WEB DEV SEMINAR

DAY 01 - UNIX ENVIRONMENTS

WEB DEV SEMINAR

Contents

This day is tested by the autograder!

{ EPITECH. }

Intranet and Manifesto

Using the intranet, register for all of the week's activities.

Now, take a moment to read the document given alongside this one: "the manifesto", to understand **our values**.

Discovering your environment

First, take some time to discover your working environment (keywords, commands, …).
Then learn how to lock your workstation; it might prove to be very useful.

{ EPITECH. }

Task 01

Create a directory named `delivery` at the root of your home directory.
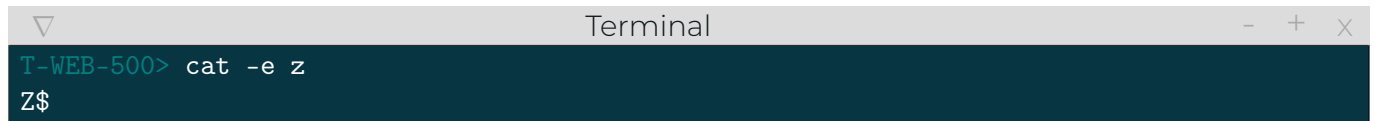Within that directory, create another one named `task01`, which will contain:

- ✓ An empty file named `test01` with default permissions
- ✓ A file named `test02` containing "**If you don't struggle, you don't improve.**". Everyone must have the rights to read and execute this file, but only you can write in it.
- ✓ A symbolic link (symlink) named `test03`, which points to `test02`.

> Read the **ln** man carefully!

{ EPITECH. }

Task 02

Create a file `delivery/task02/z`, which displays the character '**Z**' followed by a line feed (`\n`) when the binary `cat` is used to read it:

```
▽                              Terminal                          –   +   X
T-WEB-500> cat -e z
Z$
```

Task 03

Write in `delivery/task03/midLS`, a command that lists the current repository's files and directories (without hidden files, ellipses, or files starting with a dot) sorted alphabetically.

Files and directories should be separated by commas. Directories must end with a slash.

> Add execution permission to everyone

Access your repositories - git and github

From this point onwards, all your projects will have to be turned-in as a Git repository hosted on GitHub.

So first, create an account on GitHub using your Epitech email address.

> 💡 If you already have a GitHub account, you can simply add your Epitech email address to the list of emails linked to your account.

On GitHub, all of your Epitech projects will be grouped in an organization. If you check your emails, you should already have been invited to the Epitech organization for your promotion. Accept this invitation using the link in the mail.

> 💡 If you've not received an invitation email, contact your local pedagogical team about it.

Okay, now you're in the organization. And for the first time, you're now part of a team within this organization, which gives you access to the repository to deliver today's work.

> 🔊 From now on, for every project, you will be added to a group on the GitHub organization and have access to the project's dedicated repository.

Now generate an ssh key named `id_rsa` and add it to yout GitHub account. This key will allow you to authenticate with GitHub to have access to your repositories.

One last thing: be sure to authorize the previously added ssh key for use with single sign-on on GitHub.com.

> 💡 For more information, see the document "How to turn-in" on the intranet (here).

{EPITECH.}

Do a delivery - Clone a repository and push your work

Now, it is time to check if the previous part really works. To do so, we are going to clone the repository for today's tasks.

The repository is available for git at the following address:
__git@github.com:EpitechMscPromo`$PROMOTIONYEAR`/T-WEB-500-`$CITY`-5-1-webpoold01-`$LEADER`.git__

Where `$PROMOTIONYEAR` stands for your current promotion year (2025 for the 2022/2023 academic year), `$CITY` is a three letter code indicating your city and `$LEADER` is the name of the project group leader (for the pool, you're alone: you are the leader).

> You can check the organization page on GitHub to see the list of all the repositories you have access to.
> From a repository's webpage, you can click on the "Code" button to have access to the SSH URL of the repository.

If it worked, you should have a result similar to:

```
T-WEB-500> git clone git@github.com:EpitechMscProPromo2025/T-WEB-500-STG-5-1-webpoold01-jo
into 'T-WEB-500-STG-5-1-webpoold01-jonathan1.nau'...
warning: You appear to have cloned an empty repository.
Checking connectivity... done
```

Now, You have to move all task directories (previously created) into the repository of the day.
Then, you have to inform `git` of your wish to **add** these files.
After that, you have to **commit** a new local revision which contains all these modifications.
Finally, you have to **push** this revision to the remote server.
From now on, commit and push at the end of each task.

