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Customer Story

최고의 SPL 리뷰어가 되는 방법

삼성전자

온누리 책임 소프트웨어 엔지니어
이보영 소프트웨어 엔지니어
홍윤철 소프트웨어 엔지니어

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How to Become The Best SPL Reviewer

Nuri On
Senior Software Engineer
| Samsung Electronics

Boyoung Lee
Software Engineer
| Samsung Electronics

Yuncheol Hong
Software Engineer
| Samsung Electronics

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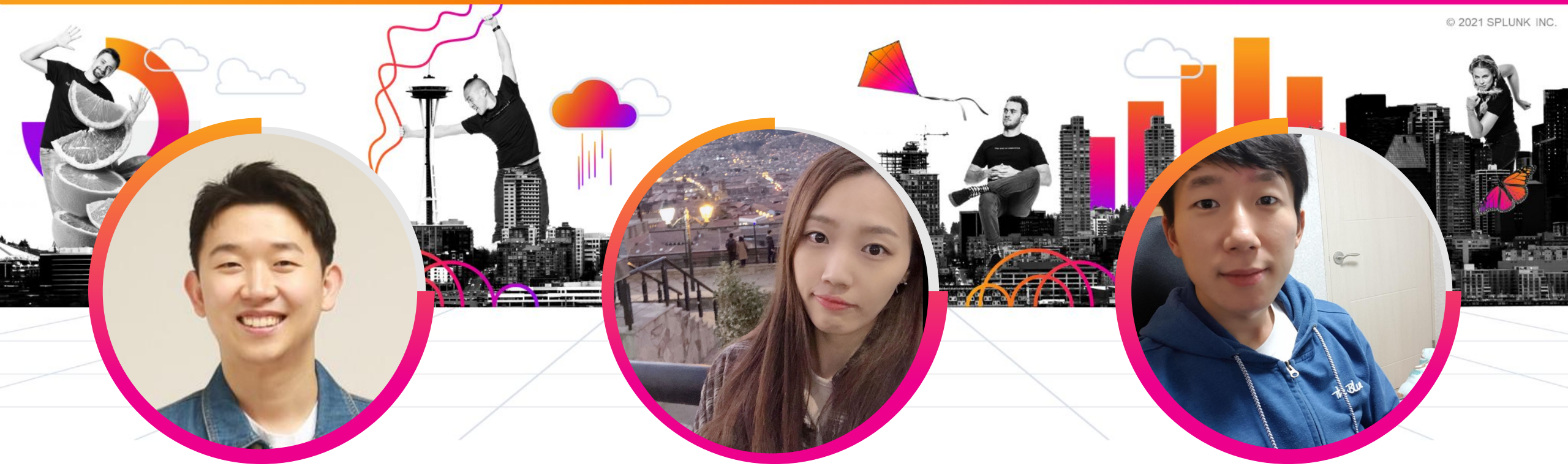

Nuri On

Senior Software Engineer
| Samsung Electronics

Boyoung Lee

Software Engineer
| Samsung Electronics

Yuncheol Hong

Software Engineer
| Samsung Electronics

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Agenda

1. Background
2. Setup Code Review Environment
3. How to Code Review for SPL
4. Do Better SPL Code Review

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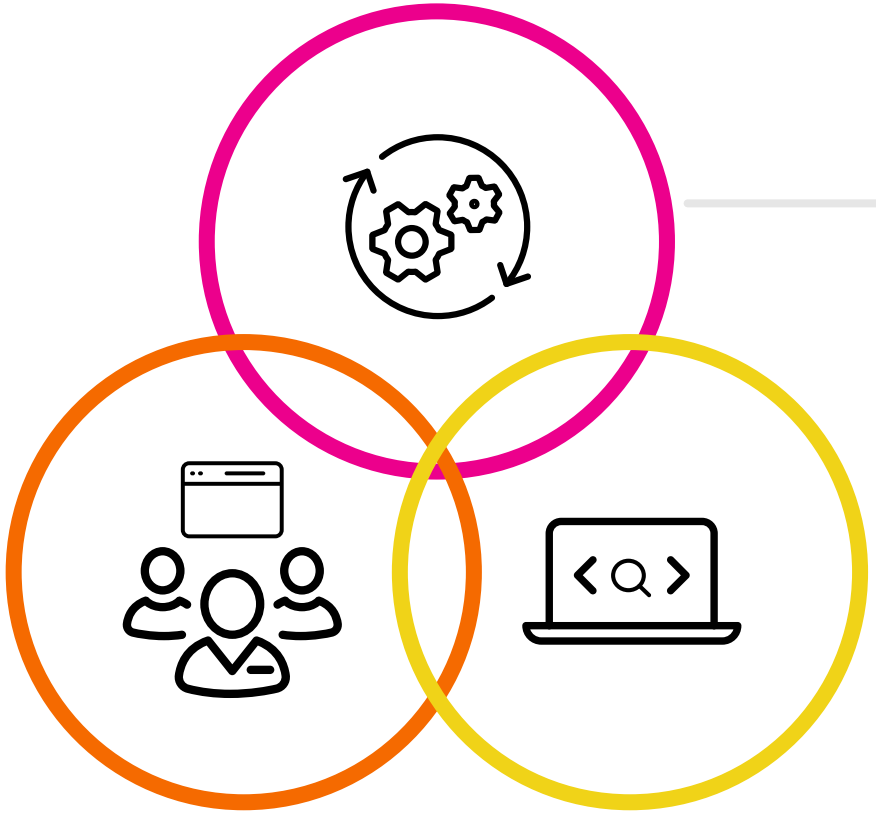
1. Background

The problem we want to solve is..



Manage SPL Code by VCS

Concurrent App Development

SPL Code Review

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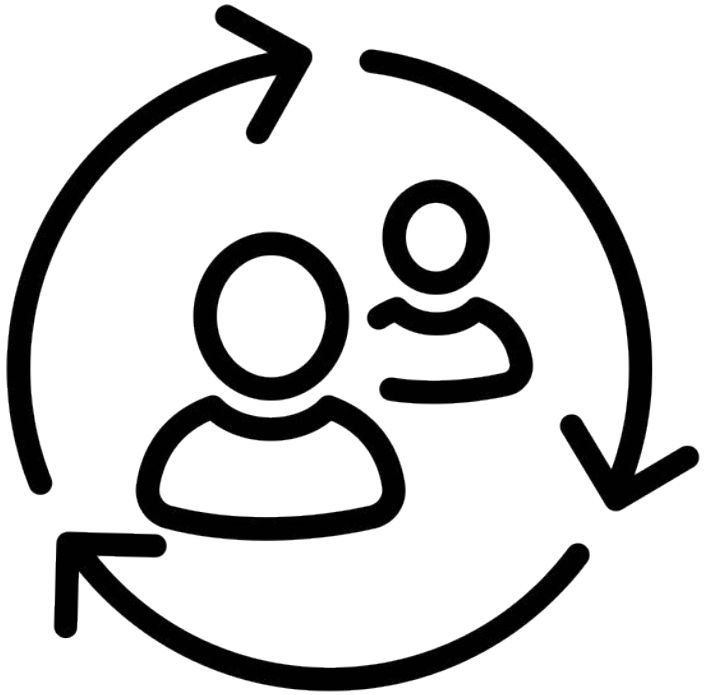

SPEAKER TRANSITION PLACEHOLDER

Presenters:

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From: Nuri On

To: Yuncheol Hong

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2. Setup Code Review Environment

