

# LINUX INSTALLATION LAB SHEET (ROCKY LINUX)

## INTRODUCTION

This lab sheet is intended to guide you on the installation of Rocky Linux 8 operating system on the virtual environment on the lab computers in A2.NET. We will be setting up a main VM called **UP??????-Prometheus** (the question marks are your student number) and everything we do from that point on will take place inside that VM. This way multiple students across different modules can share the same computer at different times, if you break the VM you can simply restore it from a backup and finally you can take it home and work on it if you wish (and have a powerful enough computer to do so).

## INSTALLATION

We will be working in a nested virtual environment. To do this, you will need to login to your assigned lab machine with the username **VM??** and password (**localhost1**) provided to you in class and follow the steps below:

1. Click on Applications menu, locate System Tools and open the installed VMware Player.
2. Once this opens,
  - Click on **Create a new virtual machine**. Install operating system from **"Use ISO image"** and click browse to select the Rocky Linux iso image located in the Global folder (this should be located in your root folder). It should say **Rocky Linux 64-bit detected** underneath.
  - On the next page, give your machine a name of **UP??????-Prometheus**.
  - On the next page, set the Maximum disk size to **200GB**.
  - On the next page, click on **Customize Hardware** and give it **32GB** Memory (click the number do not use the slider), **8** Processor Cores and set the **Network Adapter** to **Bridged**. Finally go to **Display** and uncheck the **Accelerate 3D Graphics** option. You can now close this settings page and click on **Finish**.
3. Now power on the virtual machine and click **"Install Rocky Linux 8.10"**.
4. Under **Localization** set the language to **English (United Kingdom)**.
5. You should be presented with an **Installation Summary** page on which you will customize the system as follows:
  - Set Keyboard to **English (UK)**, Language Support to **English (UK)** and Time & Date to **London**.
  - Under **Software**, set Installation Source to **Local Media** and click on **Software Selection** to select the following features:

### Server with GUI

- DNS Name Server
- File and Storage Server
- Network File System Client
- Network Servers
- Virtualization Hypervisor
- Legacy UNIX Compatibility
- Development Tools
- RPM Development Tools
- System Tools

- Under **System**, select **Installation Destination**, click the “**custom**” radio button and click Done. Then click “**click here to create them automatically**”.
- Delete the **Home** partition by selecting it and clicking the **minus (-)** button underneath.
- Select the **/** partition and add the value in the available space (red) box to the value in the Desired Capacity box (this should equate to about 200 GiB). **Important: Make sure to write the GiB after the number.** Click done and accept changes.
- Select Network & Host Name and set the hostname to **UP?????-Prometheus.netlab.ee.port.ac.uk**
- Click Configure, **IPv4 Settings**, change the Method to **Manual** and click Add. Input the networking information as follows.
  - **Address:** 148.197.28.??? (where ??? is the number on the sticker to the bottom left of our screen plus 50 e.g. if the number on the sticker is 44, your address should be 148.197.28.**94**)
  - **Netmask:** 255.255.254.0 or 23
  - **Gateway:** 148.197.28.254
  - **DNS Servers:** 148.197.28.251, 148.197.8.12 (both numbers separated by a comma)
  - **Search domains:** netlab.ee.port.ac.uk
  - Save the configuration and toggle the button from OFF to ON and then click Done.
- Under **User Settings**, set the **Root Password** to **localhost1** and click done twice to accept the password.
- Click on **Begin Installation** (No need to create a new user).
- 6. Reboot the System when the installation is complete.
- 7. Accept the license agreement when the system boots and **Finish Configuration**.
- 8. When the Rocky Linux screen appears, you are presented with a welcome page. Click on Next until you reach the About You page where you are required to create a user account. Create one with your first name and any password you like.
- 9. Now logout of the newly created account and login with a username of **root** and password of **localhost1** (created during installation).

## PROMETHEUS BACKUP

You will now take a backup of your Prometheus VM for peace of mind.

1. On your physical Host Computer go to your home directory and find the vmware folder. Go inside it and you should find the physical files of your Prometheus VM.
2. Make sure your Prometheus VM has been completely Powered Off not suspended and definitely not running.
3. Copy the Prometheus folder and paste it next to itself inside the vmware folder. Name it **“UP?????-Prometheus-Backup-Lab1”**

You are free to repeat this process every week and keep the most recent backup of your working system however you must delete the old backup. You should only have one backup folder at any given time. Any more than that and you will run out of disk space.

## BONUS ROUND

1. In Prometheus download and install Google Chrome and get it to run while logged in as root.
2. Rocky Linux by default comes with a blank desktop (no shortcuts) and only a floating dock that is not visible until moused over. Also, open windows are not displayed in a task bar. Figure out how to:
  - a. In Prometheus: show default desktop shortcuts
  - b. In Prometheus: show all menus (Applications, Places, etc)
  - c. On the Host: create a working desktop shortcut for VMplayer (so that next time you come in all you do on the Host is run VMplayer and work inside Prometheus)