

Practice with all the local repository commands from the slides:

1. git init

```
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\esreg\Desktop\445> git init
Initialized empty Git repository in C:/Users/esreg/Desktop/445/.git/
```

2. git status

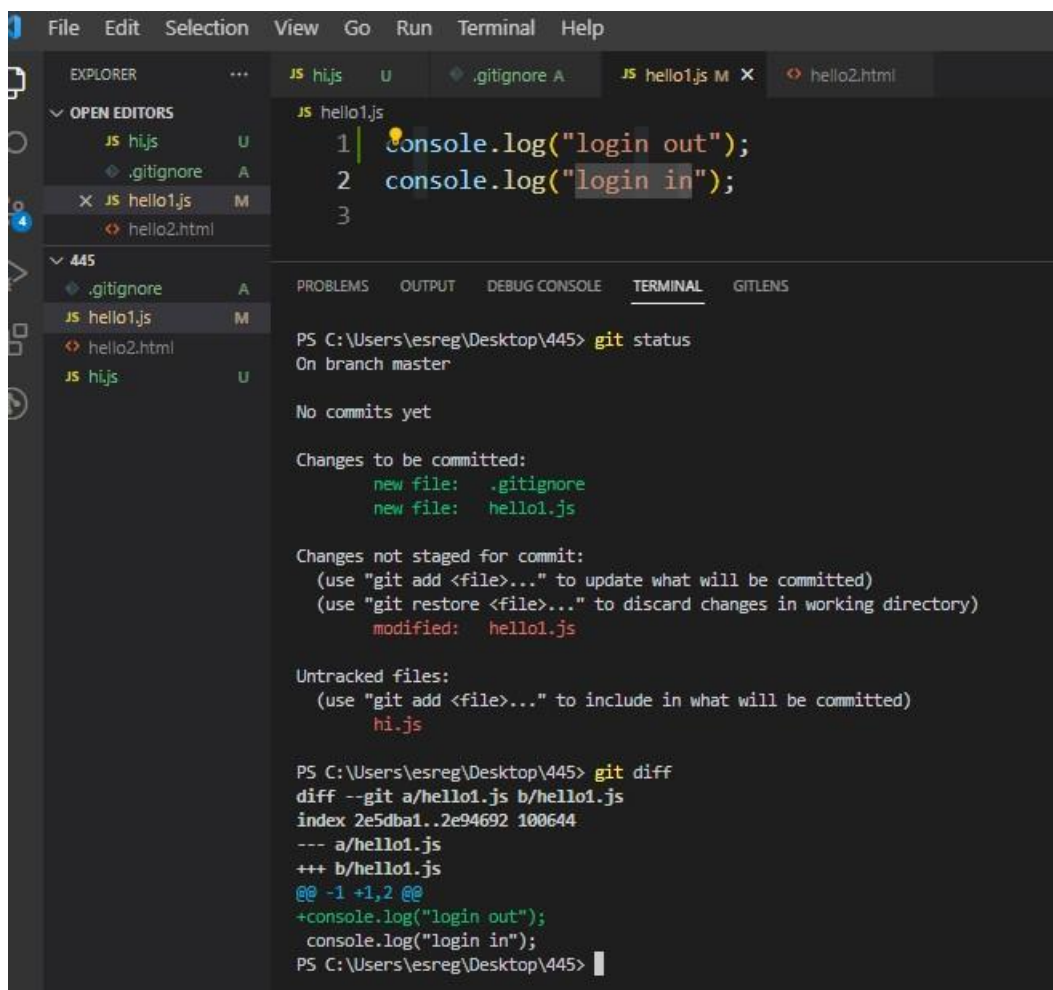
```
PS C:\Users\esreg\Desktop\445> git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    hello1.js
    hello2.html
    hi.js

nothing added to commit but untracked files present (use "git add" to track)
PS C:\Users\esreg\Desktop\445>
```

