Appendices

Appendix A: User guide

INTRODUCTION

PURPOSE AND SCOPE

The main objective of this manual is to guide teachers through requesting a service in the project implementation in MCHE in order to understand how the web form works and to be clear about the states through which the service passes through until it is ready. This guide clarifies concepts of usability of the web form so as to not cause confusion to the teacher and facilitate the process of requesting the service.

Finally, it is shown how the service is accessed through the web interface with the data sent by mail and also a short manual on how to use a specific service is provided.

OVERVIEW

Without further delay, the structure of the subsequent guide is presented:

1. Accessing the MCHE environment
2. Requesting the service
3. Waiting for the service completion
4. Accessing and using Antidote and Jupyter service
    a. Antidote
    b. Jupyter

WORKFLOWS

To begin with, the main workflows of the user guide will be explained to guide the user in a clear and concise way.

1. Accessing the MCHE environment

To have access to the requested services, you must have a VPN account provided by an MCHE administrator. To do this, if you do not have direct contact with

the administrators, you must contact a teacher leader of the MCHE project who can request the creation of accounts. in the environment. Once access is available, the VPN client is configured and connected to MCHE's internal private network. You should use your conventional web browser and enter the following IP address where the web form is located.

http://172.26.91.18/ or https://172.26.91.18/

At the time of writing this document, if you try to access via HTTPS you will get a screen like the following. Click on 'Advanced' and then click on 'Proceed to ...'.

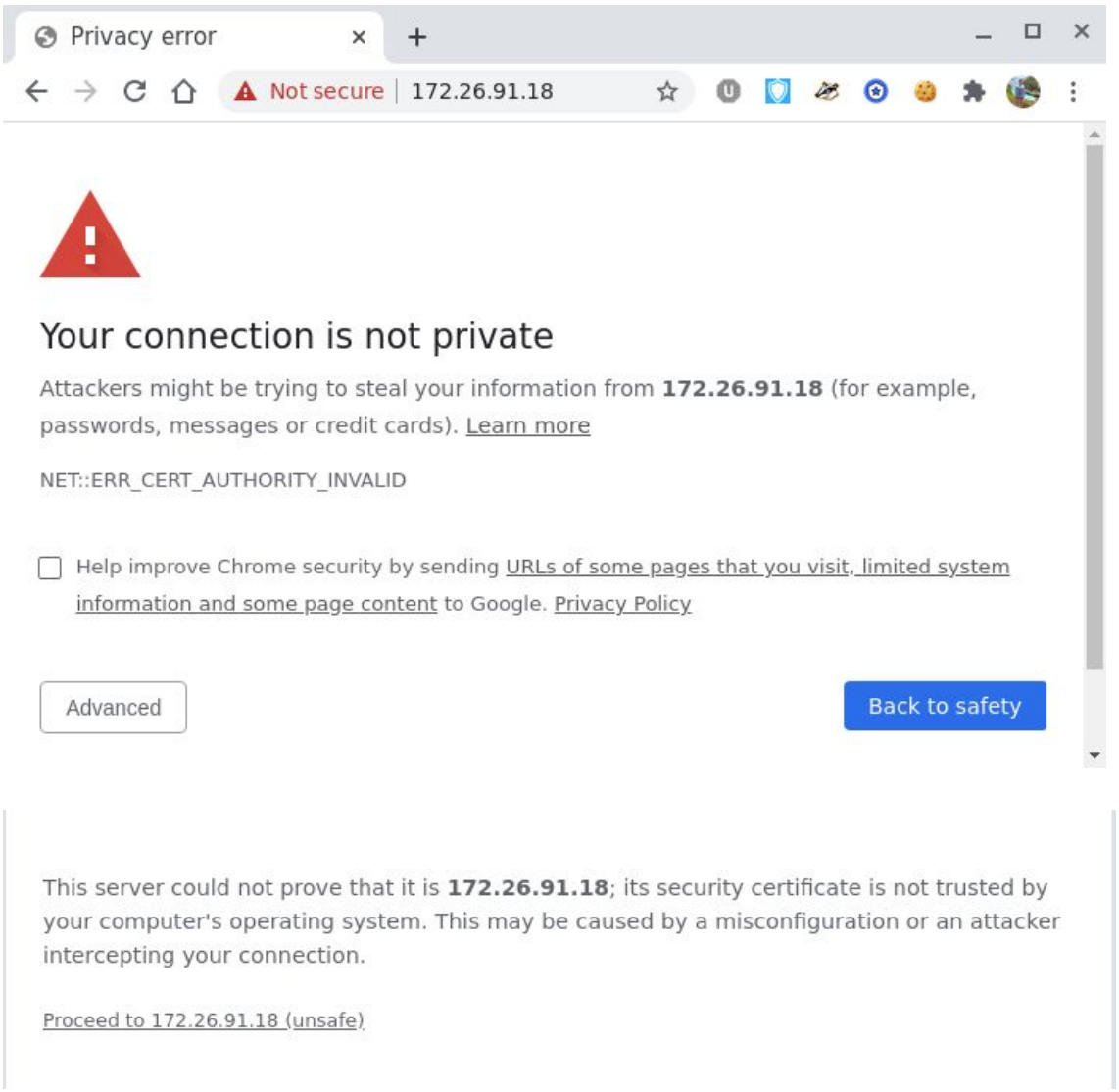

Figure A1. Accessing the web from with HTTPS

This screen is not because the web form is a danger, but rather that the website does not have a certificate validated by a Certification Authority (CA) for the

implementation, so that web browsers, unable to verify its authenticity, show that the website is insecure.

