

Git Essential Commands

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1. Introduction

This document provides a concise guide to essential Git commands that will help you manage your projects effectively.

2. Configuration Commands

- **Set User Name**

```
git config --global user.name "Your Name"
```

- **Set User Email**

```
git config --global user.email "you@example.com"
```

- **View Configuration**

```
git config --list
```

3. Repository Commands

- **Initialize a New Repository**

```
git init
```

- **Clone a Repository**

```
git clone <repository-url>
```

4. Branching Commands

- **List Branches**

```
git branch
```

- **Create a New Branch**

```
git branch <branch-name>
```

- **Switch Branches**

```
git checkout <branch-name>
```

- **Create and Switch Branch**

```
git checkout -b <branch-name>
```

- **Delete a Branch**

```
git branch -d <branch-name>
```

5. Staging and Committing

- **Stage Changed Files**

```
git add <file>
```

- **Stage All Changes**

```
git add .
```

- **Commit Changes**

```
git commit -m "Commit message"
```

- **Amend Last Commit**

```
git commit --amend
```

6. Remote Repository Commands

- **Add a Remote Repository**

```
git remote add <name> <url>
```

- **View Remote Repositories**

```
git remote -v
```

- **Push Changes**

```
git push <remote> <branch>
```

- **Pull Changes**

```
git pull <remote> <branch>
```

- **Fetch Changes**

```
git fetch <remote>
```

7. Viewing Commands

- **Show Status**

```
git status
```

- **Show Commit History**

```
git log
```

- **Show Changes**

```
git diff
```

- **Show a Specific Commit**

```
git show <commit-id>
```

8. Help Commands

- **Get Help for Git Commands**

```
git help <command>
```

- **Get Help for Git in General**

```
git --help
```

9. Conclusion

Git is a powerful tool for version control that allows you to manage code changes effectively. The above commands are essential for anyone looking to start using Git or improve their workflow.