3. git diff



```
File Edit Selection View Go Run Terminal Help

EXPLORER
  JS hi.js U
  .gitignore A
  JS hello1.js M
  hello2.html

OPEN EDITORS
  JS hi.js U
  .gitignore A
  JS hello1.js M
  hello2.html

445
  .gitignore A
  JS hello1.js M
  hello2.html
  JS hi.js U

JS hello1.js
1 | console.log("login out");
2 | console.log("login in");
3 |

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL GITLENS

PS C:\Users\esreg\Desktop\445> git status
On branch master

No commits yet

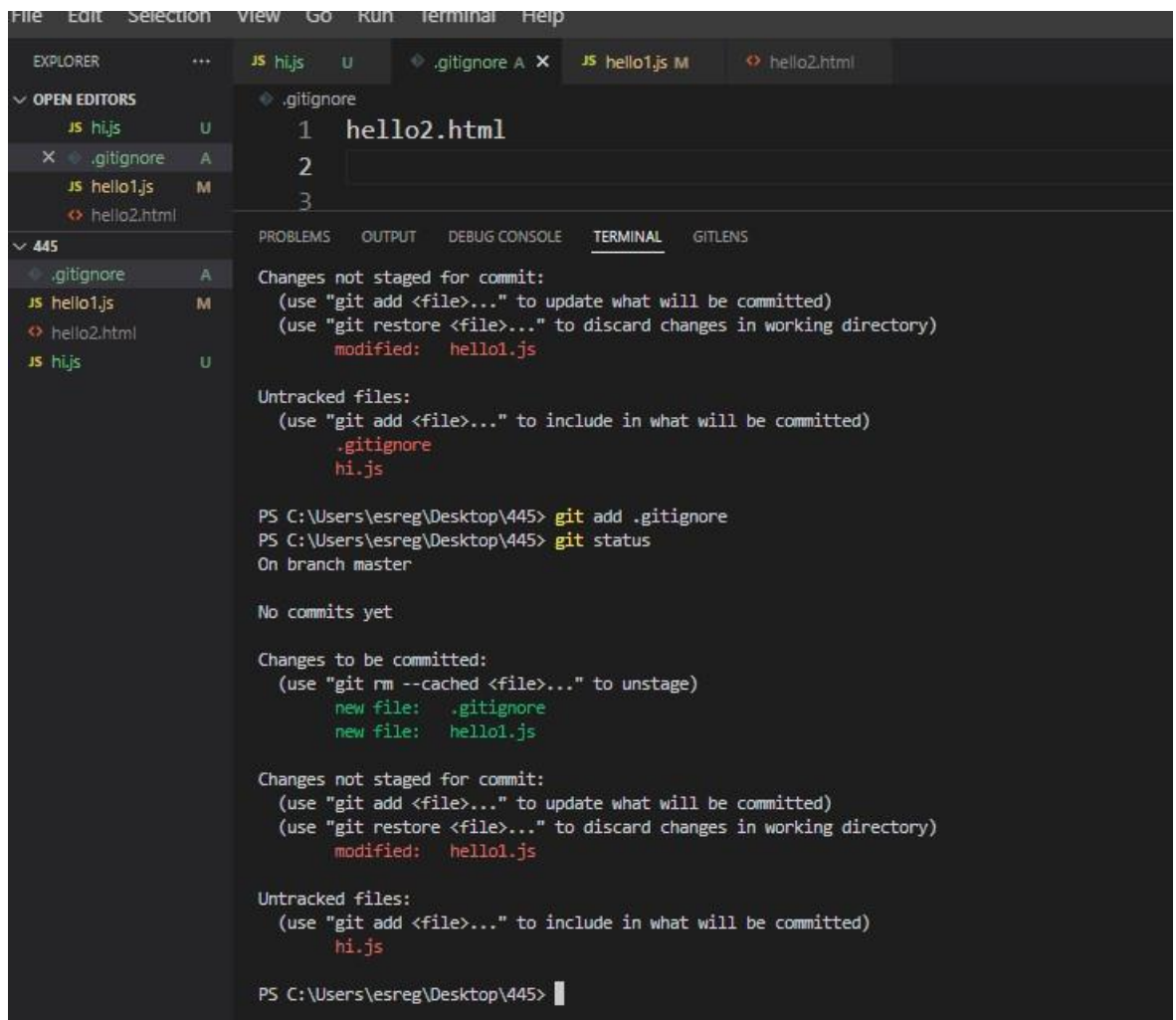
Changes to be committed:
  new file:   .gitignore
  new file:   hello1.js

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:   hello1.js

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    hi.js

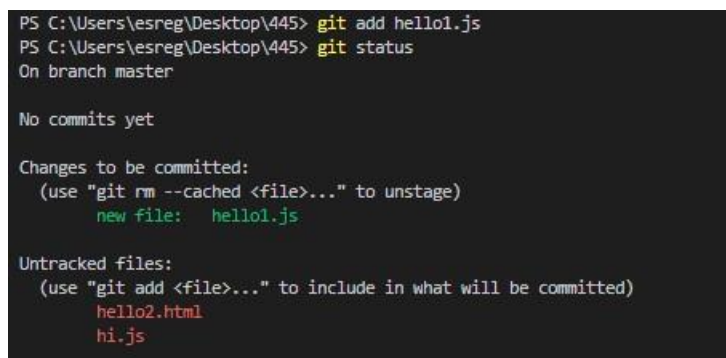
PS C:\Users\esreg\Desktop\445> git diff
diff --git a/hello1.js b/hello1.js
index 2e5dba1..2e94692 100644
--- a/hello1.js
+++ b/hello1.js
@@ -1,2 @@
+console.log("login out");
 console.log("login in");
PS C:\Users\esreg\Desktop\445>
```

