

– Task Two –

Git Project

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1- Clone Repo

We will clone the repository using the following command

```
git clone https://github.com/Basel-Amr/Sprints-AI-and-ML-Bootcamp.git
```

```
Bassel@Basel-Amr MINGW64 /d/Education/Courses/Sprints/AI and ML Bootcamp/04-Task
s/02-Task2
$ git clone https://github.com/Basel-Amr/Sprints-AI-and-ML-Bootcamp.git
Cloning into 'Sprints-AI-and-ML-Bootcamp'...
remote: Enumerating objects: 20, done.
remote: Counting objects: 100% (20/20), done.
remote: Compressing objects: 100% (15/15), done.
remote: Total 20 (delta 1), reused 12 (delta 0), pack-reused 0 (from 0)
Receiving objects: 100% (20/20), done.
Resolving deltas: 100% (1/1), done.
```

2- Branch for each feature

Create a branch so that I can work on it locally called feature_1

`git branch <branch>`

`git checkout <branch>`

```
Bassel@Bassel-Amr MINGW64 /d/Education/Courses/Sprints/AI and ML Bootcamp/04-Task  
s/02-Task2/Sprints-AI-and-ML-Bootcamp (main)  
$ git branch feature_1
```

```
Bassel@Bassel-Amr MINGW64 /d/Education/Courses/Sprints/AI and ML Bootcamp/04-Task  
s/02-Task2/Sprints-AI-and-ML-Bootcamp (main)  
$ git checkout feature_1  
Switched to branch 'feature_1'
```

3- Development (EOD)

- Make changes in feature_1 branch
- Commit the changes in feature

Stage all changes `git add .`

Commit Changes `git commit`

```
Bassel@Bassel-Amr MINGW64 /d/Education/Courses/Sprints/AI and ML Bootcamp/04-Task
s/02-Task2/Sprints-AI-and-ML-Bootcamp (feature_1)
$ git add .

Bassel@Bassel-Amr MINGW64 /d/Education/Courses/Sprints/AI and ML Bootcamp/04-Task
s/02-Task2/Sprints-AI-and-ML-Bootcamp (feature_1)
$ git commit -m "third commit on feature_1 branch"
[feature_1 782d427] third commit on feature_1 branch
2 files changed, 4 insertions(+), 4 deletions(-)
```

4- Update local master

`git push --set-upstream origin feature_1`

`git push`

```
Basel@Basel-Amr MINGW64 /d/Education/Courses/Sprints/AI and ML Bootcamp/04-Task
s/02-Task2/Sprints-AI-and-ML-Bootcamp (feature_1)
$ git push --set-upstream origin feature_1
Enumerating objects: 19, done.
Counting objects: 100% (19/19), done.
Delta compression using up to 8 threads
Compressing objects: 100% (16/16), done.
Writing objects: 100% (16/16), 1.33 KiB | 681.00 KiB/s, done.
Total 16 (delta 8), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (8/8), completed with 2 local objects.
remote:
remote: Create a pull request for 'feature_1' on GitHub by visiting:
remote:   https://github.com/Basel-Amr/Sprints-AI-and-ML-Bootcamp/pull/new/fe
ature_1
remote:
To https://github.com/Basel-Amr/Sprints-AI-and-ML-Bootcamp.git
 * [new branch]      feature_1 -> feature_1
branch 'feature_1' set up to track 'origin/feature_1'.
```

5- Merge local master feature branch(Rebase) to test

- Merge with main to check if there is merge conflict or not and solve it if exist

`git merge main`

```
Bassel@Base1-Amr MINGW64 /d/Education/Courses/Sprints/AI and ML Bootcamp/04-Task
s/02-Task2/Sprints-AI-and-ML-Bootcamp (feature_1)
$ git merge main
Auto-merging file1.html
CONFLICT (content): Merge conflict in file1.html
Auto-merging file2.html
CONFLICT (content): Merge conflict in file2.html
Automatic merge failed; fix conflicts and then commit the result.
```

6- Merge feature branch to local master

Switch to master then merge branch to local master

```
git checkout main  
git merge feature_1
```

```
Bassel@Bassel-Amr MINGW64 /d/Education/Courses/Sprints/AI and ML Bootcamp/04-Task  
s/02-Task2/Sprints-AI-and-ML-Bootcamp (feature_1)  
$ git checkout main  
Switched to branch 'main'  
Your branch is up to date with 'origin/main'.  
  
Bassel@Bassel-Amr MINGW64 /d/Education/Courses/Sprints/AI and ML Bootcamp/04-Task  
s/02-Task2/Sprints-AI-and-ML-Bootcamp (main)  
$ git merge feature_1  
Updating 9400485..015efba  
Fast-forward  
 file1.html | 3 ++-  
 file2.html | 3 ++-  
 2 files changed, 4 insertions(+), 2 deletions(-)
```

7- Push to cloud

Push your changes to GitHub

```
$ git push --set-upstream origin feature_1
```

```
$ git push
```

```
Bassel@Bassel-Amr MINGW64 /d/Education/Courses/Sprints/AI and ML Bootcamp/04-Task
s/02-Task2/Sprints-AI-and-ML-Bootcamp (main)
$ git push
Enumerating objects: 10, done.
Counting objects: 100% (10/10), done.
Delta compression using up to 8 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 391 bytes | 391.00 KiB/s, done.
Total 4 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To https://github.com/Bassel-Amr/Sprints-AI-and-ML-Bootcamp.git
  9400485..015efba  main -> main
```


○ *Required Deliverable:*

- Requirement One “multiple commits”

```
Basel@Basel-Amr MINGW64 /d/Education/Courses/Sprints/AI and ML Bootcamp/04-Task2/Sprints-AI-and-ML-Bootcamp (feature_1)
$ git log
commit d8b7e92a8153e59984f9adc2d7933b613dec7483 (HEAD -> feature_1)
Author: Basel Amr <baselamr52@gmail.com>
Date: Thu Dec 12 19:13:42 2024 +0200

    fourth commit on feature_1 branch

commit 782d427f1468a56147be326d31564dd55369bee2
Author: Basel Amr <baselamr52@gmail.com>
Date: Thu Dec 12 19:13:18 2024 +0200

    third commit on feature_1 branch

commit da416671820774940651132c83e8ab4e4970d787
Author: Basel Amr <baselamr52@gmail.com>
Date: Thu Dec 12 19:12:42 2024 +0200

    second commit on feature_1 branch

commit c05d9614053aa20c7dfd191fab80675e27670cc
Author: Basel Amr <baselamr52@gmail.com>
Date: Thu Dec 12 19:11:50 2024 +0200

    first commit on feature_1 branch
```

- Requirement Three “git branching method”

```
Basel@Basel-Amr MINGW64 /d/Education/Courses/Sprints/AI and ML Bootcamp/04-Task2/Sprints-AI-and-ML-Bootcamp (main)
$ git branch feature_1

Basel@Basel-Amr MINGW64 /d/Education/Courses/Sprints/AI and ML Bootcamp/04-Task2/Sprints-AI-and-ML-Bootcamp (main)
$ git checkout feature_1
Switched to branch 'feature_1'
```

- Requirement Two “merge conflict”

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>File2 master Update</title>
</head>
<body>
  <h1>About Us</h1>
  <p>This is an about page</p>
</body>
</html>
<<<<<< HEAD
line1 file2 on branch commit4
line2 file2 on branch commit4
=====
>>>>>> main
```

```
Basel@Basel-Amr MINGW64 /d/Education/Courses/Sprints/AI and ML Bootcamp/04-Task2/Sprints-AI-and-ML-Bootcamp (feature_1)
$ git merge main
Auto-merging file1.html
CONFLICT (content): Merge conflict in file1.html
Auto-merging file2.html
CONFLICT (content): Merge conflict in file2.html
Automatic merge failed; fix conflicts and then commit the result.
```

- Requirement Four “GitHub Repo”

<https://github.com/Basel-Amr/Sprints-AI-and-ML-Bootcamp.git>