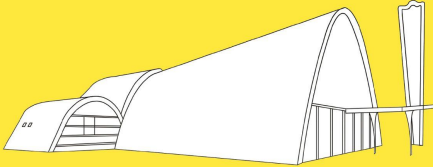

SOFTWARE ENGINEERING

A Modern Approach



MARCO TULLIO VALENTE

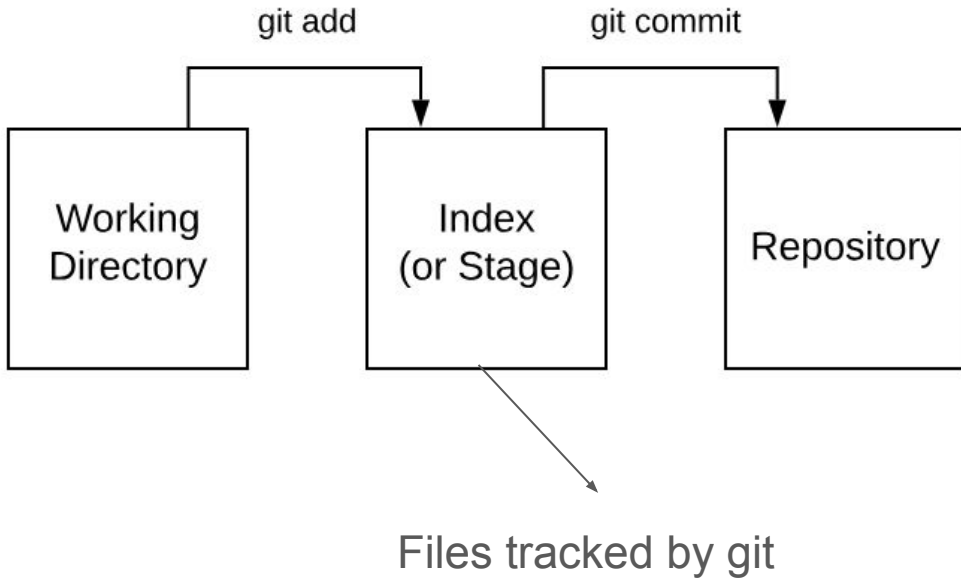
Appendix - Git

Prof. Marco Tulio Valente

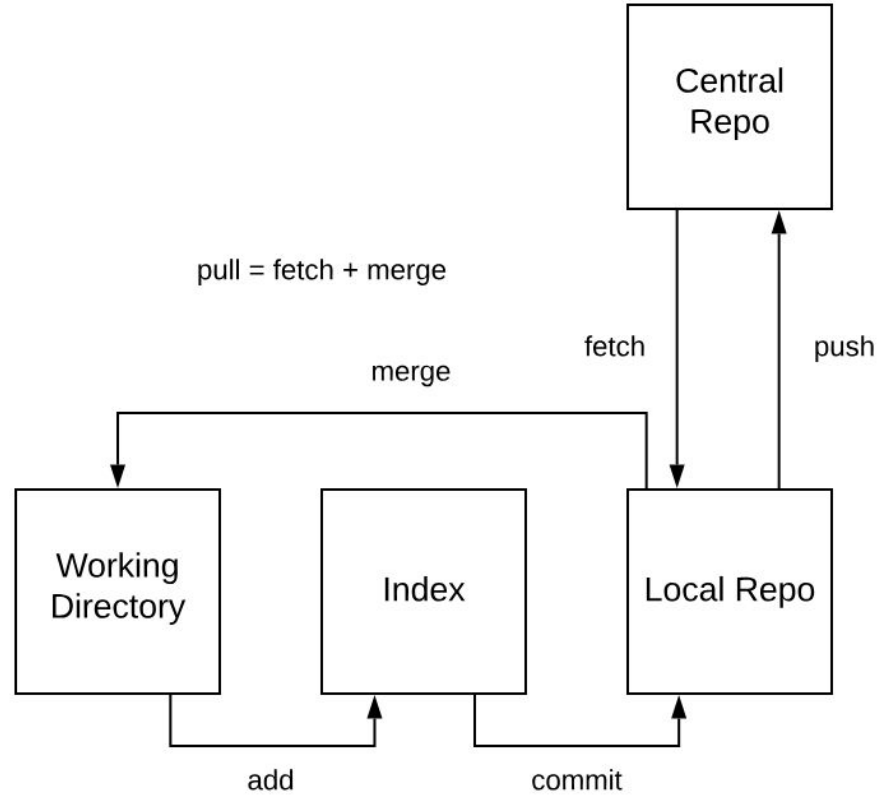
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git add & git commit



git push & git pull



Merge Conflicts (between Bob and Alice)

- Bob implemented this program (and did add, commit, and push):

```
main() {  
    print("Helo, world!");  
}
```

- Alice did a pull, translated the msg to Portuguese (and did an add, commit, and push):

```
main() {  
    print("Olá, mundo!");  
}
```

- Bob noticed the typo, corrected it to “Hello” (with two l's) and did a commit and a push that failed with the msg:

```
Updates were rejected because the remote
contains work that you do not have locally.
This is usually caused by another repository
pushing to the same ref. You may want to first
integrate the remote changes (e.g., git pull ...)
before pushing again.
```

- Bob did the recommended git pull, which gave the error:

```
CONFLICT (content): Merge conflict in file2
Automatic merge failed; fix conflicts and then
commit the result.
```

```
main() {
```

```
<<<<<< HEAD
```

```
print("Hello, world!");
```

```
=====
```

```
print("Olá, mundo!");
```

```
>>>>>> f25bce8fea85a625b891c890a8eca003b723f21b
```

```
}
```

Local directory
(modification by Bob)

Central repo (earlier
modification by Alice)

- Bob accepts Alice's modification, that is, he removes the delimiters and leaves only the msg in Portuguese:

```
main() {  
    print("Olá, mundo!");  
}
```

- After this, Bob is able to perform a push, that is, integrate his code successfully.

End