



# Net\_Practice

*Summary: This document is a System Administration related exercise.*

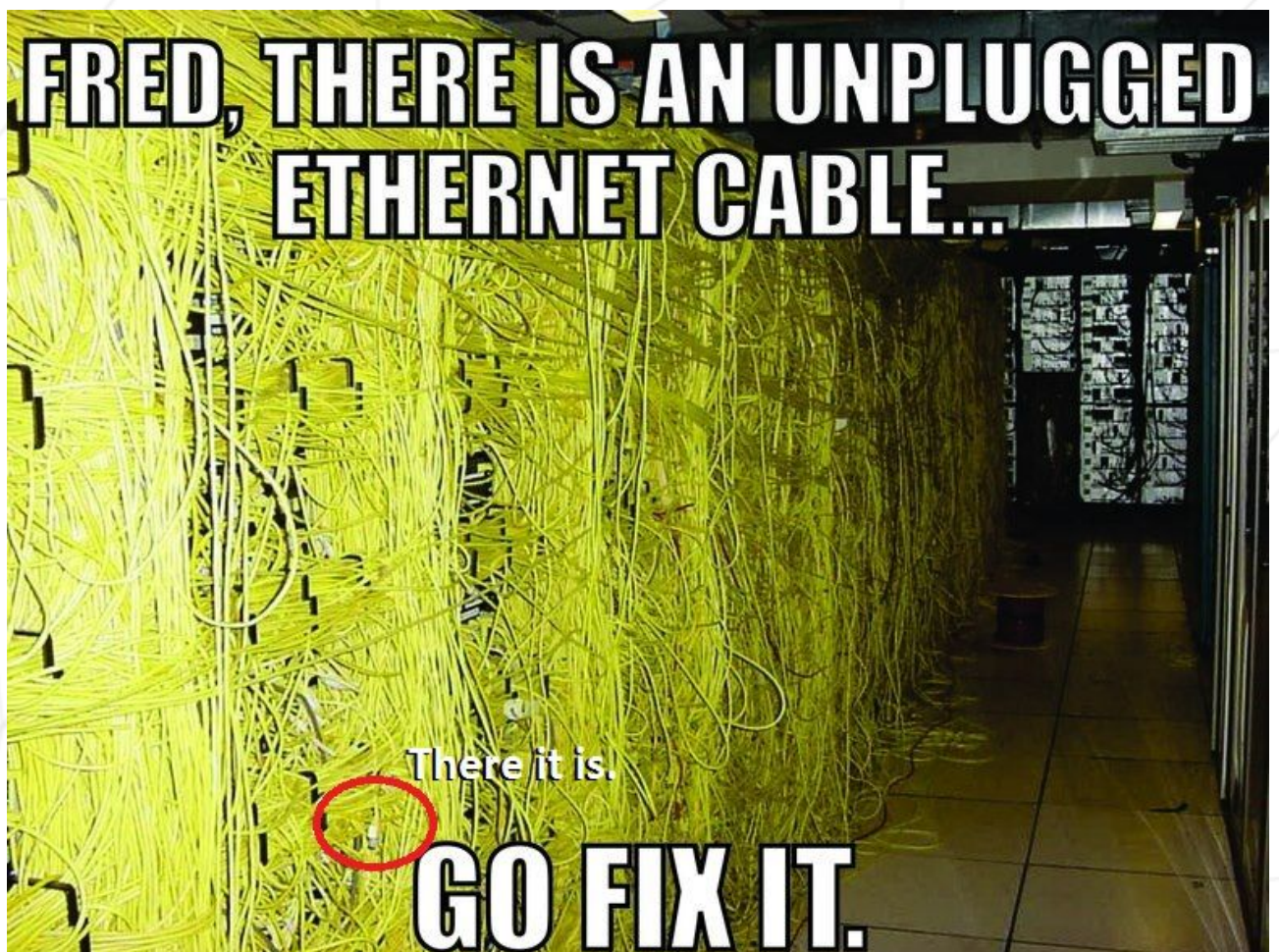
*Version: 2*

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# Chapter I

## Preamble



# **Chapter II**

## **Introduction**

This project is a general practical exercise to let you discover networking.

# Chapter III

## General guidelines

You will have to configure small-scale networks. To do so, it will be necessary to understand how TCP/IP addressing works.

You will have to complete 10 levels (i.e. 10 exercises) and turn them in your **Git** repository.



