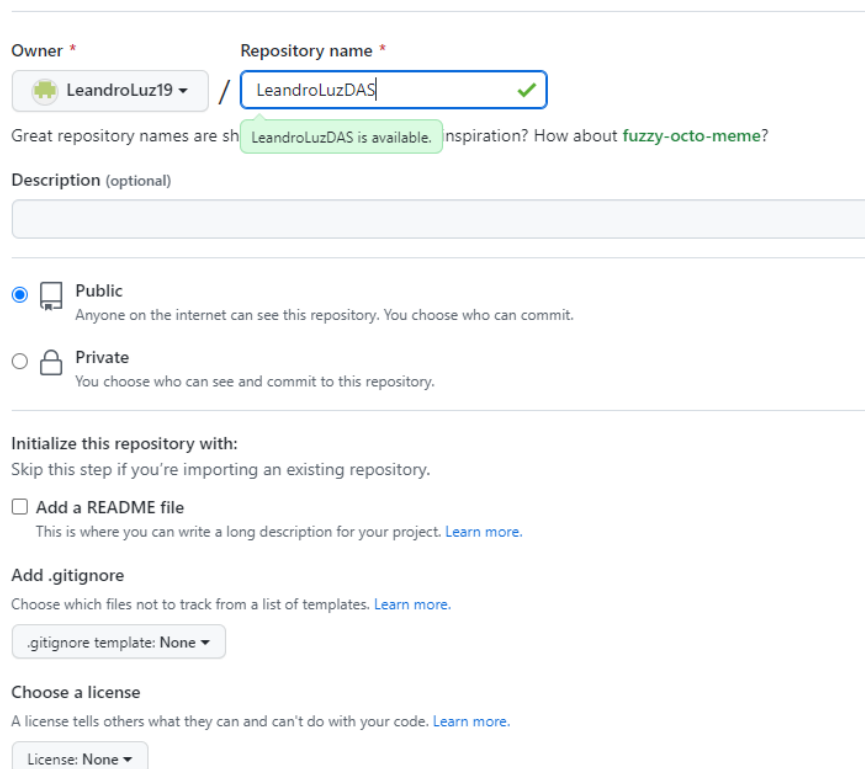


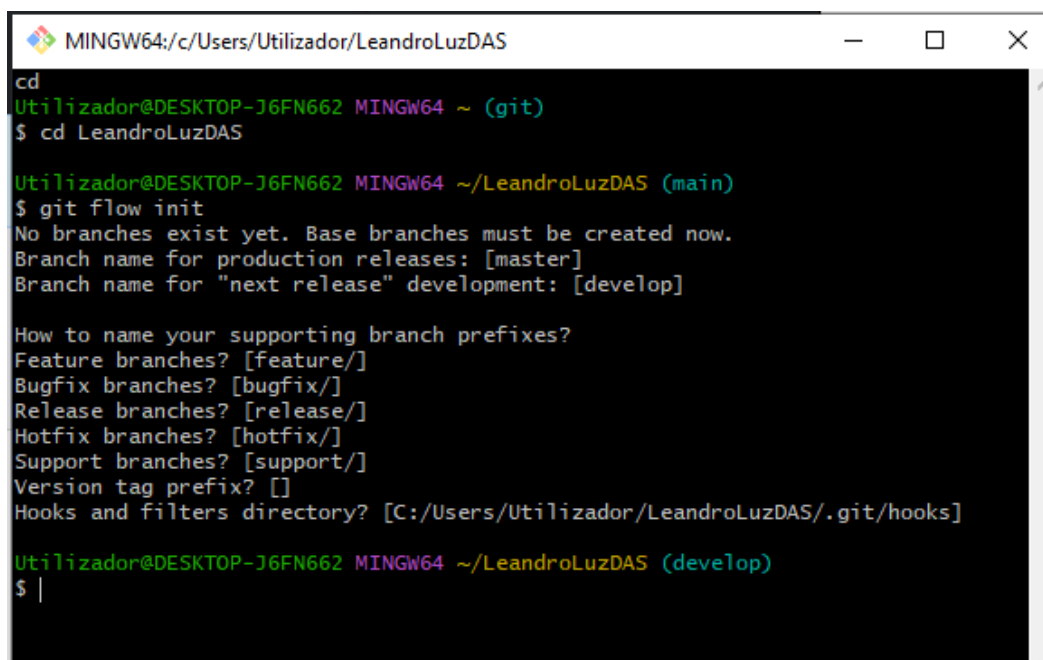
## Trabalho Final DAS - Leandro Luz

### Relatório

- 1) No primeiro passo tive que criar um repositório no GitHub, e tive que criar as branches (master e develop)



