Net_Practice

Summary: *Discover the basics of networking.*
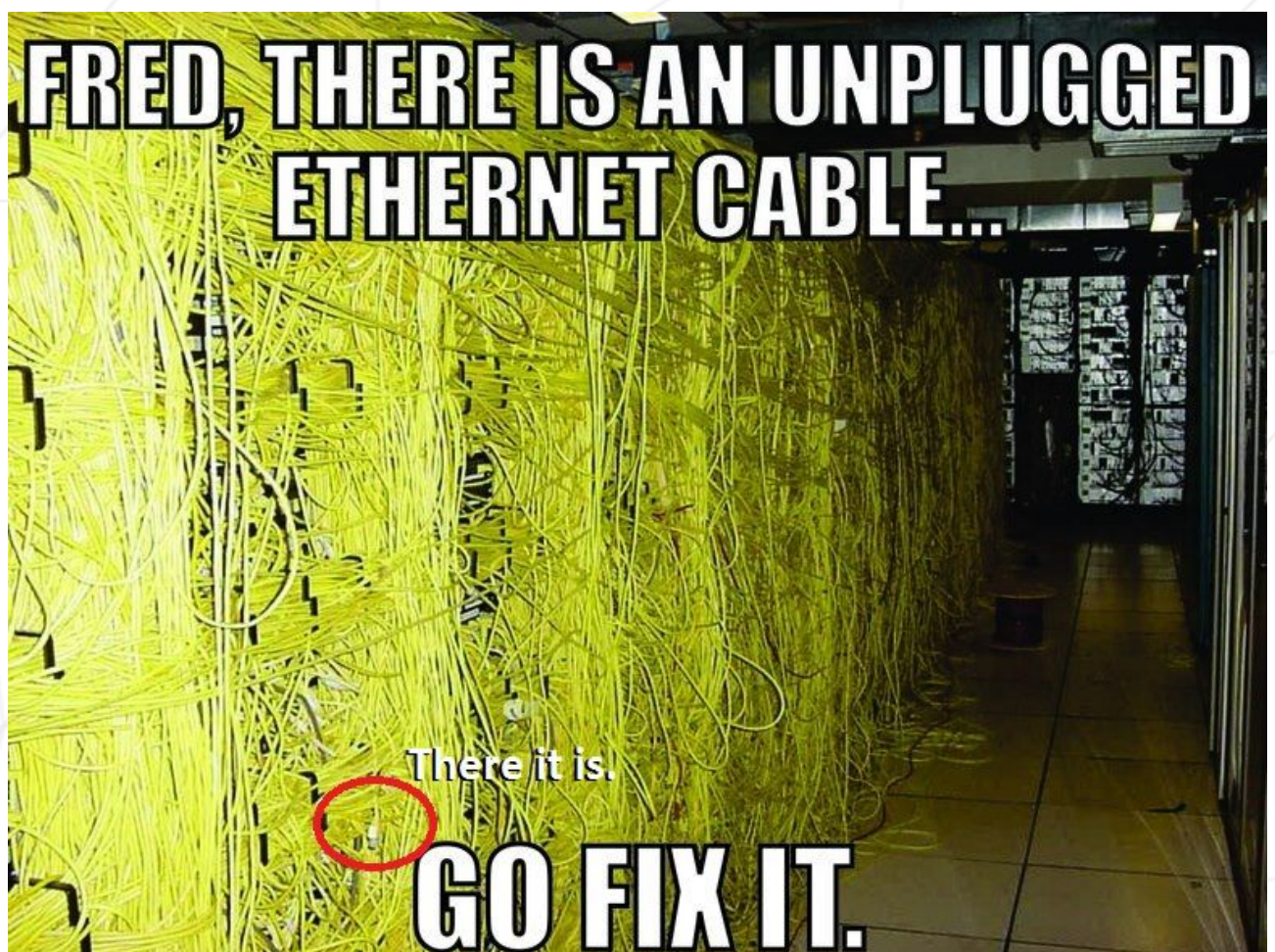
Version: 3.1

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Preamble

Chapter II

Introduction

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

Chapter III

General guidelines

You will need to configure small-scale networks. To do so, it is necessary to understand how `TCP/IP addressing` functions.

