag & drop" between the two windows.
    b. using the Z folder available under the icon "This pc" in the VM desktop.

Additional comments for virtual desktops with Linux:
- You might be asked to login with your SSO account again.
- Please note that the default keyboard layout might not match your keyboard; for some installations, you might change the layout at login time by clicking on the top-right icon with the current layout (e.g. "US").

6. Recommended Usage Guidelines

Once logged in, users will find on the desktop, in addition to links to any installed software, two shortcuts: **Documents** and **Temporary Working Area**.

The **Documents folder is persistent, meaning that files stored within it are retained between work sessions**.

The **Temporary Working Area folder is not persistent, meaning that files stored in it are DELETED at the end of each work session**.

It is **strongly recommended to save your data/simulation/exercise files in the Documents folder at the end of the session** rather than in other folders (e.g., the Desktop). This way, your documents will be accessible from any type of vlab and operating system.

The **Temporary Working Area folder** should be used during activities/simulations within virtual machines, as it offers better read/write performance compared to the Documents folder. Therefore, it is necessary to configure software to use this folder.

At the end of your activities, remember to copy any data/files/simulations back into the **Documents folder to avoid data loss**.

Please **note that the total user disk quota is 20GB**.

7. Cancel a reservation

It is not possible to independently cancel a current reservation, if the reservation is for a few hours, it is possible to let it expire, otherwise please open a support request.

It is possible to proceed with the cancellation of future reservations, this to free up the resource and make it available to other potential students. Cancellation can be done in two ways: by clicking the trash icon in the Your reservations box, or by clicking the reservation directly in the calendar and then Remove.
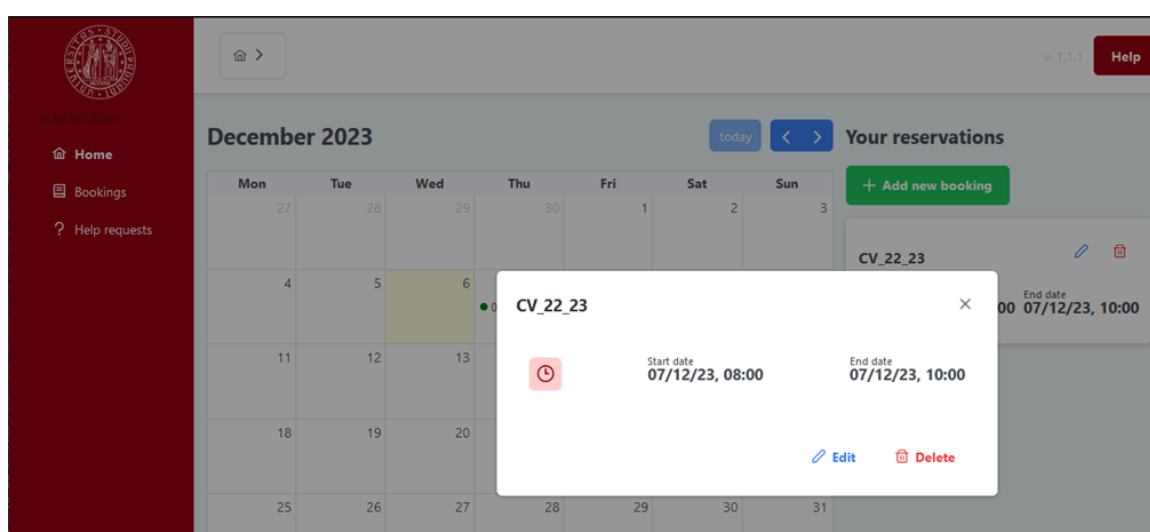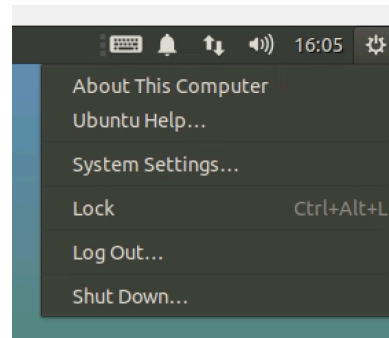
8. Disconnect from the virtual machine

