

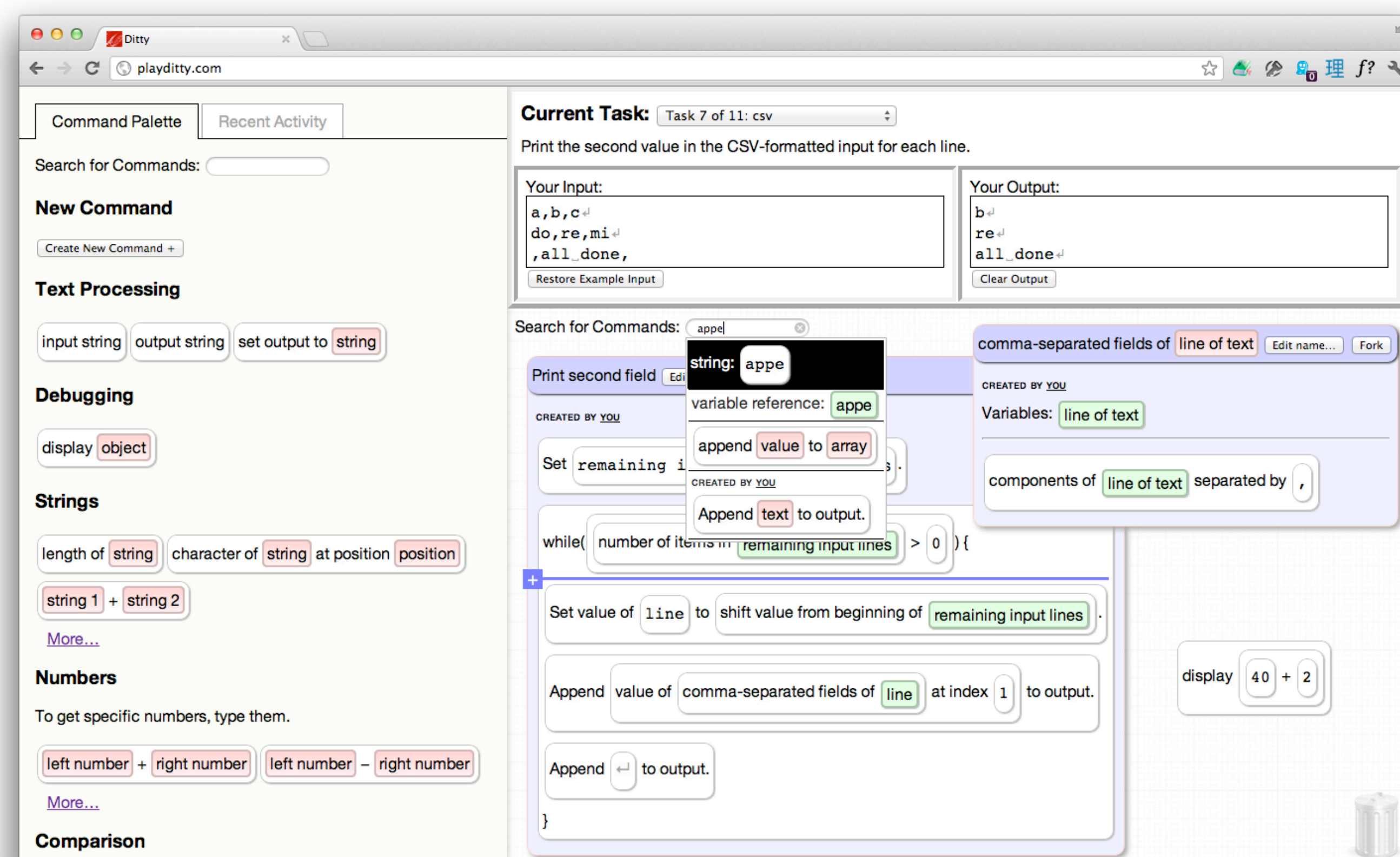
Programming With Everybody

If we observe how people **adapt a code snippet** to their project, can we make it easier for other people to adapt it to theirs?