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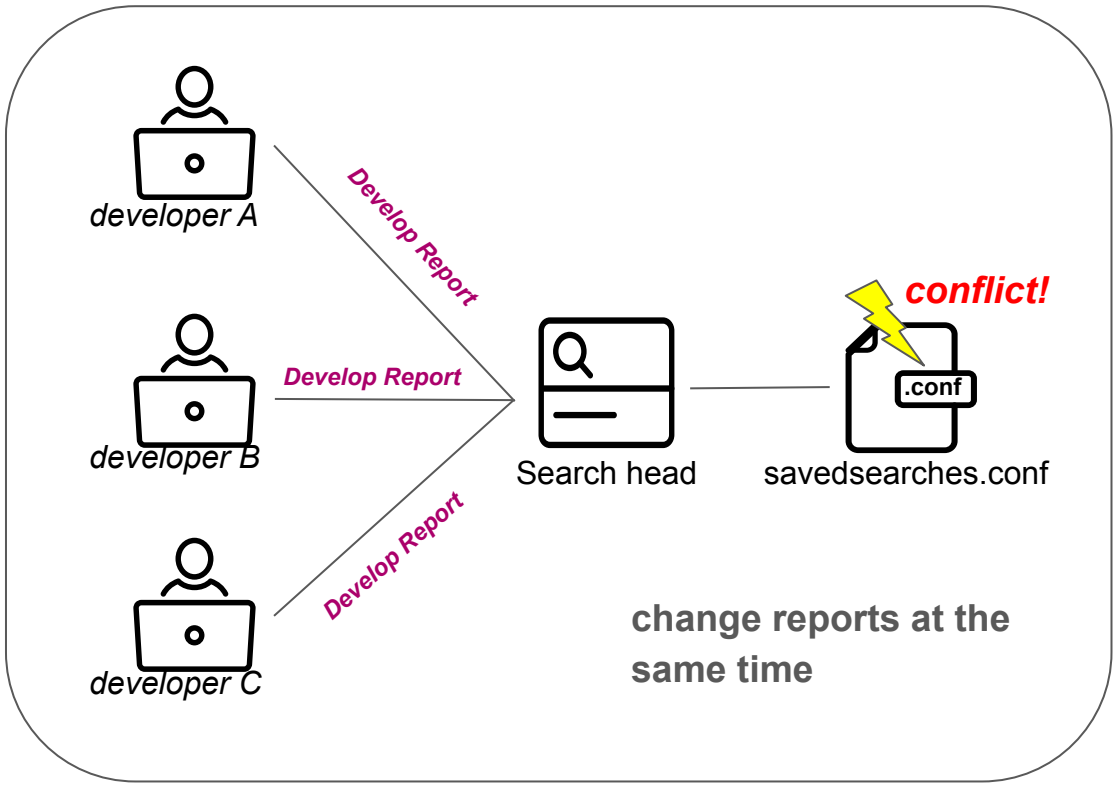
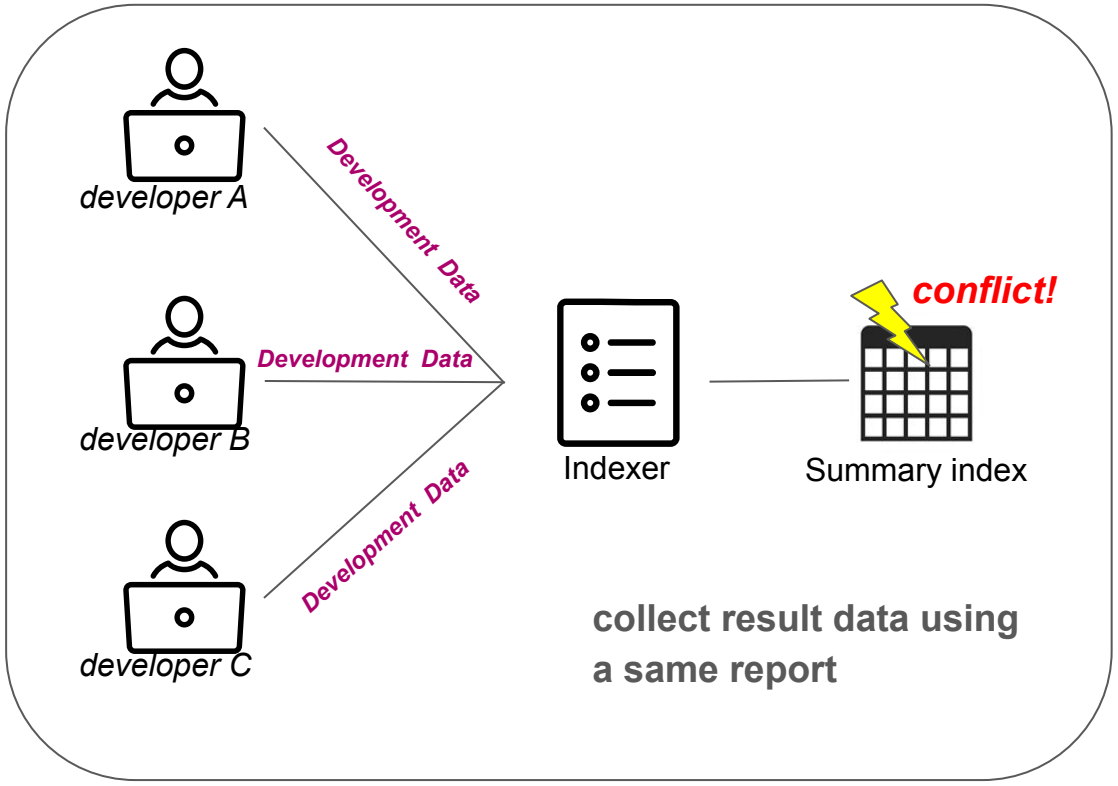
Two Difficulties about Splunk Development



Conflict - edit the report



Conflict - collect using the report

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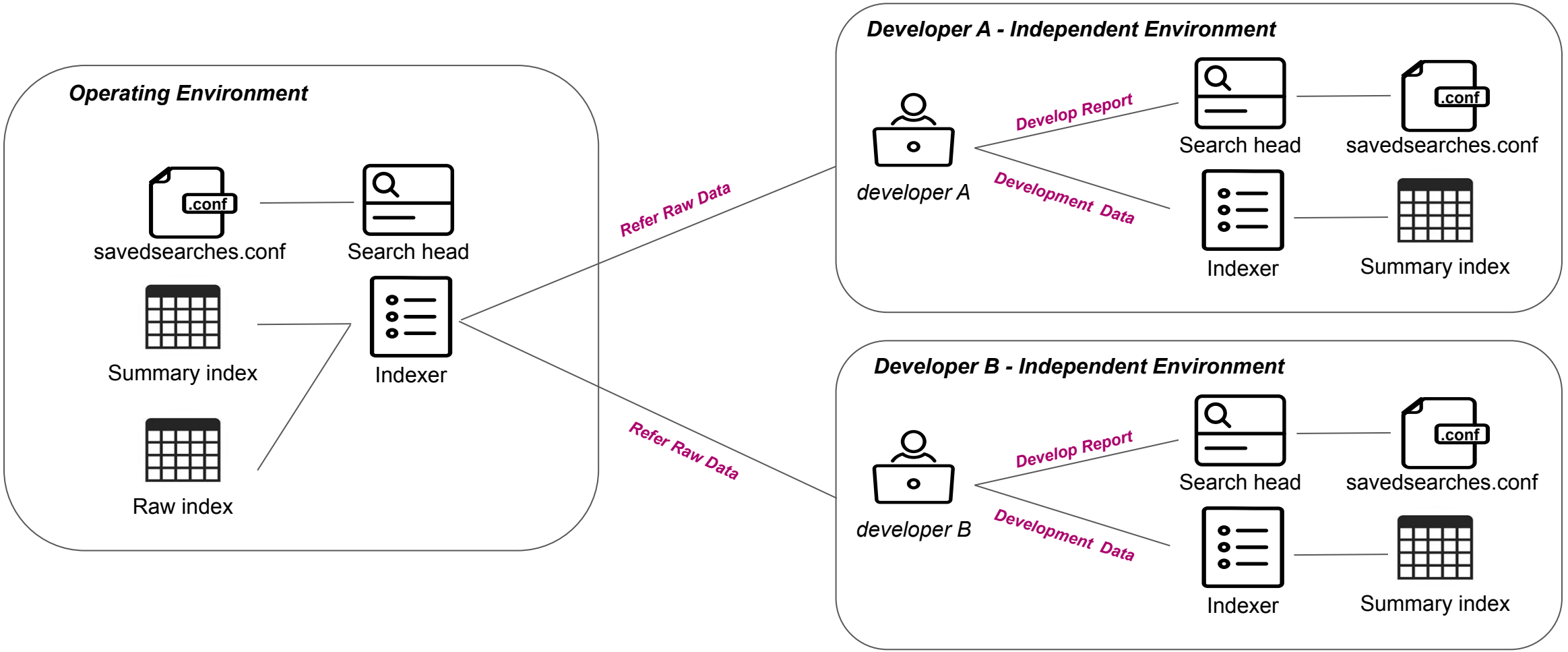
Improved Development Environment