In this project, the networks you will work with are not real ones. They will be available via a training interface that you will open in your web browser.

# Chapter IV

## Mandatory part

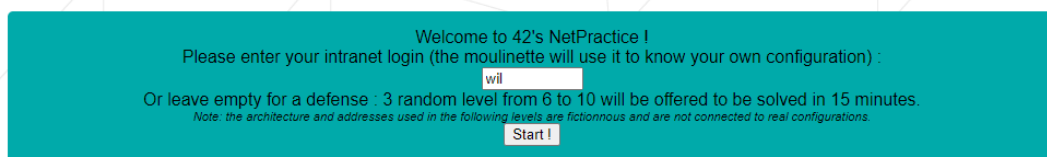
This project is about solving networking problems to make a network run.

First, download the file attached to the project's page.

Then, extract the files in whatever folder you want.

In this folder, run the `index.html` file.

This interface should open in your web browser:



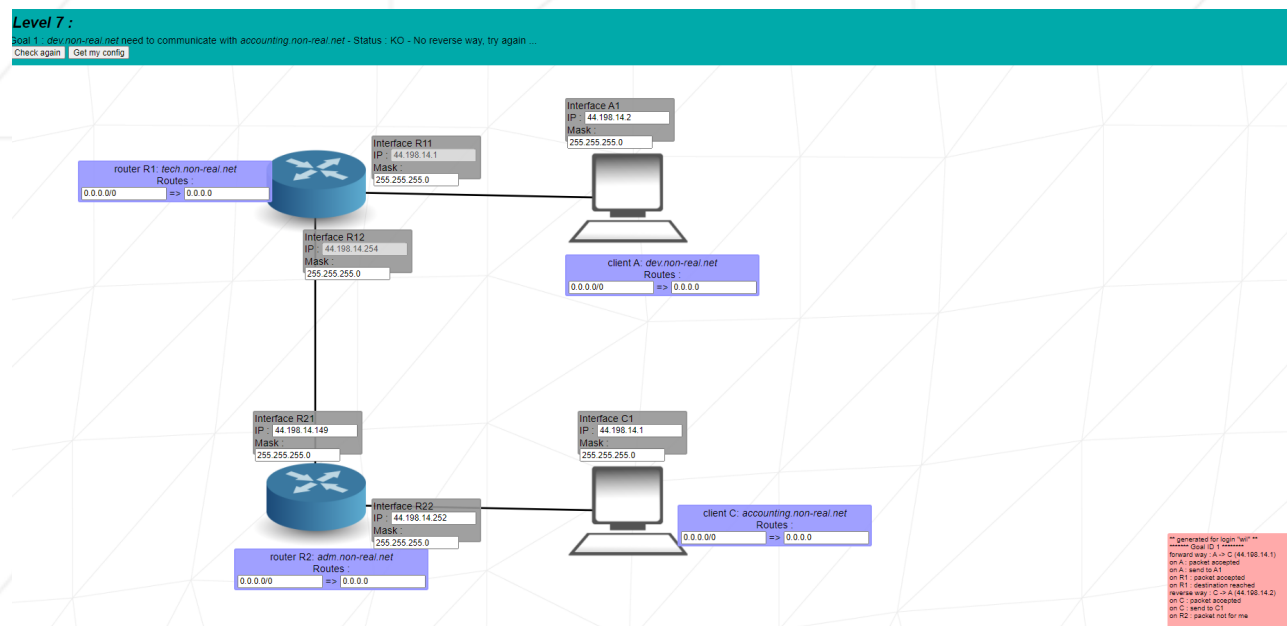
Welcome to 42's NetPractice !  
Please enter your intranet login (the moulinette will use it to know your own configuration) :  
  
Or leave empty for a defense : 3 random level from 6 to 10 will be offered to be solved in 15 minutes.  
Note: the architecture and addresses used in the following levels are fictionnious and are not connected to real configurations.

Welcome to NetPractice! :)

As mentioned on the page:

- You can practice if you input your login in the field
- Or you can try the 'correction' version if you leave the field empty.

There are 10 levels available for training. Below is an example:



For each level, a non-functioning network diagram appears.

At the top of your window, you will see a goal to achieve: the issues to solve so that the network runs properly. There are two buttons you can use:

- **Check again** to verify whether your configuration was correct or not.
- **Get my config** to download your configuration whenever you need to. It will be useful to turn in your assignment.

