

# Git<sup>+</sup>: playing with History

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A workshop for 42 Campus

# Who am I?

- Tetuan Valley (Intern) [ 2012 ]
- Wayra (Intern) [ 2013 ]
- Yaap (Junior) [ 2014 ]
- Doctor 24 (Junior) [ 2015 ]
- Tuenti (Middle) [ 2017 ]
- Telefonica (Senior) [ 2022 ]

1. Statement
2. Saving Points
3. Intro Rebase
4. In a Nutshell
5. Workshop Time
6. Cheat Sheet
7. Responsibility
8. Internals
9. Form

Once you `$> git commit`, you can't loose your work.

Once you \$> git commit,  
**you can't lose your work**

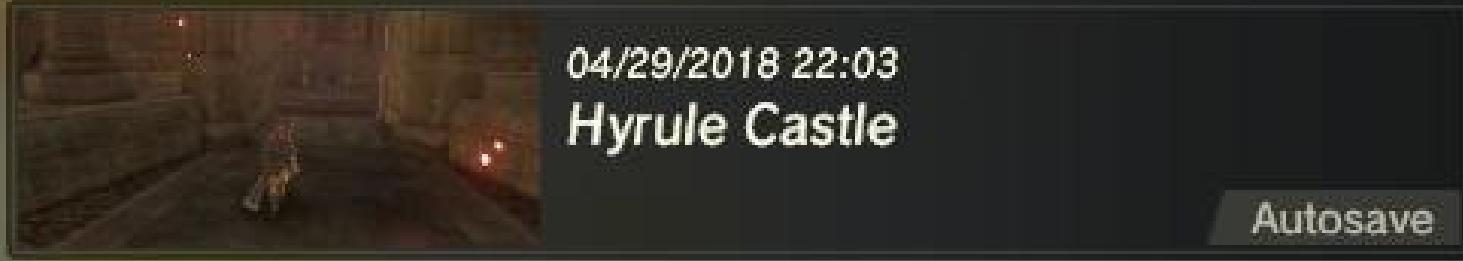
commit = saving point

Select save data to load.

