

DeMark

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The Problem

- Temporary Code
 - Experimentation Code
 - Debug Functions
 - Print-f Debugging
- Repository Maintenance
 - Temporary code is committed to repository
 - Later have to delete



GitHub Search



removed unnecessary prints



[Pull requests](#) [Issues](#) [Marketplace](#) [Explore](#)

[Repositories](#) 2

[Code](#) 650K

Commits 732K

[Issues](#) 2K

[Topics](#)


[Wikis](#) 510

[Users](#)

[Advanced search](#) [Cheat sheet](#)

Showing 732,809 available commit results ?


Unnecessary prints removed

 Jakub Czapiga committed to [MordiJC/SysOpy](#) 6 days ago


Remove unnecessary debug print

 thomwiggers committed to [thomwiggers/m4ri-rust](#) 7 days ago ✖


Merge 4.4.133 into android-msm-wahoo-4.4 ...

 nathanchance committed to [noobtrees/kernel_google_wahoo](#) 10 days ago

chore(deps): update dependency jest to v23 (#17) ...

 renovate[bot] authored and wopian committed to [wopian/eslint-config-wopian](#) 11 days ago ✔

shape.py ...

 dmaccarthy committed to [dmaccarthy/sc8pr](#) 12 days ago

bugfix: removed unnecessary print statements

 eljost committed to [eljost/pysisyphus](#) 14 days ago

Merge remote-tracking branch 'remotes/mjt/tags/trivial-patches-fetch'...

 pm215 committed to [patchew-project/qemu](#) 15 days ago

Why does this happen?

- Carelessness
- Forgot
- Long day
- Can't manually select in git patching
- etc.

Existing Solutions

- Manual Deletion
 - No extra tools
 - Slow - Line by line
- Git -p
 - Interaction
 - Cannot individually select lines of code
- Line-Ops
 - Only allows bookmarking
 - Can't restore deleted lines

DeMark Features

Features:

- Mark
 - Highlights and bookmarks lines of code and “marks” them.
- Unmark
 - Removes the highlights and bookmarks from lines that were “marked.”
- Toggle
 - Comments out “marked” lines to simulate turning them off.
- Clear
 - Removes all “marked” lines from current file.
- Undo Clear
 - Restores all cleared lines from current file.



Proposed DeMark Workflow

- As you code:
 - Select one or multiple lines:
 - Mark
 - Unmark
 - Toggle
- Before you commit:
 - Clear
 - Delete all marked debug lines
- After you commit:
 - Undo clear
 - Restore all deleted debug lines and mark them



DeMark Purpose

- Promote clean production level code.
- Minimize number of forgotten lines.
- CBC - **C**lean **B**efore **C**ommit.
- Save precious development time from
having to go back and clean up code.