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Improved Development Environment

Developer Independent Environment

Users and Authentication
> Access controls
> Roles
> Restrictions

authorize.conf

- Access summary indexes in Developer env
- Access raw indexes in Operating env

Develop & Deploy

Developer Independent Environment

- Develop report (SPL Changes)
- Test to indexing summary data to indexes
- Make Commit And Push to VCS

Operating Environment

- Pull from VCS dev/master branch
- Operate DEV/PROD environment

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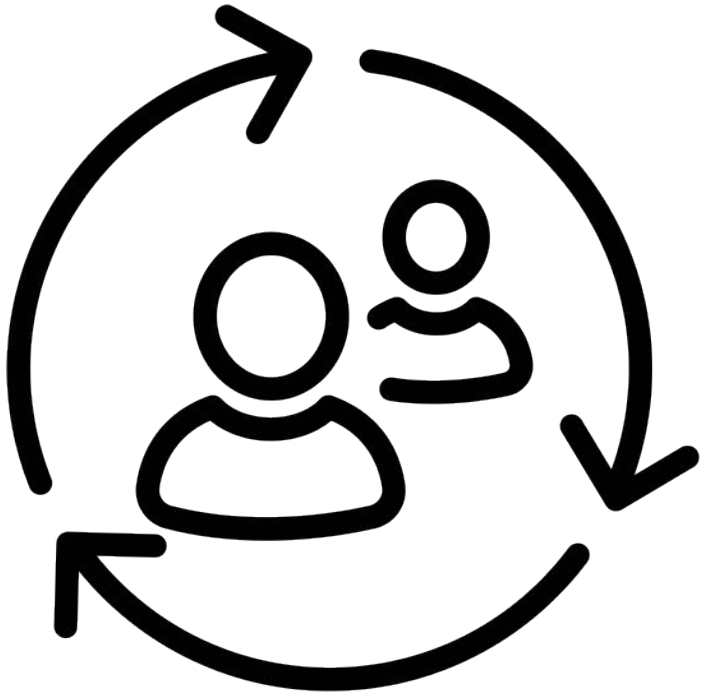

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From: Yuncheol Hong

To: Boyoung Lee

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3. How to Code Review for SPL

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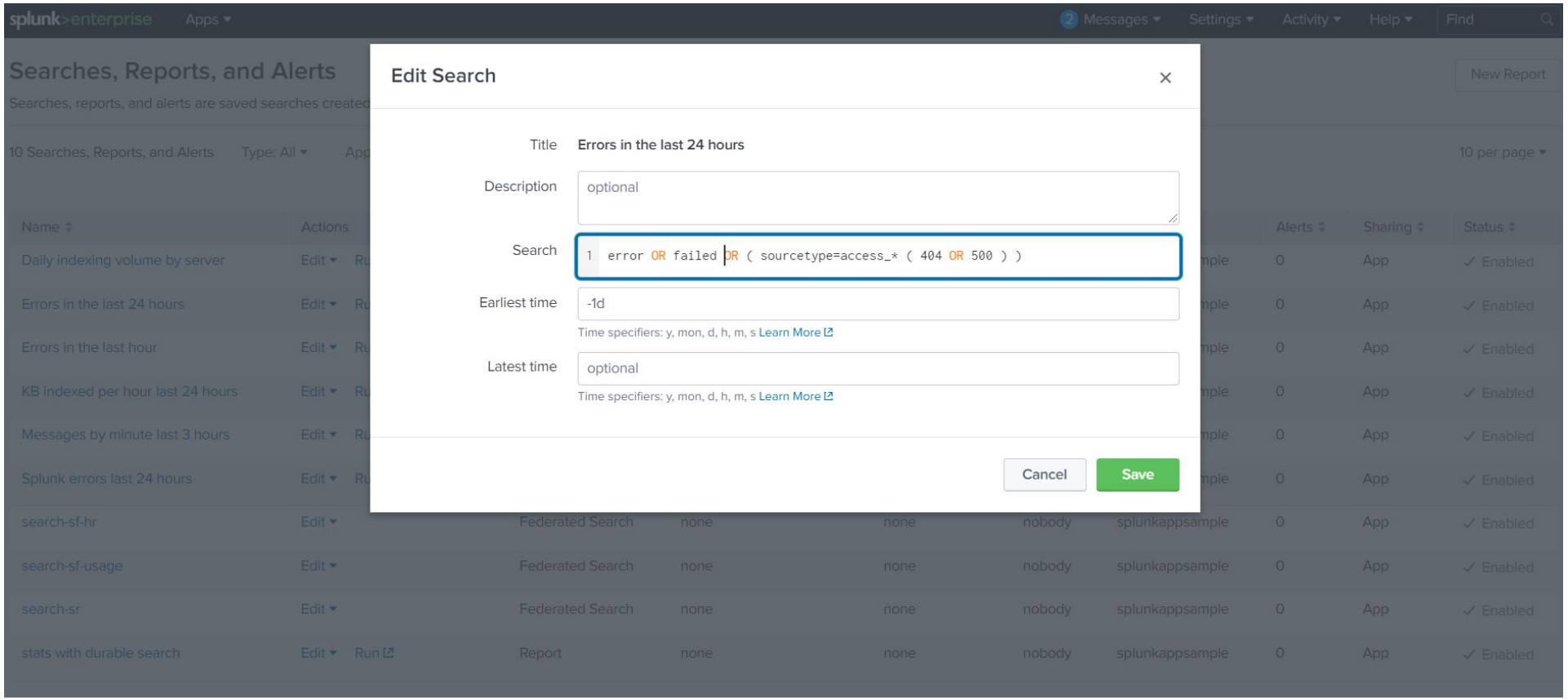
SPL Code Review

Developers edit search (SPL) in their own Search Head → Let's do a Code Review



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SPL Code Review

git commit savedsearches.conf

(Unsorted)