commit →



commit →



Autosave

commit →



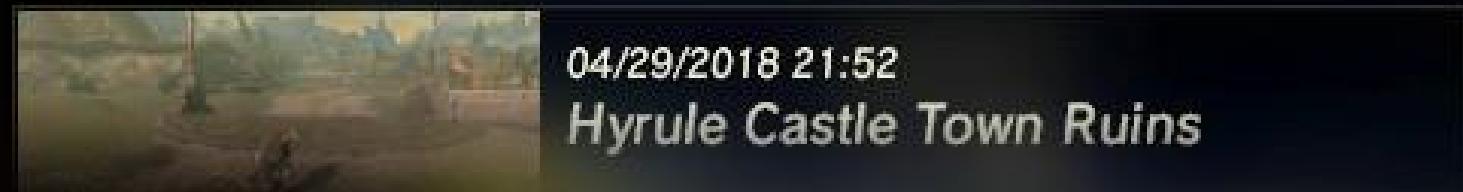
Autosave

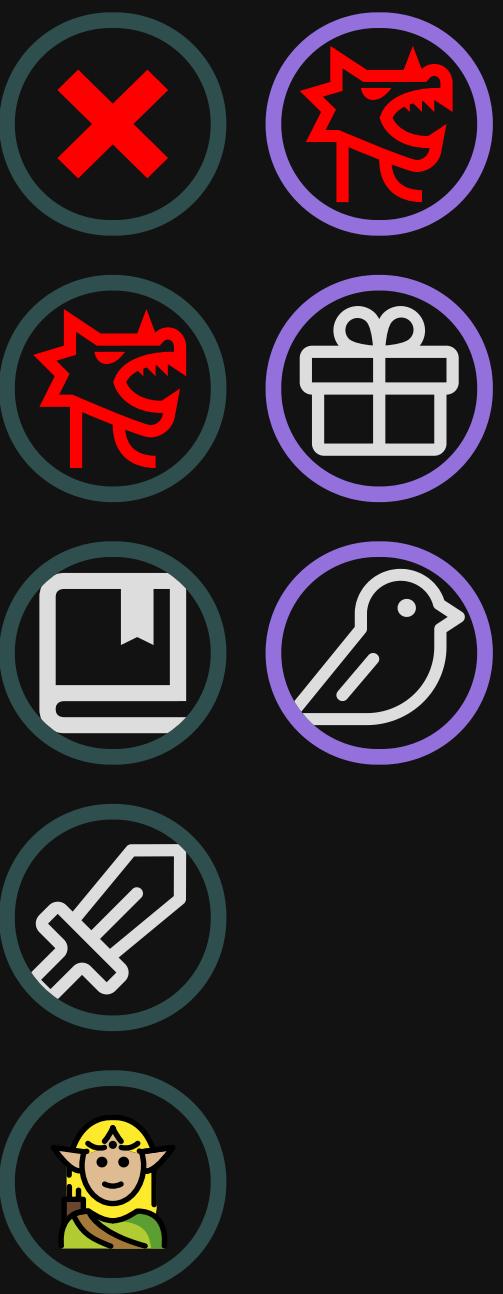


Autosave



Autosave





# git rebase

## Rewrite the history

- After getting the sword and the book...

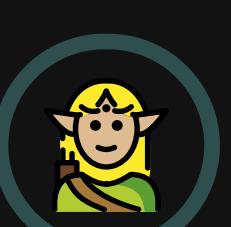


- We did beat the bird 

- We did get the ~~reward~~ => **SPECIAL**

**REWARD** 

- We did face the dragon in that conditions
- We did win



# Before

```
$ (my-branch) > git status
```

```
A---B---C---F---G (main)
```

```
\
```

```
D---E (HEAD my-branch)
```

# After

```
$ (my-branch) > git rebase main
```

```
A---B---C---F---G (main)
```

```
\
```

```
D'---E' (HEAD my-branch)
```



