

IDE-IT FrontEnd

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A dark blue diagonal gradient bar that starts from the bottom left corner and extends towards the top right corner, covering the lower half of the slide.

Motivation

Importance

- IDEs provide powerful tools for developers
 - Code insight
 - Debugging
 - Resource Management

Problem

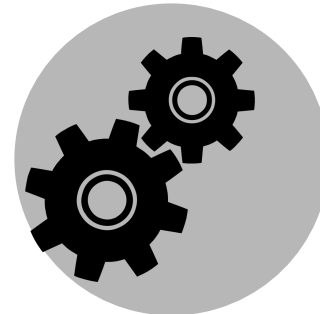
- Only a small number of these functionalities get used
- Low discoverability of existing IDE tools and shortcuts



Accessibility

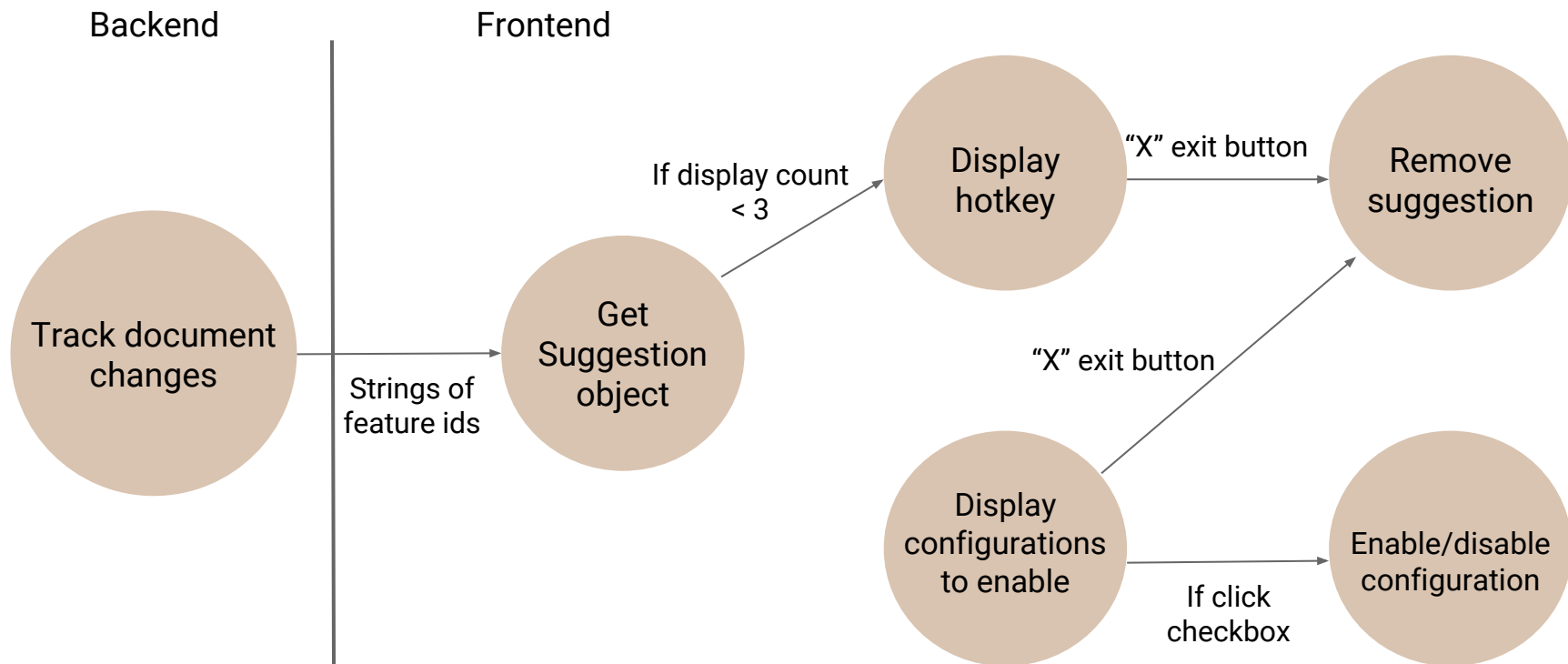


Awareness



Configuration

Our Approach



Research Questions

Hypotheses

- Non-intrusive suggestions
- No workflow interruption
- Users will positively respond to suggestions

Methodology

- Recruit ~10 UW CSE students
- Ask them to perform specific tasks
 - I.e. comment multiple lines
- Survey: Scale 1-5 (level of satisfaction)

Information and Metrics

- User response to interface
 - Window placement
 - Clarity of message
 - Distractibility
 - Did they use the suggestion?