↓

git push

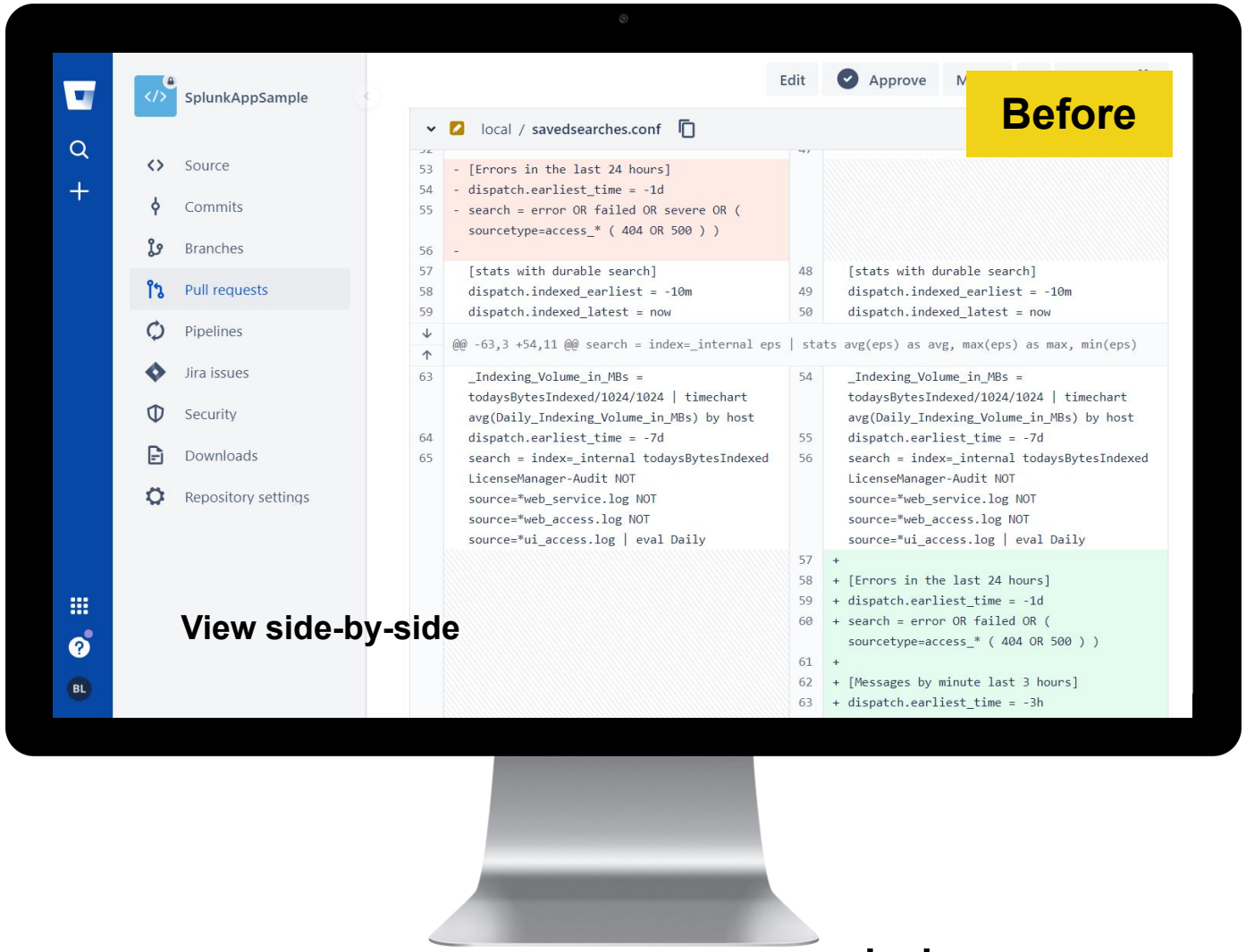
↓

pull request

↓

diff savedsearches.conf

(Difficult to Find Changes)



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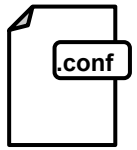
SPL Code Review

git commit savedsearches.conf



(Unsorted)

↓

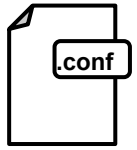
git push

↓

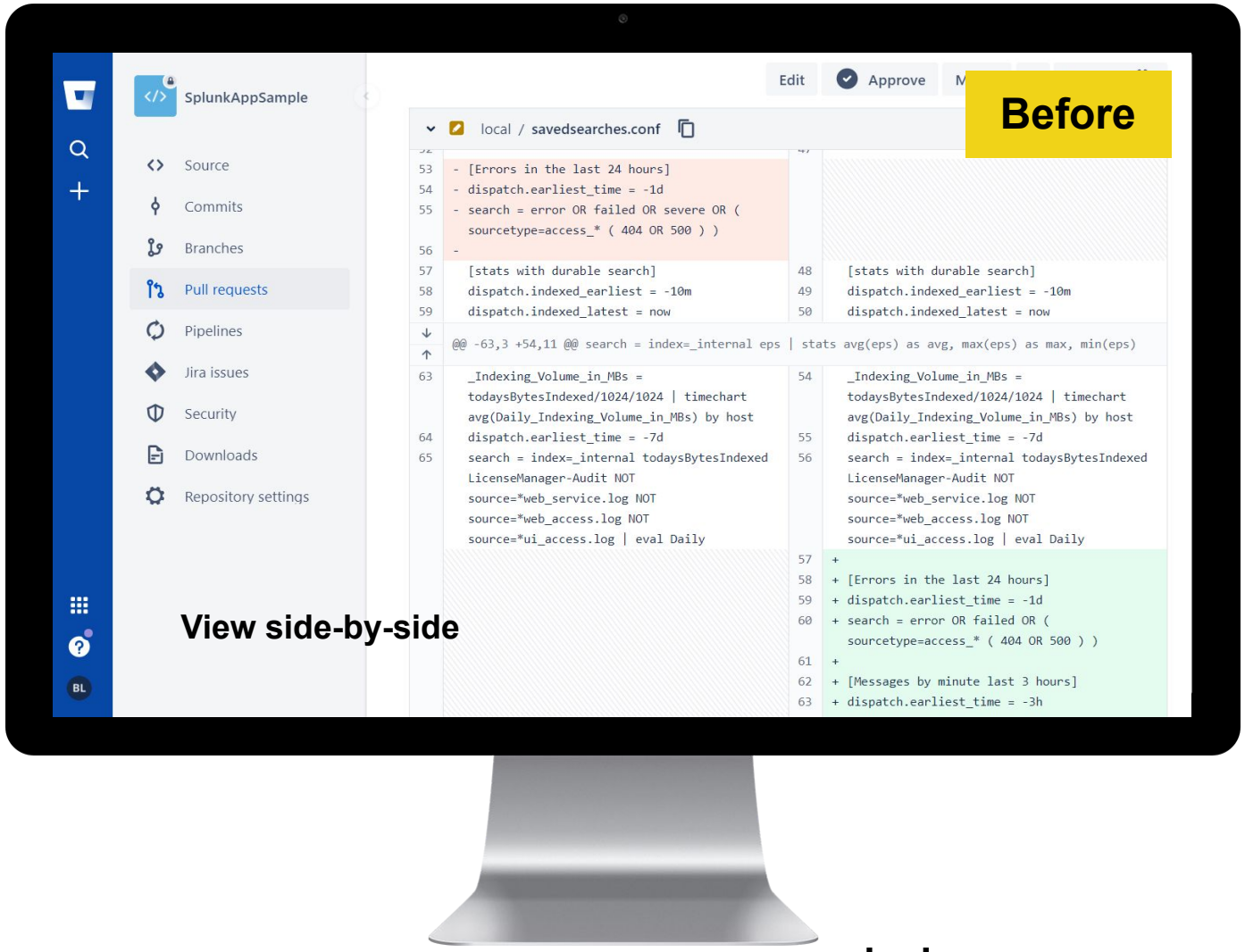
pull request

↓

diff savedsearches.conf



(Difficult to Find Changes)



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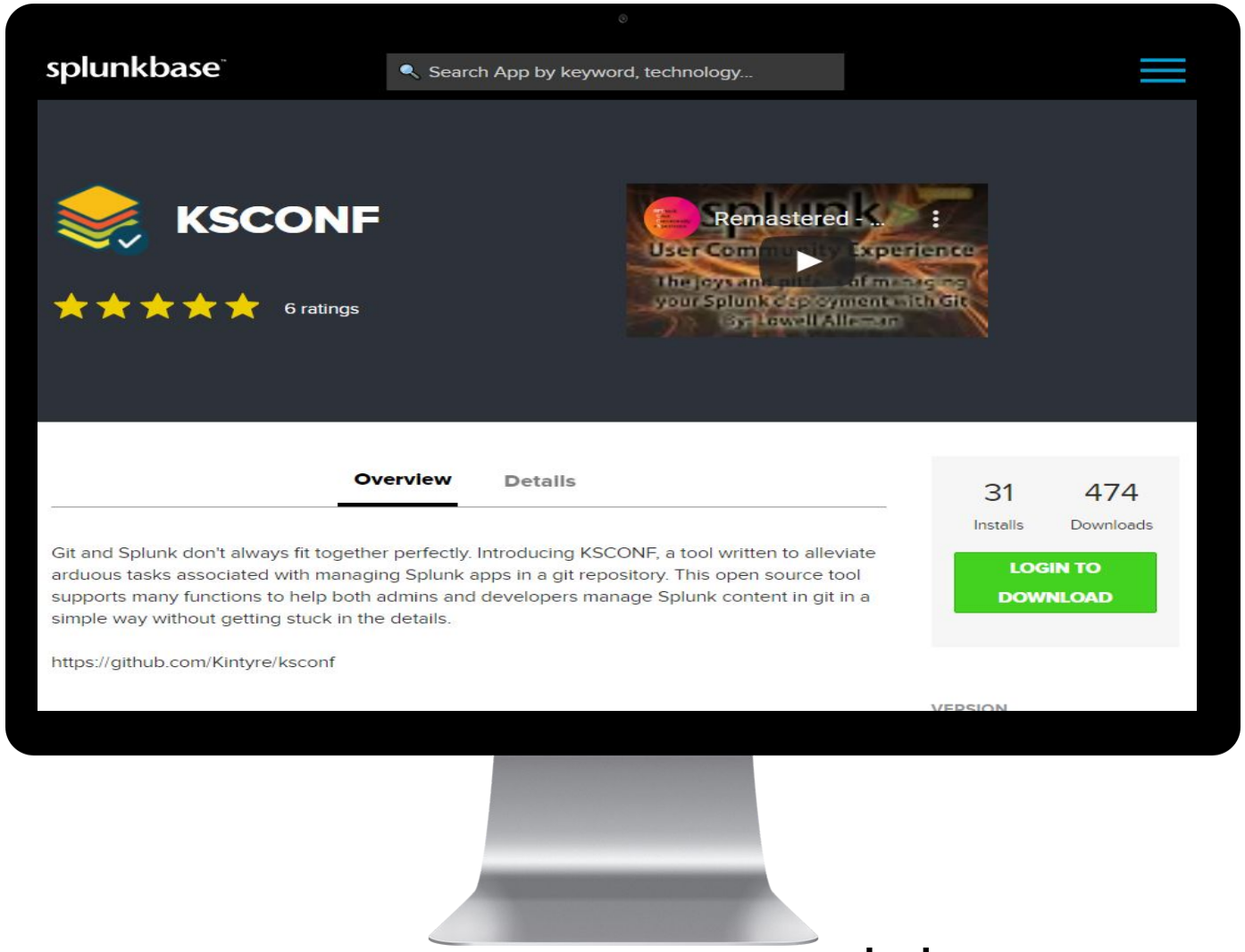
KSCONF App

