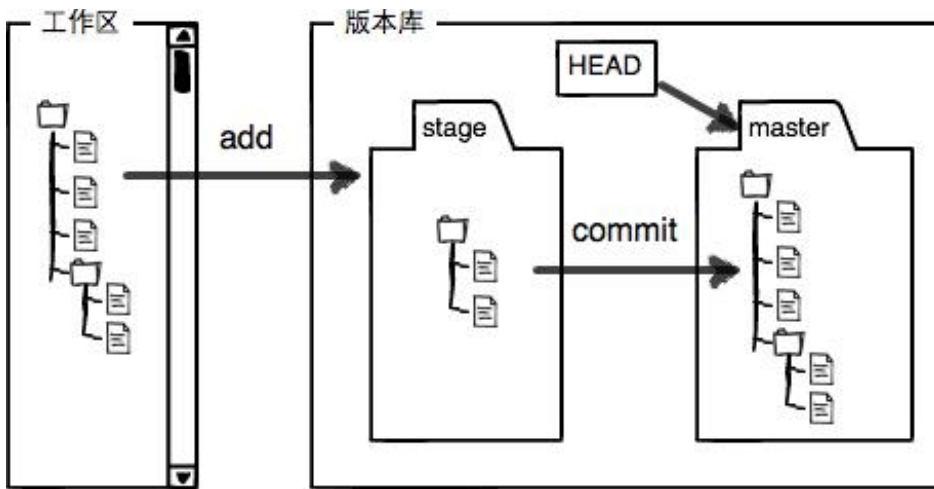


# Basic Operation in Local



- **Initialize a Git Repository**

```
1. git init
```

*This command will create a empty repository. There will be a .git floder which is used for tracking and managing repository.*

- **Adding File from Working Directory to Stage**

```
1. git add [filename]
```

- **Commit the changes in Stage to Local Repository**

```
1. git commit -m "[commitment descriptions]"
```

- **Check Current Status**

```
1. git status
```

- **Show the Differences**

```
1. git diff
```

- **Discard the Modifications in Working Directory**

```
1. git checkout --[filename]
```

*Actually, this command replace the file in working directory with the file in repository.*

- **Unstages the file**

```
1. git reset Head [filename]
```

*Just like delete the file in the stage, but in working directory, the file still preserves its contents.*

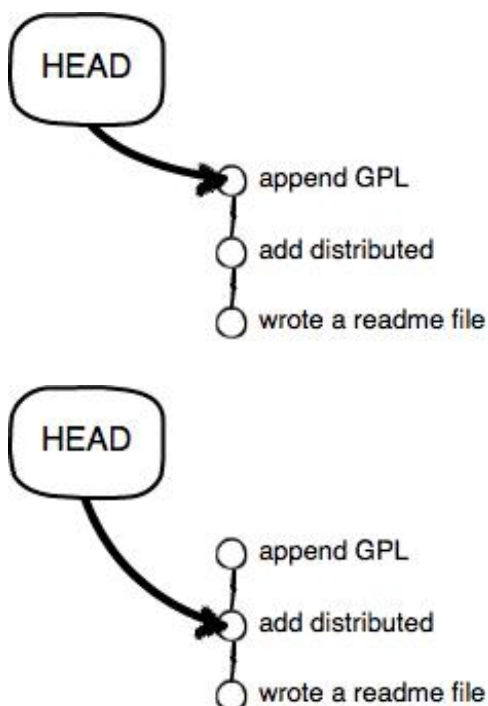
- **Remove File**

```
1. git rm [filename]
```

- **Renamce File**

```
1. git mv [original filename] [new filename]
```

## Version Control



- **Lists Version History for the Current Branch**

```
1. git log
```

- **Back to Specific Commit**

```
1. git reset --hard [commit id]
```

## Branch Operation

- **Lists all local branches in the current repository**

```
1. git branch
```

- **Create new branch**

```
1. git branch [branch name]
```

- **Branch Switch**

```
1. git checkout [branch name]
```

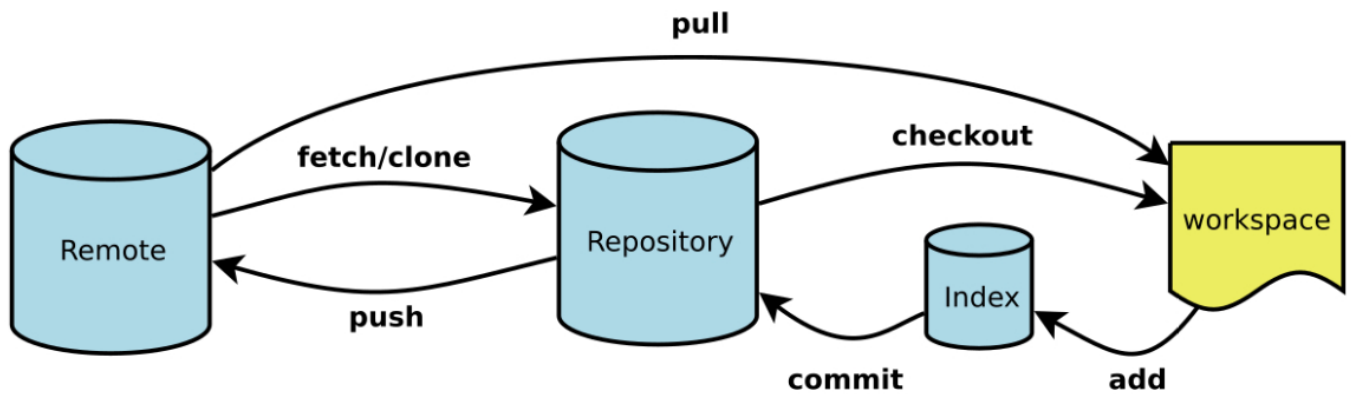
- **Merge Another Branch to Current Branch**

```
1. git merge [branch name]
```

- **Delete Branch**

```
1. git branch -d [branch name]
```

## Working with Remote Repository



- **Link Local Repository with Remote Repository**

```
1. git remote add origin [url]
```

- **Build a Local Repository Copy using Remote Repository**

```
1. git clone [url]
```

- **Get Remote Repository Information**

```
1. git remote
```

- **Upload Local Repository Modifications**

```
1. git push [remote repository name] [remote branch name]
```

*Default remote repository name is origin*

- **Download Remote Repository Modifications**

```
1. git pull
```

## Reference

廖雪峰Git教程

Git使用教程