Dear User,

Please make sure your VPN for Uni Tü is started when you connect form outside. In case you are in the 134.2.0.0. IP range, you do not need it of course.

Now here comes first the instruction for Unix-based systems (Mac, Linux, etc.):

Please open your Terminal on your computer and type:

ssh-keygen –t rsa

It will ask you where to place the key.

Enter file in which to save the key (/Users/your_name/.ssh/id_rsa):

Press enter in case this is ok for you. Otherwise give a directory where it should go.

Enter passphrase (empty for no passphrase):

Do not add something here, just press enter again.

Enter same passphrase again:

And again enter.

Now the key will be generated as "id_rsa" and "id_rsa.pub" (or however you named it).

Pleas open id_rsa.pub with less command (less id_rsa.pub) und copy everything in a mail and send it to me (eric.kemen@uni-tuebingen.de) or attach the file id_rsa.pub.

You will now receive an IP from me that you need to log into your VM. Please wait for this.

You will need something called an X-Server. This is to see graphical output from your VM. While waiting you can start getting this installed (in case you don't have it): For Mac XQuartz was working best for me. For windows Xming is a good option. But whatever X-Server you have should work.

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Now that you have received the IP for your VM, please connect to your VM with the following command:

ssh -XY -I /your_directory_to_key/id_rsa ubuntu@your_IP -p 22 -L 8787:localhost:8787

Now say yes to add the VM to your key list.

In case you see now something like

ubuntu@handson-mibi-wm-01:~$

You are in. Congratulations!

Now please test if your R-server is running. For this open a browser (e.g. Google Chrome, Firefox, …) and go to the site:

localhost:8787

Now your R Studio should start up.

It first asks you for a username. This is ubuntu and for a password that is ubuntu as well. Now you should have R running in your browser.

To test and run Cytoscape that we will need for the course, please check that your X-Server is running. To start now Cytoscape, please type in the command line of your VM the following command (your command line should look like this, meaning start Cytoscape as a job in the background):

ubuntu@handson-mibi-wm-01:~$ Cytoscape &

The program should start now and you are set. Rest you will learn in the course.

Now here comes the instruction for Windows-based systems:

Please install first PuTTY or something similar. PuTTY and associated programs can be downloaded from here: https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html Please install the package.

First, we have to generate a key to get a secure connection. Therefore, please use PuTTYGen. Here make sure you choose RSA for the key and press generate. Moove the mouse to gend random keys and save both the public key (e.g. id_rsa.pub) and the private key (e.g. id_rsa).

Please attach the id_rsa.pub file to a mail and send it to me (eric.kemen@uni-tuebingen.de).

You will now receive an IP from me that you need to log into your VM. Please wait for this.

You will need something called an X-Server. This is to see graphical output from your VM. While waiting you can start getting this installed (in case you don't have it): For Windows 10 Xming is a good option. But whatever X-Server you have should work.