2. *Requesting the service*

Next, the main web page is presented with the welcome to the teacher and the main fields on personal details

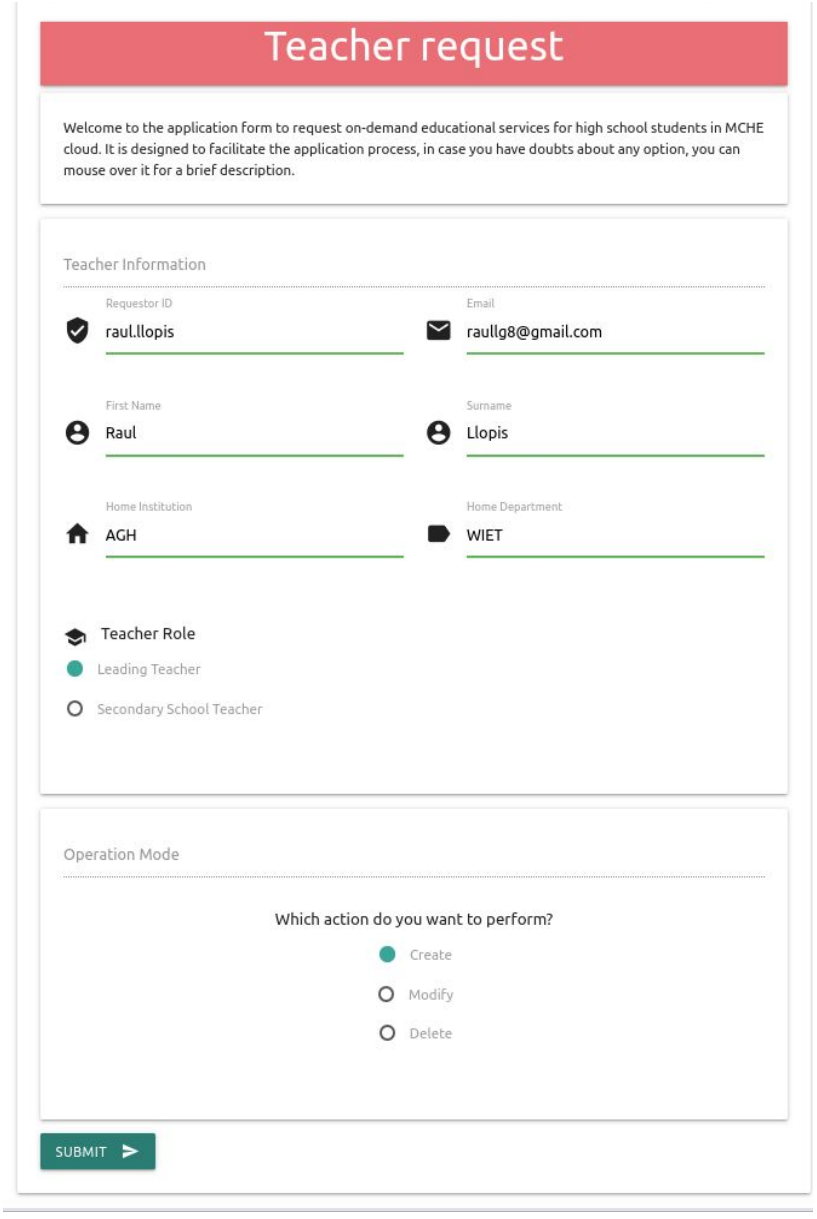

Figure A2. Teacher request web form main page

As you can see, the website has a clean interface and with the fields to be filled in clearly without ambiguity. First, you must enter your user ID in MCHE which must be unique and will serve to identify yourself in the form and consult your services. You

must also provide an email to where the service statuses will be sent during the process. Then enter your name and surname, in addition to the initials of your home institution (E.g. AGH) and your department or faculty (E.g. WIET). Then, you must select what your role is to apply for the service, whether you are a university leader teacher or a secondary school teacher.

At the end, you must enter the mode of operation you want to perform. By default the teacher when you request a service is implicitly creating it, then we select Create in this case. This guide does not go into detail about the other modes, but it should be noted that they do not differ from the functionality presented in the creation mode.

In the case of Modify and Delete, the same interface with the services that the teacher with the identifier has previously requested is presented first.