If you no longer need the VM, disconnection is recommended to free up the resource and make it available to other potential students.
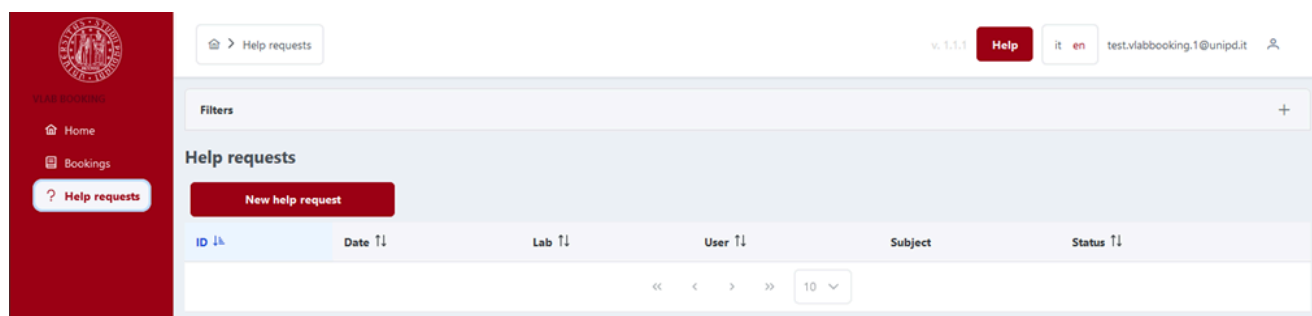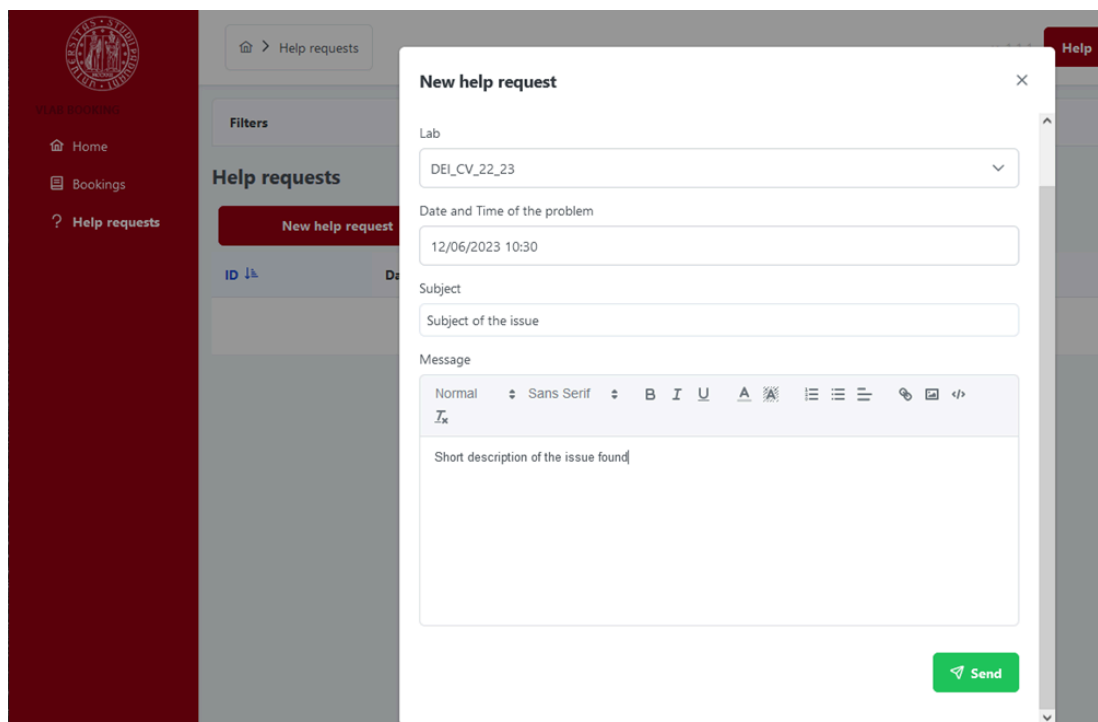
VLab with Windows
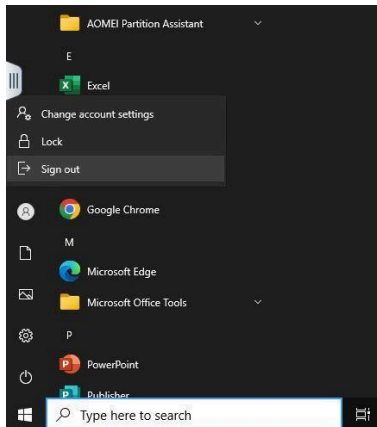
VLab with Linux