4. Create .gitignore file, and notice how it works

A screenshot of the Visual Studio Code interface. The Explorer sidebar on the left shows a project named '445' with files: '.gitignore' (A), 'hello1.js' (M), 'hello2.html' (U), and 'hi.js' (U). The main editor area shows the 'hello2.html' file with three empty lines. The TERMINAL panel at the bottom displays the output of 'git status' commands. The output shows that '.gitignore' and 'hello1.js' are new files to be committed, while 'hello2.html' and 'hi.js' are untracked files. The terminal path is 'PS C:\Users\esreg\Desktop\445>'.

```
File Edit Selection View Go Run Terminal Help
EXPLORER
  OPEN EDITORS
    JS hi.js U
    X .gitignore A
    JS hello1.js M
    hello2.html
  445
    .gitignore A
    JS hello1.js M
    hello2.html
    JS hi.js U
  PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL GITLENS
  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:   hello1.js
  Untracked files:
  (use "git add <file>..." to include in what will be committed)
      .gitignore
      hi.js
  PS C:\Users\esreg\Desktop\445> git add .gitignore
  PS C:\Users\esreg\Desktop\445> git status
  On branch master
  No commits yet
  Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
      new file:   .gitignore
      new file:   hello1.js
  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:   hello1.js
  Untracked files:
  (use "git add <file>..." to include in what will be committed)
      hi.js
  PS C:\Users\esreg\Desktop\445>
```

5. git add

A terminal window screenshot showing the execution of 'git add' and 'git status' commands. The output indicates that 'hello1.js' is a new file to be committed, while 'hello2.html' and 'hi.js' are untracked files.

```
PS C:\Users\esreg\Desktop\445> git add hello1.js
PS C:\Users\esreg\Desktop\445> git status
On branch master
No commits yet
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
      new file:   hello1.js
Untracked files:
  (use "git add <file>..." to include in what will be committed)
      hello2.html
      hi.js
```