The screenshot shows the GitHub repository creation interface. The 'Owner' is 'LeandroLuz19' and the 'Repository name' is 'LeandroLuzDAS', which is marked as available. The 'Description' field is empty. The 'Public' option is selected, indicating that anyone on the internet can see the repository. The 'Initialize this repository with' section has 'Add a README file' checked. The '.gitignore' template is set to 'None'. The 'Choose a license' section also has 'License: None' selected.



```
MINGW64:/c/Users/Utilizador/LeandroLuzDAS
cd
Utilizador@DESKTOP-J6FN662 MINGW64 ~ (git)
$ cd LeandroLuzDAS

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (main)
$ git flow init
No branches exist yet. Base branches must be created now.
Branch name for production releases: [master]
Branch name for "next release" development: [develop]

How to name your supporting branch prefixes?
Feature branches? [feature/]
Bugfix branches? [bugfix/]
Release branches? [release/]
Hotfix branches? [hotfix/]
Support branches? [support/]
Version tag prefix? []
Hooks and filters directory? [C:/Users/Utilizador/LeandroLuzDAS/.git/hooks]

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (develop)
$ |
```

- 2) No segundo passo tive que criar uma organização no GitHub e colocar as regras de ordem corretas.

## Member privileges

### Base permissions

Base permissions to the organization's repositories apply to all members and excludes outside collaborators. Since organization members can have permissions from multiple sources, members and collaborators who have been granted a higher level of access than the base permissions will retain their higher permission privileges.

Write ▼

## Admin repository permissions

### Repository visibility change

☐ Allow members to change repository visibilities for this organization

If enabled, members with admin permissions for the repository will be able to change its visibility. If disabled, only organization owners can change repository visibilities.

Save

Dei a permissão Write, e desativei a visibilidade do Repositório.

- 3) No terceiro passo tive que tornar obrigatório a revisão do código antes de um Pull Request ser aprovado.

### Branch name pattern \*

master

### Protect matching branches

☒ Require a pull request before merging

When enabled, all commits must be made to a non-protected branch and submitted via a pull request before they can be merged into a branch that matches this rule.

☒ Require approvals

When enabled, pull requests targeting a matching branch require a number of approvals and no changes requested before they can be merged.

Required number of approvals before merging: 1 ▼

☐ Dismiss stale pull request approvals when new commits are pushed

New reviewable commits pushed to a matching branch will dismiss pull request review approvals.

☒ Require review from Code Owners

Require an approved review in pull requests including files with a designated code owner.

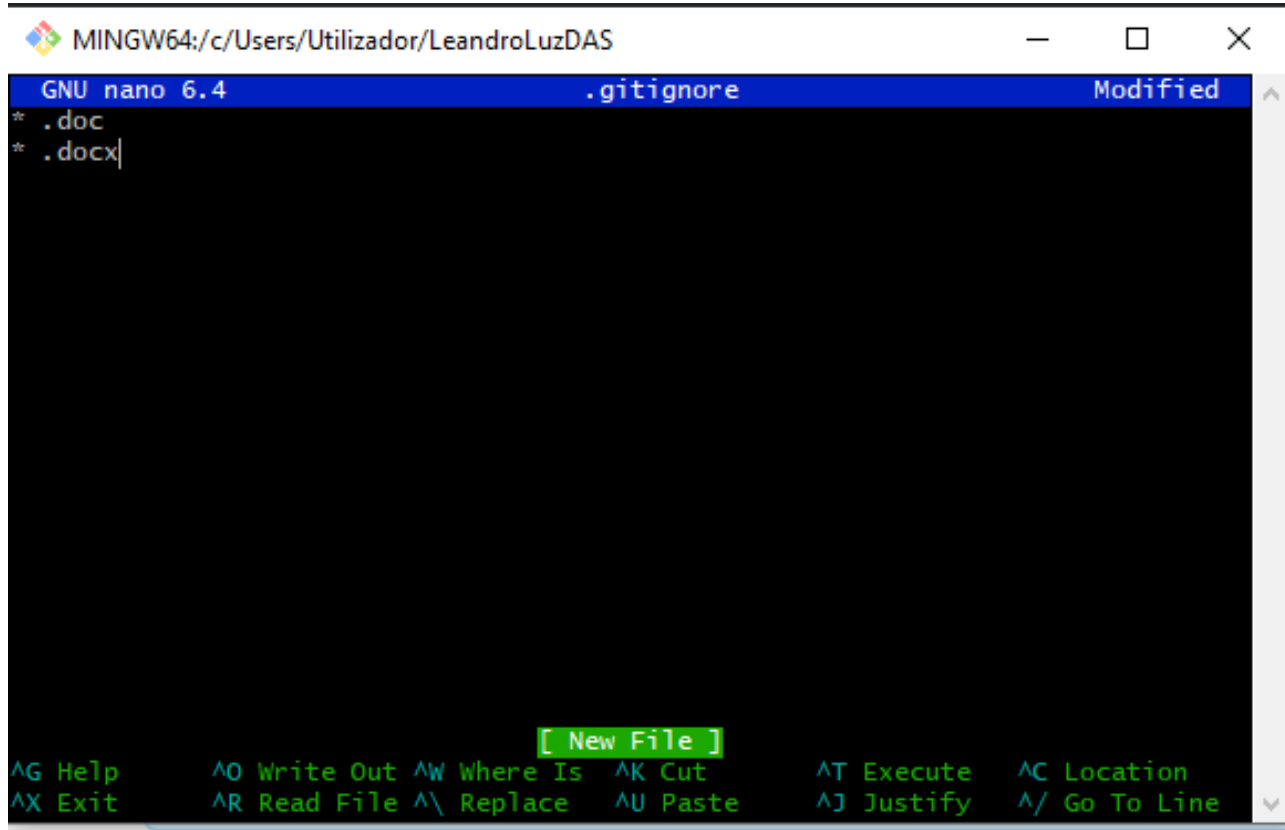
☐ Require approval of the most recent reviewable push

