Git & Github

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Now you realize that CTRL + Z won't solve your problems

What is version control

- Version control systems are a category of software tools that help a software team manage changes to source code over time.
- Version control software keeps track of every modification to the code in a special kind of database.
- developers can turn back.

What is Git?

- The most widely used modern version control system in the world today.
- Git allows groups of people to work on the same documents (often code) at the same time, and without stepping on each other's toes. It's a distributed version control system.

Install Git

- Download the latest Download
- When you've successfully started the installer.
- Open a Command Prompt (or Git Bash if during installation you elected not to use Git from the Windows Command Prompt).
- Run the following commands to configure your Git username and email using the following commands

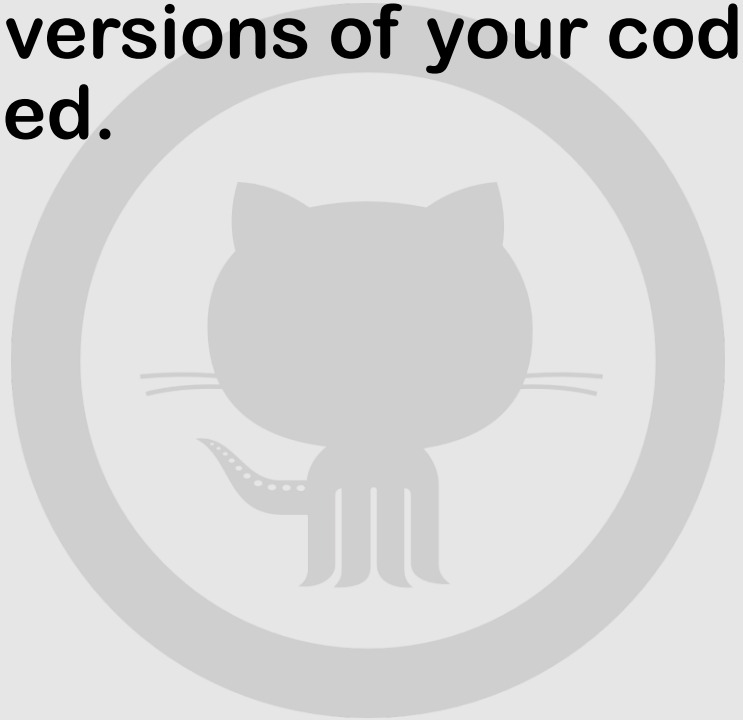
```
$ git config --global user.name “Ahmed“
$ git config --global user.email “tiger52671@gmail.com"
```

Setting up a repository

- The high level points this guide will cover are:
  - Initializing a new Git repo
  - Cloning an existing Git repo
  - Committing a modified version of a file to the repo
  - Configuring a Git repo for remote collaboration
  - Common Git version control commands

What is a Git repository?

- A Git repository is a virtual storage of your project. It allows you to save versions of your code, which you can access when needed.



Initializing a new repository: git init

- To create a new repo, you'll create folder or use go to folder project.
- using the following command

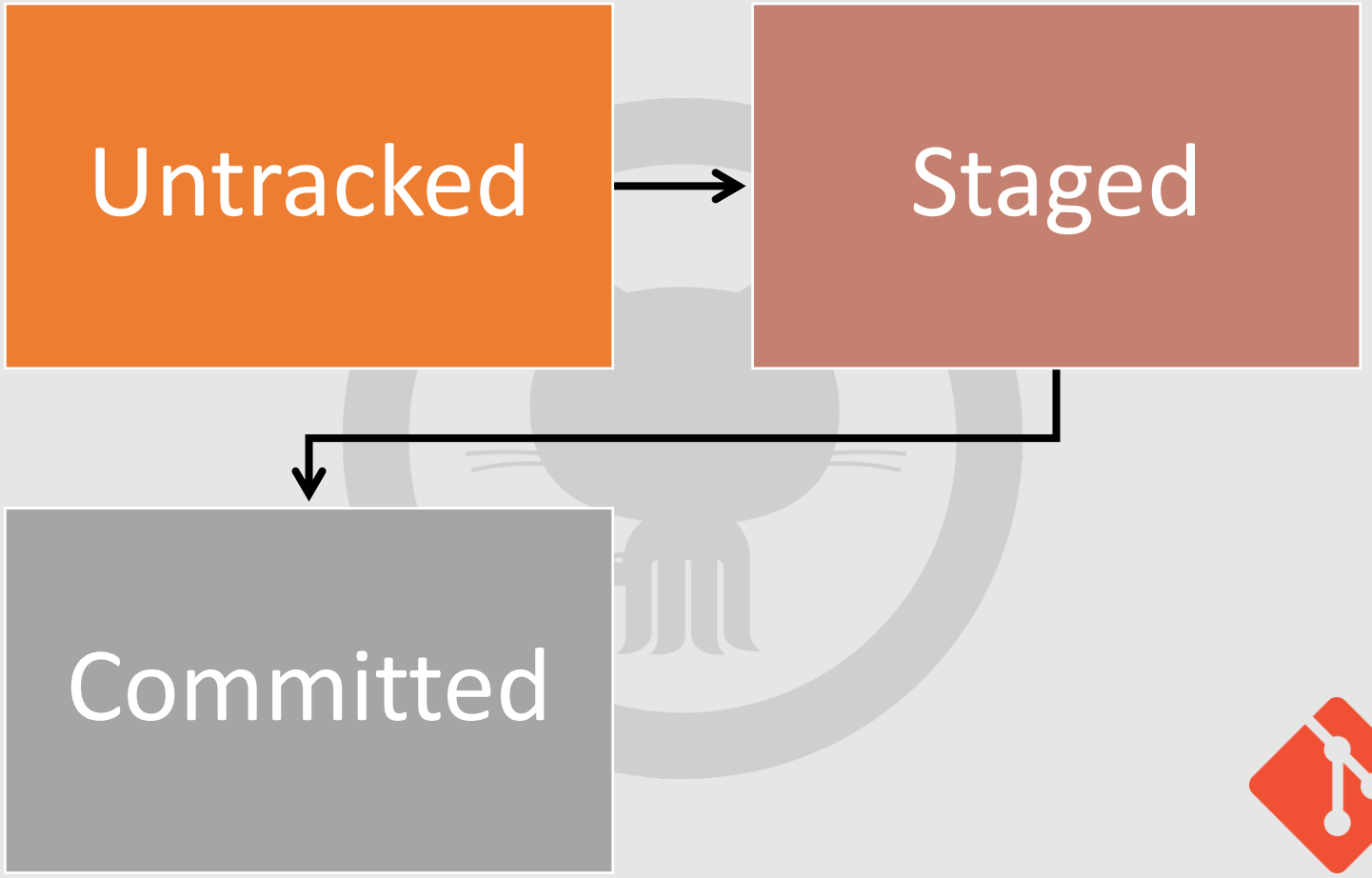
```
$ git init
```

Cloning an existing repository: git clone

- If a project has already been set up in a central repository, the clone command is the most common way for users to obtain a local development clone.

```
$ git clone <repo url>
```

Git workflow



Adding Changes

- Update or add new file. “untracked”

- To move from “untracked” to “Staged” using the following command.

```
$ git add <filename or . >
```

Dot => select all files

- Checking for Changes

```
$ git status
```

Committing

- To move from “Staged” to “Committed”

```
$ git commit -m "Add comment"
```

Push to GitHub

- To move from “Committed” to “GitHub”

```
$ git push origin master
```

Remote Git repository

```
$ git remote add origin <remote_repo_url>
```