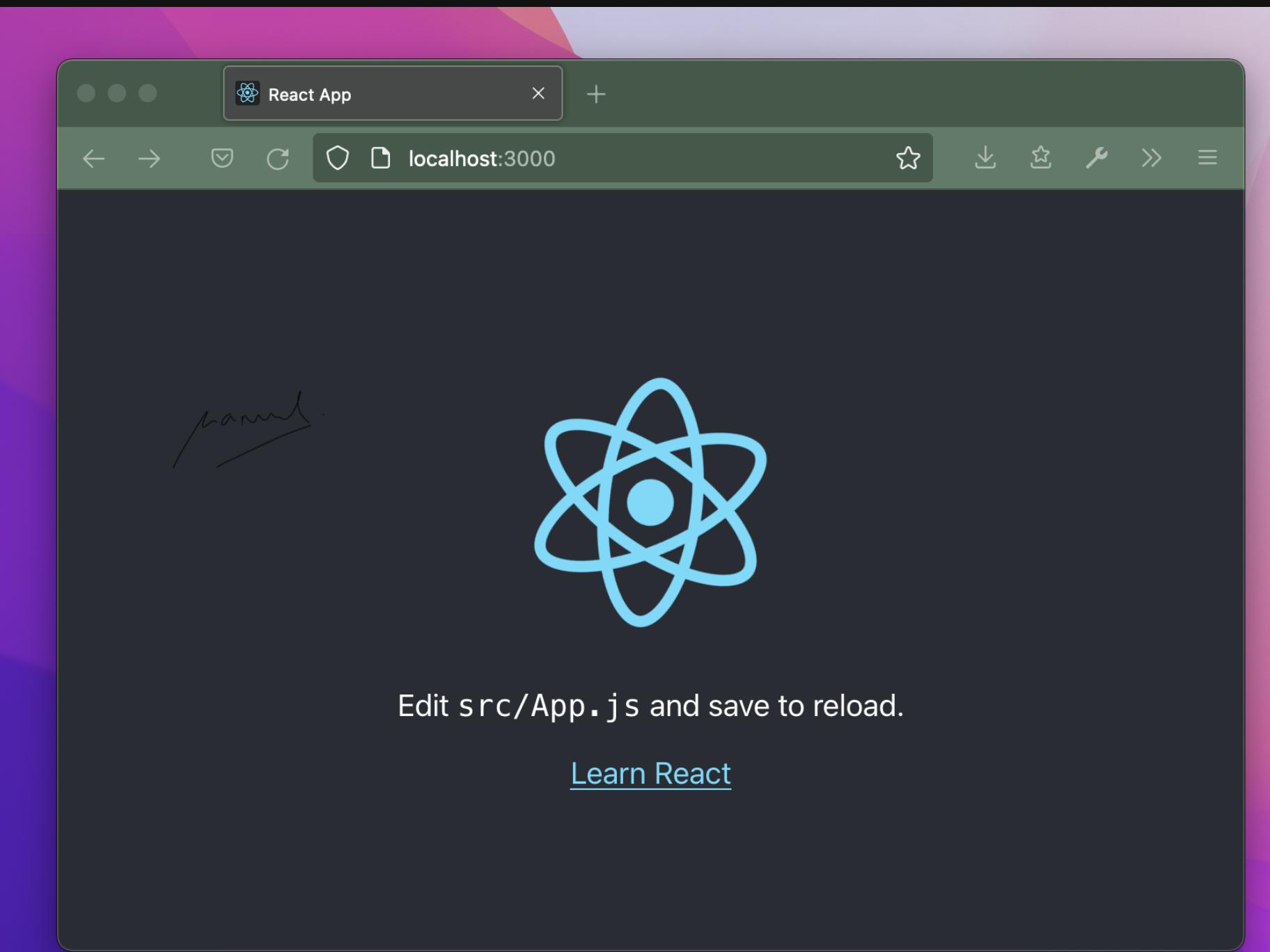
Show me the code



# Octo-Git-42

- branch: main
- commit: df55345

Commit	Description
c0cb057	origin/test/monkey-counter test + fix
e7e28c3	origin/feat/monkey-counter feat/monkey-counter feature: <MonkeyCounter /> detects 42
d7aa70a	fix: using "hear no evil" at MonkeyCounter
f6ee0cf	feat: new component <MonkeyCounter />
