



ANSIBLE

ANSIBLE BASIC LAB MANUAL

Student Lab Kit v1.1

ABSTRACT

This lab manual is designed for students who are interested in Ansible Basic Automation

Confidential Document

The Lab Environment

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Lab Overview and objectives

The purpose of this lab is to get yourself connected and familiarized with the workshop's virtual environment setup which you will use to practice the acquired knowledge.

Pod breakdown

For each of the students participating in the class the instructor has assigned a „pod” which holds 3 machines as follows:

1. Ansible server
 - Hostname: **ansible-XX-01-hivemaster**
 - Running OS: Ubuntu 18.04. LTS
2. Ubuntu server
 - Hostname: **ansible-XX-02-ubuntu**
 - Running OS: Ubuntu 18.04. LTS
3. Centos server
 - Hostname: **ansible-XX-03-centos**
 - Running OS: CentOS 7

Accessing the pods

The recommended way of accessing the servers is directly via SSH.

Depending on your current workstation OS one way of accessing the pod is as follows:

1. **If OS == Linux or OS == macOS:**

Best way to access the pods is to use the `ssh` command with a custom SSH port which will be provided by the course instructor.

The command to do this looks like:

```
# ssh -p 22 <username>@<host>
```

Note: On first login you will be receive a warning that the host authenticity cannot be established and you will be prompted to accept or deny the connection. We suggest you blindly accept!

Here is an output example of a successful connection:

```
~$ ssh -p 22 user@192.168.1.1
The authenticity of host '192.168.1.1 (192.168.1.1)' can't be
established.
ECDSA key fingerprint is
SHA256:4MqnLw0pJvsD91ZomYIeli+9CYCkKoG5JShJWFt8JaI.
Are you sure you want to continue connecting (yes/no)? yes
```

```
Warning: Permanently added '192.168.1.1' (ECDSA) to the list of known
hosts.
user@192.168.1.1's password:

Welcome to Ubuntu 18.04.3 LTS (GNU/Linux 4.15.0-58-generic x86_64)

* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:       https://ubuntu.com/advantage

System information as of Sat Sep  40 21:17:27 UTC 2040

System load:  0.0                Processes:            101
Usage of /:   43.8% of 9.78GB    Users logged in:     1
Memory usage: 20%               IP address for enp0s3: 1.1.1.1
Swap usage:   0%                IP address for enp0s8: 192.168.1.1

30 packages can be updated.
0 updates are security updates.

Last login: Sat Sep  40 21:16:11 2040 from 8.8.8.8
user@master:~$
```