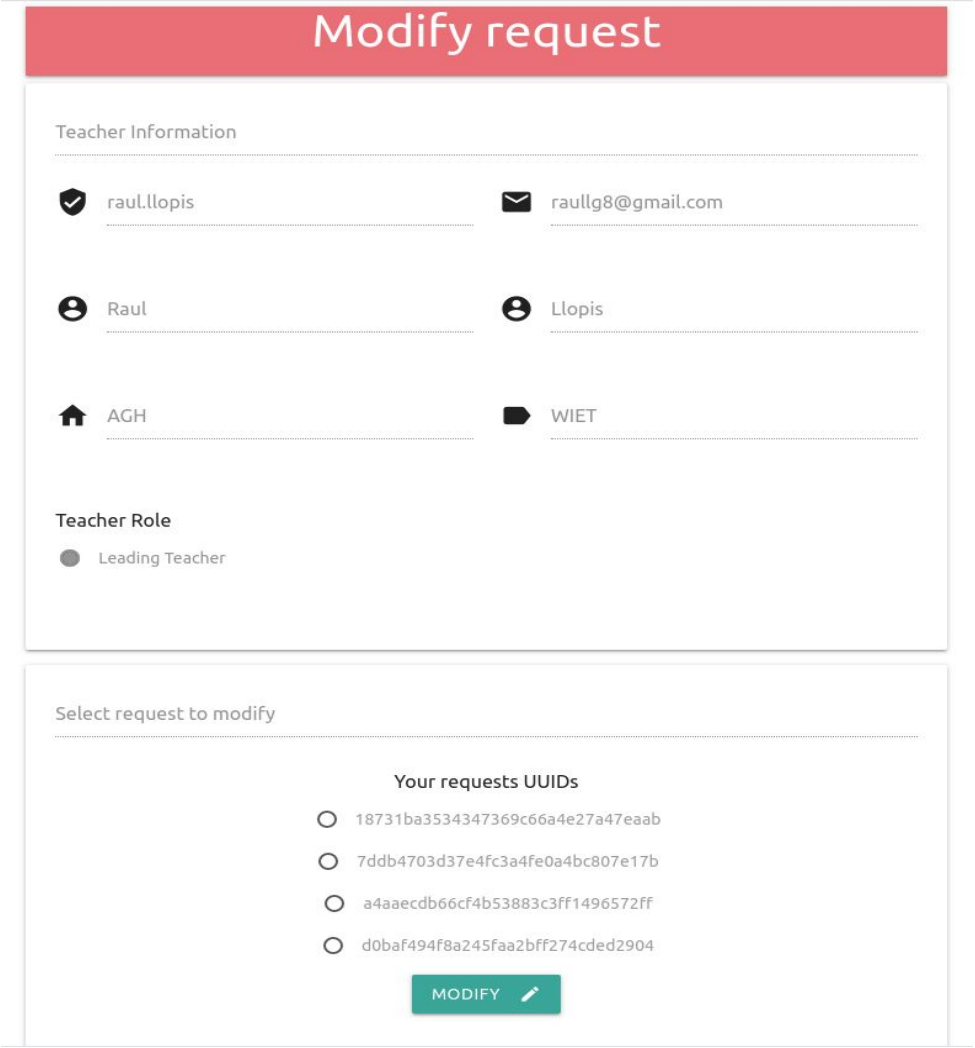

Figure A3. Modify request web form

Once you continue with the Creation mode, the interface that will appear will be like the one in the following image, this is the same as in the Modification mode. The section that the teacher should focus on now is the Service duration where you will specify if you want a duration limited by a date range or indefinite.

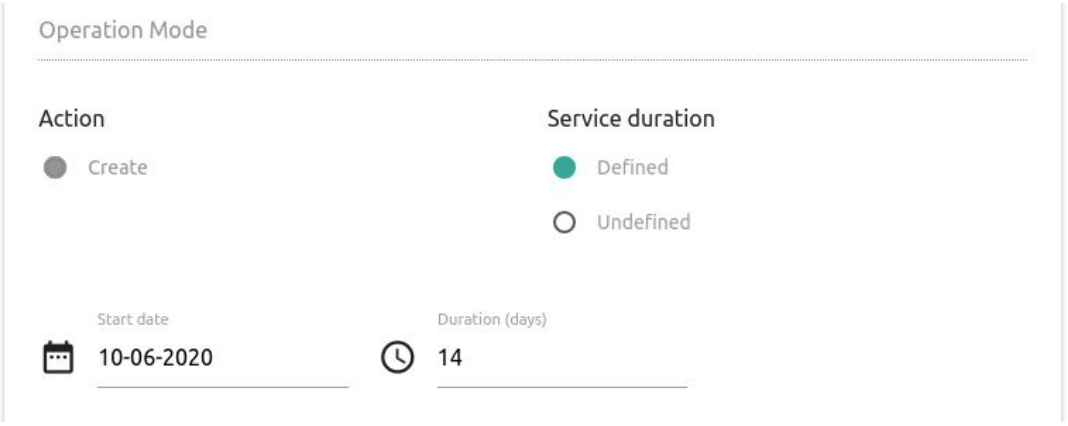

Figure A4. Operation mode web form

Next, the Service detail section is presented, where you begin by selecting the field of study to which the interactive lessons will be related, then the topic field related to the previously selected field will appear on the right. Now the size of the service to be requested is presented, this consideration should be made based on the concurrent students who can use the service and the difficulty of the selected topic.

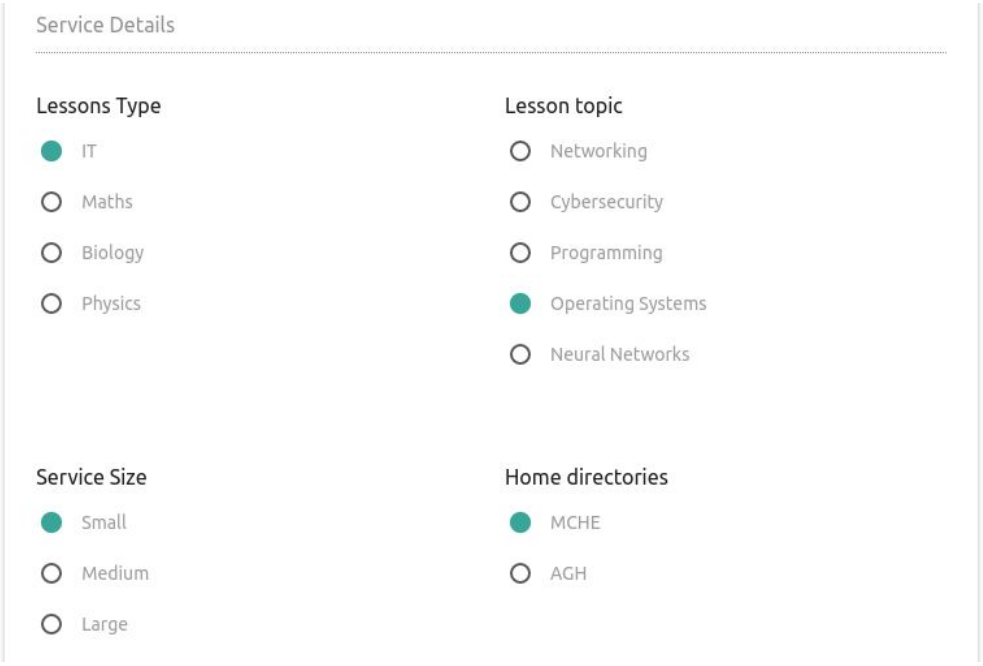

Figure A5. Service details web form

For example, for a basic service on Operating Systems and 20 users with a small size it is more than enough. On the other hand, if the lesson is about Population Genetics it will require more processing so a medium or large size would be ideal for this service. After choosing which is the directory where user data will be stored, it can be on the MCHE platform or at the home institution. By default, it is required to save the data in MCHE for security reasons, these can be consulted by asking an administrator for permission.