You will need to complete 10 levels (i.e. 10 exercises) and submit them to your `Git` repository.

> In this project, the networks you will work with are simulated. They will be available via a training interface that you will open in your web browser.
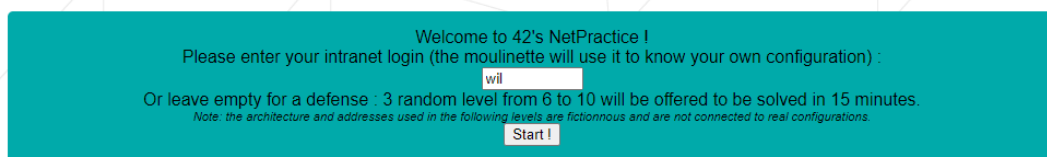
Chapter IV

Mandatory part

This project involves solving networking problems to ensure a network operates correctly.

First, download the file attached to the project page.
Then, extract the files into any folder you choose.
In this folder, open the `index.html` file.
This interface should launch in your web browser:

Welcome to NetPractice! :)

As mentioned on the page:

- You can practice by entering your login in the field

- Alternatively, you can try the 'correction' version by leaving the field empty.

There are 10 levels available for training. Below is an example:
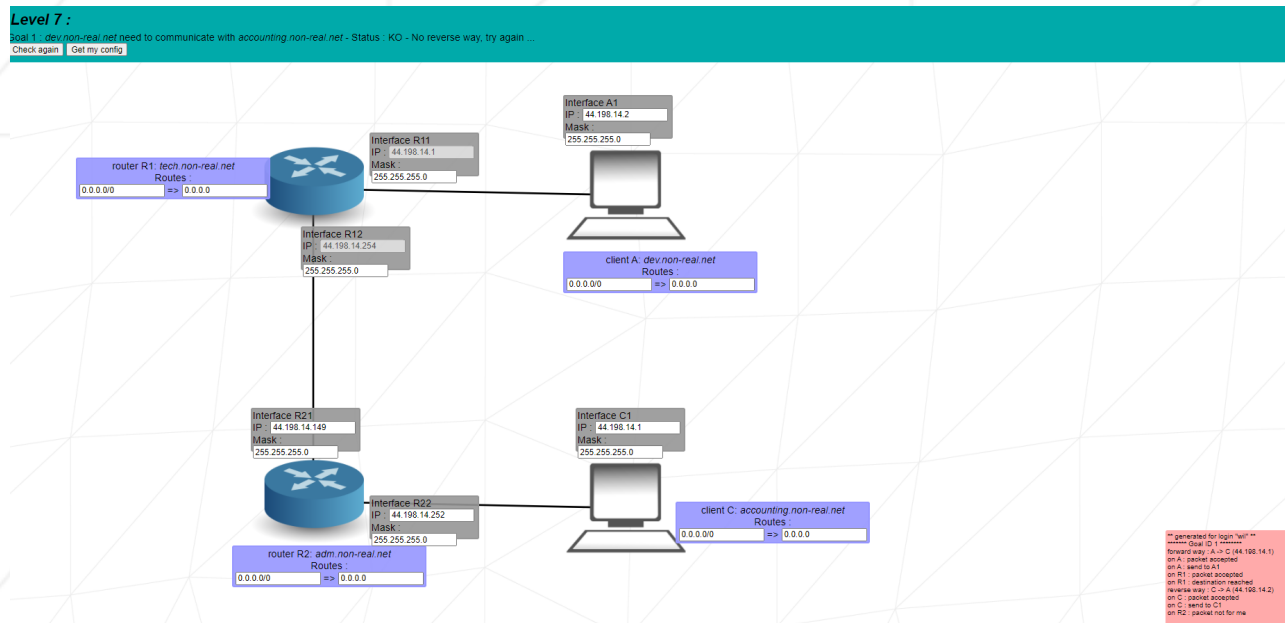
For each level, a non-functional network diagram will appear.