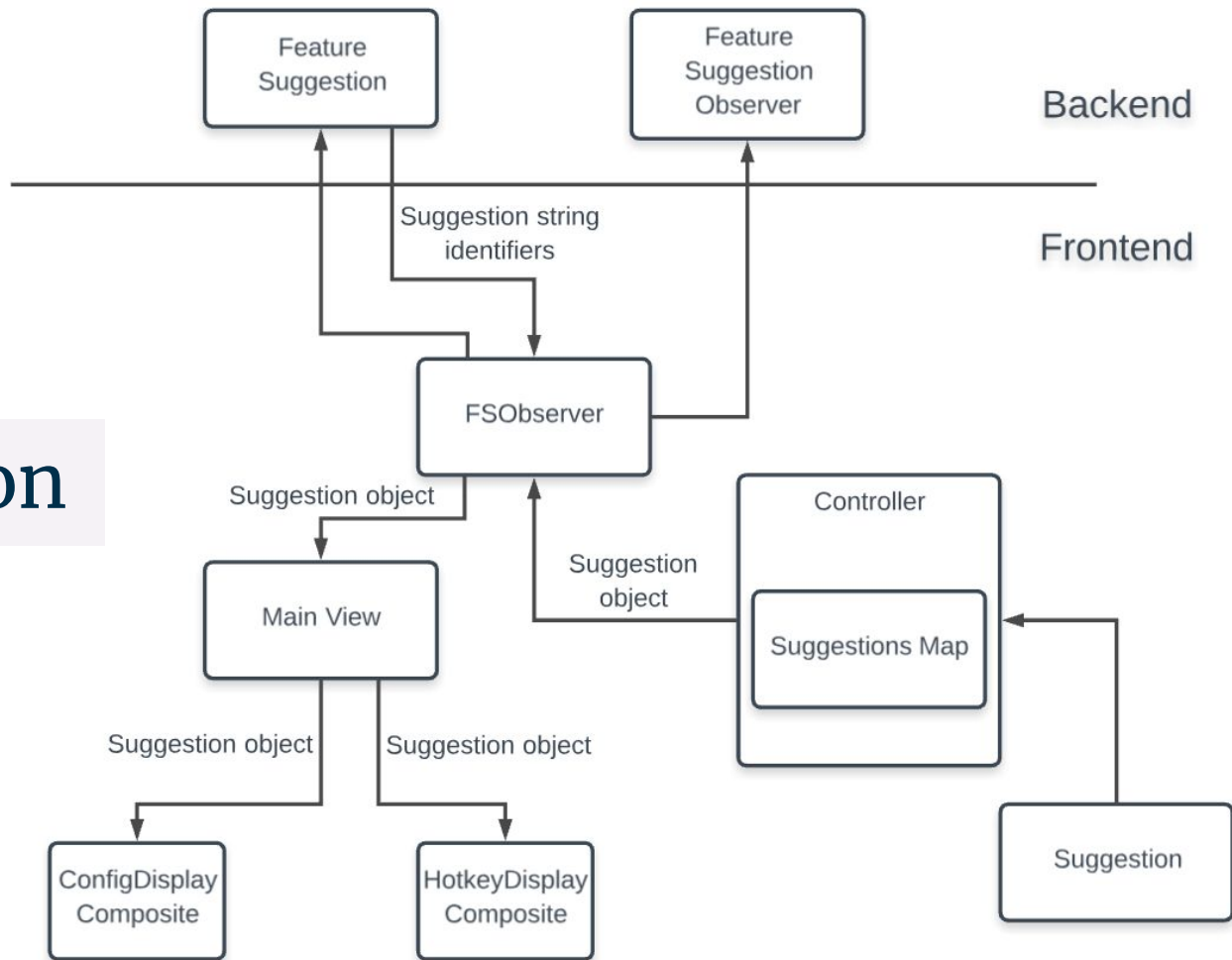
Tie to Real-World Problem

- Annoyance of “daily tips”
- Interruption of workflow
- Timing of suggestions
- Accessibility of configuration

Preliminary Results

- ❖ Created an initial working Eclipse plug-in window
- ❖ Functionality of enabling configurations
- ❖ Integrated backend plugin with frontend user interface
- ❖ Display hotkeys based on document changes tracked by backend