Next, the number of users who will use the service is chosen by entering their usernames so that the system generates their default passwords. Then, the mode of cooperation between users is selected, this can be Isolated in case it is preferred that there is no interaction between users as in the case of an examination test. In Groups mode you must select the number of groups and relate which will go in the same group and which will not. In Common mode all users will have a common point of collaboration with what will be a many-to-many relationship.

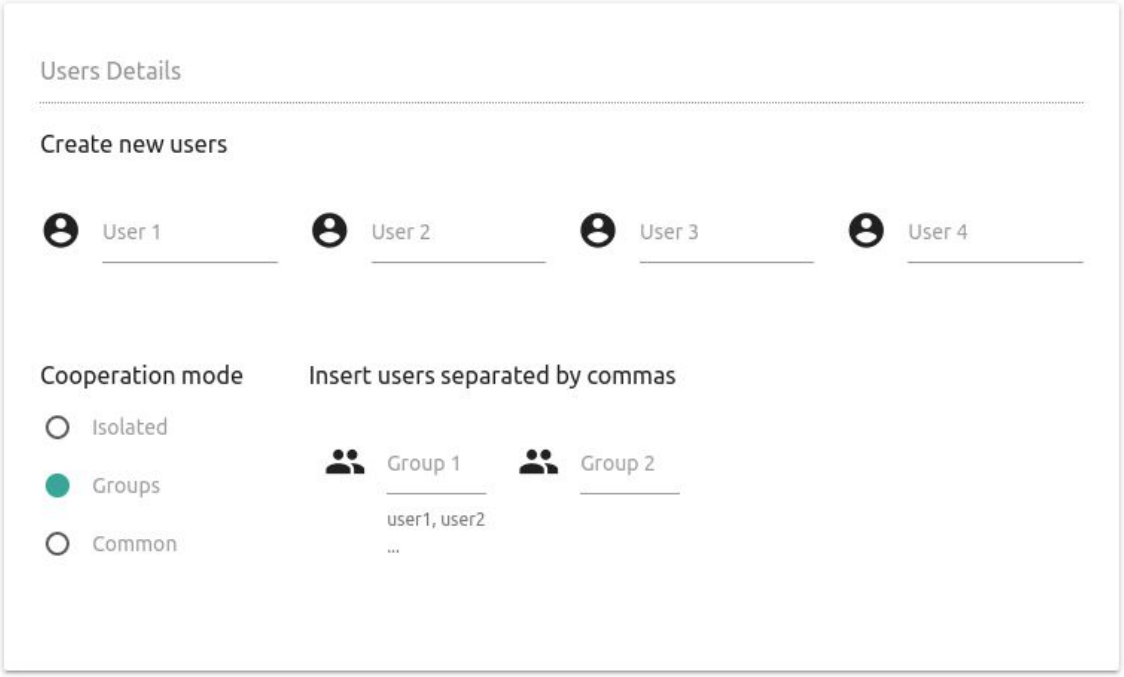

Figure A6. Users Details web form

Finally, the last section on additional details about the service is presented. First, you choose which user data you want to save once the service duration has ended. These can be either the User data or the statistics of the users. Lastly, it is selected what services of access to the service the teacher wants to have, by default the web interface is included. Then, before pressing the Submit button, it is recommended to review all the data entered

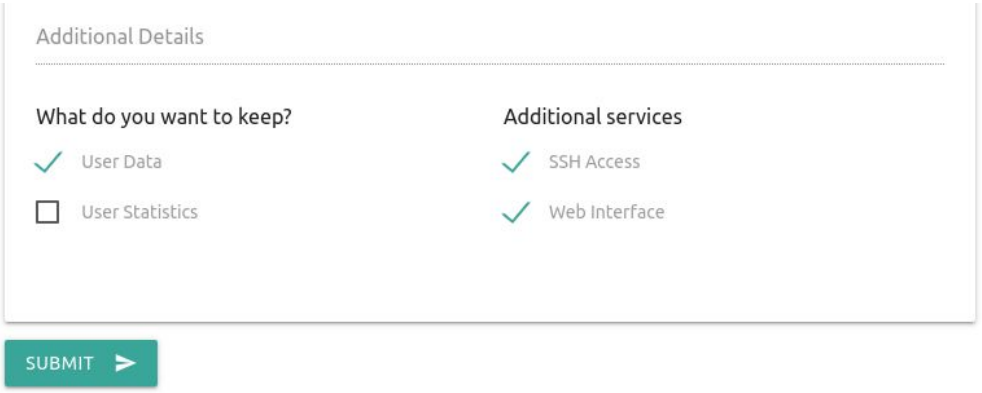

Figure A7. Additional details web from.

Finally, an interface is presented advising the teacher that the service is requested.