9. Support request

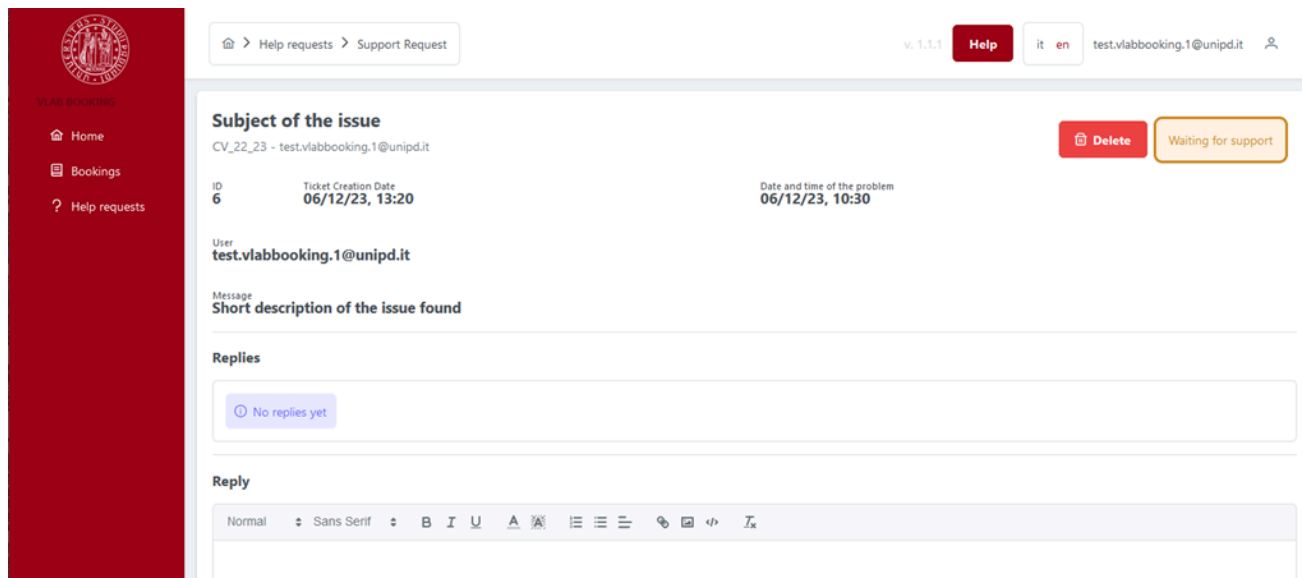# Note. This is the only procedure for making a support request.

1. In the main page, click on **Support requests** in the menu on the left, or click on the red button **Support**.
2. In the support request page, click on the red button **New support request**.

3. A new box opens: fill in all the requested information. It is important that you fill in the **Laboratory** and **Problem date and time** fields to enable technicians to effectively address the problem. Click on **Submit** to complete the request.

4. After making the request you will see the details of the request, with evidence of the status it is in (in this case **Waiting for support**). The **Replies** field will display future responses from technical support: if necessary, the user can provide additional information using the **Reply** field. As long as a support request is not being considered by technicians, it is possible to delete it by pressing **Delete** (option not available after entering a replication or response).
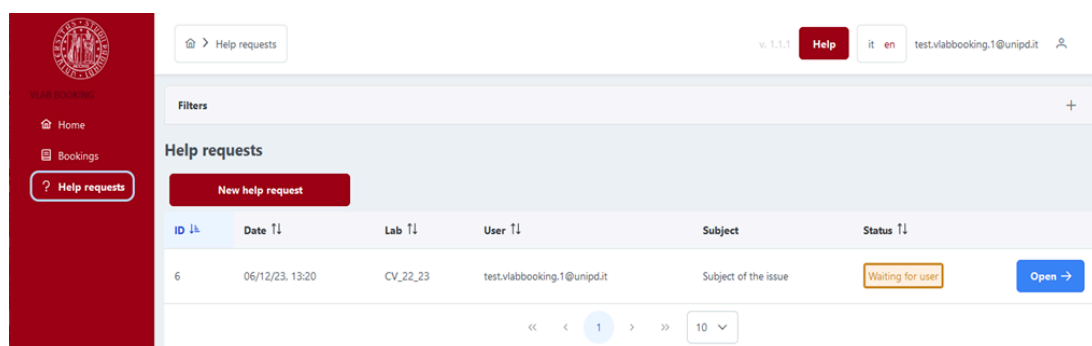
5. Replies by the technicians and updates will be notified via email. You also be able to see the status of the request at any time on the **Help Requests** page. Provide the requested information when the status is **Awaiting user response**.

10. F.A.Q.

D: I'm trying to log in but I receive the message: 'User account has expired'. What should I do?

R: Try changing your email password using this link:

     https://uniweb.unipd.it/password/index.php/en/

Wait about ten minutes and try again.

D: What operating systems are supported for the Horizon client?

R: The supported operating system versions are:

- Windows
- macOS
- Linux

D: I can't book the virtual machine, no bookable labs appear or the message "You are not entitled to use the system" appears. What should I do?

R: Make sure you have signed up on the Moodle page of your Teaching Course and booked a time slot after carefully reading point 5. of this guide.

D: I need to copy files from the virtual machine to my computer and vice versa. What should I do?

R: This is only possible if you have the Horizon client installed. Click on Options -> Share Folders; a panel opens, click on DRIVE SHARING on the right, click on ADD and select the directory on your PC to share, then click on OK. To view the folder, go to "This PC" and finally to the "Network Locations" section.

D: I am using the virtual lab, but the screenshot of the software I am using does not match the screen resolution exactly. What should I do?

R: After starting the Horizon client, click on the Options menu and enable **Allow Display Scaling**, then exit the lab and log back in.

D: I noticed that my simulations are running slowly. What should I do?

R: For the processing of any project it is advisable to copy the files into the **Temporary Working Area** folder as described in point 6. of this guide.