IDEal

Collaborative Code Editor

Kevin McCotter
Max Kerscher-Santelli
Greg Biles
David Sun
Chris Kyle
Nicholas Lampert

Motivation

- Our team felt that a collaborative IDE that fulfilled our set of requirements had not yet been created
- We felt that the resources were available to make the project somewhat easy to execute
- We were incorrect in thinking it would be easy to execute, but had the determination to try anyway
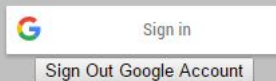
Goals

- Text editor with context highlighting ✔
- Collaborative editing ✔
- Chat system ✔
- Save locally ✔
- Save to server ✔
- Continue a project ✔

- Server-side compilation ✖
- Save to Google Drive ✖
- Upload to server ✖

IDEal

Collaborative Code Editor

G   Sign in

Sign Out Google Account

Easily collaborate with partners   Download your code files

Use Hangouts from the editor   Save and sync with Google Drive

1 Pl   al loads

Undo

Redo

Copy

Cut

Paste

Start a Hangout

Challenges

- web2py
- Lack of experience in various areas
- Feature heavy and complicated application
- Integrated many separate technologies and APIs
- Scheduling

Accomplishments

- Functional collaborative code editor
- Lots of practical experience with the technologies we used
- Better understanding of project management
- Familiarity with web development

Technologies

- web2py
- Google:
  - OAuth 2
  - Realtime API
  - Hangouts API
- CodeMirror
- Justinmind Prototyper
- Amazon Web Services EC2

Project Management

- Blossom
- GitHub
- Slack
- Google Drive

Enjoyed / Didn't Enjoy

- Working as a goal-driven group
- Breakthroughs after encountering difficulties
- Slack and Blossom for communication and visualization

- web2py in general
- Indecision on features

Lessons Learned

What worked:

- Communication is key, especially in larger groups
- Group work was our best work

What didn't work:

- Active project management is critical
- More research earlier = less work later
- Know exactly which features are wanted