Git in Ten Minutes

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1   Leveraging the Index

Git's index is a feature, not a bug. It's one of Git's best features because it gives you both sub-commit checkpointing and very fine-grained control over commits. For example, let's suppose you have a file called `foo.rb` that you're refactoring. Here's life without the index:

```
$ rake test
All tests pass
$ vim foo.rb
Refactor one piece of foo.rb
$ rake test
3 failures -- can't commit that
$ cp foo.rb foo-one-piece-done.rb
$ vim foo.rb
Refactor the other piece of foo.rb
$ rake test
5 failures -- darn, that didn't work
$ diff foo.rb foo-one-piece-done.rb
Look over the diff to figure out what broke the tests
$ vim foo.rb
Try again on the refactor
$ rake test
All tests pass
$ rm foo-one-piece-done.rb
$ commit
```

The index can replace the temporary file, though:

```
$ rake test
```

```
All tests pass
$ vim foo.rb
Refactor one piece
$ rake test
3 failures -- can't commit
$ git add foo.rb
$ vim foo.rb
Refactor the other piece
$ rake test
5 failures
$ git diff foo.rb
Gives diff from the last git add command
$ vim foo.rb
Try again
$ rake test
All tests pass
$ git commit foo.rb
Updates the index and commits that
```