RESIDÊNCIA EM TECNOLOGIA DA INFORMAÇÃO E COMUNICAÇÃO - TIC18

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Prática Pl-P002

Lista de Exercícios – Pl-002

Exercício 1: Instale e configure o Git – Configure globalmente seu nome de usuário e e-mail no Git.

Primeiramente, foi verificada a versão do Git: version 2.39.0.windows.2 Depois, foi configurado o git user name de forma global, bem como o e-mail.

```
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/hello-world (master)
$ git --version
git version 2.39.0.windows.2

jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/hello-world (master)
$ git config --global user.name "Jose Ulian Cardoso"

jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/hello-world (master)
$ git config --global user.email "ulian18@gmail.com"

jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/hello-world (master)
$ "jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/hello-world (master)
$ "jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/hello-world (master)
```

As configurações foram aplicadas de acordo com os procedimentos discutidos em sala. O repositório criado foi o repo_helder.

Exercício 2: Crie um repositório Git em um diretório vazio chamado "MeuProjeto". Crie um arquivo chamado "introdução.txt" e adicione uma breve introdução ao projeto.

Criando o repositório chamado MeuProjeto

```
MINGW64:/c/Users/jucaa/Desktop/repo_helder/Projeto1/TIC18_Semana1_listaPI-002

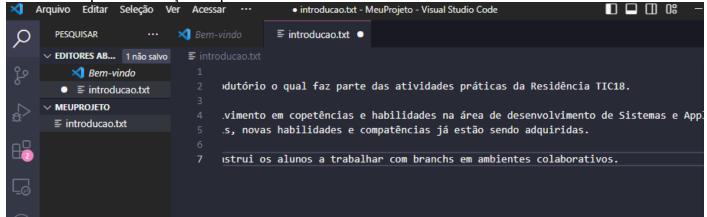
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_lista
P1-002 (master)
$ git init
Initialized empty Git repository in C:/Users/jucaa/Desktop/repo_helder/Projeto1/
TIC18_Semana1_listaP1-002/.git/
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_lista
P1-002 (master)
$ mkdir MeuProjeto

jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_lista
P1-002 (master)
$ ls
MeuProjeto/
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_lista
P1-002 (master)
$ |
```

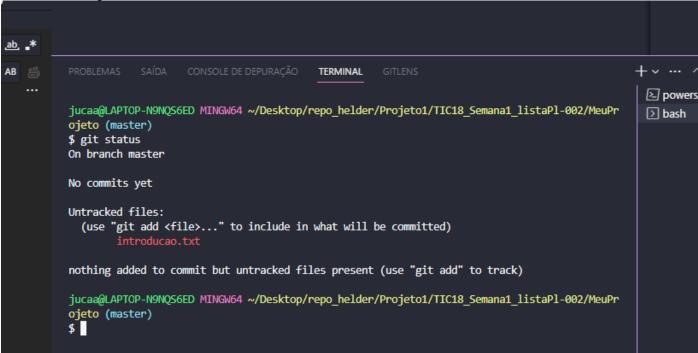
Repositório criado.

Nome	Data de modificação	Тіро	Tamanho
📕 .git	06/09/2023 14:16	Pasta de arquivos	
MeuProjeto	06/09/2023 14:19	Pasta de arquivos	

Criando o arquivo introdução.txt pelo VS Code.

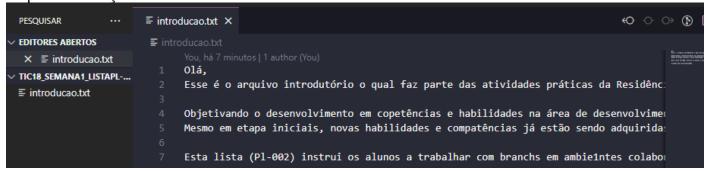


Verificando arquivo adicionado.



3 Exercício: Crie um branch chamado "feature-navbar". No arquivo "introducao.txt", adicione informações sobre um novo recurso a ser adicionado ao projeto. Faça um commit das alterações no branch "feature-navbar". Volte para o branch principal (master) e verifique que as alterações do branch "feature-navbar" não estão visíveis. Realize o merge das alterações do branch "feature-navbar" para o branch principal.

