

# Introduction to version control with Git

Brain Leke Betetchouh & 'Wole Solana

**ThoughtWorks®**

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

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## ■ Initializing a local repo

```
git init
```



# Tracking changes I

## ■ Checking the status of your repo

```
1 git status  
  git diff
```

## ■ Undoing changes to files

### ■ Single file:

```
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 .
```

# Tracking changes III

## ■ Committing your files

### ■ Single file:

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

### ■ Multiple files:

```
git commit .
```

- There is a command to *add* and *commit* in one line. That is left as an exercise for the students.

## ■ Ignoring files

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

# Tracking changes IV

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

## ■ Amending a commit

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

## ■ Commit History

```
1 git log
```

# Remote repositories

## ■ Initializing from a remote repo

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1 git clone [remote_url]
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## ■ Pulling from a remote

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1 git fetch [remote_name]  
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## ■ Pulling from a remote

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1 git fetch [remote_name]  
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## ■ Pushing your work

```
git push [remote_name]
```

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## ■ Branching

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- Merging and merge conflicts
- Working with multiple remotes

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- Using the commands introduced earlier, set up a git repo in a folder titled `TW_AIMS_Exercises`
- Clone from this remote url:  
`https://bitbucket.org/wolesolana/aims-tz-student-exercises.git`

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- Commit your changes with a good commit message
- Push your changes

# Further Reading



Scott Chacon.  
*Pro git.*  
Apress, 2009.