Strategy:

1. **Observe** how users edit code snippets
2. **Present** crowd-created alternatives

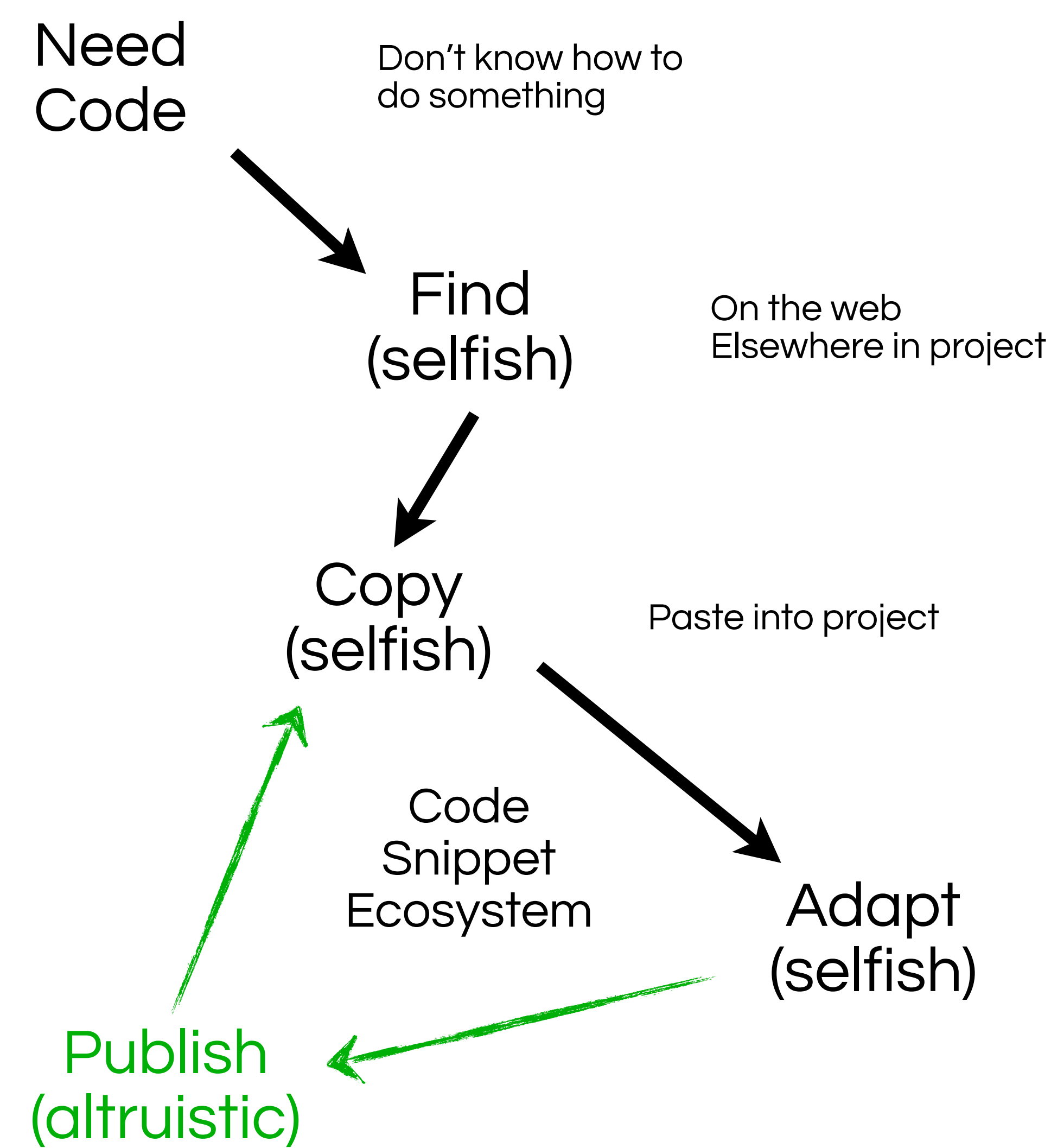
Platform: Ditty, our web-based IDE



Structured editor: to easily obtain high-level descriptions of users' actions

All code is stored online: every change is recorded and immediately available to others

Auto-complete is search: find ready-made functions, or scripts from which to salvage