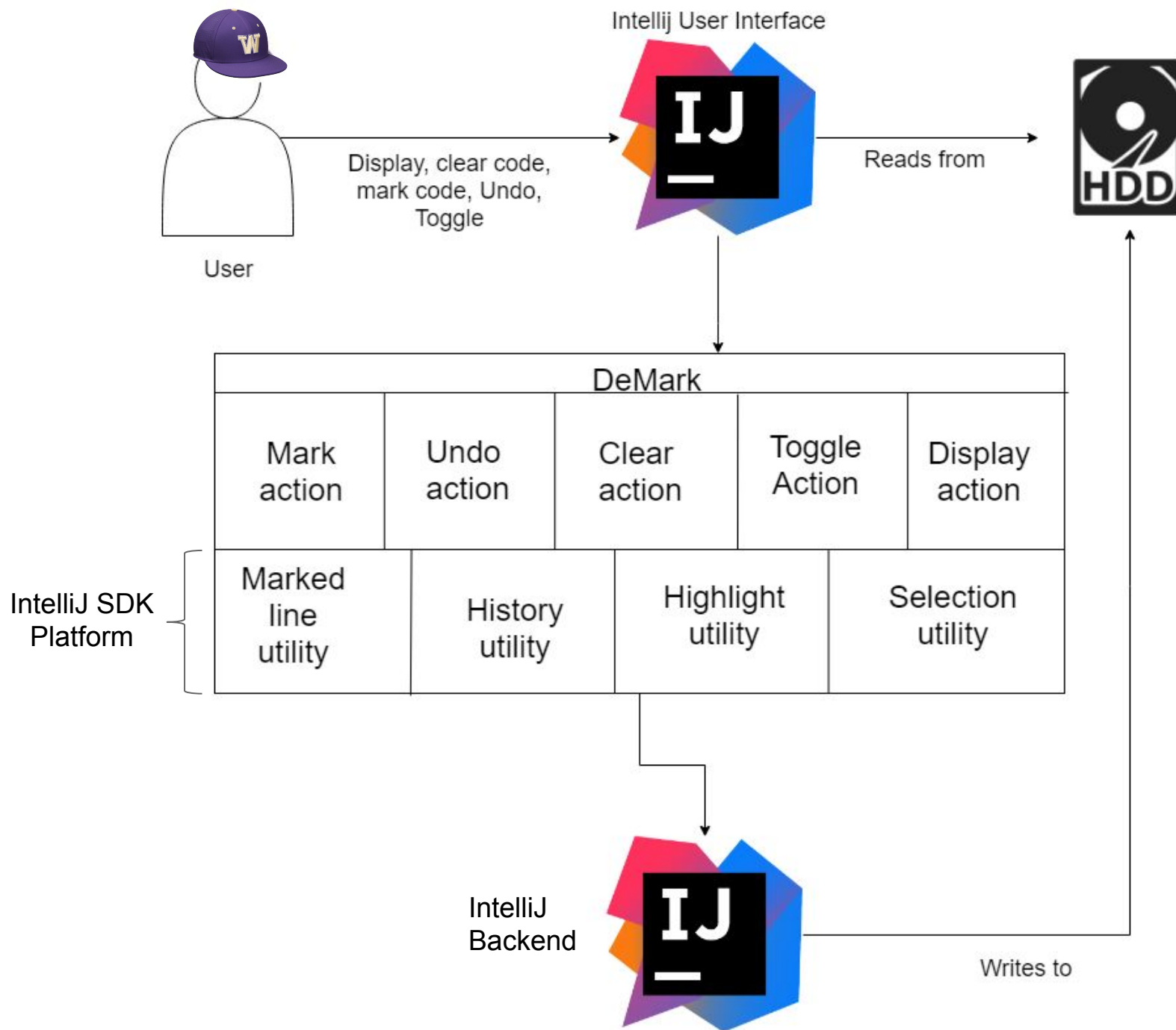


Demo



Architecture



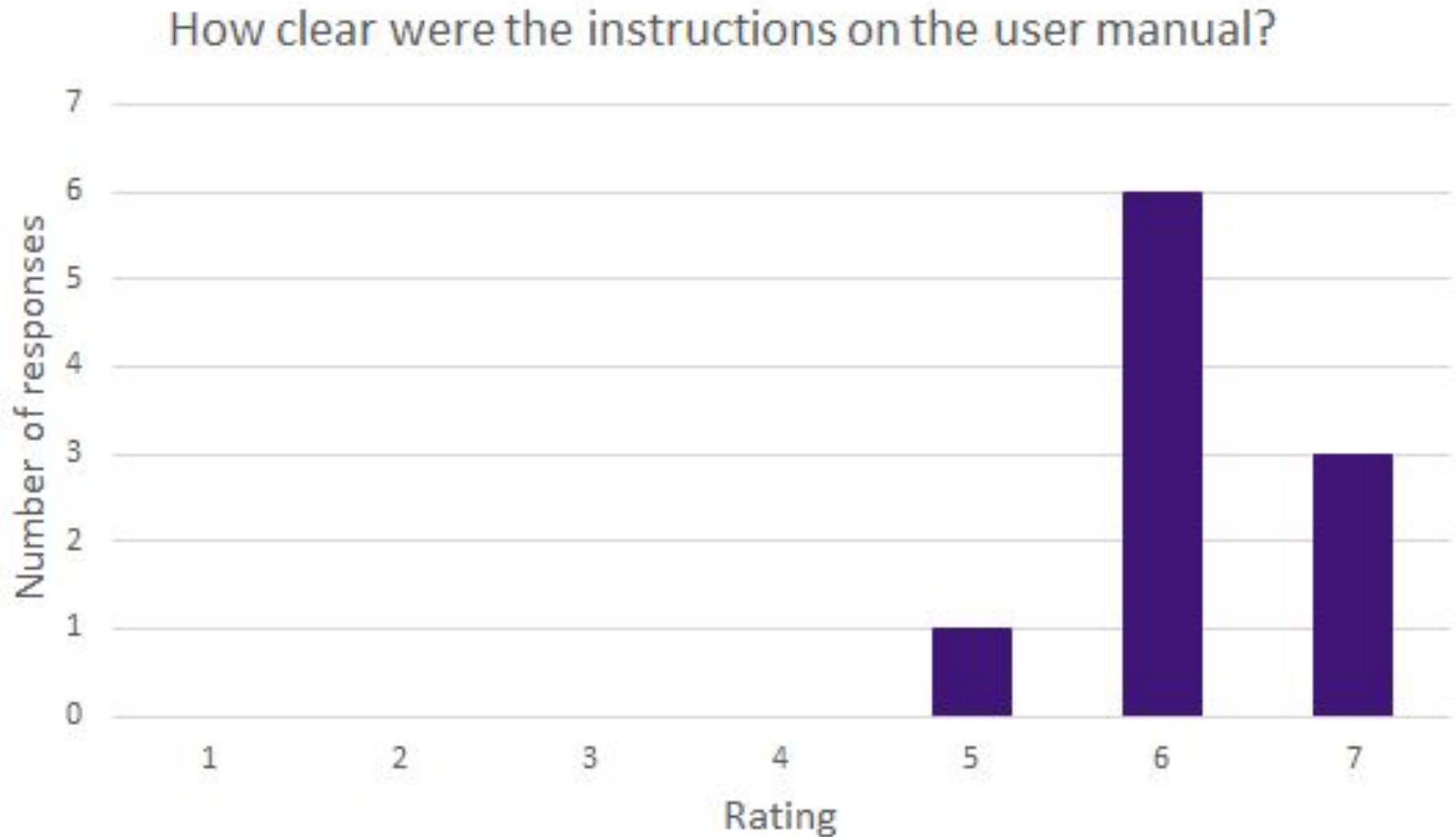


User Trial Experimentation

- Stage 1:
 - Plugin distributed amongst peers
 - Survey with 6 Responses
- Stage 2
 - Plugin distributed on two public forums: Reddit and Facebook
 - Survey with 11 Responses
 - We merged the results of these two.
- Team Member Case Study