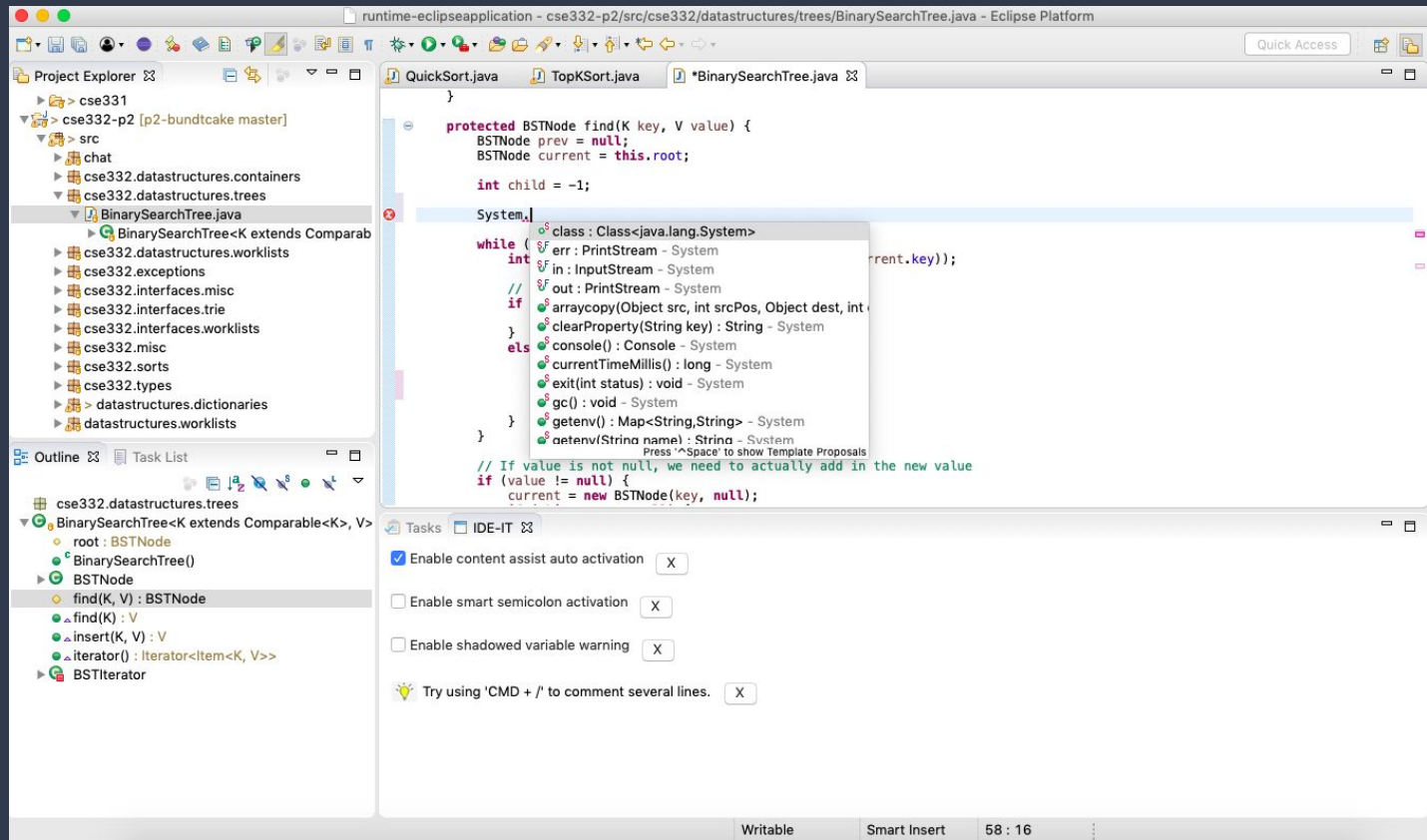
Implementation



Evaluation

-
- ❖ Measuring success:
 - Correct functionality
 - Users response to interface
 - ❖ User testing with script
 - ❖ Follow-up survey
-

