TRAVAUX PRATIQUES Git, GitHub TP-4

Exercice 1 : Initialiser un dépôt Git local

Objectif : créer un projet versionné localement.

Énoncé :

1. Crée un dossier `mon-projet-git`.
2. Crée un fichier `index.txt` avec une phrase.
3. Initialise Git et fais un premier commit.

```
My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop
$ mkdir mon-projet-git

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop
$ ls
 Initiation-a-la-sonorisation.pdf
 Initiation-a-la-sonorisation.pptx
'Les-Sept-Paroles-de-Jesus-sur-la-Croix-Un-Chemin-de-Redemption (1).pptx'
'White simple Sales Representative Cv Resume.docx'
'White simple Sales Representative Cv Resume.pdf'
'Wondershare EdrawMax.lnk'*
 ca/
 desktop.ini
 marco.pdf
 mon-projet-git/

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop
$ cd mon-projet-git

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon-projet-git
$ touch index.txt

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon-projet-git
$ ls
index.txt

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon-projet-git
$ git init
Initialized empty Git repository in C:/Users/My pc/Desktop/mon-projet-git/.git/

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon-projet-git (master)
$ ls
index.txt

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon-projet-git (master)
$ git add index.txt

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon-projet-git (master)
$ 
```

```
My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon-projet-git (master)
$ git commit -m "Creation du fichier index"
[master (root-commit) 3e3c4dd] Creation du fichier index
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 index.txt
```

Exercice 2 : Travailler avec l'historique Git

Objectif : Modifier un fichier, suivre et annuler les changements.

Énoncé :

1. Modifie `index.txt`
2. Vérifie les changements
3. Annule les modifications

```
My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon-projet-git (master)
$ nano index.txt

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon-projet-git (master)
$ git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   index.txt

no changes added to commit (use "git add" and/or "git commit -a")

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon-projet-git (master)
$ git diff
warning: in the working copy of 'index.txt', LF will be replaced by CRLF the n
me Git touches it
diff --git a/index.txt b/index.txt
index e69de29..093658a 100644
--- a/index.txt
+++ b/index.txt
@@ -0,0 +1 @@
+Hello world TRAVAUX PRATIQUES Git, GitHub

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon-projet-git (master)
$ git checkout index.txt
Updated 1 path from the index

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon-projet-git (master)
$ git diff

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon-projet-git (master)
$ git status
On branch master
nothing to commit, working tree clean

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon-projet-git (master)
$
```

Exercice 3 : Ajouter un fichier README.md

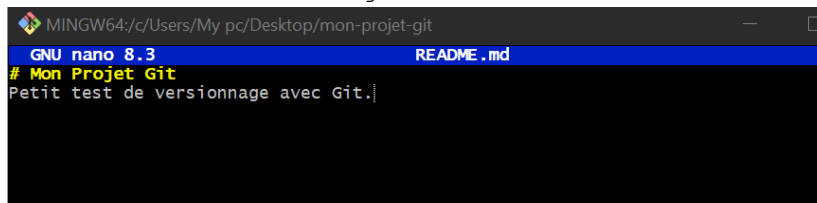**Objectif :** Créer un README simple et le commiter.

Énoncé :

1. Crée un fichier README.md avec :

```
md
CopierModifier
# Mon Projet Git
Petit test de versionnage avec Git.
```

```
MINGW64:/c/Users/My pc/Desktop/mon-projet-git
  GNU nano 8.3                          README.md
# Mon Projet Git
Petit test de versionnage avec Git.
```

2. Ajoute et committe le fichier

```
My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon-projet-git (master)
$ git commit -m "Ajout du fichier README"
[master 1153f55] Ajout du fichier README
 1 file changed, 2 insertions(+)
 create mode 100644 README.md

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon-projet-git (master)
$
```

Exercice 4 : Créer un dépôt GitHub et pousser le projet

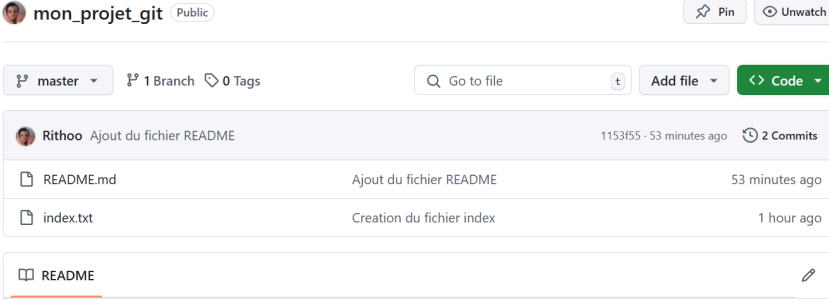**Objectif :** Mettre ton projet en ligne.