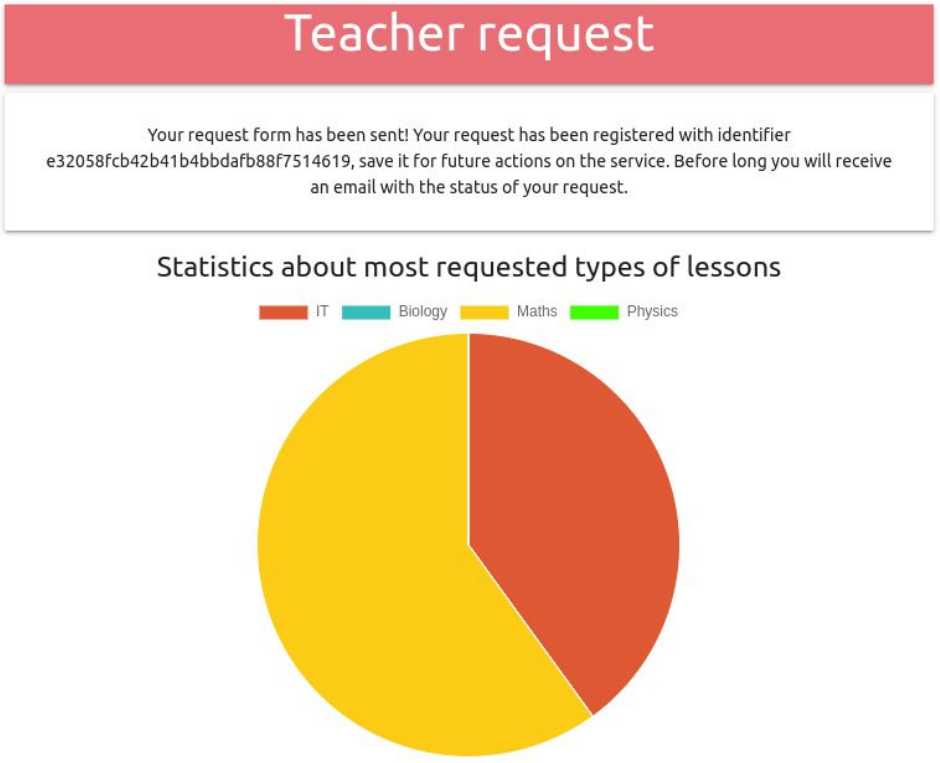

Figure A8. Service successfully requested web from

3. Waiting for the service completion

Once the service is requested, it will not take long to have a message in the inbox of your personal email. This message will indicate that the solution has been processed in the system correctly, that is, policies have been verified and you have already specified which service will be used with the lessons it will have.

The message you will see when the processing of the solution is complete is similar to the following:

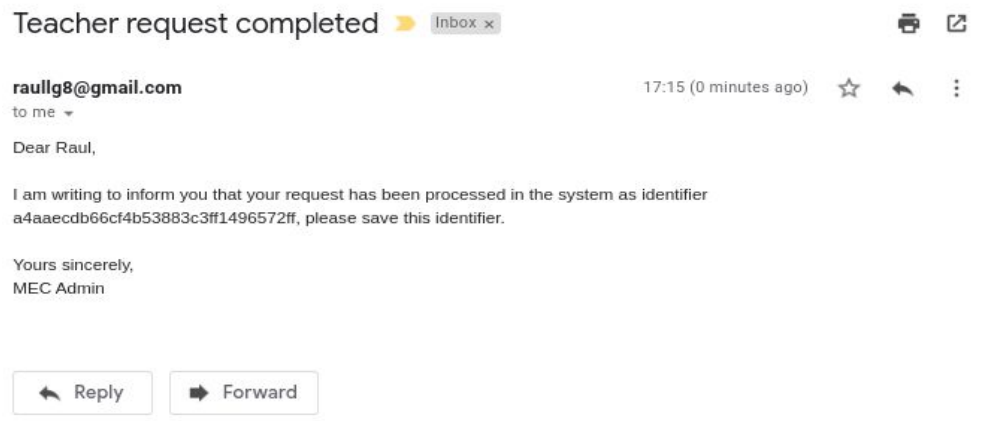

Figure A9. Example mail when the service is processed in the system

In case of having any data that does not comply with the policies of the system, the message will be as follows:

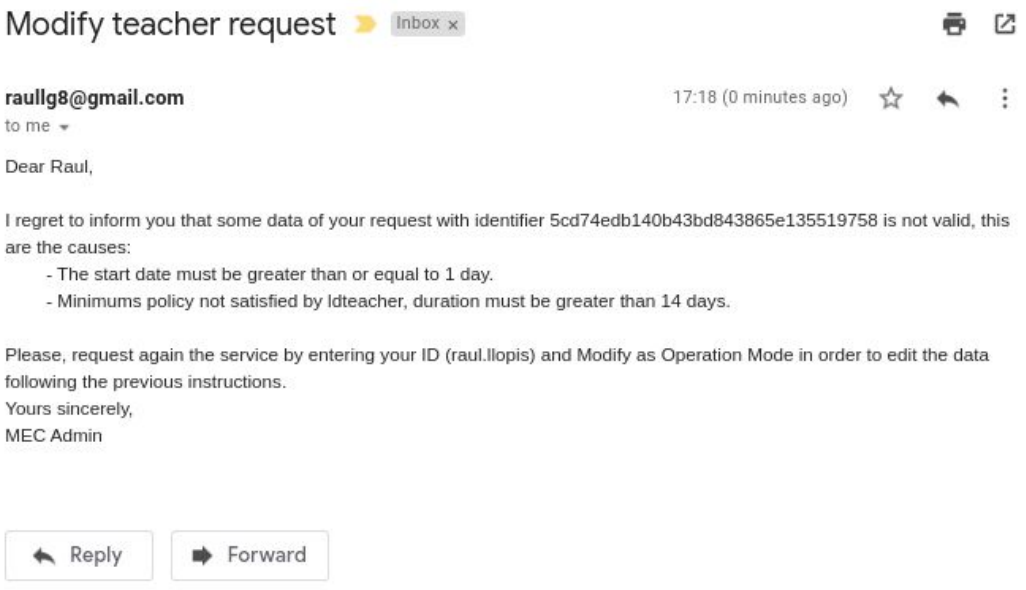

Figure A10. Example mail when the service needs to be modified

So you will have to access the platform again and modify the corresponding data specified by the email received. When the message is successfully completed, the teacher should wait until the start date specified when requesting the service, if you entered this date indefinitely it will be the next day. When the service has been built in the system, a message will be sent informing it with the access data and instructions. An example of a service completed message would be the following:

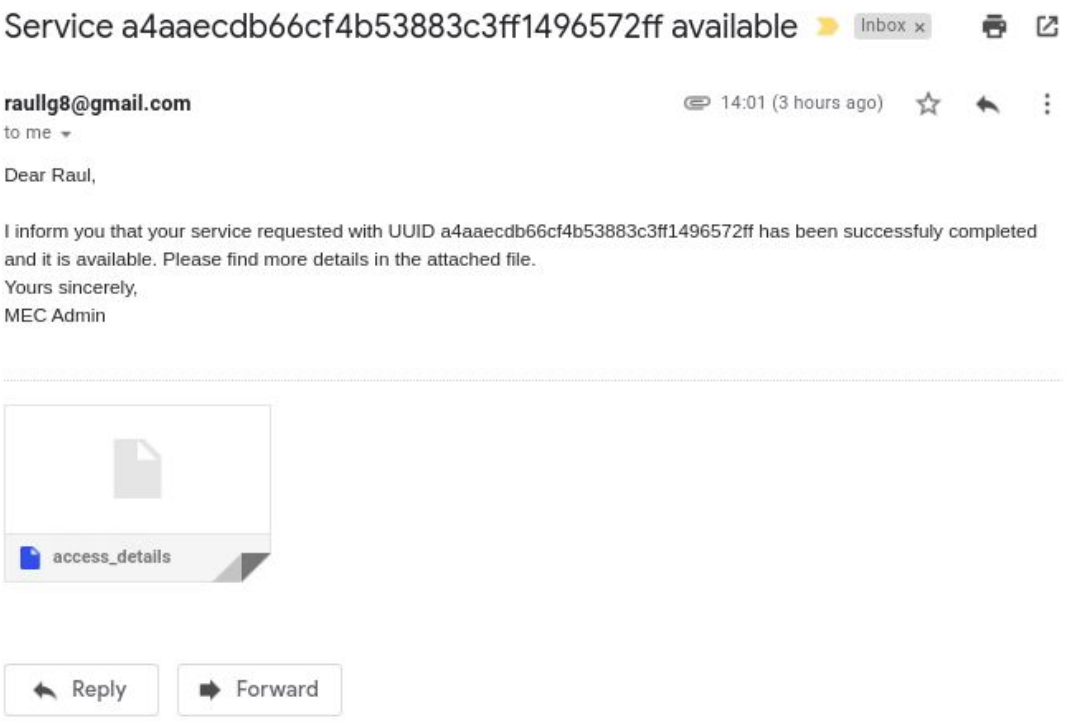

Figure A11. Example mail when the service creation is completed

4. Accessing and using Antidote and Jupyter service

The part corresponding to access and use of a service will depend on the data specified in the email and the instructions. In this section, two particular use cases will be explained, so the data will not be the same in a real situation, but the steps will be similar for both PSM.

In general, first we connect through the VPN configured in step 1 and go to the web browser and enter the address indicated in the previous email.

A. ANTIDOTE

Once accessed, students must choose a lesson either by searching for it by name or in the collection of lessons where they can see all the lessons available in the service.

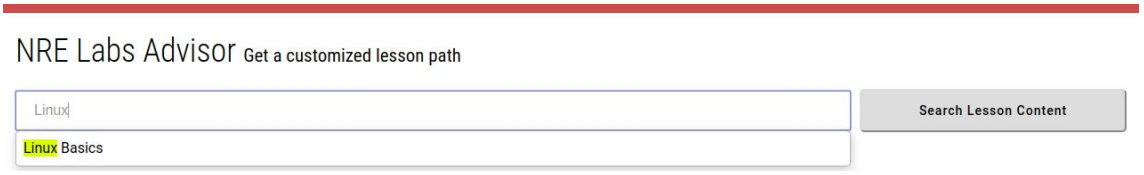

Figure A13. Get a customized lesson path based on the lesson to achieve

Once a lesson has been selected, the main interface of Antidote is as follows, with on the one hand on the left the content of the lessons is located and on the right is the terminal where you can interact as the lessons progress.

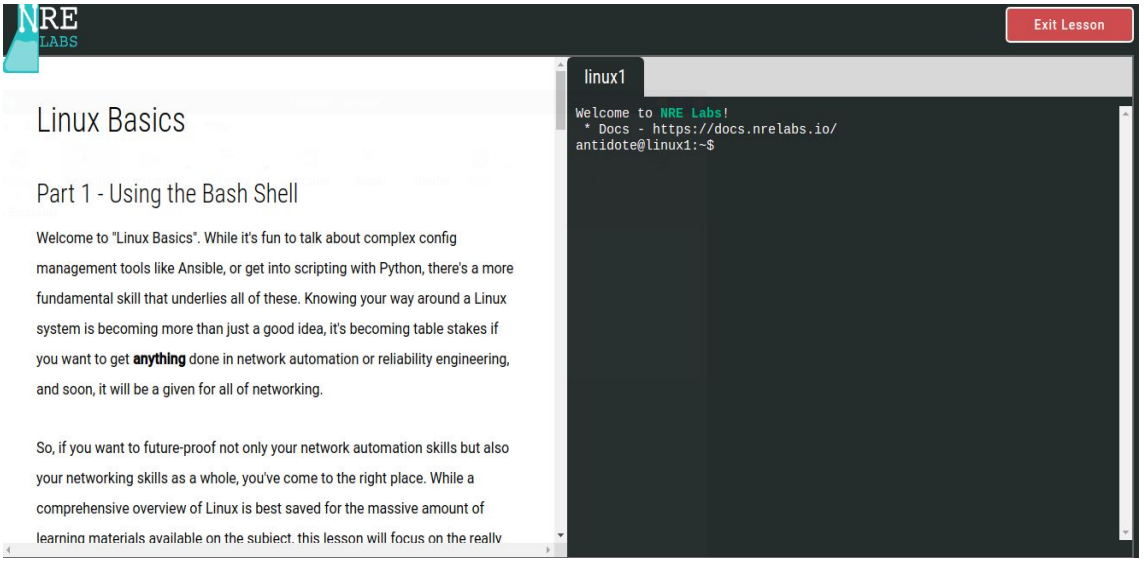

Figure A14. Antidote PSM lesson web interface

B. JUPYTER

In the case of Jupyter, once connected to the MCHE VPN and accessed the URL provided in the email, it will be presented with an initial screen like the following figura, where you must enter the credentials provided to authenticate into the Jupyterhub server.