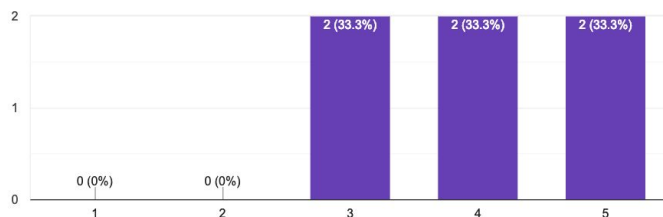
Demo



Initial Results

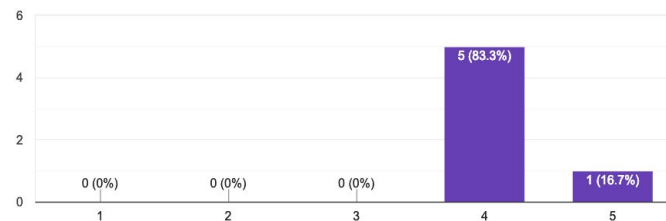
How satisfied were you with the config options that were suggested?

6 responses



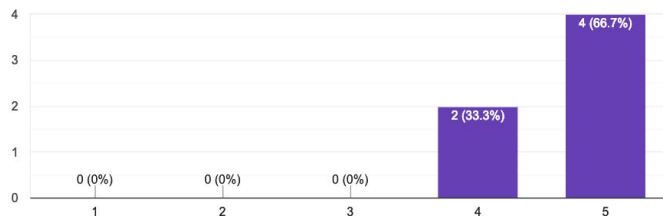
How satisfied were you with the design of the plugin?

6 responses



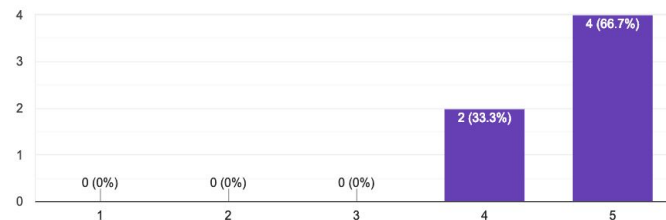
How satisfied were you with the hotkey tips that were suggested?

6 responses



How satisfied were you with the text size of the suggestions?

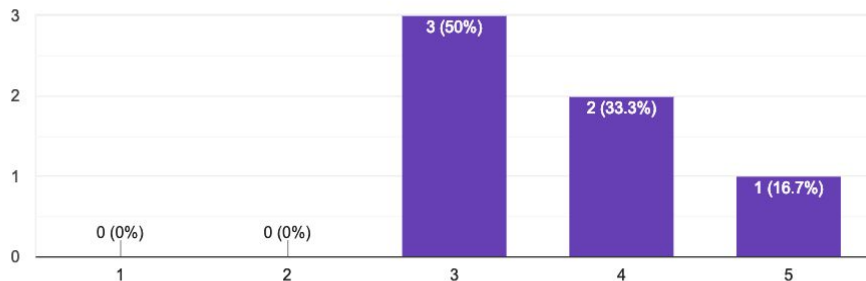
6 responses



Initial Results

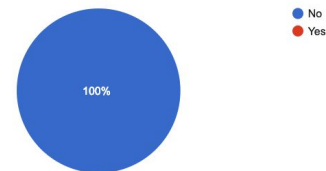
How satisfied were you with the icon design next to the hotkey suggestions?

6 responses



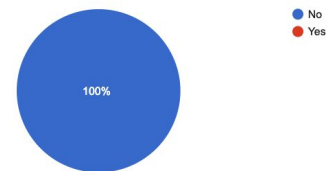
Do you feel as if this plugin slowed your development speed?

6 responses



Did you find this plugin distracting or annoying?

6 responses



Initial Results

Please leave any comments, concerns, and/or suggestions for us so we can make this plugin better.

6 responses

More configs would be cool

It would be nice if the whole `system.out.print` showed up instead of `system.out`

I like the semicolon feature!

This is great! I already learned something! The icon could be better...

I often already have those config options enabled

Maybe clean up the formatting and make it look a little more polished

Current Approaches

MouseFeed



User clicks menu item:

Informs of hotkey shortcuts



Requires user already knows feature exists



Features Trainer



Daily lessons:

Informs of hotkey shortcuts



Irrelevant
Interrupts flow



Tips



Tips of the day:

Introduces new features to user



Irrelevant
Bothersome



Web Search



Videos, forums, articles:

Introduces new features to user



User search
Interrupts flow



Takeaways

- Use of IDEs for code insight and resource management
- Introduction of **discoverability** with an easy-to-use plugin window
- Low distractibility and workflow interruption