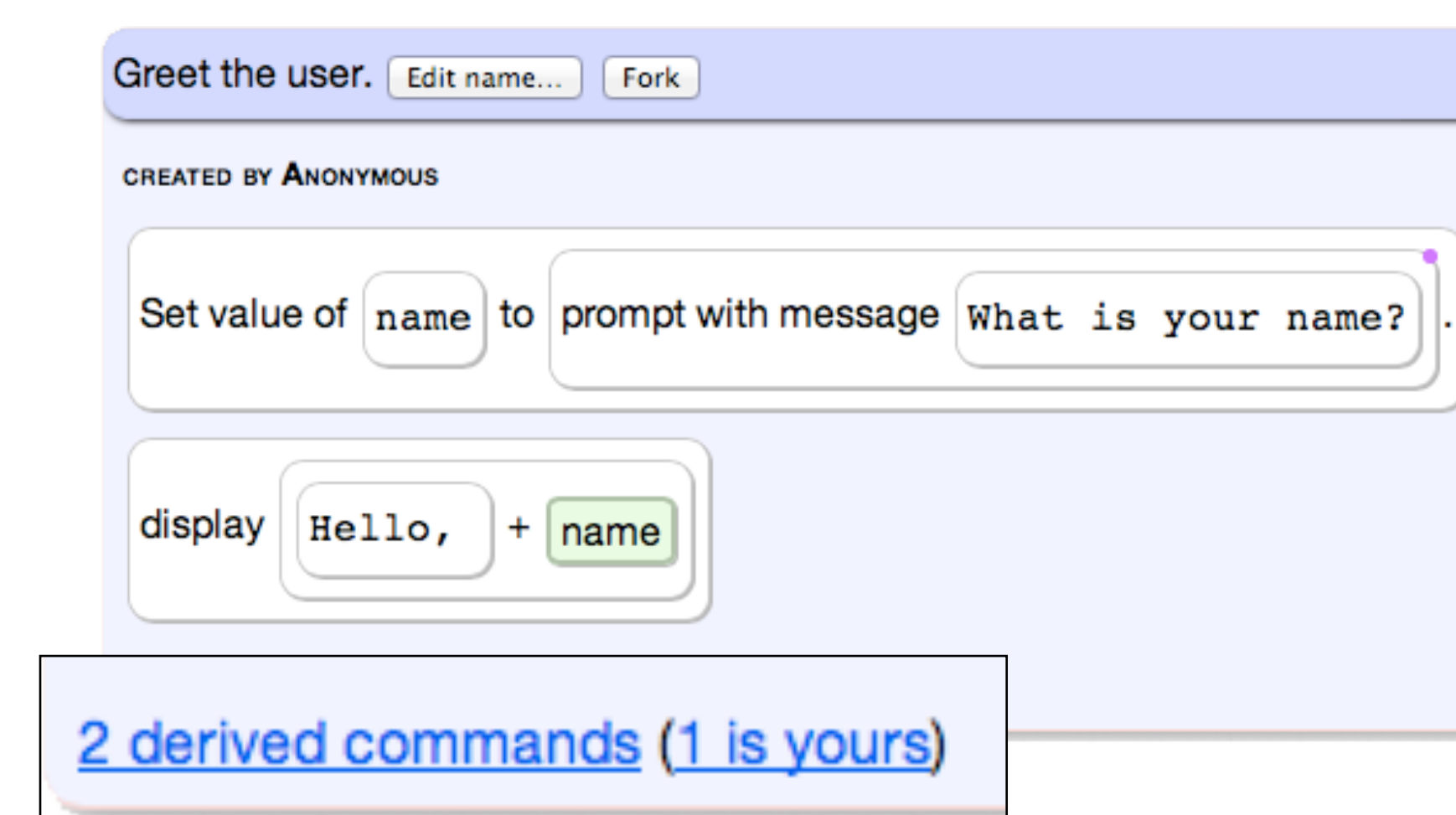


Motivation

The goal of completing their current task does not **intrinsically motivate** users to complete the Copy-Adapt-Publish feedback loop.

Current Implementation

When a user modifies another user's command, a **fork** is automatically created:



Users can **walk the graph** of derivations, sorted by metrics like:

- Times copied and referenced
- Times executed
- # exceptions thrown

Future Work

We're investigating:

- Effectiveness of listing derivatives
- "Auto-completion" of edits: guess what the user will change next
- Publicity as a motivator to write easily reusable code

Try It!

<http://playditty.com/>

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Password: dittytime

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