Arquivo introdução



Criando uma nova branch "feature-navbar"

```
MINGW64:/c/Users/jucaa/Desktop/repo_helder/Projeto1/TIC18_Semana1_ListaPI-0002
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_Lista
P1-0002 (master)
$ git init
Initialized empty Git repository in C:/Users/jucaa/Desktop/repo_helder/Projeto1/TIC18_Semanal_Lis
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_ListaPl-0002 (master)
$ code .
jucaa@LAPTOP-N9NQ56ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_ListaPl-0002 (master)
$ git status
On branch master
No commits yet
Untracked files:
  (use "git add <file>..." to include in what will be committed)
nothing added to commit but untracked files present (use "git add" to track)
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_Lista
P1-0002 (master)
$ git add .
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_ListaPl-0002 (master)
$ git commit -m "Adicionando introducao"
[master (root-commit) fbb4881] Adicionando introducao
 1 file changed, 7 insertions(+)
 create mode 100644 introducao.txt
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_ListaPl-0002 (master)
$ git branch feature-navbar
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_ListaPl-0002 (master)
$ git branch
  feature-navbar
```

Incluindo novas alterações na brech feature-navbar

Realizando o commit na nova branch.

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

jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_ListaPl-0002 (feature-navbar)

$ git commit -am "Alterando o arquivo introducao"

[feature-navbar 9cdf71c] Alterando o arquivo introducao

1 file changed, 3 insertions(+), 1 deletion(-)

jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_ListaPl-0002 (feature-navbar)

$ git checkout master

Switched to branch 'master'
```

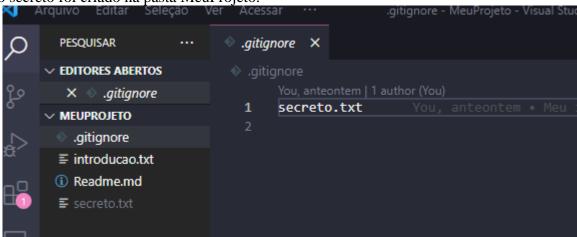
Retornando para branch master e realizando o merge.

```
jucaa@LAPTOP-N9NQ56ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_ListaPl-0002 (feature-navbar)
$ git status
On branch feature-navbar
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: introducao.txt
no changes added to commit (use "git add" and/or "git commit -a")
jucaa@LAPTOP-N9NQ56ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_ListaPl-0002 (feature-navbar)
$ git commit -am "Alterando o arquivo introducao"
[feature-navbar 9cdf71c] Alterando o arquivo introducao
1 file changed, 3 insertions(+), 1 deletion(-)
jucaa@LAPTOP-N9NQ56ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_ListaPl-0002 (feature-navbar)
$ git checkout master
Switched to branch 'master'
jucaa@LAPTOP-N9NQ56ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_ListaPl-0002 (master)
$ git merge feature-navbar
Updating fbb4881..9cdf71c
Fast-forward
 introducao.txt | 4 +++-
 1 file changed, 3 insertions(+), 1 deletion(-)
```

Exercício 4: Ignorando arquivos.

O arquivo secreto foi criado na pasta MeuProjeto.



Documento secreto enviado ao VS Code.

Fazendo alterações no documento secreto.



As alterações não foram exibidas para outros usuários, ou seja, não foi versionado para os demais.

```
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semanal_ListaPl-0002 (master)
$ git add .

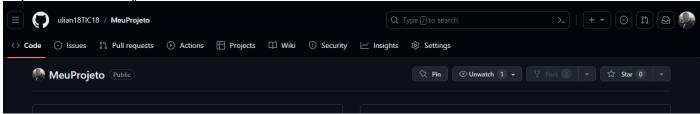
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semanal_ListaPl-0002 (master)
$ git commit -m "adicionando o git ignore"
[master e49d710] adicionando o git ignore
2 files changed, 2 insertions(+)
create mode 100644 .gitignore
create mode 100644 Readme.md

jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semanal_ListaPl-0002 (master)
$ git status
On branch master
nothing to commit, working tree clean

jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semanal_ListaPl-0002 (master)
$
```

Exercício 5: Trabalhando com repositórios remotos.

Repositório MeuProjeto foi criado.



Conectando ao repositório por meio de uma chave SSH.

No git bashm, inicia-se com o comando >> ssh-keygen -t rsa -b 4096 -C "ulian18@gmail.com"