8a134b4	origin/feat/main-layout feat/main-layout test: App.test.js
12ae12c	fix: replace favicon
aa209ac	feat: main layout
<b>df55345</b>	<b>main origin/main origin/HEAD yarn create react-app octo-git-42</b>
61858f1	Initial commit



Edit `src/App.js` and save to reload.

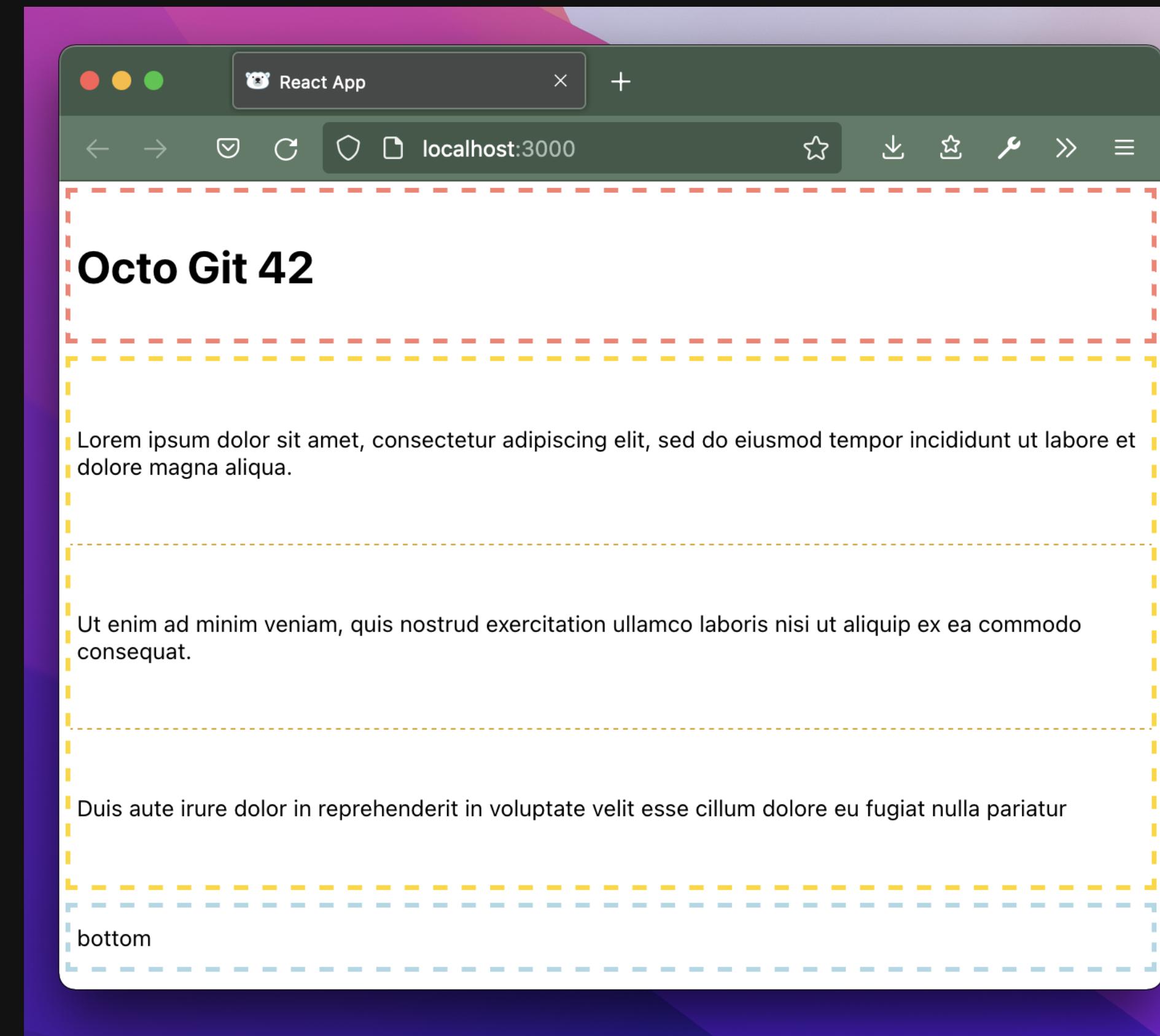
[Learn React](#)