2. If OS == Windows:

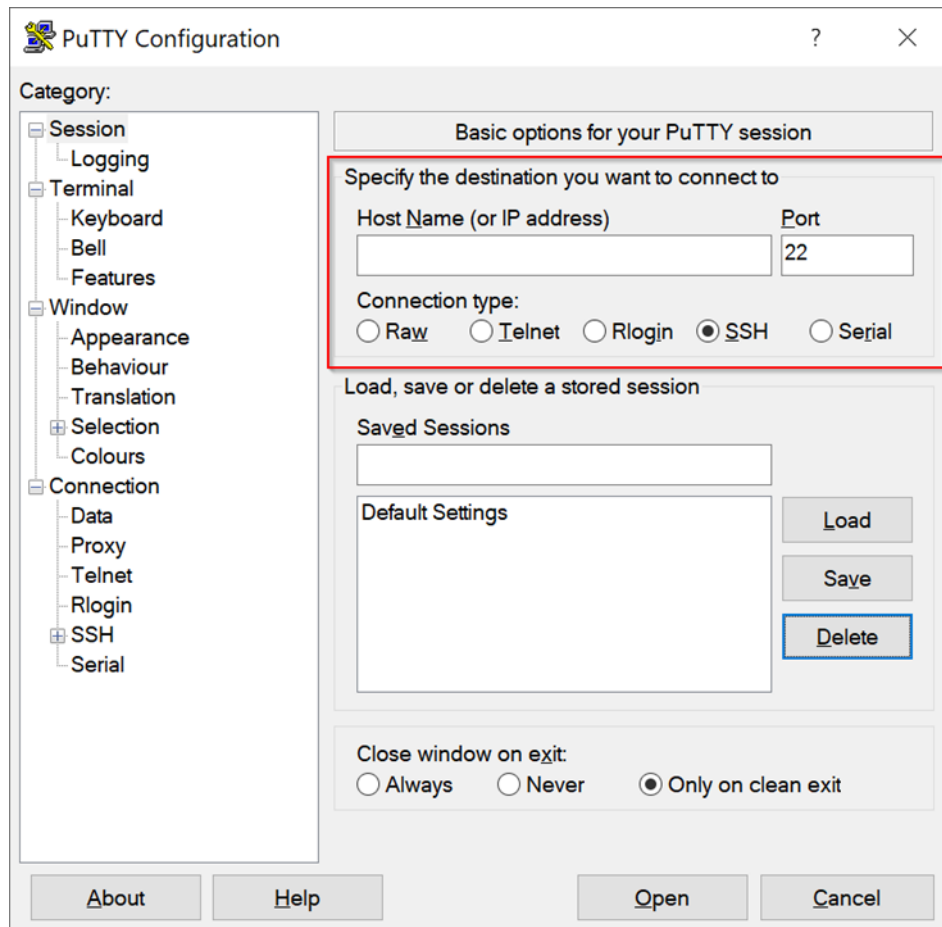
Windows does not have an SSH client out of the box.

You can use any SSH client you prefer - there are many options available. Several examples include: PuTTY, SecureCRT, MobaXterm, MremoteNG, etc
For this guide, we will use **PuTTY** as an example.

We will first need to download putty and the quickest way to do so is from this link:

<https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html>

Once you download the application, you can run it directly (no installation needed). You will see the following window.



The Host Name section will hold the hostname of the machine (it can be an IP address or a domain name / hostname) while the Port section will hold the custom port of the SSH session as described by your instructor.

Once you have the details filled in click on „Open” and you will be greeted by a user/password prompt. You can find the credentials below.

If for any task you need root privileges, you can use `sudo -i` to become root.

Tips and Tricks on Pod navigation

Each server has a private IP address, connected to the lab network. All the servers can talk to one another directly using the private IP addresses.

Also, key-based SSH authentication has been configured between servers in the same pod. When logged in on one server, you should be able to jump to the other servers by simply doing `ssh servername`. For the server name, you can use the name (as shown in the table below), or simply "srv01", "srv02" (... etc)

List of servers

The names of the servers are of the form:

ansible-XX-YY-details

where:

- XX = user ID
- YY = server number

The servers can be accessed via SSH using the following IP and ports:

labs.sass.ro

For example, if your user ID is 01 and you want to access server **01** (the hivemaster), you would connect to:

labs.sass.ro:20403

Login credentials:

Username: **student**

Password: **Ansible123\$**

Remember - once you are connected to one of the servers in your pod, you can jump to the others by simply doing an `ssh srv02` or `ssh srv03`!

User ID	Srv01 Port	Srv03 Port	Srv03 Port
01	20403	20404	20405
02	20406	20407	20408
03	20409	20410	20411
04	20412	20413	20414
05	20415	20416	20417
06	20418	20419	20420
07	20421	20422	20423
08	20424	20425	20426
09	20427	20428	20429
10	20430	20431	20432

Alternative access

If you are facing some issues with accessing the infrastructure using direct SSH connection, you can also use the SSH Proxy provided at <http://ssh.labs.sass.ro>.

So, open your favorite browser and go to <http://ssh.labs.sass.ro> then login using the following credentials:

Username: **ansible-basic-user-XX**

Password: **Ansible123\$**

! Make sure to replace XX with your own “User ID” 😊

Now, you should have access to all your 3 servers.