



Big Data Management (BDMA & MIRI Masters)

Virtual machine manual

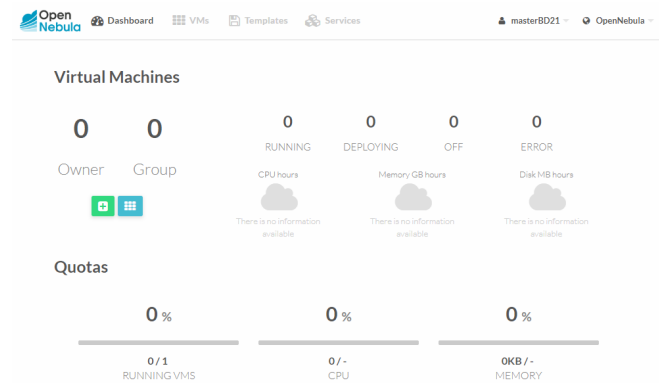
In the lab sessions of the course *Big Data Management* you will get hands-on with some of the tools that you studied in class. Such tools sometimes require low-level configuration, which makes cumbersome the process of setting them up. To make the most out of the available time, we provide you with an Ubuntu virtual machine where all software is already installed and configured. Such tools are meant to work in a distributed fashion, however for practical reasons we provide you with their standalone version.

This manual describes the usage of the provided virtual machine. The virtual machine is offered in two different flavours, you can remotely use the virtual machine via *Virtech* where everything runs in UPC's Cloud, or alternatively you can download it and execute it in your personal laptop using *VirtualBox*. For the former, all required software is present in the computers where the lab session will be held. Both alternatives are described in the following sections.

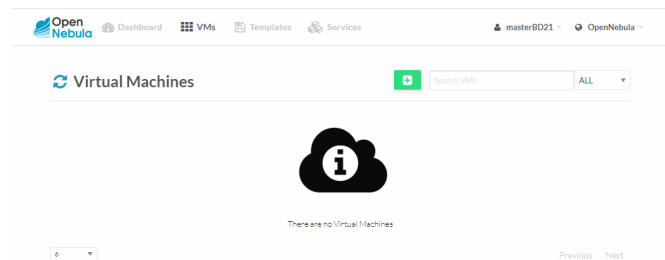
1 Running the virtual machine in the cloud

Virtech is an on-demand virtual machine virtualisation environment. This service allows you to create, configure, modify and delete Linux virtual servers to a group of students. You can learn more about it at <http://inlab.fib.upc.edu/en/fibs-docent-cloud-service-virtech>. Next, we depict the list of steps in order to create your own virtual machine. Each team in BDM has access to their personal instance.

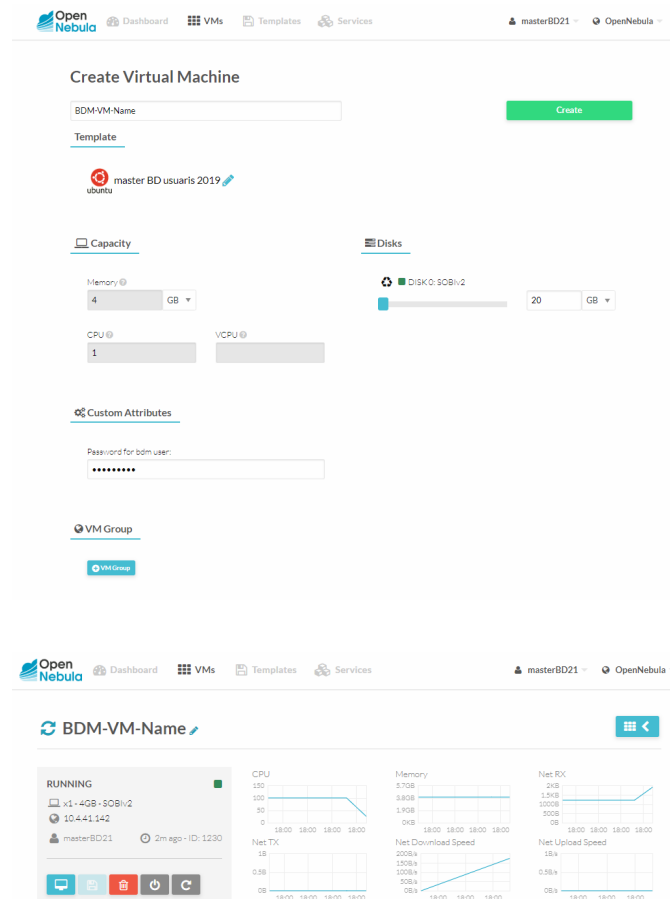
- Login to <https://virtech.fib.upc.edu/> with your team's credentials. Credentials will be provided in the team's description in Learn-SQL. Note that such credentials will only be valid for the current lab session, and will be updated together with the team on each session. Remember that you can also access Virtech from outside UPC, however in this case you will need to access via the VPN server. Learn more about UPC's VPN service at <https://www.fib.upc.edu/en/fib/it-services/vpn-upclink>. Once you successfully login, you will be prompted with the following Dashboard page:



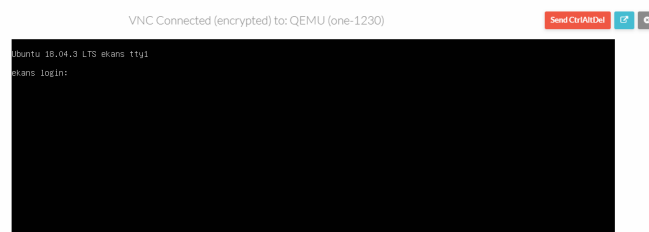
- To start, you should then switch the to the VMs tab and you will see the following page:



- Next, you should create your virtual machine. Select the template *master BD usuaris 2019*, and set a name and password.
- The process of deploying can take between 3 and 5 minutes, please be patient and press the refresh button to see its status. Once it has been successfully deployed, you should see a screen like the following.



- Next, access your instance to be presented with Ubuntu's login screen in the browser. Login using the credentials you previously introduced.



- Once you log in, you can use the virtual machine. The web client is not user friendly and you should not work with it, precisely the keyboard is not correctly mapped. Our recommendation is that you use an SSH client such as Putty (or any other).



2 Running the virtual machine locally

If you do not want to use the Virtech environment, alternatively you might want to download the virtual machine to your personal laptop and use it in VirtualBox. Refer to LearnSQL for the download link. In this case, the credentials for the virtual machine are username `bdm` and password `bdm`.