Objective:

The objective of this assignment is to provide hands-on experience with cloning, forking, managing branches, handling conflicts, GitHub Pages, and exploring open-source contributions.

Task 1: Cloning and Forking

Repository Name: Tello-Python

Repository URL: https://github.com/damiafuentes/DJITelloPy

```
Roy Mbera@DESKTOP-BG67CIO MINGW64 /g

$ git clone https://github.com/damiafuentes/DJITelloPy.git

Cloning into 'DJITelloPy'...

remote: Enumerating objects: 666, done.

remote: Counting objects: 100% (211/211), done.

remote: Compressing objects: 100% (38/38), done.

remote: Total 666 (delta 192), reused 173 (delta 173), pack-reused 455

Receiving objects: 100% (666/666), 191.46 KiB | 372.00 KiB/s, done.

Resolving deltas: 100% (401/401), done.
```

2. Forking a Repository:

Forked repository link: https://github.com/Roymbera/DJITelloPy.git

```
Roy Mbera@DESKTOP-BG67CIO MINGW64 /f
$ git clone https://github.com/Roymbera/DJITelloPy.git
Cloning into 'DJITelloPy'...
remote: Enumerating objects: 659, done.
remote: Counting objects: 100% (207/207), done.
remote: Compressing objects: 100% (35/35), done.
remote: Total 659 (delta 189), reused 172 (delta 172), pack-reused 452
Receiving objects: 100% (659/659), 189.50 KiB | 358.00 KiB/s, done.
Resolving deltas: 100% (397/397), done.

Roy Mbera@DESKTOP-BG67CIO MINGW64 /f
$ |
```

Task 2: Managing Branches

3. Creating and Switching Branches:

```
Roy Mbera@DESKTOP-BG67CIO MINGW64 /f
$ cd DJITelloPy

Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (master)
$ git checkout -b feature-update
Switched to a new branch 'feature-update'

Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (feature-update)
$ [
```

4. Making Changes and Committing:

```
Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (feature-update)
$ touch new_file.txt

Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (feature-update)
$ git add .

Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (feature-update)
$ git commit
Aborting commit due to empty commit message.

Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (feature-update)
$ git commit -m "my first message in my text file"
[feature-update 79b5821] my first message in my text file
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 new_file.txt

Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (feature-update)
$ |
```

5. Merging Changes:

```
Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (feature-update)

$ git checkout main
error: pathspec 'main' did not match any file(s) known to git

Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (feature-update)

$ git checkout master

Switched to branch 'master'

Your branch is up to date with 'origin/master'.

Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (master)

$ git merge feature-update

Jpdating 796b018..79b5821

Fast-forward

new_file.txt | 0

1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 new_file.txt

Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (master)

$ |
```

Task 3: Handling Conflicts

6. Creating Conflicts:

7. Resolving Conflicts:

```
Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (feature-update)
$ git checkout -b conflict-resolution
Switched to a new branch 'conflict-resolution'
Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (conflict-resolution)
$ git merge feature-update
Already up to date.
Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (conflict-resolution)
$ git checkout master
Switched to branch 'master'
Your branch is up to date with 'origin/master'.
Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (master)
$ git pull origin master
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 914 bytes | 8.00 KiB/s, done.
From https://github.com/Roymbera/DJITelloPy
                               -> FETCH_HEAD
 * branch
                     master
   79b5821..5e92594 master
                                 -> origin/master
Updating 79b5821..5e92594
Fast-forward
 new_file.txt | 1 +
 1 file changed, 1 insertion(+)
Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (master)
$ git checkout conflict-resolution
Switched to branch 'conflict-resolution'
Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (conflict-resolution)
$ git merge master
Auto-merging new_file.txt
CONFLICT (content): Merge conflict in new_file.txt
Automatic merge failed; fix conflicts and then commit the result.
Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (conflict-resolution|MERGING)
```

```
new_file - Notepad

File Edit Format View Help

<<<<<< HEAD

this is my changes

=====

my changes here

>>>>>> master
```

```
new_file - Notepad

File Edit Format View Help

my changes here
```

```
oy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (conflict-resolution|MERGING)
$ git add new_file.txt
 varning: in the working copy of 'new_file.txt', LF will be replaced by CRLF the next time Git touches it
Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (conflict-resolution|MERGING)
$ git commit -m "Resolved conflict in new_file.txt between feature-update and master branches"
[conflict-resolution ed179aa] Resolved conflict in new_file.txt between feature-update and master branches
 Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (conflict-resolution)
$ git checkout master
Switched to branch 'master'
Your branch is up to date with 'origin/master'.
 Roy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (master)
$ git merge conflict-resolution
Updating 5e92594..ed179aa
 ast-forward
 file.txt
file.txt | 1 +
new_file.txt | 2 +
2 files changed, 2 insertions(+), 1 deletion(-) create mode 100644 file.txt
 oy Mbera@DESKTOP-BG67CIO MINGW64 /f/DJITelloPy (master)
```

8. Enabling GitHub Pages:

9. Published Page URL: https://roymbera.github.io/DJITelloPy/

10. Exploring Open Source Projects: https://github.com/codecrafters-io/build-your-own-x.git

Challenges

- 1. Authentication issues and network problems lead to unsuccessful cloning
- 2. Forgetting to switch to the correct branch or mistakenly creating branches with similar names lead to confusion.