At the top of your window, you will see a goal to achieve, which outlines the issues to solve for the network to function properly. There are two buttons you can use:

- **Check again** to verify if your configuration is correct or not.

- **Get my config** to download your configuration whenever necessary. It will be useful to turn in your assignment.

Upon successfully completing a level, a new button will appear. Click on this button to get to the next level.


Before proceeding to the next level, ensure you export your configuration using the Get my config button so you can put it in your Git repository.

At the bottom of the page, logs are displayed. They can be helpful to understand why your configuration is not functioning.

```
** 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:
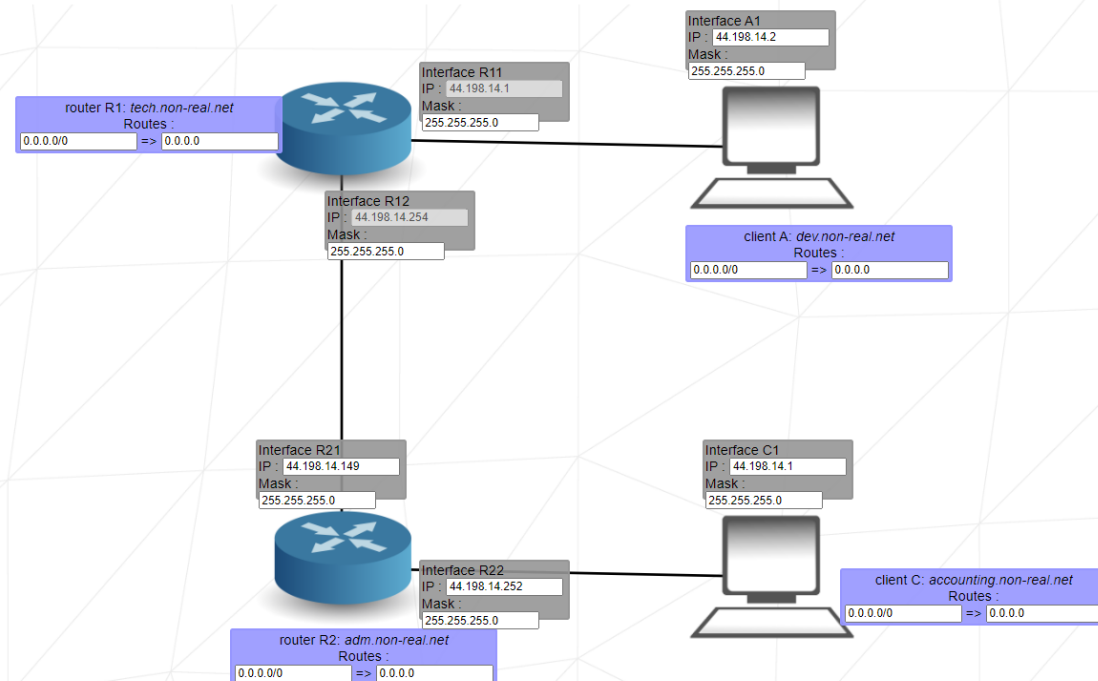
To succeed, adjust the unshaded fields until your network configuration is correct and functional.

To complete this assignment, it is strongly recommended that you understand how addressing functions in a network containing devices such as routers. Familiarize yourself with `TCP/IP addressing`.

Chapter V

Submission and peer-evaluation

Submit your assignment in your `Git` repository as usual. Only the work within your repository will be evaluated during the defense. Do not hesitate to double-check the names of your files to ensure they are correct (if relevant).

Since 10 levels are available in the training interface, you will need to submit 10 files to your repository (1 file per level). Place them at the root of your repository.

Do not forget to enter your login in the training interface. Export a file for each level using the `Get my config` button.

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

During the defense, you will need to successfully complete 3 random levels as mentioned on the training platform. Naturally, you will have a limited time to do so.

> ⚠️ You are prohibited from using external tools during your evaluation. The use of a simple calculator, such as "bc", is tolerated.

> ???????????? XXXXXXXXXX = $3$$84f5ef7ed1616b2fbc6c35e9567d0075