```
MINGW64:/c/Users/jucaa
 jucaa@LAPTOP-N9NQS6ED MINGW64 ~ (master)
$ ssh-keygen -t rsa -b 4096 -C "ulian18@gmail.com"
Generating public/private rsa key pair.
Enter file in which to save the key (/c/Users/jucaa/.ssh/id_rsa):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
 Your identification has been saved in /c/Users/jucaa/.ssh/id_rsa
 Your public key has been saved in /c/Users/jucaa/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:PJ5nwB//1XYRErf64PxrPNYbad40GKdkKVQBSUoxP3o ulian18@gmail.com
The key's randomart image is:
    --[RSA 4096]----+
           +000000 .
           . +.. 0 .
          00..0.
           S E =0..
              *0=0 +
                +00=*
                 . +0=
       [SHA256]----+
```

Chave SSH cadastrada no GitHub.



Repositório local conectado ao repositório remoto por meio de uma chave pública.

```
jucaa@LAPTOP-N9NQ56ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_Lista
Pl-0002 (master)
$ git remote
origin

jucaa@LAPTOP-N9NQ56ED MINGW64 ~/Desktop/repo_helder/Projeto1/TIC18_Semana1_Lista
Pl-0002 (master)
$ git remote -v
origin https://github.com/ulian18TIC18/TIC18_Semana1_listaPl-002.git (fetch)
origin https://github.com/ulian18TIC18/TIC18_Semana1_listaPl-002.git (push)
```

Analisando os arquivos adicionados na pasta MeuProjeto.

Conectando o git ou github:

Enviando o arquivo para o controle de versão.

```
Desktop/repo_helder/MeuProjeto <mark>(main)</mark>
$ git add .
warning: in the working copy of 'README.md', LF will be replaced by CRLF the nex
t time Git touches it
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/MeuProjeto (main)
$ git status
On branch main
No commits yet
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
         new file: .gitignore
new file: Introducao.txt
new file: README.md
 jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/MeuProjeto (main)
$ git branch
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/MeuProjeto (main)
$ git commit -m "commit inicial Pl-002"
[main (root-commit) ef389f8] commit inicial Pl-002
 3 files changed, 4 insertions(+)
create mode 100644 .gitignore
create mode 100644 Introducao.txt
 create mode 100644 README.md
```

Alterando para a branch master:

```
jucaa@LAPTOP-N9NQS6ED MSYS ~/Desktop/repo_helder/MeuProjeto (master)
$ git branch
    main
* master

jucaa@LAPTOP-N9NQS6ED MSYS ~/Desktop/repo_helder/MeuProjeto (master)
$ git branch -a
    main
* master
    remotes/origin/main
    remotes/origin/master

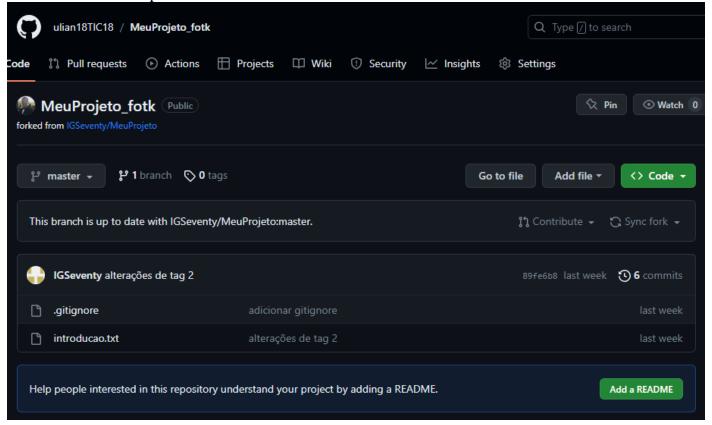
jucaa@LAPTOP-N9NQS6ED MSYS ~/Desktop/repo_helder/MeuProjeto (master)
$ git pull
Enter passphrase for key '/c/Users/jucaa/.ssh/id_rsa':
Already up to date.
```

Realizando o push:

```
a@LAPTOP-N9NQS6ED MSYS ~/Desktop/repo helder/MeuProjeto (master)
$ git pull
Enter passphrase for key '/c/Users/jucaa/.ssh/id_rsa':
Already up to date.
jucaa@LAPTOP-N9NQS6ED MSYS ~/Desktop/repo_helder/MeuProjeto (master)
$ git add .
jucaa@LAPTOP-N9NQS6ED MSYS ~/Desktop/repo_helder/MeuProjeto (master)
$ git commit -m "Meu commit lista002"
[master 66322e4] Meu commit lista002
1 file changed, 1 insertion(+), 1 deletion(-)
jucaa@LAPTOP-N9NQS6ED MSYS ~/Desktop/repo helder/MeuProjeto (master)
$ git push origin master
Enter passphrase for key '/c/Users/jucaa/.ssh/id rsa':
Enumerating objects: 8, done.
Counting objects: 100% (8/8), done.
Delta compression using up to 4 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (6/6), 676 bytes | 338.00 KiB/s, done.
Total 6 (delta 0), reused 0 (delta 0), pack-reused 0
To github.com:ulian18TIC18/MeuProjeto.git
   5da65e6..66322e4 master -> master
jucaa@LAPTOP-N9NQS6ED MSYS ~/Desktop/repo_helder/MeuProjeto (master)
$ git commit -m "Meu commit lista002"
```

Exercício 6: Clonando e Forking

Criando um fork do repositório do Iallan.



Clonando repositório.

```
TERMINAL
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo helder/MeuProjeto (master)
$ git clone https://github.com/ulian18TIC18/MeuProjeto_fotk.git
Cloning into 'MeuProjeto_fotk'...
remote: Enumerating objects: 16, done.
remote: Counting objects: 100% (16/16), done.
remote: Compressing objects: 100% (9/9), done.
remote: Total 16 (delta 5), reused 15 (delta 4), pack-reused 0
Receiving objects: 100% (16/16), done.
Resolving deltas: 100% (5/5), done.
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo helder/MeuProjeto (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        MeuProjeto fotk/
nothing added to commit but untracked files present (use "git add" to track)
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo helder/MeuProjeto (master)
$
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder (master)
$ cd MeuProjeto/
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo helder/MeuProjeto (master)
$ ls
Introducao.txt MeuProjeto_fotk/ README.md secreto.txt
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/MeuProjeto (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        MeuProjeto fotk/
nothing added to commit but untracked files present (use "git add" to track)
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/MeuProjeto (master)
$ git add .
warning: adding embedded git repository: MeuProjeto_fotk
hint: You've added another git repository inside your current repository.
hint: Clones of the outer repository will not contain the contents of
hint: the embedded repository and will not know how to obtain it.
hint: If you meant to add a submodule, use:
hint:
hint:
       git submodule add <url> MeuProjeto fotk
hint:
hint: If you added this path by mistake, you can remove it from the
hint: index with:
hint:
```

Agora o colega aceita ou rejeita as alterações com um merge.

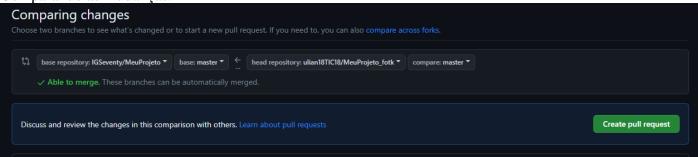
```
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/MeuProjeto/MeuProjeto_fotk (m
$ git status
On branch master
Your branch is up to date with 'origin/master'.
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:
                   introducao.txt
no changes added to commit (use "git add" and/or "git commit -a")
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo helder/MeuProjeto/MeuProjeto fotk (m
$ git add .
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo helder/MeuProjeto/MeuProjeto fotk (m
$ git status
On branch master
Your branch is up to date with 'origin/master'.
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
       modified: introducao.txt
```

Execício 7: Resolvendo Conflitos

Agora, o Iallan fez as alterações.

