1   Create a Repository

From scratch – Create a new local repository
```
git init [project name]
```

Download from an existing repository
```
git clone myurl
```

2   Observe your Repository

List new or modified files not yet committed
```
git status
```

Show the changes to files not yet staged
```
git diff
```

Show the changes to staged files
```
git diff -cached
```

Show all staged and unstaged file changes
```
git diff HEAD
```

Show the changes between two commit ids
```
git diff commit1 commit2
```

List the change dates and authors for a file
```
git blame [file]
```

Show the file changes for a commit id and/or file
```
git show [commit]:[file]
```

Show full change history
```
git log
```

Show change history for file/directory including diffs
```
git log -p [file/directory]
```

3   Working with Branches

List all local branches
```
git branch
```

List all branches, local and remote
```
git branch -av
```

Switch to a branch and update working directory
```
git checkout mybranch
```

Create a new branch called newbranch
```
git branch newbranch
```

Delete the branch called mybranch
```
git branch -d mybranch
```

Merge brancha into branchb
```
git checkout branchb
git merge brancha
```

Tag the current commit
```
git tag mytag
```

4   Make a change

Stages the file, ready for commit
```
git add [file]
```

Stage all changed files, ready for commit
```
git add .
```

Commit all staged files to versioned history
```
git commit -m ''commit message''
```

Commit all your tracked files to versioned history
```
git commit -am ''commit message''
```

Unstages file, keeping the file changes
```
git reset [file]
```

Revert everything to the last commit
```
git reset -hard
```

5   Synchronise

Get the latest changes from origin (no merge)
```
git fetch
```

Fetch the latest changes from origin and merge
```
git pull
```

Fetch the latest changes from origin and rebase
```
git pull -rebase
```

Push local changes to the origin
```
git push
```

6   Finally!

When in doubt, use git help
```
git command -help
```

Or visit `https://training.github.com/` for official GitHub training