Git essentials

Configure your git environment

Tell git your name and email:

```
git config --global user.name "Your Full Name"
git config --global user.email you@somewhere.com
```

Initialize repository

```
mkdir repo
cd repo
git init
```

Clone repository

```
git clone "url"
```

Staging files

```
git add file1.py # Stages a single file
git add file1.py file2.c # Stages multiple files
git add *.py # Stages with a pattern
git add . # Stages the current directory and all its content
```

View status and commit staged files

```
git status # Full status
git status -s # Short status
git commit -m "Message" # Commits with a one-line message
git commit # Opens the default editor to type a long message
git commit -am "Message"  # Commits and skips the staging area
```

Syncing with remotes

```
git fetch # Downloads commits, files, and refs from a remote repository
into your local repo
git pull # Fetch and download content from a remote repository and
immediately update the local repository to match that content
git push # Upload local repository content to a remote repository
```

Removing files

```
git rm file1.py # Removes from working directory and staging area
git rm --cached file1.py # Removes from staging area only
```

Working with branches

```
git branch bugfix # Creates a new branch called bugfix
git checkout bugfix # Switches to the bugfix branch
git switch bugfix # Same as the above
git switch -C bugfix # Creates and switches
git branch -d bugfix # Deletes the bugfix branch
```

Stashing changes

```
git stash # Creates a new stash
git stash push -m "New tax rules" # Creates a new stash and give it a
specific name
git stash list # Lists all the stashes
git stash show stash@{1,2,3,..} # Shows the given stash
git stash show # shortcut for stash
git stash apply # Applies the given stash to the working dir
git stash drop # Deletes the given stash
git stash clear # Deletes all the stashes
```

Managing branches

```
git merge bugfix # Merges the bugfix branch into the current branch
git merge --abort # Aborts the merge
```