Your goals with git.

For a developer or a team, the closer they are to **working code** at any given time, the closer they are to **happiness and sanity**.

But to implement a new feature or try something different, you **necessarily break your code**. At the start, you have a program that compiles and runs. Then at the end, assuming success, you will have a different program that compiles and runs at the end. But along that journey, your code will be broken or incorrect, possibly many times.

Building software of any size is just repeating that process over and over again. For you and your team to do so with happiness and sanity, Git and GitHub are the best tools at your disposal. They allow you to **stay close to working code**.

What does git do?

**As an individual** on your local machine, git allows you to:

* take a named snapshot of a directory in your filesystem whenever you want  
   Most relevant concept: **commit**
* easily jump around between those snapshots  
   Most relevant concept: **branch**

**For your team** on many machines, git allows you to:

* share your directory snapshots with others, with the same history and names  
   Most relevant concepts: **clone**, **push**, **pull**
* use a single source of truth for all code history and changes  
   Most relevant concepts: **remote**

There are many other git concepts, but these are the core you need to start.

Demo.



Why does git help?

Remember that the closer you are to working code at any moment, the closer you are to **happiness and sanity**.

As an individual, your commit history is your happy place.

When all else is lost, you can always **revert to something that worked**.

Your branches let you be brave.

For any experiment or improvement, a simple branch lets you **safely try anything**.

And for both teams and individuals, the master branch is your anchor into sanity.

Despite an ever changing project, you can always **trust the master branch**.

Helpful principles and tips.

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| Individually:   * Want to try something uncertain?  **Branch!** * Got something tiny working?   **Commit!** * Got something large working?   **Merge! (If you branched.)** | On a team:   * Want to merge good code into master?   **Use remote!  (❤️ Pull requests!)** * Want to break master?   ***Don’t!*** * Want to force push?  **Shut.   Down.  Everything.** |