
# B2- Introduction to Networks

B-NET-155

# Rush 1-5

IP Addresses and Subnetworks

v1.0

# Rush 1-5

## FYI

Ths rush is to be done **alone**.

You are not allowed to talk to other students during the rush. Students who are found talking together will be given a -42.

Each student will have:

- 5 virtual machines.

You are allowed to use the Bootstrap materials during the rush. However, you are **not** allowed to use Internet.

If we ask you to create a schema, it must be neat and in numerical format *(Software: Visio/Dia)*. Your schema must be validated by an assistant in order to begin your rush.

After completing each step, you must have them validated by assistants. If you begin a step without having validated the previous step, your final grade will be penalized.

Any early leaving must be reported to an assistant. Failure to do so will result in -21.

Any complaints must be addressed to the ASR laboratory (asr_paris@epitech.eu) within the five days of the publication of the marks.

## Step 1

In order to validate this step, you must create a schema that corresponds to the entirety of this rush's network.
In order to do this, you *must* read the entire subject.

You must include the following in your schema:

- The virtual machines, with their names,
- The IP addresses (network addresses, interface addresses, broadcast addresses and subnetwork masks),
- The names of used interfaces.

After one hour, if you still haven't validated your schema, the assistants will provide it for you.
Your step will not be validated, but you can still continue your rush.

Get validated by an assistant.

## Step 2

Create five Debian virtual machines, without graphic interfaces, and composed of one, single network card.

You are allowed to create a virtual machine and to clone it.

**Class C: 192.168.5.0**

- Configure the VM1 and VM2 network interfaces so that they can communicate together.
- Configure the VM3 and VM4 network interfaces so that they can communicate together.

Get validated by an assistant.

## Step 3

**Class C: 192.168.5.0**

- Configure the VM2 and VM3 network interfaces so that they can communicate together.
- Configure VM1, VM2, VM3 and VM4 so that the four virtual machines can communicate together.

Get validated by an assistant.

## Step 4

**Class 192.168.5.0**

- Configure the VM4 and VM5 network interfaces so that they can communicate together.
- Configure the VM1 and VM5 network interfaces so that they can communicate together.
- Configure VM1, VM2, VM3, VM4 and VM5 so that the five virtual machines can communicate together.

Get validated by an assistant.