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Now that you have received the IP for your VM, please connect to your VM with PuTTY:
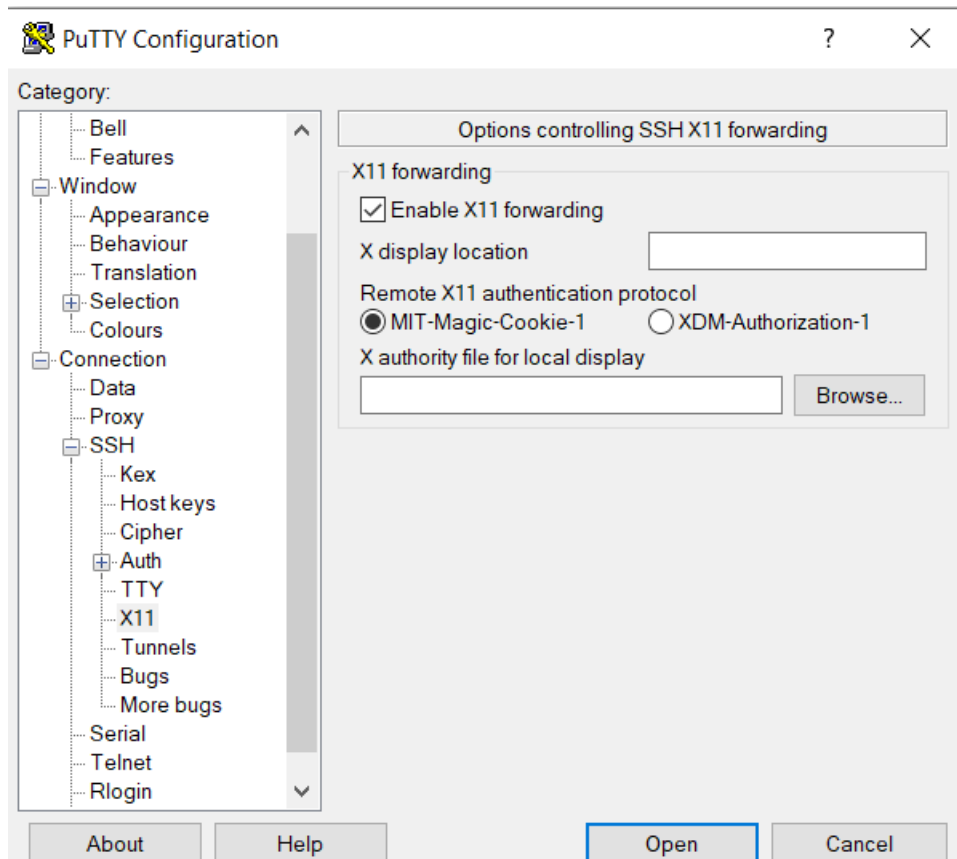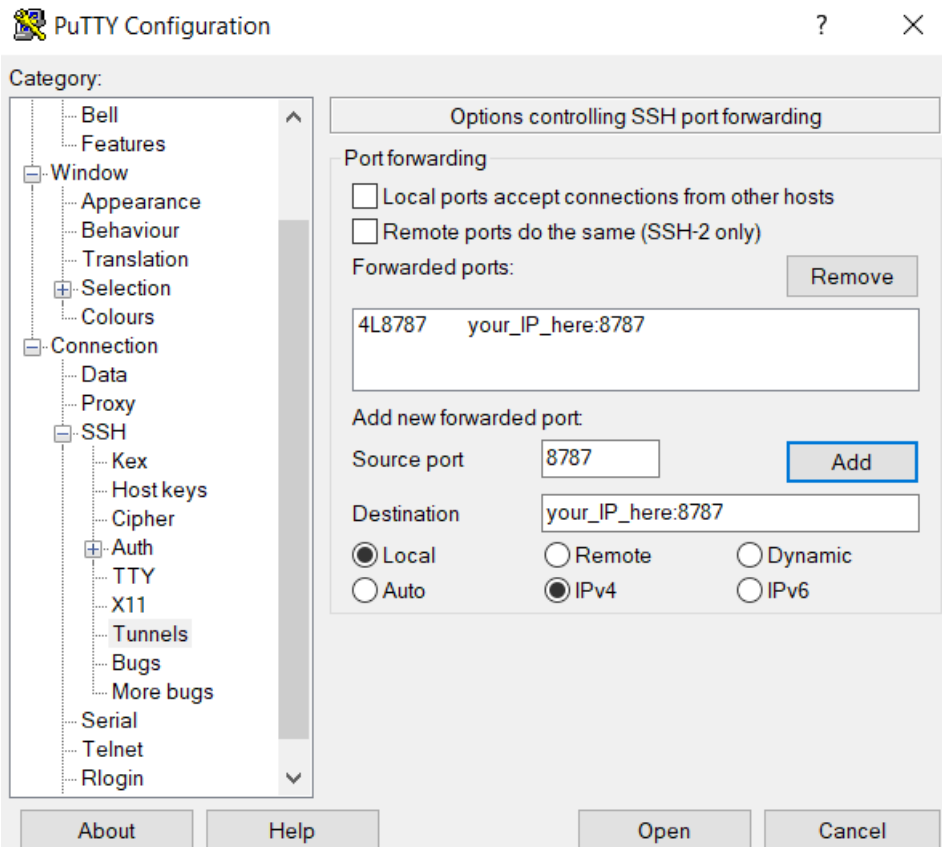
First you need to enter your IP address.
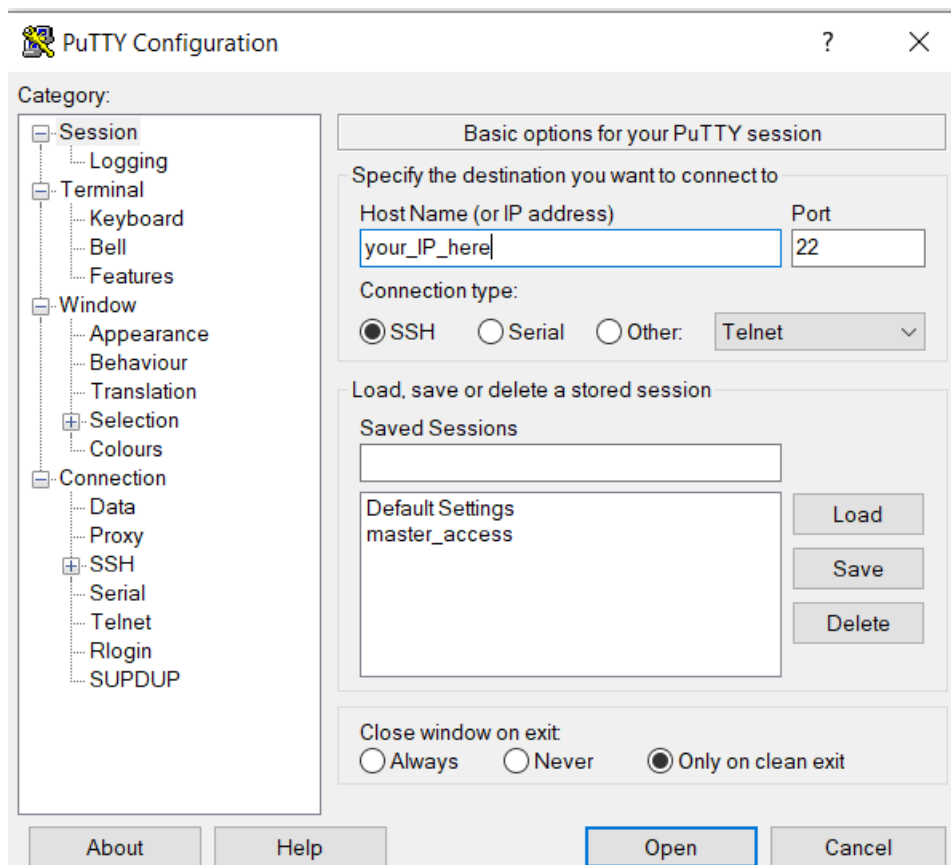
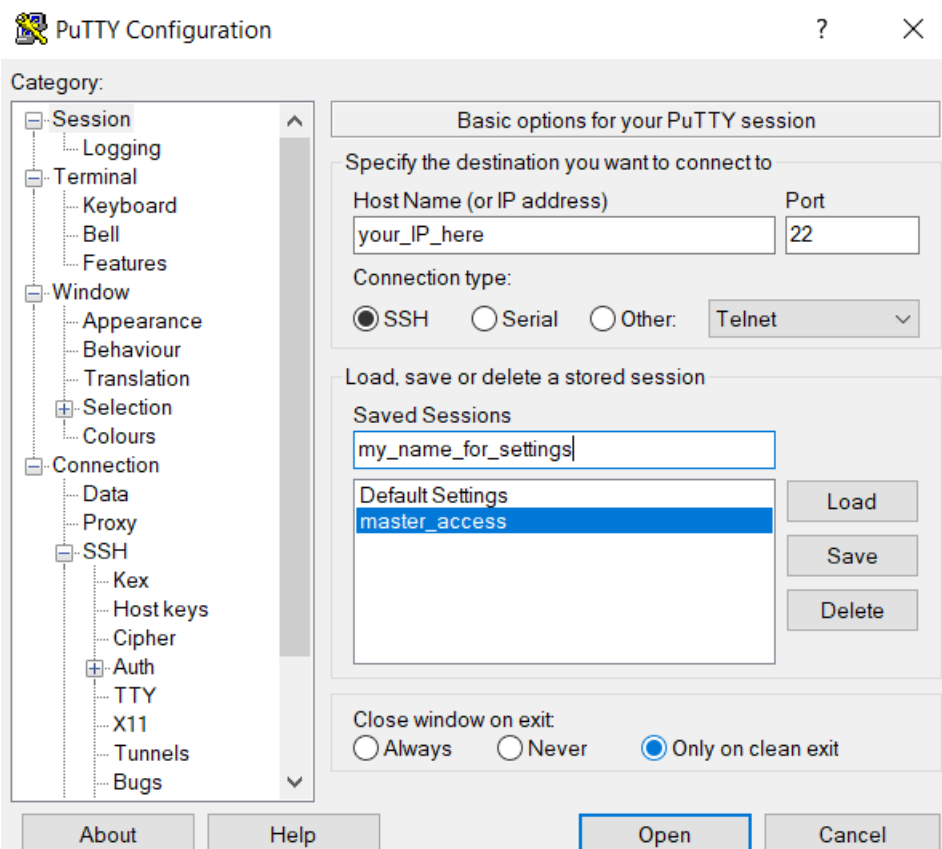Next under Connection and SSH go to Auth and load your generated key in here.
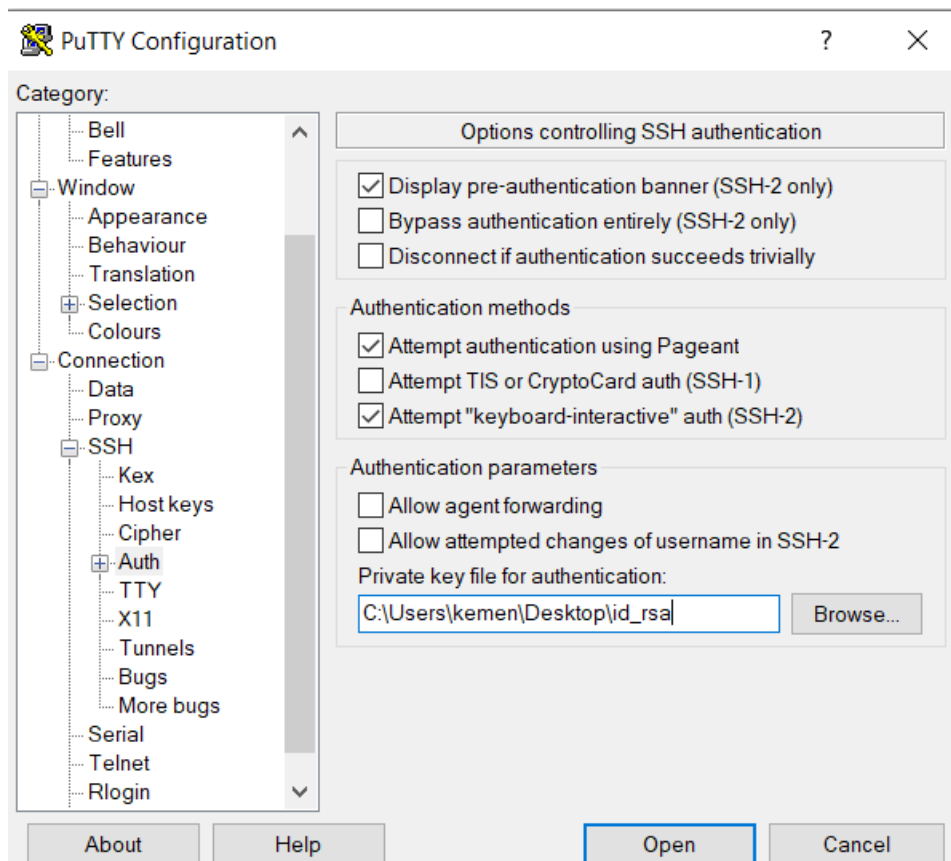
Activate X11 forwarding.

Go for Tunnels to set the port 8787 and the IPv4 protocol.

Go back to Session and give it a name to save for the next time and press open.

Now say yes to add the VM to your key list (this you have to do only once).

Now you should see:

Login as:

And please type ubuntu here

In case you see now something like

ubuntu@handson-mibi-wm-01:~$

You are in. Congratulations!

Now please test if your R-server is running. For this open a browser (e.g. Google Chrome, Firefox, …) and go to the site:

localhost:8787

Now your R Studio should start up.

It first asks you for a username. This is ubuntu and for a password that is ubuntu as well. Now you should have R running in your browser.

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ubuntu@handson-mibi-wm-01:~$ Cytoscape &

The program should start now and you are set. Rest you will learn in the course.

Feel free to ask whenever you think something is not clear or you think you cannot follow because we are telling you something completely strange.

Best, Eric