

Introduction to version control with Git

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ThoughtWorks®

What is Git?

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- Other version control systems include centralized VCSs such as Subversion and distributed VCSs like Mercurial.

Setup

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■ Installing Git

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1 apt-get install git
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1 git config --global user.name "Your Name"  
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■ Initializing a local repo

```
git init
```


Tracking changes I

■ Checking the status of your repo

```
1 git status
```

■ Undoing changes to files

■ Single file:

```
1 git checkout filename
```

■ Multiple files:

```
1 git checkout .
```

Tracking changes II

■ Staging and Unstaging files

■ Single file:

```
1 git add filename
```

■ Multiple files:

```
1 git add .
```

■ Committing your files

■ Single file:

```
1 git commit filename
```

Tracking changes III

■ Multiple files:

```
1 git commit .
```

■ Ignoring files

- Create a file `'.gitignore'` and add the filenames (or file patterns) you wish to ignore

```
1 touch '.gitignore'
```

■ Amending a commit

```
1 git commit --amend
```

Tracking changes IV

■ Commit History

```
1 git log
```

Remote repositories I

■ Initializing from a remote repo

```
1 git clone [remote_url]
```

■ Setting up a repo on GitHub, BitBucket, etc.

■ Adding a remote repo manually

```
1 git remote add [remote_url]
```

■ Pulling from a remote

```
1 git fetch [remote_name]  
   git pull [remote_name]
```

Remote repositories II

■ Pushing your work

```
git push [remote_name]
```

Just getting started

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■ Branching

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- Branching
- Merging and merge conflicts

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- Branching
- Merging and merge conflicts
- Working with multiple remotes

Questions and Exercises

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- Push your changes