App Overview



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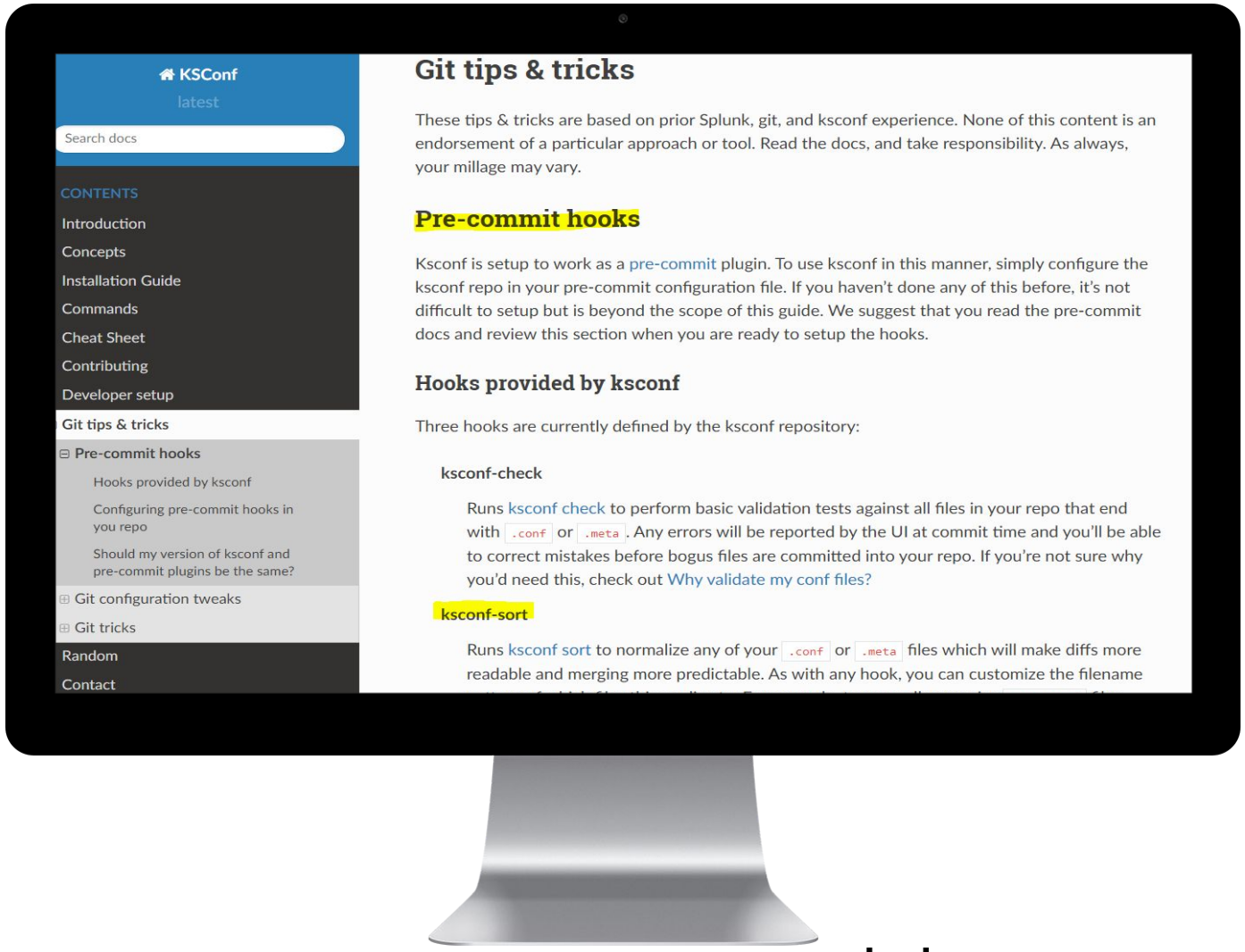
KSCONF App

git pre-commit hooks (sort)



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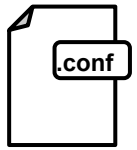
SPL Code Review

pre-commit hook

ksconf sort savedsearches.conf

↓

git commit savedsearches.conf



(Sorted)

↓

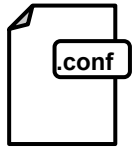
git push

↓

pull request

↓

diff savedsearches.conf



(Easy to Code Review)

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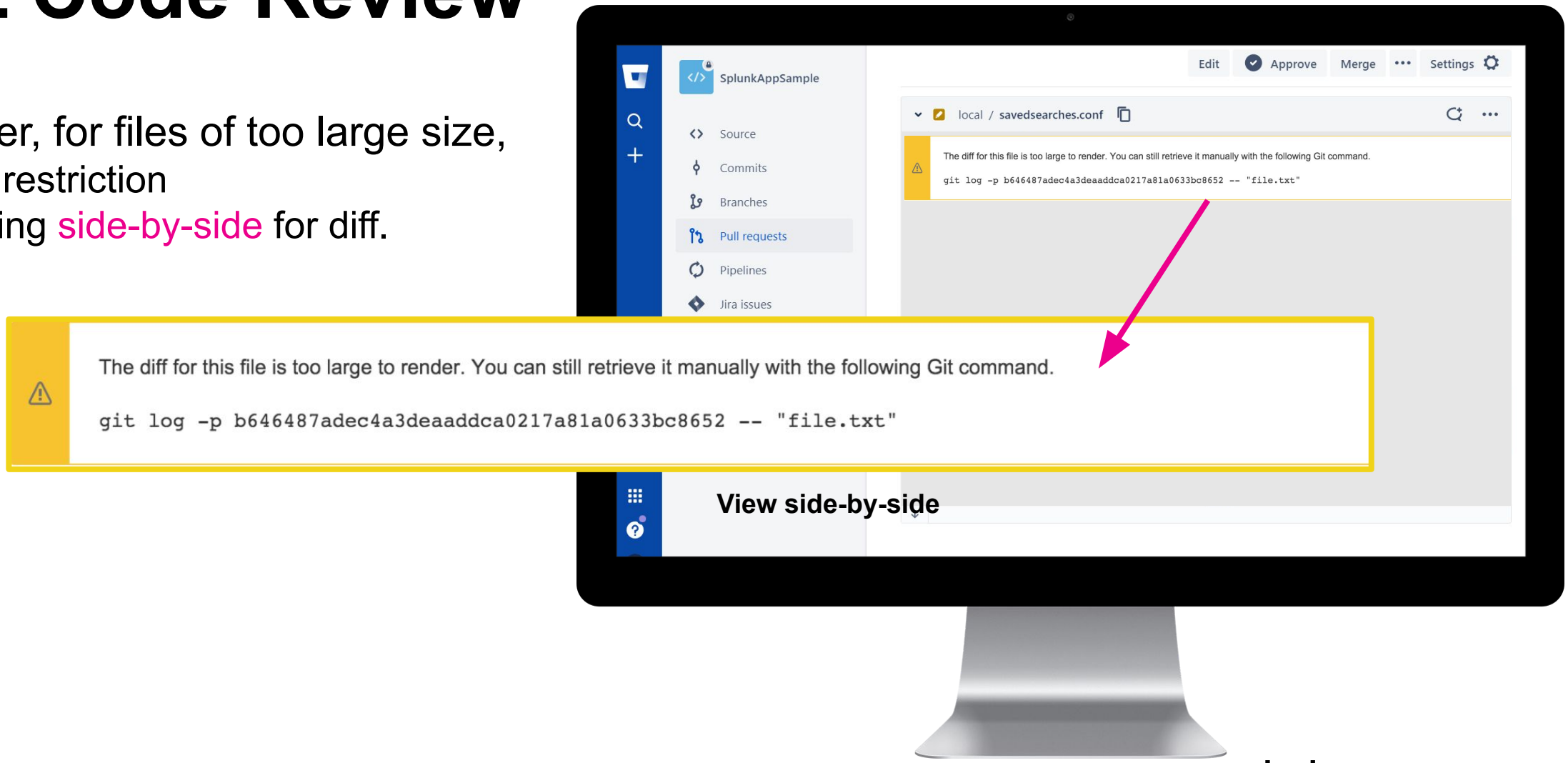
SPL Code Review

However, for files of too large size, there is restriction
on viewing side-by-side for diff.