# Octo-Git-42

- branch: `feat/main-layout`
- commit: `8a134b4`

Commit	Graph	Description
c0cb057		origin/test/monkey-counter test + fix
e7e28c3		origin/feat/monkey-counter feat/monkey-counter feature: <MonkeyCounter /> detects 42
d7aa70a		fix: using "hear no evil" at MonkeyCounter
f6ee0cf		feat: new component <MonkeyCounter />
<b>8a134b4</b>	●	feat/main-layout origin/feat/main-layout test: App.test.js
12ae12c		fix: replace favicon
aa209ac		feat: main layout
df55345		origin/main origin/HEAD main yarn create react-app octo-git-42
61858f1		Initial commit

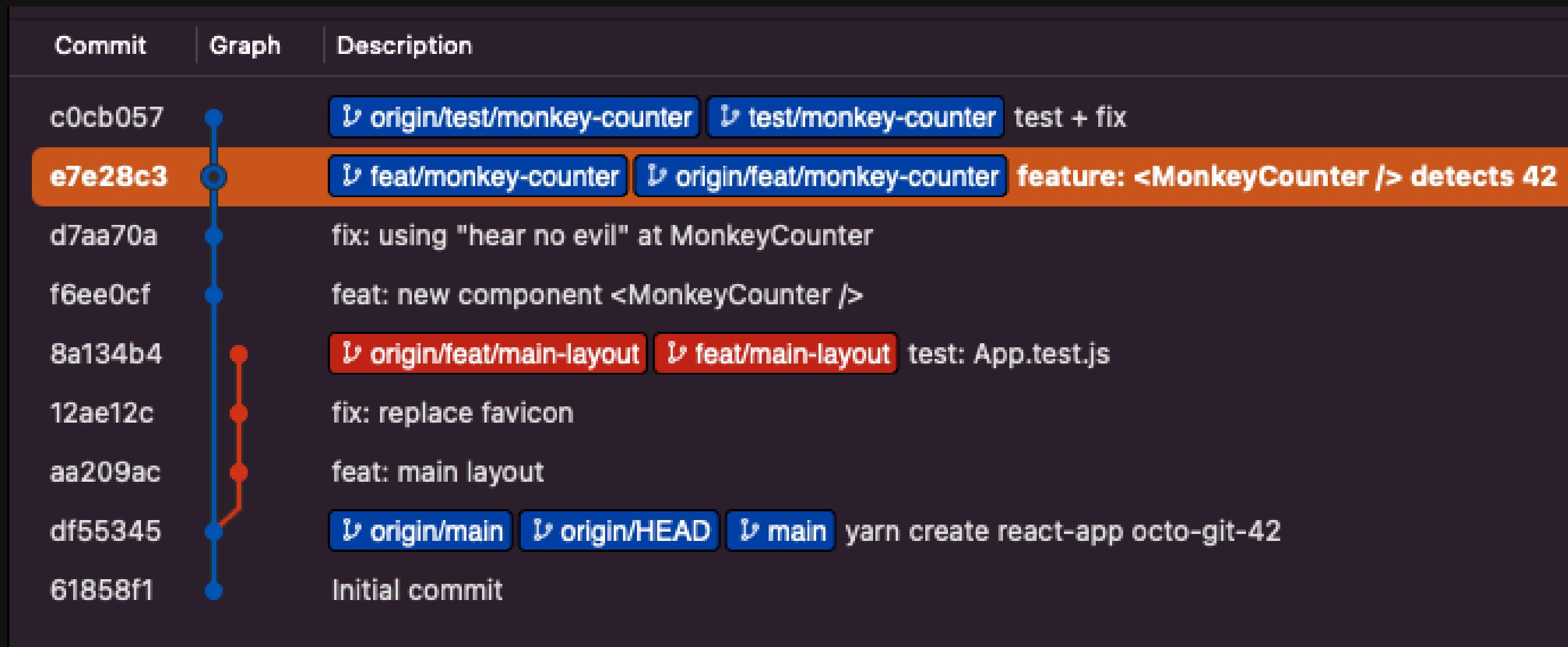


layout: image-right image: /images/repo/detects\_42.png title: Example repo - tree-monkey-counter hideInToc: true



# Octo-Git-42

- branch: feat/tree-monkey-counter
- commit: e7e28c3





# Octo-Git-42

- branch: test/monkey-counter
- commit: c0cb057

Commit | Graph | Description

c0cb057 → test/monkey-counter → origin/test/monkey-counter test + fix  
e7e28c3 → origin/feat/monkey-counter → feat/monkey-counter feature: <MonkeyCounter /> detects 42  
d7aa70a fix: using "hear no evil" at MonkeyCounter  
f6ee0cf feat: new component <MonkeyCounter />  
8a134b4 → origin/feat/main-layout → feat/main-layout test: App.test.js  
12ae12c fix: replace favicon  
aa209ac feat: main layout  
df55345 → origin/main → origin/HEAD → main yarn create react-app octo-git-42  
61858f1 Initial commit

yarn test

PASS	src/components/monkey-counter.test.js
PASS	src/App.test.js

Test Suites: 2 passed, 2 total  
Tests: 2 passed, 2 total  
Snapshots: 0 total  
Time: 1.335 s  
Ran all test suites.

Watch Usage: Press w to show more. □

# git rebase --interactive

```
# Commands:  
# p, pick <commit> = use commit  
# r, reword <commit> = use commit, but edit the commit message  
# e, edit <commit> = use commit, but stop for amending  
# s, squash <commit> = use commit, but meld into previous commit  
# f, fixup <commit> = like "squash" but keep only the previous commit's log message.  
# x, exec <command> = run command (the rest of the line) using shell  
# b, break = stop here (continue rebase later with 'git rebase --continue')  
# d, drop <commit> = remove commit
```

# With great power comes...

- public branches
- merge vs. rebase
- ~~pull --force~~ reset --hard



# Internals

```
struct Commit {  
    uuid_t sha;  
    Commit parent;  
    char msg[];  
    Blob content[];  
  
    User author;  
    time_t timestamp;  
  
    User commiter;  
    time_t commit_timestamp;  
  
    ...  
};
```

# Before

```
git rebase `--onto <new-base> <old-base>`
```

Before

A---B---C---F---G (main)

\

D---E---H---I (HEAD my-feature)

# After

```
git rebase --onto F D
```

A---B---C---F---G (main)

\

E'---H'---I' (HEAD my-feature)



# Resources

- Repository 
- Slides 
- Free Backgrounds 

OK?