Whether the most recent reviewable push must be approved by someone other than the person who pushed it.

☐ Require status checks to pass before merging

Choose which [status checks](#) must pass before branches can be merged into a branch that matches this rule. When enabled, commits

4) No 4º passo tive que adicionar um ficheiro. gitignore de maneira a ignorar ficheiros, .doc, .docx



The screenshot shows a window titled 'MINGW64:/c/Users/Utilizador/LeandroLuzDAS'. Inside is the GNU nano 6.4 editor editing a file named '.gitignore'. The file content is:   
\* .doc  
\* .docx|  
The bottom status bar shows various keyboard shortcuts: ^G Help, ^O Write Out, ^W Where Is, ^K Cut, ^T Execute, ^C Location, ^X Exit, ^R Read File, ^\ Replace, ^U Paste, ^J Justify, ^\_ Go To Line. A '[ New File ]' button is also visible.

```
MINGW64:/c/Users/Utilizador/LeandroLuzDAS
GNU nano 6.4 .gitignore Modified
* .doc
* .docx|

[ New File ]
^G Help    ^O Write Out  ^W Where Is  ^K Cut       ^T Execute   ^C Location
^X Exit    ^R Read File ^\ Replace   ^U Paste     ^J Justify   ^_ Go To Line
```

```
Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (master)
$ nano .gitignore

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (master)
$ ls -a
./ ../ .git/ .gitignore

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (master)
$ cat .gitignore
* .doc
* .docx
```

Esta print contém os comandos necessários para fazer um push para o repositório

```
Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (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)
        .gitignore

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

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (master)
$ git add .
warning: in the working copy of '.gitignore', LF will be replaced by CRLF the next time Git touches it

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (master)
$ git commit -m "configuração do gitignore"
[master de5a279] configuração do gitignore
1 file changed, 2 insertions(+)
create mode 100644 .gitignore

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (master)
$ git push origin master
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Writing objects: 100% (3/3), 288 bytes | 96.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
remote: This repository moved. Please use the new location:
remote:  https://github.com/Trabalho-Final-DAS-Leandro-Luz/LeandroLuzDAS.git
To https://github.com/LeandroLuz19/LeandroLuzDAS.git
    9cca4af..de5a279  master -> master

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (master)
$
```

## 5) Controlar as versões do relatório

a. carregamento inicial do ficheiro no branch develop;

```
MINGW64:/c:/Users/Utilizador/LeandroLuzDAS

Utilizador@DESKTOP-J6FN662 MINGW64 ~ (git)
$ cd LeandroLuzDAS


Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (develop)
$ git add .

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (develop)
$ git commit -m "carregamento inicial"
[develop f15c06c] carregamento inicial
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 Doc1.pdf

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (develop)
$ git push origin develop

Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 161.32 KiB | 9.49 MiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
remote: This repository moved. Please use the new location:
remote:  https://github.com/Trabalho-Final-DAS-Leandro-Luz/LeandroLuzDAS.git
To https://github.com/LeandroLuz19/LeandroLuzDAS.git
    9cca4af..f15c06c  develop -> develop
```


Criação do Pull Request:

 develop had recent pushes less than a minute ago

Compare & pull request


Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also [compare across forks](#).

 base: master

← ... compare: develop








✓ Able to merge. These branches can be automatically merged.



carregamento inicial

Write


Preview

H B I  < >     @  

Leave a comment

Attach files by dragging & dropping, selecting or pasting them.

Create pull request



✗ Review required

At least 1 approving review is required by reviewers with write access. [Learn more](#).

✗ Merging is blocked

Merging can be performed automatically with 1 approving review.

☒ Merge without waiting for requirements to be met (bypass branch protections)

Merge pull request

You can also [open this in GitHub Desktop](#) or view [command line instructions](#).

## Criação das features

### Feature 1:

```
Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (develop)
$ git flow feature start feature_v1relatorio
Switched to a new branch 'feature/feature_v1relatorio'

Summary of actions:
- A new branch 'feature/feature_v1relatorio' was created, based on 'develop'
- You are now on branch 'feature/feature_v1relatorio'

Now, start committing on your feature. When done, use:

    git flow feature finish feature_v1relatorio

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (feature/feature_v1relatorio)
$ git add .

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (feature/feature_v1relatorio)
$ git commit -m "v1 do relatório"
[feature/feature_v1relatorio b64145f] v1 do relatório
1 file changed, 0 insertions(+), 0 deletions(-)

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (feature/feature_v1relatorio)
$ git flow feature finish feature_v1relatorio
Switched to branch 'develop'
Your branch is up to date with 'origin/develop'.
Updating f15c06c..b64145f
Fast-forward
 Doc1.pdf | Bin 176282 -> 449416 bytes
1 file changed, 0 insertions(+), 0 deletions(-)
Deleted branch feature/feature_v1relatorio (was b64145f).

Summary of actions:
- The feature branch 'feature/feature_v1relatorio' was merged into 'develop'
- Feature branch 'feature/feature_v1relatorio' has been locally deleted
- You are now on branch 'develop'

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (develop)
$ git push origin develop
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 407.39 KiB | 10.72 MiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
remote: This repository moved. Please use the new location:
remote:  https://github.com/Trabalho-Final-DAS-Leandro-Luz/LeandroLuzDAS.git
To https://github.com/LeandroLuz19/LeandroLuzDAS.git
 f15c06c..b64145f  develop -> develop
```

## Feature 2:

```
Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (develop)
$ git flow feature start feature_v2relatorio
Switched to a new branch 'feature/feature_v2relatorio'

Summary of actions:
- A new branch 'feature/feature_v2relatorio' was created, based on 'develop'
- You are now on branch 'feature/feature_v2relatorio'

Now, start committing on your feature. When done, use:

    git flow feature finish feature_v2relatorio

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (feature/feature_v2relatorio)
$ git add .

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (feature/feature_v2relatorio)
$ git commit -m "v2 do relatório"
[feature/feature_v2relatorio 076c101] v2 do relatório
1 file changed, 0 insertions(+), 0 deletions(-)

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (feature/feature_v2relatorio)
$ git flow feature finish feature_v2relatorio
Switched to branch 'develop'
Your branch is up to date with 'origin/develop'.
Updating b64145f..076c101
Fast-forward
 Doc1.pdf | Bin 449416 -> 332638 bytes
1 file changed, 0 insertions(+), 0 deletions(-)
Deleted branch feature/feature_v2relatorio (was 076c101).

Summary of actions:
- The feature branch 'feature/feature_v2relatorio' was merged into 'develop'
- Feature branch 'feature/feature_v2relatorio' has been locally deleted
- You are now on branch 'develop'

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (develop)
$ git push origin develop
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 89.11 KiB | 3.87 MiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote: This repository moved. Please use the new location:
remote:  https://github.com/Trabalho-Final-DAS-Leandro-Luz/LeandroLuzDAS.git
To https://github.com/LeandroLuz19/LeandroLuzDAS.git
 b64145f..076c101 develop -> develop
```

## Feature 3:

```
Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (develop)
$ git flow feature start feature_v3relatorio
Switched to a new branch 'feature/feature_v3relatorio'

Summary of actions:
- A new branch 'feature/feature_v3relatorio' was created, based on 'develop'
- You are now on branch 'feature/feature_v3relatorio'

Now, start committing on your feature. When done, use:

    git flow feature finish feature_v3relatorio

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (feature/feature_v3relatorio)
$ git add .

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (feature/feature_v3relatorio)
$ git commit -m "v3 do relatório"
[feature/feature_v3relatorio b217a4f] v3 do relatório
1 file changed, 0 insertions(+), 0 deletions(-)

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (feature/feature_v3relatorio)
$ git flow feature finish feature_v3relatorio
Switched to branch 'develop'
Your branch is up to date with 'origin/develop'.
Updating 076c101..b217a4f
Fast-forward
 Doc1.pdf | Bin 332638 -> 369787 bytes
1 file changed, 0 insertions(+), 0 deletions(-)
Deleted branch feature/feature_v3relatorio (was b217a4f).

Summary of actions:
- The feature branch 'feature/feature_v3relatorio' was merged into 'develop'
- Feature branch 'feature/feature_v3relatorio' has been locally deleted
- You are now on branch 'develop'

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (develop)
$ git push origin develop
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 37.13 KiB | 2.86 MiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote: This repository moved. Please use the new location:
remote: https://github.com/Trabalho-Final-DAS-Leandro-Luz/LeandroLuzDAS.git
To https://github.com/LeandroLuz19/LeandroLuzDAS.git
    076c101..b217a4f develop -> develop
```



## Feature 4:

```
$ git flow feature start feature_v4relatorio
Switched to a new branch 'feature/feature_v4relatorio'

Summary of actions:
- A new branch 'feature/feature_v4relatorio' was created, based on 'develop'
- You are now on branch 'feature/feature_v4relatorio'

Now, start committing on your feature. When done, use:

    git flow feature finish feature_v4relatorio

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (feature/feature_v4relatorio)
$ git add .

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (feature/feature_v4relatorio)
$ git commit -m "v4 do relatório"
[feature/feature_v4relatorio bdc8fe8] v4 do relatório
1 file changed, 0 insertions(+), 0 deletions(-)

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (feature/feature_v4relatorio)
$ git flow feature finish feature_v4relatorio
Switched to branch 'develop'
Your branch is up to date with 'origin/develop'.
Updating b217a4f..bdc8fe8
Fast-forward
 Doc1.pdf | Bin 369787 -> 407157 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)
Deleted branch feature/feature_v4relatorio (was bdc8fe8).

Summary of actions:
- The feature branch 'feature/feature_v4relatorio' was merged into 'develop'
- Feature branch 'feature/feature_v4relatorio' has been locally deleted
- You are now on branch 'develop'

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (develop)
$ git push origin develop
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 35.48 KiB | 2.96 MiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote: This repository moved. Please use the new location:
remote: https://github.com/Trabalho-Final-DAS-Leandro-Luz/LeandroLuzDAS.git
To https://github.com/LeandroLuz19/LeandroLuzDAS.git
 b217a4f..bdc8fe8 develop -> develop
```

## Feature 5:

```
$ git flow feature start feature_v5relatorio
Switched to a new branch 'feature/feature_v5relatorio'

Summary of actions:
- A new branch 'feature/feature_v5relatorio' was created, based on 'develop'
- You are now on branch 'feature/feature_v5relatorio'

Now, start committing on your feature. When done, use:

    git flow feature finish feature_v5relatorio

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (feature/feature_v5relatorio)
$ git add .

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (feature/feature_v5relatorio)
$ git commit -m "v5 do relatório"
[feature/feature_v5relatorio bf2c12c] v5 do relatório
1 file changed, 0 insertions(+), 0 deletions(-)

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (feature/feature_v5relatorio)
$ git flow feature finish feature_v5relatorio
Switched to branch 'develop'
Your branch is up to date with 'origin/develop'.
Updating bdc8fe8..bf2c12c
Fast-forward
 Doc1.pdf | Bin 407157 -> 441883 bytes
1 file changed, 0 insertions(+), 0 deletions(-)
Deleted branch feature/feature_v5relatorio (was bf2c12c).

Summary of actions:
- The feature branch 'feature/feature_v5relatorio' was merged into 'develop'
- Feature branch 'feature/feature_v5relatorio' has been locally deleted
- You are now on branch 'develop'

Utilizador@DESKTOP-J6FN662 MINGW64 ~/LeandroLuzDAS (develop)
$ git push origin develop
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 35.43 KiB | 2.95 MiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote: This repository moved. Please use the new location:
remote:   https://github.com/Trabalho-Final-DAS-Leandro-Luz/LeandroLuzDAS.git
To https://github.com/LeandroLuz19/LeandroLuzDAS.git
   bdc8fe8..bf2c12c  develop -> develop
```

## Criação da Release

git flow release start release\_relatorio

substitui o ficheiro Doc1

git add .

git commit -m "release\_relatorio"

git flow release finish release\_relatorio

git push origin master