Énoncé :

1. Crée un nouveau repo sur GitHub sans README
2. Ajoute le remote et pousse ton projet

```
My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (master)
$ git branch
* master

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (master)
$ git push origin master
info: please complete authentication in your browser...
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 4 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (6/6), 531 bytes | 265.00 KiB/s, done.
Total 6 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Rithoo/mon_projet_git.git
 * [new branch]      master -> master

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (master)
$
```

🔵 mon_projet_git Public		☆ Pin	👁 Unwatch
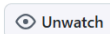
| ⑂ master ▾ | ⑂ 1 Branch ⬡ 0 Tags | 🔍 Go to file | t | Add file ▾ | ⟨⟩ Code ▾ |

🔵 Rithoo Ajout du fichier README		1153f55 · 53 minutes ago	🕐 2 Commits

| 📄 README.md | Ajout du fichier README | 53 minutes ago |
| 📄 index.txt | Creation du fichier index | 1 hour ago |

📖 README	✏

Exercice 5 : Créer une nouvelle branche

Objectif : Expérimenter une fonctionnalité sans casser le code principal.

Énoncé :

1. Crée une branche `nouvelle-fonction`
2. Ajoute un fichier `fonction.py`
3. Merge cette branche dans `main`

```
My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (master)
$ git checkout -b new_function
Switched to a new branch 'new_function'

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (new_function)
$ touch function.py

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (new_function)
$ ls
README.md  function.py  index.txt

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (new_function)
$ git checkout master
Switched to branch 'master'

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (master)
$ git merge new_function
Already up to date.

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (master)
$ git branch
* master
  new_function

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (master)
$ ls
README.md  function.py  index.txt

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (master)
$
```

Exercice 6 : Gérer un conflit

Objectif : Apprendre à résoudre un conflit Git.

Énoncé :

1. Sur `main`, ajoute une ligne à `index.txt`
2. Sur une autre branche `update-index`, modifie la même ligne

```
My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (other_branch)
$ git checkout master
error: Your local changes to the following files would be overwritten by checkout:
        index.txt
Please commit your changes or stash them before you switch branches.
Aborting

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (other_branch)
$ nano index.txt

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (other_branch)
$ git checkout master
error: Your local changes to the following files would be overwritten by checkout:
        index.txt
Please commit your changes or stash them before you switch branches.
Aborting

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (other_branch)
$ git add index.txt
warning: in the working copy of 'index.txt', LF will be replaced by CRLF the next t
me Git touches it

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (other_branch)
$ git commit -m "commit orther_branch"
[other_branch 8d9037c] commit orther_branch
 1 file changed, 4 insertions(+)

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (other_branch)
$ git checkout master
Switched to branch 'master'

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (master)
$ git merge other_branch
Auto-merging index.txt
CONFLICT (content): Merge conflict in index.txt
Automatic merge failed; fix conflicts and then commit the result.

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (master|MERGING)
$ git add index.txt

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (master|MERGING)
$ git commit -m "merge"
[master f098d26] merge

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/mon_projet_git (master)
$
```

Exercice 7 : Améliorer le README.md

Objectif : Rédiger un README plus professionnel.

✏□ **Énoncé :**

Ajoute les sections suivantes :

- Description
- Installation
- Utilisation
- Auteur

```markdown
# Mon Projet Git

## Description

Ce projet est un exemple de dépôt Git utilisé pour démontrer les bonnes pratiques
de gestion de version avec Git et GitHub. Il contient des fichiers de base et des
exemples de commandes Git pour aider les débutants à se familiariser avec le
contrôle de version.

## Installation

Pour installer et configurer ce projet localement, suivez ces étapes :

1. Clonez le dépôt sur votre machine locale :
   ```bash
   git clone https://github.com/votre-utilisateur/mon_projet_git.git
   ```

2. cd mon_projet_git

Auteur

Nom : Rithler Laguerre
GitHub : Rithoo
```

