Git Cheat Sheet

Basic Commands

Command	Description
`git init`	Initialize a new Git repository
`git clone <url>`	Create a local copy of a remote repository
`git add <file>`	Stage changes to a specific file
`git add .`	Stage all changes in the current directory
`git commit -m "<message>"`	Commit staged changes
`git status`	Check the status of changes
`git log`	View the commit history
`git push`	Push local commits to the remote repository
`git pull`	Fetch and merge changes from the remote

Branching & Merging | Remote Repositories

Command	Description
`git branch`	List all branches
`git remote -v`	List all remote repositories
`git branch <name>`	Create a new branch
`git checkout <name>`	Switch to a different branch

`git merge <name>`	Merge the specified branch into the current branch
`git branch -d <name>`	Delete a branch

Undoing Changes | Pushing Changes

Command	Description
`git reset <file>`	Unstage changes to a specific file
`git reset --hard HEAD`	Discard all uncommitted changes in the working directory
`git revert <commit_hash>`	Create a new commit that undoes the changes made in a previous commit

- **Why force push?**
  - To overwrite remote history after rebasing or squashing commits.
  - **Caution:** Can cause data loss for others if they've based work on the overwritten commits.

Squashing Commits

- **Why squash?** Combine multiple commits into one, creating a cleaner commit history.
- **How:**
  1. `git rebase -i HEAD~<number_of_commits>` (replace `<number_of_commits>` with the desired number)
  2. An editor will open. Change `pick` to `squash` for commits you want to combine, leaving the first one as `pick`.
  3. Save and close the editor. A new editor will open to edit the combined commit message.
  4. Save and close to complete the squash.

🎁 Additional Tips

- Use clear and descriptive commit messages.
- Pull changes frequently to avoid conflicts.
- Create branches for new features or bug fixes.

- Use `git log` to track changes and understand the project history.
- Explore online resources and tutorials to learn more about Git!

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