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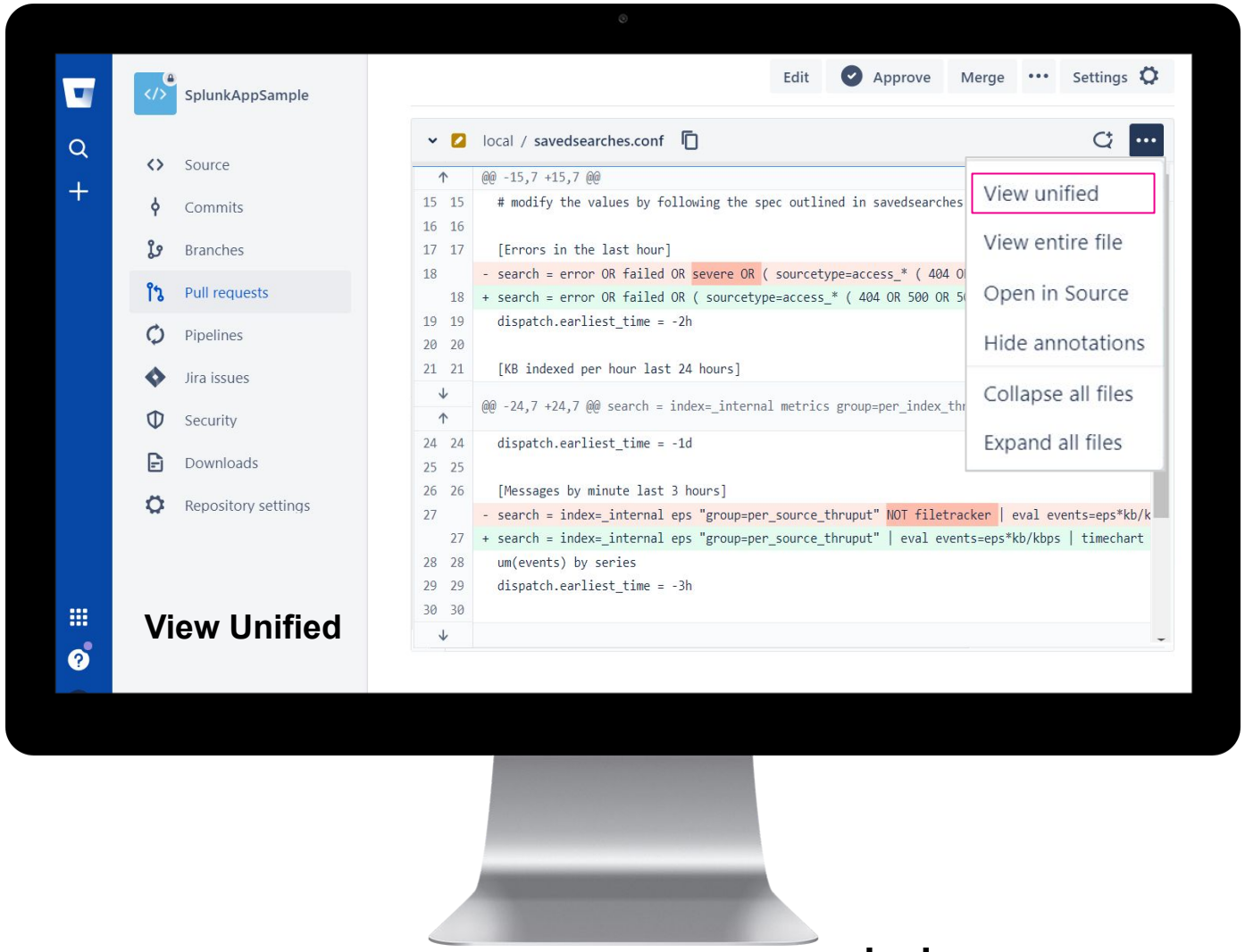
SPL Code Review

Unified diffs are suitable for reviewing small changes,
so for large file context can leave out important information.



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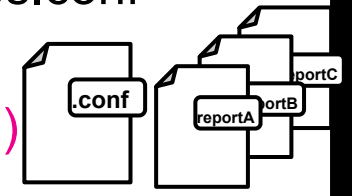
SPL Code Review

improved pre-commit hook

ksconf sort savedsearches.conf
&
separate searches savedsearches.conf

↓

git commit savedsearches.conf
& individual files
(Sorted & Separated)



↓

git push

↓

pull request

↓

diff individual files

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SPL Code Review

Case		side-by-side diff		unified diff	
		small .conf file	large .conf file	small .conf file	large .conf file
-	Default	X	X	X	X
A	ksconf sort (pre-commit hook)	Good	X	Good	Good
B	separate searches (improved pre-commit hook)	Best	Best	Good	Good

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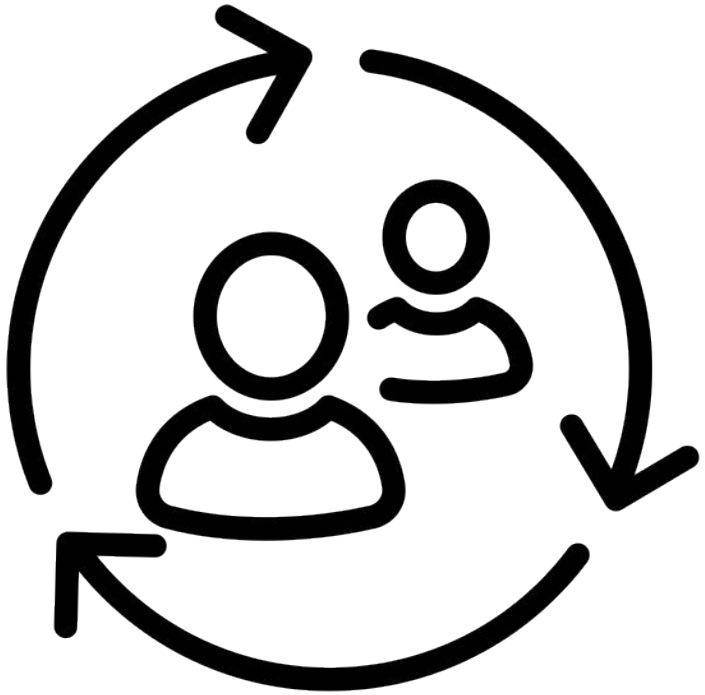

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From: Boyoung Lee

To: Nuri On

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4. Do Better SPL Code Review