Travaux Pratiques GIT et GITHUB TP-5

Exercice 1 : Initialiser un dépôt Git

Objectif : Créer un dépôt local et ajouter un fichier

· Créer un dossier `ex1_init_repo`
· Ajouter un fichier `README.md` contenant une description

```
My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop
$ mkdir ex1_init_repo

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop
$ ls
 Initiation-a-la-sonorisation.pdf
 Initiation-a-la-sonorisation.pptx
'Les-Sept-Paroles-de-Jesus-sur-la-Croix-Un-Chemin-de-Redemption (1).pptx'
'White simple Sales Representative Cv Resume.docx'
'White simple Sales Representative Cv Resume.pdf'
'Wondershare EdrawMax.lnk'*
 ca/
 desktop.ini
 ex1_init_repo/
 marco.pdf
 mon_projet_git/

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop
$ cd ex1_init_repo

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo
$ touch README.md

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo
$ ls
README.md

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo
$ nano README.md

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo
$ git init
Initialized empty Git repository in C:/Users/My pc/Desktop/ex1_init_repo/.git/

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ git add README.md
warning: in the working copy of 'README.md', LF will be replaced by CRLF the next ti
me Git touches it

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ git commit -m "Ajout du fichier README.md"
[master (root-commit) 9305351] Ajout du fichier README.md
 1 file changed, 3 insertions(+)
 create mode 100644 README.md
```

Exercice 2 : Suivre les modifications d'un fichier Objectif

: Observer l'état d'un fichier modifié

Modifier plusieurs fois `note.txt`

```
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        note.txt

nothing added to commit but untracked files present (use "git add" to track)

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ git diff

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ nano note.txt

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ git add note.txt
warning: in the working copy of 'note.txt', LF will be replaced by CRLF the next tim
e Git touches it

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ git commit -m "modification 1"
[master fb24fad] modification 1
 1 file changed, 2 insertions(+)
 create mode 100644 note.txt

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ nano note.txt

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ git add note.txt
warning: in the working copy of 'note.txt', LF will be replaced by CRLF the next tim
e Git touches it

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   note.txt

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ git diff

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ git commit -m "modification 2"
[master a34b5de] modification 2
 1 file changed, 1 deletion(-)
```

Exercice 3 : Consulter l'historique des changements

Objectif : Utiliser `log, show, blame`

```
My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ git log
commit a34b5de66d40aa1936344e94249f749f88eb7df3 (HEAD -> master)
Author: Rithoo <rth17ndy@gmail.com>
Date:   Sun May 11 20:29:42 2025 -0400

    modification 2

commit fb24fad34e4f8bc1eefd1e19eb8f2157c6b1dad9
Author: Rithoo <rth17ndy@gmail.com>
Date:   Sun May 11 20:27:54 2025 -0400

    modification 1

commit 93053515da51f2af9e438f50ebefac89fde416db
Author: Rithoo <rth17ndy@gmail.com>
Date:   Sun May 11 20:08:01 2025 -0400

    Ajout du fichier README.md

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ git show
commit a34b5de66d40aa1936344e94249f749f88eb7df3 (HEAD -> master)
Author: Rithoo <rth17ndy@gmail.com>
Date:   Sun May 11 20:29:42 2025 -0400

    modification 2

diff --git a/note.txt b/note.txt
index dcf0f43..27af52f 100644
--- a/note.txt
+++ b/note.txt
@@ -1,2 +1 @@
 les modifications d'un fichier
-Observer l'état d'un fichier modifié.
```

Exercice 4 : Annuler des changements

Annuler avant le commit

```
My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ nano note.txt

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ git diff
warning: in the working copy of 'note.txt', LF will be replaced by CRLF the next tim
e Git touches it
diff --git a/note.txt b/note.txt
index 27af52f..d84d39c 100644
--- a/note.txt
+++ b/note.txt
@@ -1 +1,2 @@
+Suivre les modifications d'un fichier
 les modifications d'un fichier

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ git checkout -- note.txt

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ git diff

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ git status
On branch master
nothing to commit, working tree clean

My pc@DESKTOP-FGPHLQ1 MINGW64 ~/Desktop/ex1_init_repo (master)
$ git show note.txt
commit a34b5de66d40aa1936344e94249f749f88eb7df3 (HEAD -> master)
Author: Rithoo <rth17ndy@gmail.com>
Date:   Sun May 11 20:29:42 2025 -0400

    modification 2

diff --git a/note.txt b/note.txt
index dcf0f43..27af52f 100644
--- a/note.txt
+++ b/note.txt
@@ -1,2 +1 @@
 les modifications d'un fichier
-Observer l'état d'un fichier modifié.
```

Exercice 5 : Lier un dépôt local à GitHub

Push vers GitHub