#### explain to kid



# lets say you are coding and your code is working fine



and you close your laptop →



# next day, you mess up your code and it stops working and now you wish that you can go back in time when it was working fine



#### this is where we use GIT

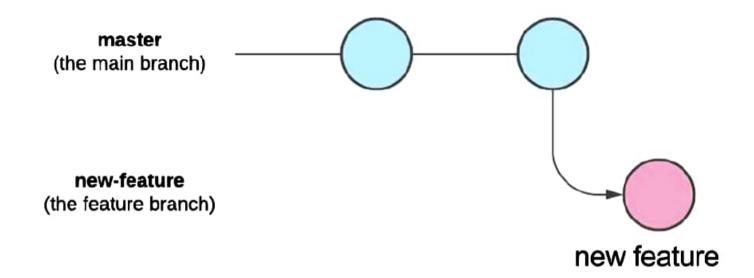


Git is a tool that helps Coders track changes in their code

it does a lot more than that  $\rightarrow$ 

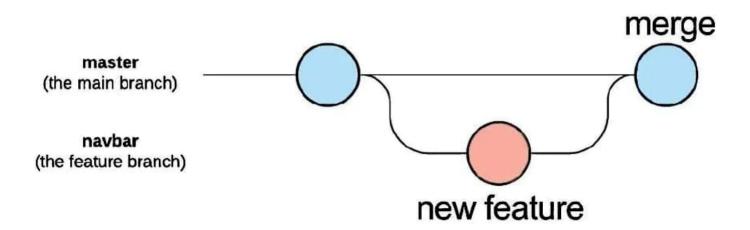
## you can add a new feature by creating a new branch

anything you code in the new branch won't effect the main branch



### and when you are happy with your new feature

#### you can merge your new branch with the main branch



#### **ALL GIT COMMANDS**



- git init: Initializes a new Git repository.
- git clone: Copies an existing repository into a new directory.
- **git add:** Stages changes (files) to be committed.
- **git commit:** Records changes to the repository with a message.
- git status: Displays the state of the working directory and staging area.
- **git push:** Uploads local repository content to a remote repository.
- git pull: Fetches and merges changes from a remote repository into the current branch.
- **git fetch:** Downloads objects and refs from another repository.
- **git merge:** Combines two or more development histories together.
- **git branch:** Lists, creates, or deletes branches.
- git checkout: Switches branches or restores working tree files.

- git commit --amend: Modifies the most recent commit.
- git config: Sets configuration options for Git repositories.
- **git rev-parse:** Parses revision (commit) identifiers.
- **git describe:** Shows the most recent tag that is reachable from a commit.
- **git shortlog:** Summarizes git log output by author and commit message.
- **git grep:** Searches for patterns in tracked files.
- **git gc:** Optimizes the repository by cleaning up unnecessary files and compressing file history.
- git fsck: Verifies the integrity of the repository.
- git commit -a: Stages all modified and deleted files and commits them.
- **git remote add:** Adds a new remote repository.

- git log: Shows the commit history for the repository.
- git reset: Undoes changes by resetting the index and/or working directory.
- **git rebase:** Reapplies commits on top of another base tip.
- git diff: Shows the changes between commits, commit and working tree, etc.
- **git remote:** Manages remote repository connections.
- git tag: Creates, lists, deletes, or verifies tags.
- **git stash:** Temporarily saves changes in a "stash" and reverts the working directory to the last commit.
- **git stash pop:** Applies stashed changes and removes them from the stash list.
- git stash apply: Applies stashed changes without removing them from the stash list.
- git cherry-pick: Applies the changes introduced by an existing commit.

- **git rm:** Removes files from the working directory and staging area.
- git mv: Renames or moves a file, directory, or symlink.
- git show: Displays information about a git object, such as a commit, tree, or blob.
- git blame: Shows what revision and author last modified each line of a file.
- **git clean:** Removes untracked files from the working directory.
- git bisect: Finds the commit that introduced a bug by binary search.
- **git reflog:** Shows a log of references for the local repository.
- **git archive:** Creates a tar or zip archive of the repository.
- **git submodule:** Manages submodules within a repository.
- git revert: Reverts a previous commit by creating a new commit.

- **git remote remove:** Removes a remote repository.
- **git merge** --**no-ff:** Merges branches and creates a merge commit even if a fast-forward merge is possible.
- git pull --rebase: Fetches the remote content and replays local commits on top of it.
- git push --force: Forces an update to a remote branch, potentially overwriting history.
- git tag -a: Creates an annotated tag in Git.
- **git format-patch:** Prepares patches for e-mail submission.
- **git apply:** Applies a patch to files and/or to the index.
- **git cherry:** Lists commits that are in one branch but not another.
- git ls-files: Shows information about files in the index and the working tree.