```
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo helder/MeuProjeto/MeuProjeto fotk (m
$ git commit -m "Resolvendo o conflito do Iallan"
[master 23cb489] Resolvendo o conflito do Iallan
1 file changed, 1 insertion(+)
create mode 100644 conflito.txt
jucaa@LAPTOP-N9NQ56ED MINGW64 ~/Desktop/repo_helder/MeuProjeto/MeuProjeto_fotk (m
$ git pull
Already up to date.
jucaa@LAPTOP-N9NQ56ED MINGW64 ~/Desktop/repo_helder/MeuProjeto/MeuProjeto_fotk (m
$ git fetch
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo helder/MeuProjeto/MeuProjeto fotk (m
$ git status
On branch master
Your branch is ahead of 'origin/master' by 1 commit.
 (use "git push" to publish your local commits)
jucaa@LAPTOP-N9NQ56ED MINGW64 ~/Desktop/repo_helder/MeuProjeto/MeuProjeto_fotk (m
aster)
$ git push
fatal: User cancelled dialog.
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/MeuProjeto/MeuProjeto_fotk (m
aster)
$ git push gitoriginssh master
Enter passphrase for key '/c/Users/jucaa/.ssh/id_rsa': Enter passphrase for key '/c/Users/jucaa/.ssh/id_rsa':
Enumerating objects: 4, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To github.com:ulian18TIC18/MeuProjeto_fotk.git
   8d66407..23cb489 master -> master
```

Comparando as mudanças.

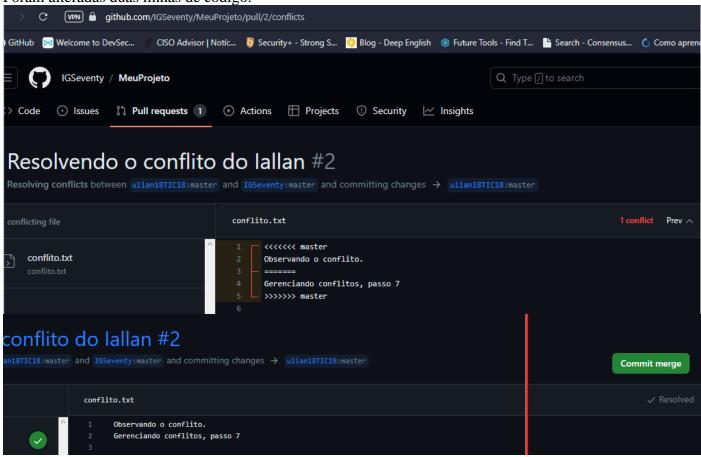


```
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/MeuProjeto (master)
$ cd ..
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder (master)
atividade_3/ Grupo_Residencia/ hello-world/ MeuProjeto/ Projeto1/
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder (master)
.git/
                 atividade 3/
                                   Grupo Residencia/ hello-world/
                                                                       MeuProjeto/
                                                                                         Projeto1/
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo helder (master)
$ cd MeuProjeto/
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/MeuProjeto (master)
Introducao.txt MeuProjeto fotk/ README.md secreto.txt
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo_helder/MeuProjeto (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.
Untracked files:
 (use "git add <file>..." to include in what will be committed)
```

Resolução dos conflitos pelo GitHub



Foram alteradas duas linhas de código.



Exercício 8: Histórico de commits

Após a execução do git log:

```
$ git log
commit 23cb489c79f3e66c411755267ea1ca3f57853922 (HEAD -> master, gitoriginssh/mas
Author: ulian18TIC18 <ulian18@gmail.com>
Date:
       Sun Sep 10 19:30:39 2023 -0300
    Resolvendo o conflito do Iallan
commit 8d66407bf27d90769610c868a4bc8f63e1fb43c4
Author: ulian18TIC18 <ulian18@gmail.com>
       Sun Sep 10 18:51:51 2023 -0300
    Commit do Jose Ulian no repor do Iallan
commit 89fe6b8d31a37cbc5e1b437ac34753dfb1cac70b
Author: Iallan Guimel Setenta Santos <iallanguimel@hotmail.com>
      Sun Sep 3 17:07:33 2023 -0300
   alterações de tag 2
commit 38868fdf6d2e699f5d7edf6fc670cbd60769c486
Author: Iallan Guimel Setenta Santos <iallanguimel@hotmail.com>
       Sun Sep 3 16:47:57 2023 -0300
   Revert "alteração indesejada"
    This reverts commit dc51d9b827b714f53f34145584d11cb72b8d95c6.
```

- 1. Resolução do conflito após o envio das alterações pelo colega;
- 2. Commitando o arquivo com as alterações no arquivo introdução.txt;
- 3. O colega fez o merge e acrescentou novas alterações;
- 4. Ele considerou as alterações como indesejadas.

Exercício 9: Revertendo Alterações.

Alterando o arquivo introdução.txt;

```
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo helder/MeuProjeto (branch 1)
$ git status
On branch branch 1
Your branch is up to date with 'origin/branch 1'.
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
       modified: MeuProjeto_fotk
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: Introducao.txt
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo helder/MeuProjeto (branch 1)
$ git add Introducao.txt
jucaa@LAPTOP-N9NQS6ED MINGW64 ~/Desktop/repo helder/MeuProjeto (branch 1)
$ git commit -m "Alteração indesejada no arquivo introducao"
[branch 1 a4bdb70] Alteração indesejada no arquivo introducao
2 files changed, 3 insertions(+), 2 deletions(-)
```

Revertendo o commit ao estado anterior: