

Lab: Git Branching and Pull Requests

Lab for the ["Software Engineering and DevOps" course @ SoftUni](#).

1. Git Branches

Step 1: Create and Clone Repo


Create an **empty GitHub repo** and then **clone the repo to work in it locally**:

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)


Required fields are marked with an asterisk (*).

Owner *

 SUContent


Repository name *

Branching-Demo


 Branching-Demo is available.

Great repository names are short and memorable. Need inspiration? How about [miniature-barnacle](#) ?

Description (optional)

☒  Public

Anyone on the internet can see this repository. You choose who can commit.

☐  Private

You choose who can see and commit to this repository.

```
PS C:\Users\    \Softuni> git clone https://github.com/SUContent/Branching-Demo
Cloning into 'Branching-Demo'...
warning: You appear to have cloned an empty repository.
```

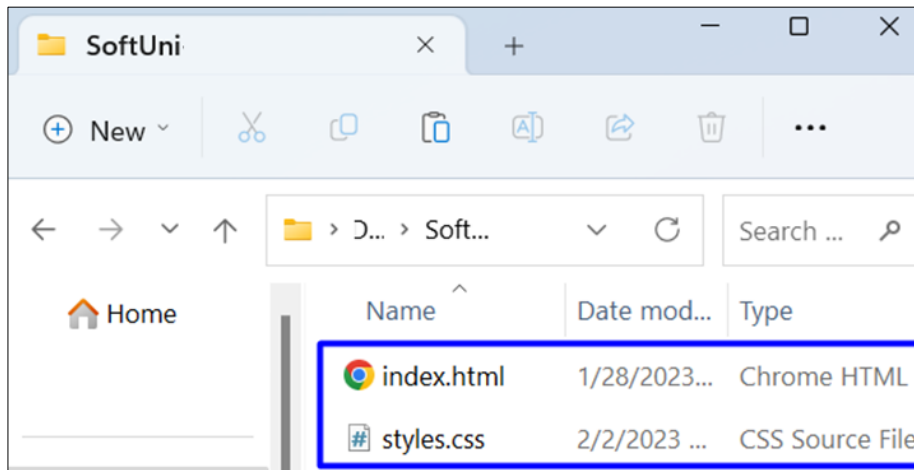
Step 2: Add and Commit Files

After that, **add** the files from the **lab resources** to the local repo folder. You can use **git status** to check the working directory state:

```
PS C:\Users\    \Softuni\Branching-Demo> git status
On branch main

No commits yet

nothing to commit (create/copy files and use "git add" to track)
```



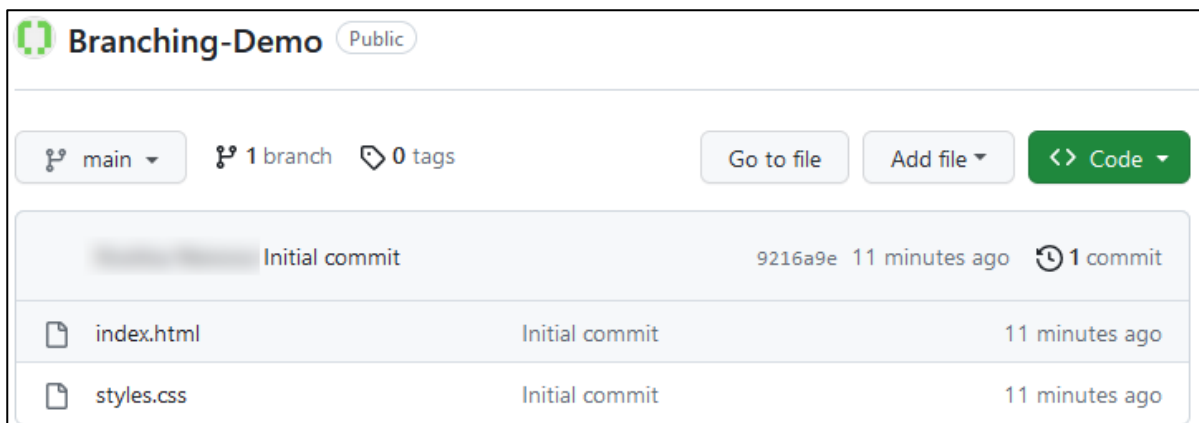
After that, **add** and **commit** all the changes with **git add .** and **git commit**:

```
PS C:\Users\vikto\Softuni\Branching-Demo> git add .
PS C:\Users\vikto\Softuni\Branching-Demo> git commit -m "Initial commit"
[main (root-commit) 9216a9e] Initial commit
 2 files changed, 22 insertions(+)
 create mode 100644 index.html
 create mode 100644 styles.css
```

Step 3: Push to GitHub

Next step is to **push** to the **remote repository**, using **git push**:

```
PS C:\Users\      \Softuni\Branching-Demo> git push
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 16 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (4/4), 640 bytes | 640.00 KiB/s, done.
Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/SUContent/Branching-Demo
 * [new branch]      main -> main
```



Step 4: Create a New Branch

Now it's time to **create** and **switch** to a **new branch**, called **"add-title"**:

```

PS C:\Users\      \Softuni\Branching-Demo> git branch add-title
PS C:\Users\      \Softuni\Branching-Demo> git branch
add-title
* main
PS C:\Users\      \Softuni\Branching-Demo> git checkout add-title
Switched to branch 'add-title'
PS C:\Users\      \Softuni\Branching-Demo> git branch
* add-title
main
PS C:\Users\      \Softuni\Branching-Demo>

```

Make some changes in the **index.html** file (you can add an **<h1>** tag with title):



```

index.html M x
index.html > ...
1  <!DOCTYPE html>
2  <html lang="en">
3
4  <head>
5      <meta charset="UTF-8">
6      <meta http-equiv="X-UA-Compatible" content="IE=edge">
7      <meta name="viewport" content="width=device-width, initial-scale=1">
8      <title>Hello World</title>
9  </head>
10
11 <body>
12     <div>
13         <h1>Hello World</h1>
14         <p>Lorem ipsum dolor sit amet consectetur
15             doloribus suscipit reprehenderit
16             autem. Commodi, ullam?</p>
17     </div>
18 </body>
19
20 </html>

```

Step 5: Commit New Branch Changes

Add and **commit** to the local repo:

```

PS C:\Users\      \Softuni\Branching-Demo> git add .
PS C:\Users\      \Softuni\Branching-Demo> git commit -m "Added title"
[add-title 6c9c3be] Added title
1 file changed, 1 insertion(+)

```

And then, **push** to the **remote repo**. An **error** should occur, as this branch is created only **locally** and you don't have it in your **remote GitHub repo**:

```
PS C:\Users\      \Softuni\Branching-Demo> git push
fatal: The current branch add-title has no upstream branch.
To push the current branch and set the remote as upstream, use

    git push --set-upstream origin add-title

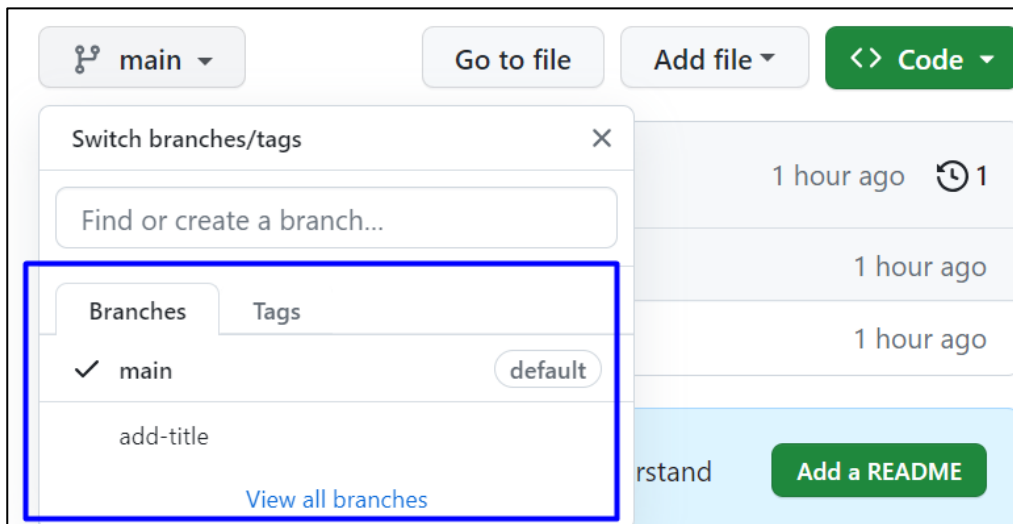
To have this happen automatically for branches without a tracking
upstream, see 'push.autoSetupRemote' in 'git help config'.
```

Step 6: Add Upstream and Push Changes

Now, **add upstream** and **push again** using this command:

```
PS C:\Users\      \Softuni\Branching-Demo> git push --set-upstream origin add-title
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 16 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 339 bytes | 339.00 KiB/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:
remote: Create a pull request for 'add-title' on GitHub by visiting:
remote:   https://github.com/SUContent/Branching-Demo/pull/new/add-title
remote:
To https://github.com/SUContent/Branching-Demo
 * [new branch]      add-title -> add-title
branch 'add-title' set up to track 'origin/add-title'.
```

You should have your new "**add-title**" branch in the remote repo:



Step 7: Merge Branches

Now, **switch** to the "**main**" branch and **merge** it with "**add-title**"

```

PS C:\Users\      \Softuni\Branching-Demo> git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
PS C:\Users\      \Softuni\Branching-Demo> git merge add-title
Updating 9216a9e..6c9c3be
Fast-forward
 index.html | 1 +
 1 file changed, 1 insertion(+)
PS C:\Users\      \Softuni\Branching-Demo> git push
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/SUContent/Branching-Demo
 9216a9e..6c9c3be  main -> main
PS C:\Users\vikto\Softuni\Branching-Demo>

```

Step 8: Delete Branch

Delete the local branch:

```

PS C:\Users\      \Softuni\Branching-Demo> git branch
  add-title
* main
PS C:\Users\      \Softuni\Branching-Demo> git branch -d add-title
Deleted branch add-title (was 6c9c3be).
PS C:\Users\      \Softuni\Branching-Demo> git branch
* main
PS C:\Users\vikto\Softuni\Branching-Demo>

```

And delete the remote GitHub branch:

```

PS C:\Users\      \Softuni\Branching-Demo> git push origin -d add-title
To https://github.com/SUContent/Branching-Demo
 - [deleted]          add-title

```

2. Creating a Pull Request

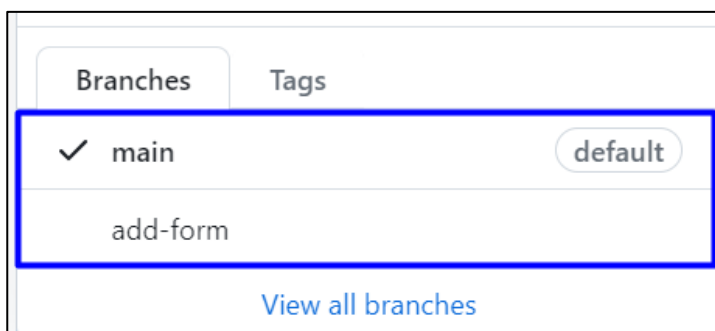
Step 1: Create Branch, Make Changes and Push

Like in the previous task, create a **new branch** "add-form":

```

PS C:\Users\      \Softuni\Branching-Demo> git branch add-form
PS C:\Users\      \Softuni\Branching-Demo> git checkout add-form
Switched to branch 'add-form'

```

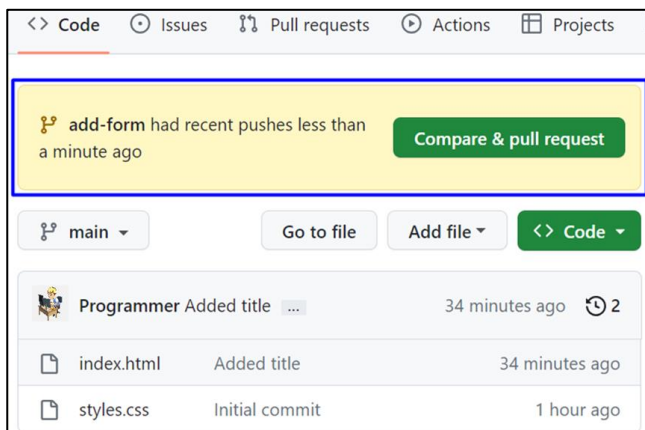


Now, **add** an HTML form in the **index.html** file, commit and push the changes to the **remote GitHub repo**:

```
index.html M X
index.html > ...
1  <!DOCTYPE html>
2  <html lang="en">
3
4  > <head> ...
9  </head>
10
11 <body>
12 > <div> ...
17 </div>
18 <form action="/action_page.php">
19   <label for="fname">First name:</label><br>
20   <input type="text" id="fname" name="fname" value="John"><br>
21   <label for="lname">Last name:</label><br>
22   <input type="text" id="lname" name="lname" value="Doe"><br><br>
23   <input type="submit" value="Submit">
24 </form>
25 </body>
```

Step 2: Open a Pull Request in GitHub

Now it's time to open a pull request from the "main" to the "add-form" branch:



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: main

compare: add-form

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

Added form

Write Preview

H B I @

Leave a comment

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

Create pull request

Reviewers

No reviews

Assignees

No one—assign yourself

Labels

None yet

Projects

None yet

Milestone

No milestone

Development

Step 3: Request a Review (Optional)

You have the option to request a review of your changes:

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: main

compare: add-form

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

Add form

Write Preview

H B I @

Leave a comment

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

Reviewers

Request up to 15 reviewers

Type or choose a user

✓ Senior

Labels

None yet

Projects

None yet

Milestone

No milestone

Step 4: Team Discussion

Programmer commented 10 minutes ago Owner ...

I added title.

Added title Verified 1b7a344

Programmer requested a review from **Senior** 10 minutes ago

Senior commented 10 minutes ago Collaborator ...

Change header background.

nakov added 2 commits 3 weeks ago

Changed header background Verified 1373649

Changed header font-weight Verified 8f9867e

Senior merged commit **54779a9** into **main** 10 minutes ago

Reviewers

Senior

Assignees

No one assigned

Labels

None yet

Projects

None yet

Milestone

No milestone

Development

Successfully merging this pull request may close these issues.

None yet

Notifications Customize

Subscribe

You're not receiving notifications from this thread.