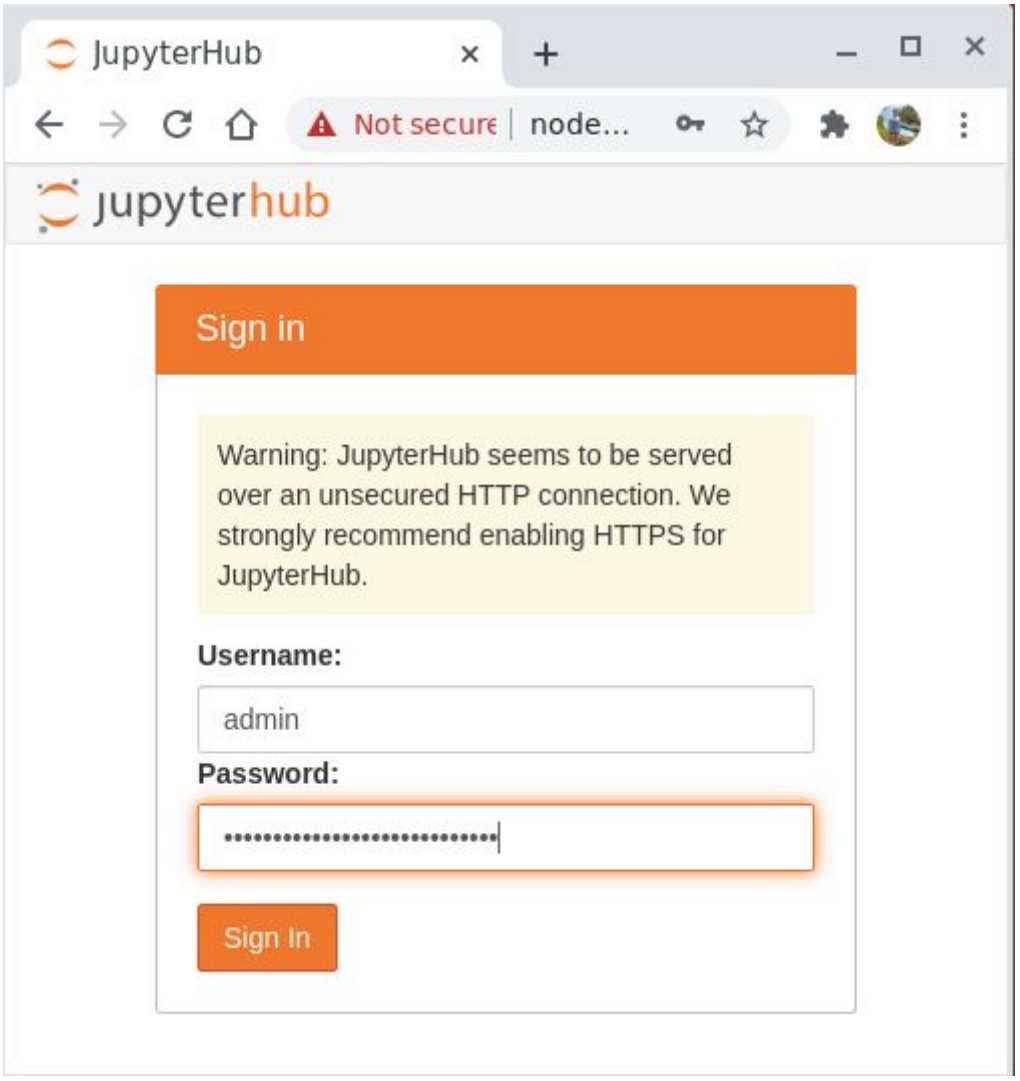

Figure A15. Jupyterhub login

By default, when you log in the first time, the server automatically starts up, although it will always be under the teacher's control in the Control Panel button at the top right, where you can either stop or start the server when needed.

Then, by default, the main directory will be empty. To copy the requested lessons, follow these steps:

- First, click on the ‘New’ button and select ‘Terminal’ at the bottom.

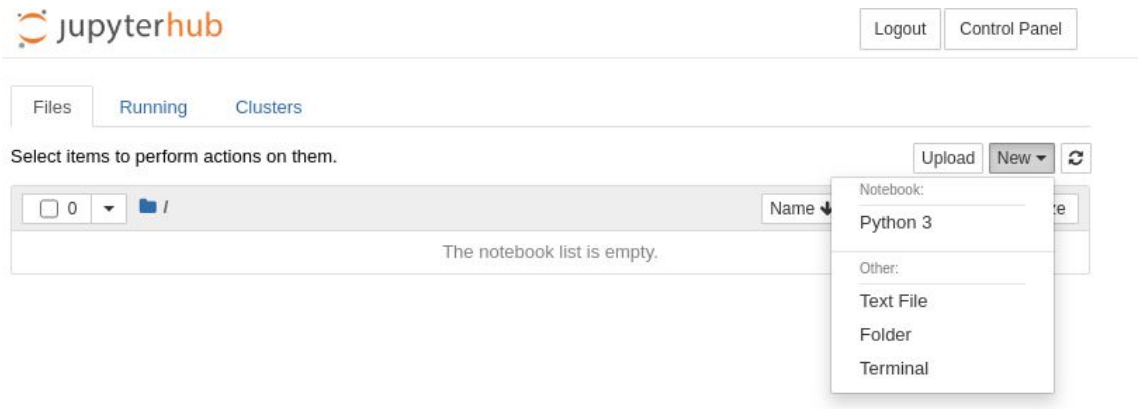

Figure A16. Jupyterhub accessing terminal

Then a black screen will appear, this is the terminal. With it you can perform the same or more actions on the server than with the graphic interface. What we are going to do is copy the lessons from a shared folder to our personal folder.