6. git commit


```

PS C:\Users\esreg\Desktop\445> git log
commit 535e503e5cd346cad6b8e3a688af3822c19825f3 (HEAD -> master)
Author: Saroj Imger <esregmi@users.noreply.github.com>
Date: Tue Nov 1 16:50:41 2022 -0500

    hello1.js file is committed to the repository

commit c9a0922d878ba99b6a48e9c0a908a0bc203a404b
Author: Saroj Imger <esregmi@users.noreply.github.com>
Date: Tue Nov 1 16:48:15 2022 -0500

    hello1.js file is committed in the repository
PS C:\Users\esreg\Desktop\445>

```

9. git tag

```

Comitted first time
PS C:\Users\esreg\Desktop\labPracticeGit> git tag -a v1.1 -m 4b4e0c987
PS C:\Users\esreg\Desktop\labPracticeGit> git log
commit 4b4e0c987f1af4a44adb4a5826498e3c3eebb4f9 (HEAD -> master, tag: v1.1)
Author: Saroj Imger <esregmi@users.noreply.github.com>
Date: Wed Nov 2 07:40:37 2022 -0500

```

10. git branch

```

PS C:\Users\esreg\Desktop\445> git branch
branch-1
conflict-branch
* master

```

11. git checkout

```

PS C:\Users\esreg\Desktop\445> git checkout master
Switched to branch 'master'
PS C:\Users\esreg\Desktop\445> git add .\hello.js
PS C:\Users\esreg\Desktop\445> git commit -m "master update"

```

12. git merge

- i. Create a conflict and solve the conflict


```

PS C:\Users\esreg\Desktop\445> git merge conflict-branch
Auto-merging hello.js
CONFLICT (content): Merge conflict in hello.js
Automatic merge failed; fix conflicts and then commit the result.
PS C:\Users\esreg\Desktop\445> git add .\hello.js
PS C:\Users\esreg\Desktop\445> git commit -m "Resolve conflict"
[master 8a2d1a9] Resolve conflict
PS C:\Users\esreg\Desktop\445> git log
commit 8a2d1a9c6253c5b4144e7b8e47b15fe7bc9ca627 (HEAD -> master)
Merge: ce9be0e 92fb183
Author: Saroj Imger <esregmi@users.noreply.github.com>
Date: Tue Nov 1 18:56:00 2022 -0500

    Resolve conflict

commit ce9be0eb54ccade98e3b448c514f0b6941b8fee6
Author: Saroj Imger <esregmi@users.noreply.github.com>
Date: Tue Nov 1 18:51:03 2022 -0500

    master update

commit 92fb1834ee774d9b56e2a5cbbd42056e7b48bb6e (conflict-branch)
Author: Saroj Imger <esregmi@users.noreply.github.com>
Date: Tue Nov 1 18:50:20 2022 -0500

    conflict-branch update

```

13. Undo changes from a certain commit git revert

```

PS C:\Users\esreg\Desktop\labPracticeGit> git revert HEAD
[master fe6ef76] Revert "apple js changes"
1 file changed, 5 insertions(+), 1 deletion(-)
PS C:\Users\esreg\Desktop\labPracticeGit> git log --oneline
fe6ef76 (HEAD -> master) Revert "apple js changes"
c0f4814 apple js changes
5879ada merged master fixed conflict in fruit branch
e5e032f (fruits) One apple a day is added here

```

14. Erase commits with git reset

```

PS C:\Users\esreg\Desktop\labPracticeGit> git reset 397efad
Unstaged changes after reset:
M   apple.js
PS C:\Users\esreg\Desktop\labPracticeGit> git log --oneline
397efad (HEAD -> master) last edit
fe6ef76 Revert "apple js changes"
c0f4814 apple js changes
5879ada merged master fixed conflict in fruit branch
e5e032f (fruits) One apple a day is added here
4c0d609 Apple is updated second time
0a25160 Cherry.js is added to branch for first time
d93d878 Tag is added in the banana v1.1
2434091 this update the bananan first
eea9dbb Comitted first time
PS C:\Users\esreg\Desktop\labPracticeGit>

```

