



A Guide to Git and Github Summary

Concept

Source Control Management

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- .

is the process programmers follow to iterate through their projects or codebases.

Repository

is a central storage location or a directory + its files

Git

is one of the most popular SCM tool

GitHub

is an ecosystem and user interface for software projects

.gitignore

- .

is a list of files and/or directories that you do not want included in your repository.

commit

is a bundle of changes

branch

is a copy of all the files in your codebase

Version control or
Source control

is the practice of tracking and managing
changes to software code.

Common Git commands (local)

Command

Description

```
git status  
.
```

Shows the current branch, the working directory as well as
the staged changes.

```
git add FILE_NAME  
.
```

Stages changed files, readying them to be
wrapped into the next commit.

```
git commit
```

Creates a commit from staged files.

```
git log
```

View the repository's commit history

```
git init  
.
```

Creates a new local repository in the current directory.
Generates a .git directory.

```
git config
```

Sets git configuration settings, such as author email and name

Common Git commands (remote)

```
git remote add origin <remote_url.git>  
.
```

Add an existing
remote repo as a

```
.  
.
```

remote of existing
local repo.

```
git push -u origin main  
.
```

Will push all commits that's not yet on
'origin' to 'origin'

```
git fetch
```

Checks remote repo for changes

```
git diff main origin/main
```

Checks what has changed

```
git pull --ff-only origin main  
.
```

Pulls form remote repo origin
from the main branch.

```
git clone  
.  
.
```

Pull down contents of existing remote repo into
a new local repo, and add a remote ro the local
repo pointing to remote repo.