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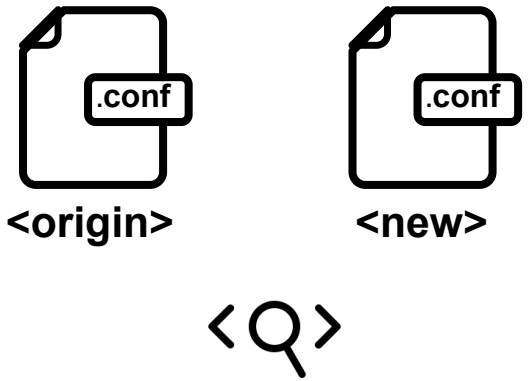
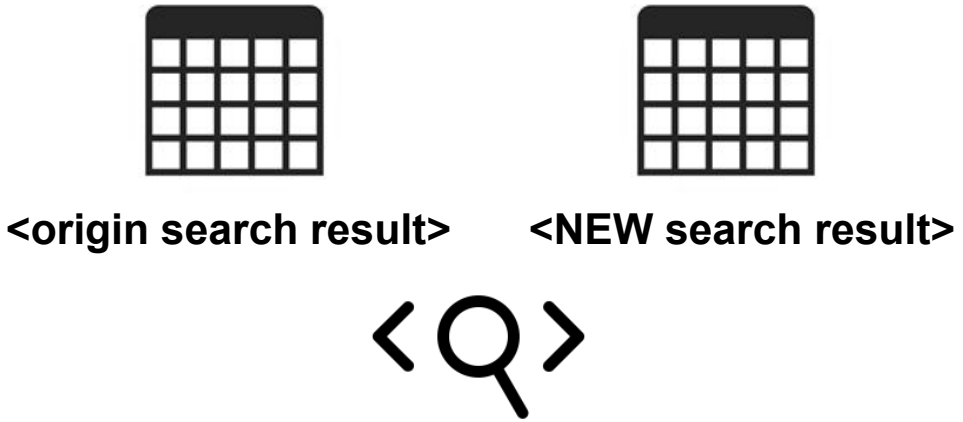
Let’s do better SPL code review

Savedsearches.conf



- Superficial Code review
- Splunk domain knowledge required

Containing Search Result



- **In-depth** code review
- **No** Splunk domain knowledge required

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Our new ‘compare search app’

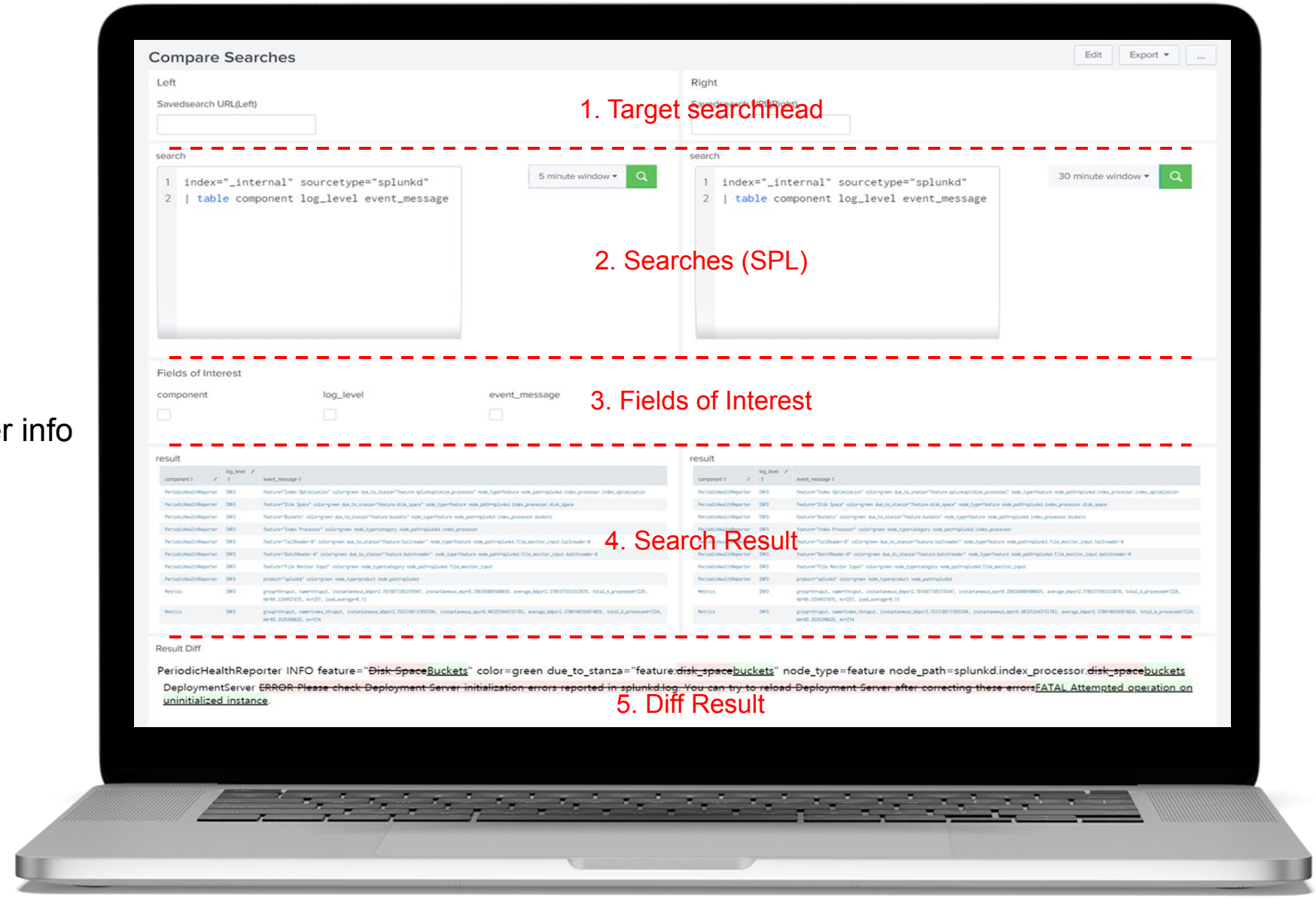
1. Enter each searchhead’s server info on both sides.

2. Enter searches on both sides

3. Filter on fields to compare

4. Compare Results with table

5. Visualize Search Diff
(Use diff-match-patch python lib)



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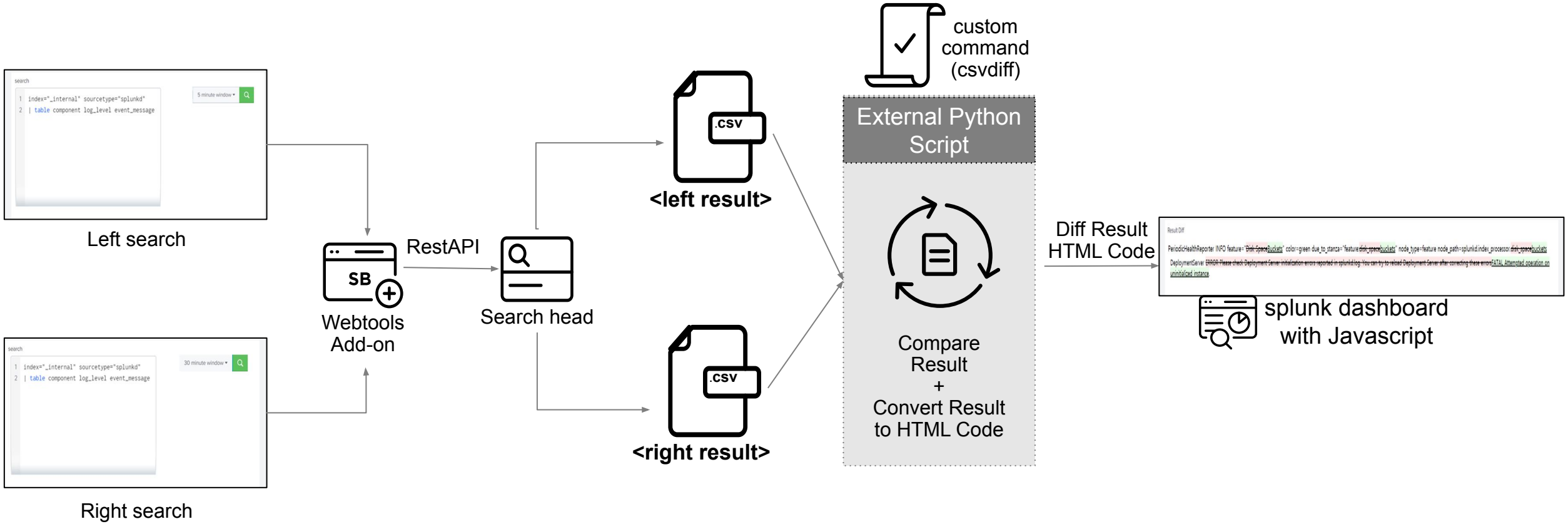
How to Make Compare Search App