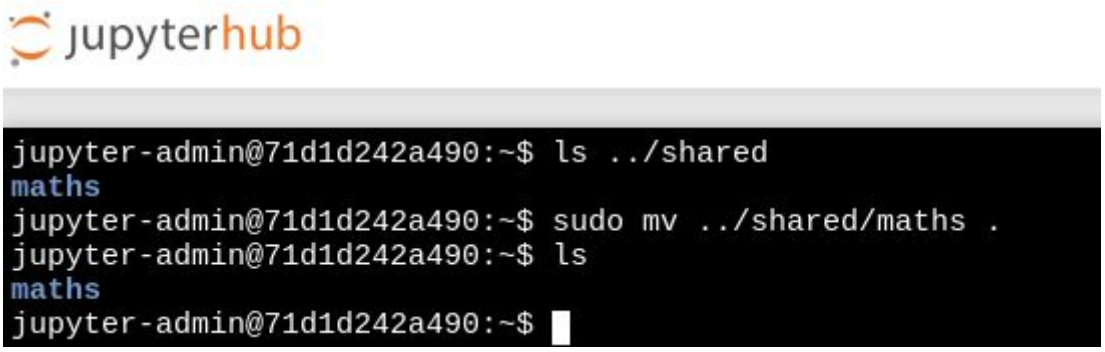

Figure A17. Jupyterhub moving lessons in terminal

The first command returns as output 'maths', in each case it will be different depending on the type of lesson requested. In the second command, you should replace 'maths' with what was in the first command. For example: in the first command it says 'it', then I have to execute this as a second command:

```
sudo mv ../shared/it .
```

 # It is very important to include the last dot in the command.

Finally click on 'Control Panel' and 'My Server', now you will see the lessons.

Figure A18. Jupyterhub example lessons in workspace

Then go into the folder and you will see the available lessons, now click in one lesson and you should get a view like the one shown in the following figure. From now on, the materials can be distributed to the students.

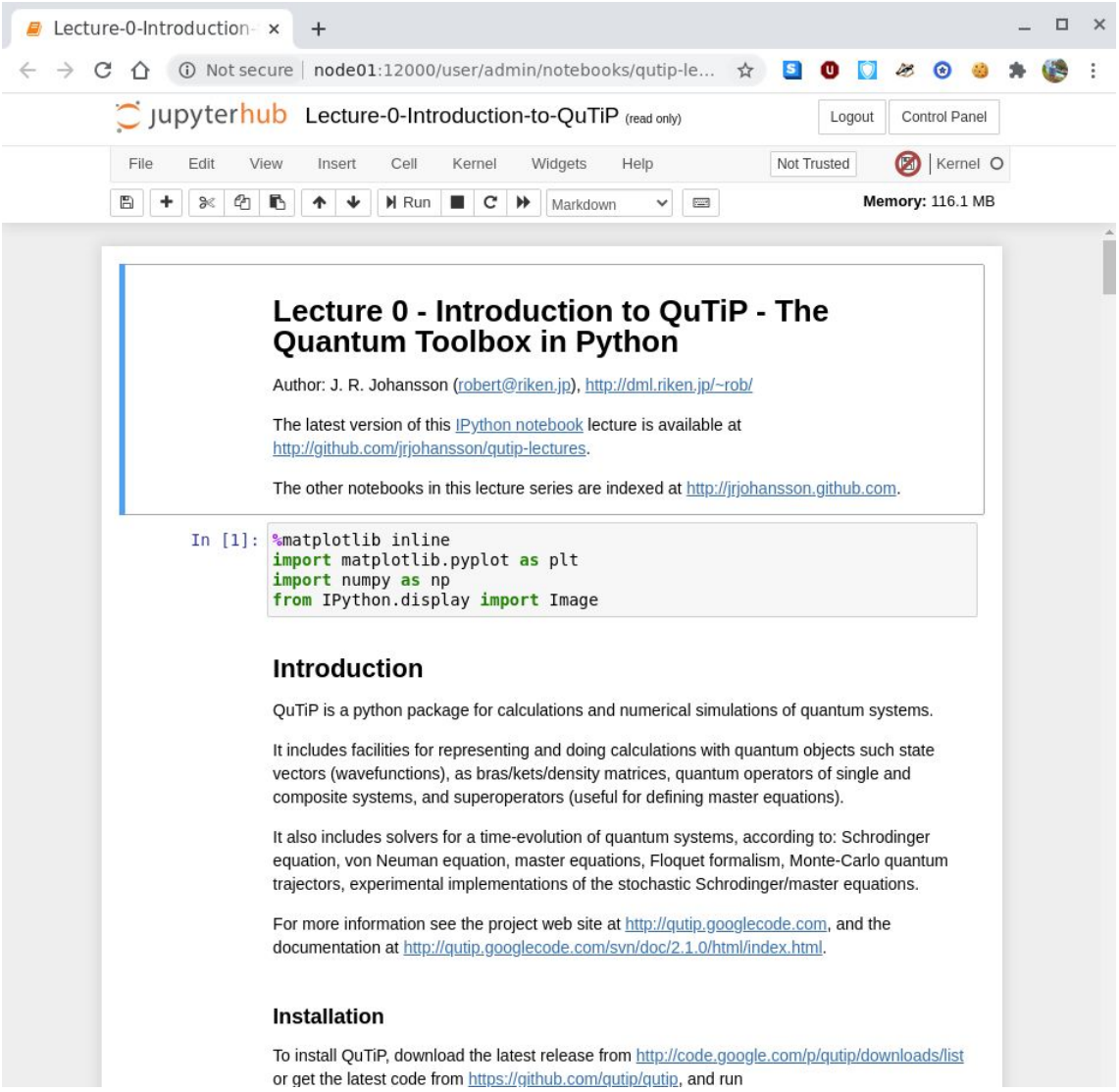

Figure A19. Jupyterhub example real lesson