**Level 7 :**  
Goal 1 : dev.non-real.net need to communicate with accounting.non-real.net - Status : KO - No reverse way, try again ...  
[Check again](#) [Get my config](#)

When you have successfully completed a level, a new button will appear. Click on this button to get to the next level.

[Check again](#) [Get my config](#) [Next level](#)



Before moving to the next level, don't forget to export your configuration using the Get my config button so you can put it in your Git repository.

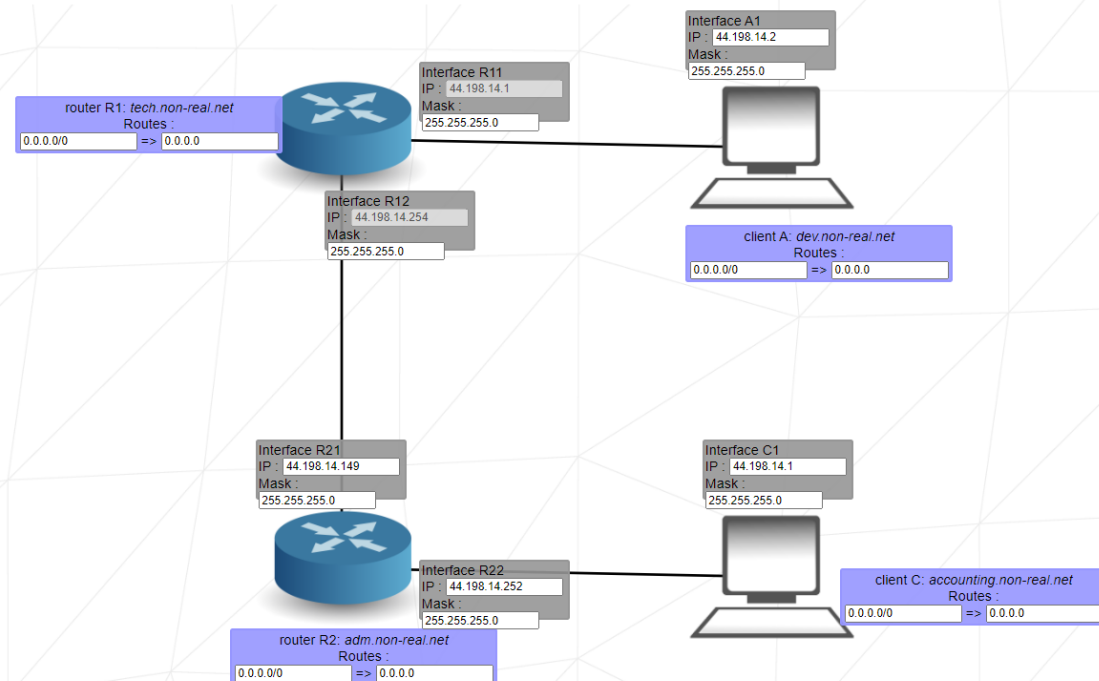


At the bottom of the page, you will see logs. They can be helpful to understand why your configuration is wrong.

```

** generated for login "wil" **
***** Goal ID 1 *****
forward way : A -> C (44.198.14.1)
on A : packet accepted
on A : send to A1
on R1 : packet accepted
on R1 : destination reached
reverse way : C -> A (44.198.14.2)
on C : packet accepted
on C : send to C1
on R2 : packet not for me
    
```

Here is an example of what kind of exercise you will get:



To succeed, modify the unshaded fields until your network configuration is correct.

To complete this assignment, it is strongly recommended to understand how addressing works in a network in which there are devices such as routers. Read about **TCP/IP addressing**.



# Chapter V

## Submission and peer-evaluation

Turn in your assignment in your `Git` repository as usual. Only the work inside your repository will be evaluated during the defense. Don't hesitate to double check the names of your files to ensure they are correct.

Because 10 levels are available in the training interface, you will have to turn 10 files in your repository (1 file per level). Put them at the root of your repository.

Don't forget to enter your login in the training interface. Export a file per level using the `Get my config` button.



It is very important that you enter your login in the interface.

During defense, you will have to succeed 3 random levels as mentioned on the training platform. Of course, you will have a limited time to do so.



You are not allowed to use external tools during your evaluation.  
The use of a simple calculator such as `"bc"` is tolerated but it will be the limit.