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1 Git GitHub

Git

Git

1.1 Git

Git

- - - -

1.2 Git

1.2.1 Windows

```
# winget
winget install Git.Git

# chocolatey
choco install git
```

1.2.2 macOS

```
# Homebrew
brew install git

# Xcode Command Line Tools
xcode-select --install
```

1.2.3 Linux

```
# Ubuntu/Debian
sudo apt install git

# Fedora
sudo dnf install git

# Arch Linux
sudo pacman -S git
```

1.3 Git

```
git config --global user.name " "
git config --global user.email "your.email@example.com"
git config --global init.defaultBranch main
```

1.4 Git

1.4.1

```
#
git init

#
git clone https://github.com/user/repo.git
```

1.4.2

```
#
git status

#
git add filename.py
git add . #
```

```
#  
git commit -m " "  
  
#  
git log --oneline
```

1.4.3

```
#  
git branch feature-name  
git checkout feature-name  
#  
git checkout -b feature-name  
  
#  
git checkout main  
  
#  
git checkout main  
git merge feature-name  
  
#  
git branch -d feature-name
```

1.5 GitHub

GitHub Git

1.5.1

1. github.com
2. “New repository”
- 3.
- 4.
5. /
6. README .gitignore

1.5.2

```
# origin
git remote add origin https://github.com/username/repo.git

# GitHub
git push -u origin main

#
git pull origin main
```

1.5.3 GitHub

```
# 1.
git checkout -b feature/new-functionality

# 2.
git add .
git commit -m "feat:    "

# 3.
git push origin feature/new-functionality

# 4. GitHub

# 5.

# 6.
git checkout main
git pull origin main
git branch -d feature/new-functionality
```

1.6 Python Git

1.6.1 Python .gitignore

.gitignore

```

# Python
__pycache__/.
*.py[cod]
*$py.class
*.so
.Python
env/
venv/
.venv/
.ENV/

# IDEs
.vscode/
.idea/
*.swp
*.swo

# OS
.DS_Store
Thumbs.db

#
docs/
.pytest_cache/

```

1.6.2

```

#
git commit -m "feat:      "
git commit -m "fix:      "
git commit -m "docs: API  "

#
git commit -m "  "
git commit -m "  "
git commit -m "  "

```

1.6.3

- feat: -
- fix: -
- docs: -
- style: -
- refactor: -
- test: -
- chore: -

1.7

Python

```
#
# : calculator.py

def add(a: float, b: float) -> float:
    """    """
    return a + b

def subtract(a: float, b: float) -> float:
    """a    b    """
    return a - b

def multiply(a: float, b: float) -> float:
    """    """
    return a * b

def divide(a: float, b: float) -> float:
    """a    b    """
    if b == 0:
        raise ValueError("    ")
    return a / b

if __name__ == "__main__":
    print("    ")
    print(f"5 + 3 = {add(5, 3)}")
    print(f"5 - 3 = {subtract(5, 3)}")
    print(f"5 * 3 = {multiply(5, 3)}")
    print(f"5 / 3 = {divide(5, 3):.2f}")
```

1.7.1

1.

```
mkdir python-calculator
cd python-calculator
git init
```

2. **calculator.py**

3.

```
git add calculator.py
git commit -m "feat:      "
```

4. **GitHub**

```
git remote add origin https://github.com/yourusername/python-calculator.git
git push -u origin main
```

5.

```
git checkout -b feature/power-function
```

6. **calculator.py**

```
def power(a: float, b: float) -> float:
    """a  b  """
    return a ** b
```

7.

```
git add calculator.py
git commit -m "feat:      "
git push origin feature/power-function
```

8. **GitHub**

1.8 Git

1. -
2. -
3. - main
4. -
5. -
6. -

1.9

1.9.1

```
#  
git checkout -- filename.py  
  
#  
git reset HEAD filename.py  
  
#  
git reset --soft HEAD~1  
  
#  
git reset --hard HEAD~1
```

1.9.2

Git

- 1.
2. <<<<<< ===== >>>>>>
- 3.
- 4.
- 5.

1.10

Git GitHub [Python](#)

1.11

- [Git](#)
- [GitHub](#)
- [Git](#)