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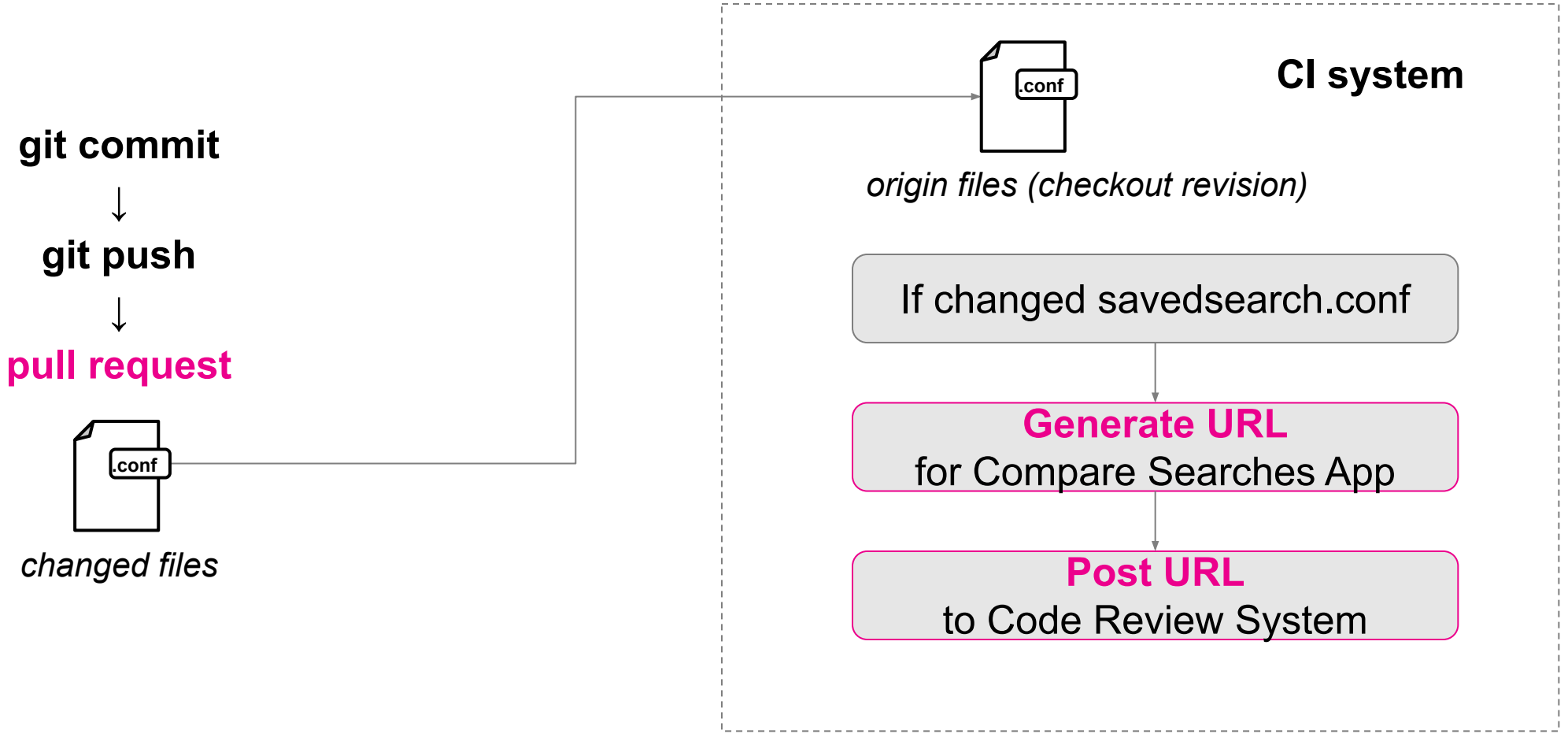
Compare Search App in CI Environment



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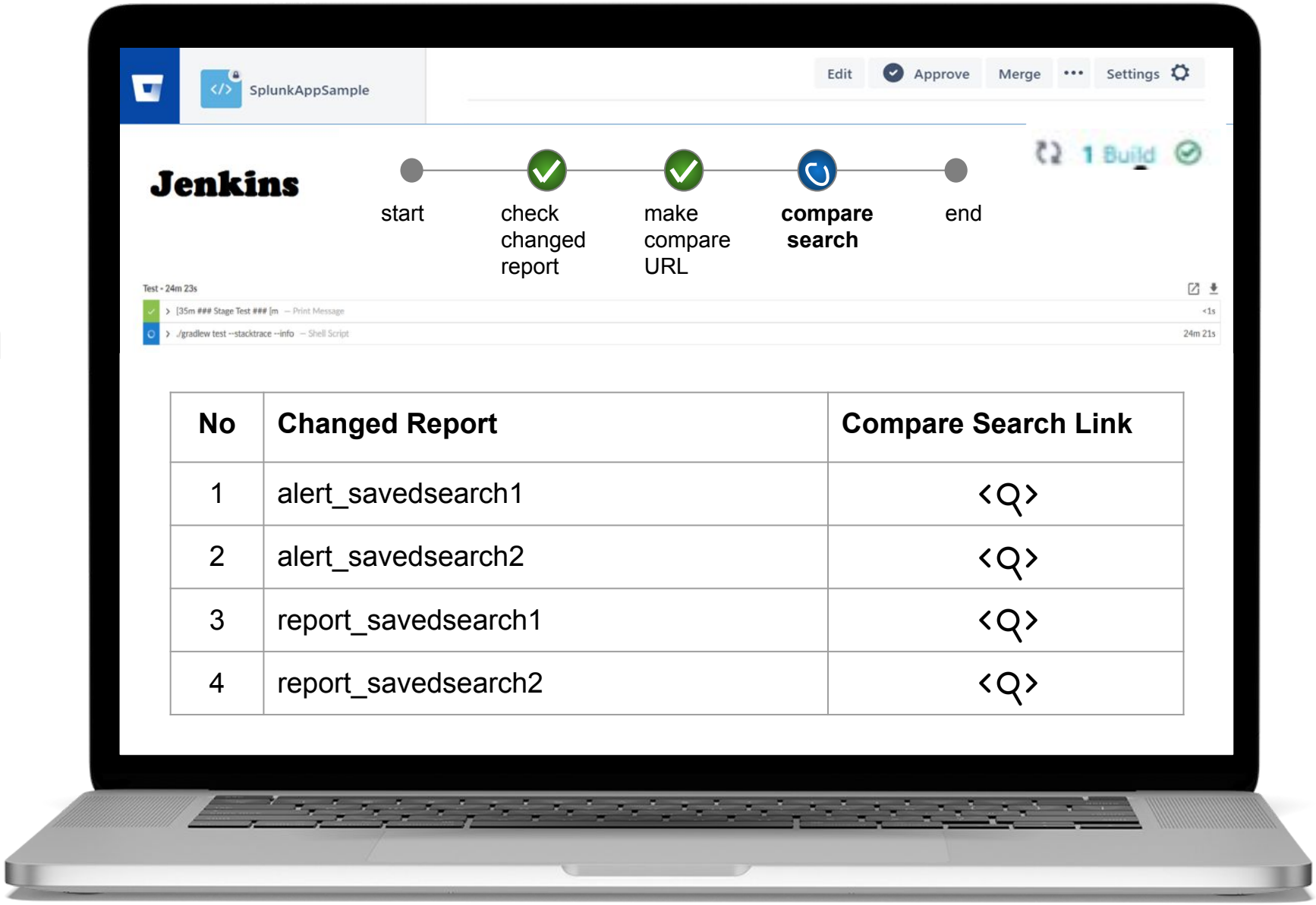
Compare Search App in CI environment



No	Changed Report	Compare Search Link
1	alert_savedsearch1	<Q>
2	alert_savedsearch2	<Q>
3	report_savedsearch1	<Q>
4	report_savedsearch2	<Q>

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SPL Code Review Benefits

Education

SPL Development Skill ▲

Prevent Defect

Reliability & Availability ▲

Optimization

Performance & Maintainability ▲

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SPL Code Review Benefits

Education

SPL Development Skill ▲

Prevent Defect

Reliability & Availability ▲

Optimization

Performance & Maintainability ▲

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Thank You

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Resources

- Splunk base - ksconf : https://splunkbase.splunk.com/app/4383/
- Configuring ksconf pre-commit hook : https://ksconf.readthedocs.io/en/latest/git.html#
- Splunk Docs : https://docs.splunk.com/Documentation/Splunk/8.2.1/
- Bitbucket : https://support.atlassian.com/bitbucket-cloud/
- Splunk base - Webtools Add-on: https://splunkbase.splunk.com/app/4146/