Social Coding
A Case Study with Julia
Design
A fresh approach to technical computing

Version 0.0.0-prerelease

[Jeff] a = 1+2
[Jeff] ==> 3
[Bob] b = a+2+3
[Bob] ==> 8

Eddy> b+a
Object Model

Channel

Subscribe, unsubscribe, publish

User
Implementation
Software stack

Socketstream Framework
- NodeJS, server-side javascript
- Coffeescript, syntactic sugar of javascript
- Jade+Mustache template engine
- Stylus, syntactic sugar of css
- Socket.IO, websocket protocol with fallback
- Scalable with ZeroMQ, a transport layer protocol
- Redis DB, an open-source, networked, in-memory, key-value data store with optional durability

Etherpad-lite for IDE
- MySQLDB
Architecture

- Socketstream-frontend
- Etherpad-lite
- MySQLDB
- RedisDB
- Socketstream-backend
- JuliaSession
jq-ui for ui elements
jq-console for the console
jq-ui-chatbox for the chatbox
jq-purr for notification
Stephan's Julia web design
Demo
Welcome to Julia Social.
Your name is au.
au> 1+2+3
[au] 1+2+3
[au] ==> 6
au>
```julia
function foo(n)
    a = randn(n, n)
    x = rand(n, 1)
    return a*x
end
```
What's next?

Julia Syntax Parser
Multiple Rooms
Multiple Languages
Facebook/Twitter Integration
Julia Syntax Highlighting
Julia Mobile
Thank You

Professor Alan Edelman, Jeff Bezanson, Stephan Boyer, Julia developers and the class.
Questions, Suggestions, Comments?
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