> Make sure that the file permissions have not been altered during the copy/move.

> Have you already read the document on the intranet?

{EPITECH.}

Task 04

Create a shell script named `mr_clean` at the root of the repository of the day. It should find and delete every file from the current directory and all subdirectories which end with ˜ or which start **and** end with #.
Give execution rights to the owner of the file.

Only one command is allowed (no ";", neither "&&" or anything...)

Read carefully the manual of `find`

Task 05

Write a shell script named `push_that.sh` at the root of your repository.
The script must add all of the current folder's files and push them to the repository.

The script must take a commit message as parameter and should be able to handle simple problems and still push your files.

Having trouble figuring out how to retrive parameters? `man bash`.

When you're writing a script, don't forget the **shebang**!
And don't forget to set the proper execution right!

Don't use this script if you share a repository with other people.

{ EPITECH. }

Task 06

Reproduce the folders structure displayed below.

```
T-WEB-500> tree -FQ task06 | head -n 32

"task06"/
|-- "1910s"/
|   |-- "1911" -> "../Solvay Conferences on Physics/The theory of radiation and quanta"/
|   `-- "1913" -> "../Solvay Conferences on Physics/The structure of matter"/
|-- "1920s"/
|   |-- "1921" -> "../Solvay Conferences on Physics/Atoms and electrons"/
|   |-- "1924" -> "../Solvay Conferences on Physics/Electric conductivity of metals and
    related problems"/
|   `-- "1927" -> "../Solvay Conferences on Physics/Electrons and photons"/
|-- "1930s"/
|   |-- "1930" -> "../Solvay Conferences on Physics/Magnetism"/
|   |-- "1931" -> "../Solvay Conferences on Chemistry/Constitution and Configuration of
    Organic Molecules"/
|   |-- "1934" -> "../Solvay Conferences on Chemistry/Oxygen, and its chemical and
    biological reactions"/
|   `-- "1937" -> "../Solvay Conferences on Chemistry/Vitamins and Hormones"/
|-- "1940s"/
|   `-- "1947" -> "../Solvay Conferences on Chemistry/Isotopes"/
|-- "1950s"/
|-- "Professors"/
|   |-- "Frederic Swarts"
|   |-- "Hendrik Lorentz"
|   |-- "Paul Karrer"
|   |-- "Paul Langevin"
|   `-- "William Jackson Pope"
|-- "Solvay Conferences on Chemistry"/
|   |-- "Constitution and Configuration of Organic Molecules"/
|   |   `-- "chair" -> "../../Professors/William Jackson Pope"
|   |-- "Isotopes"/
|   |   |-- "chair" -> "../../Professors/Paul Karrer"
|   |   `-- "participants"/
|   |-- "Oxygen, and its chemical and biological reactions"/
|   |   `-- "chair" -> "../../Professors/William Jackson Pope"
|   `-- "Vitamins and Hormones"/
|       `-- "chair" -> "../../Professors/Frederic Swarts"
```

{ EPITECH. }

```
T-WEB-500> tree -FQ task06 | tail -n 24

'-- "Solvay Conferences on Physics"/
    |-- "Atoms and electrons"/
    |   '-- "chair" -> "../../Professors/Hendrik Lorentz"
    |-- "Electric conductivity of metals and related problems"/
    |   '-- "chair" -> "../../Professors/Hendrik Lorentz"
    |-- "Electrons and photons"/
    |   |-- "chair" -> "../../Professors/Hendrik Lorentz"
    |   '-- "participants"/
    |       |-- "A. Einstein"
    |       |-- "E. Schrodinger"
    |       |-- "H.A. Lorentz"
    |       |-- "M. Planck"
    |       |-- "M. Sklodowska-Curie"
    |       |-- "N. Bohr"
    |       |-- "W. Heisenberg"
    |       '-- "W.L. Bragg"
    |-- "Magnetism"/
    |   '-- "chair" -> "../../Professors/Paul Langevin"
    |-- "The structure of matter"/
    |   '-- "chair" -> "../../Professors/Hendrik Lorentz"
    '-- "The theory of radiation and quanta"/
        '-- "chair" -> "../../Professors/Hendrik Lorentz"

30 directories, 23 files
```

Git handles empty directories differently.

{ EPITECH. }

Task 07

Create a compressed (with Gzip) tarball of the content of the previous task's directory.

Delivery: `task07/task06.tgz`

man tar