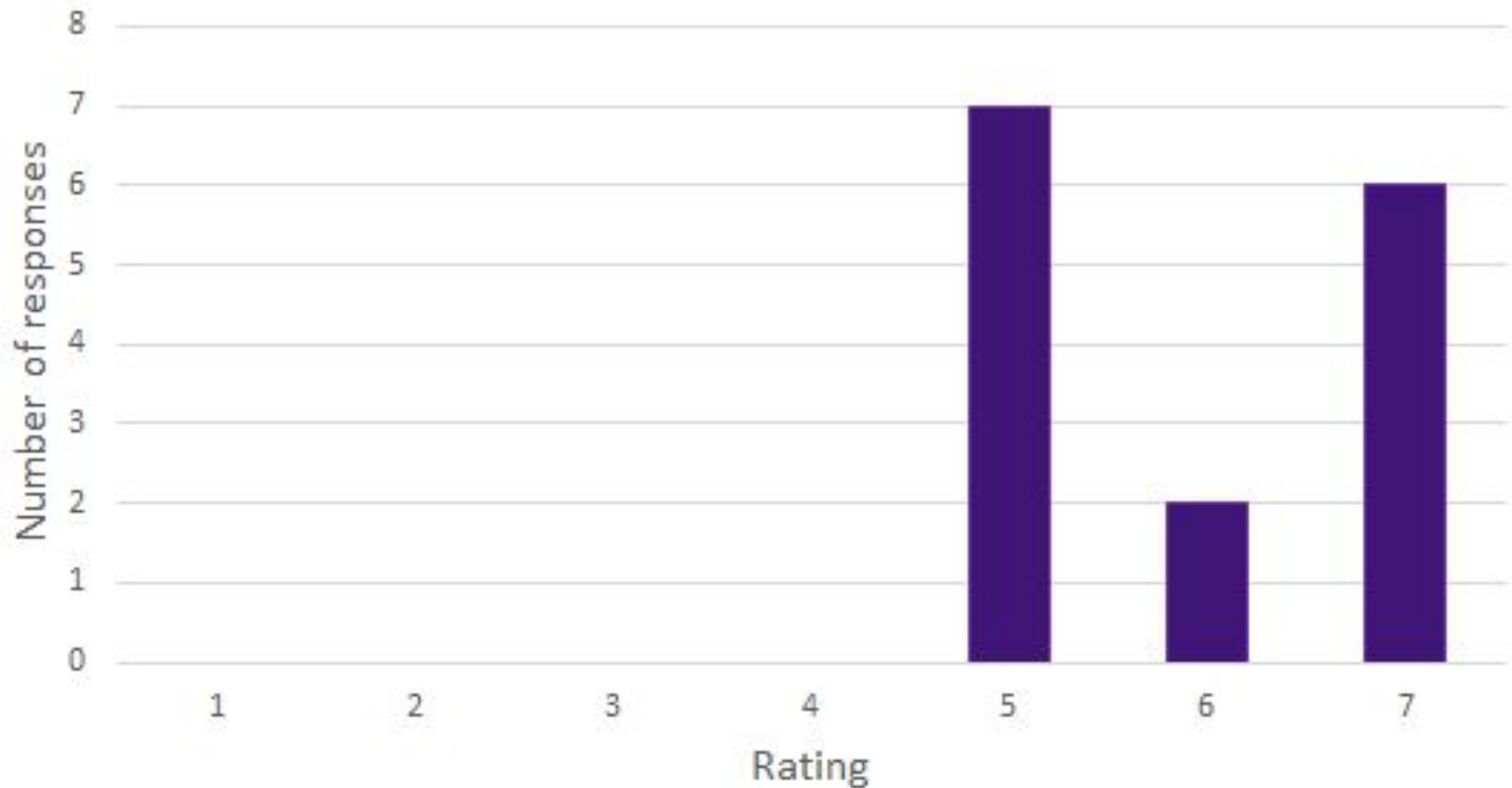


Instructions



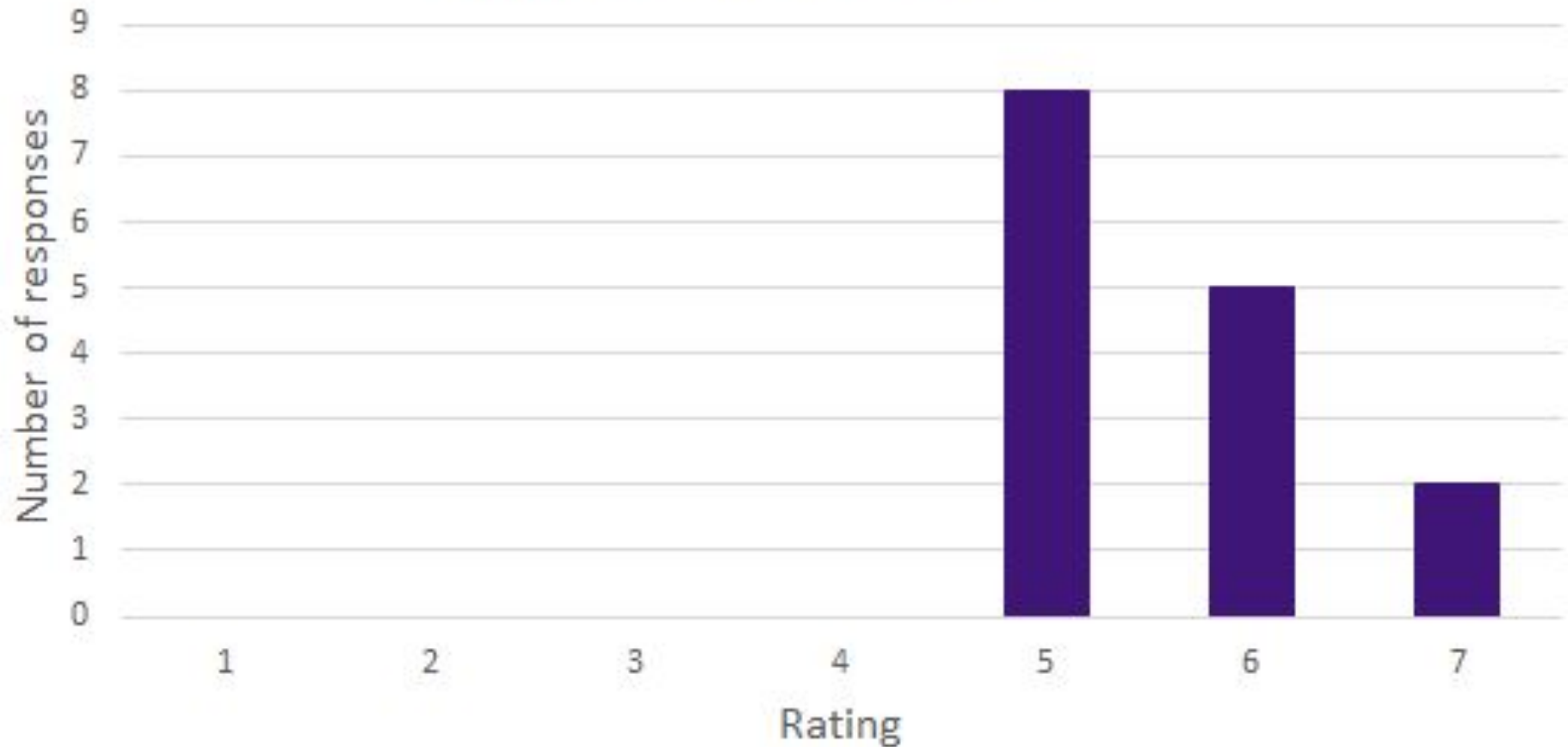
Ease Of Use

How easy was it to use DeMark?



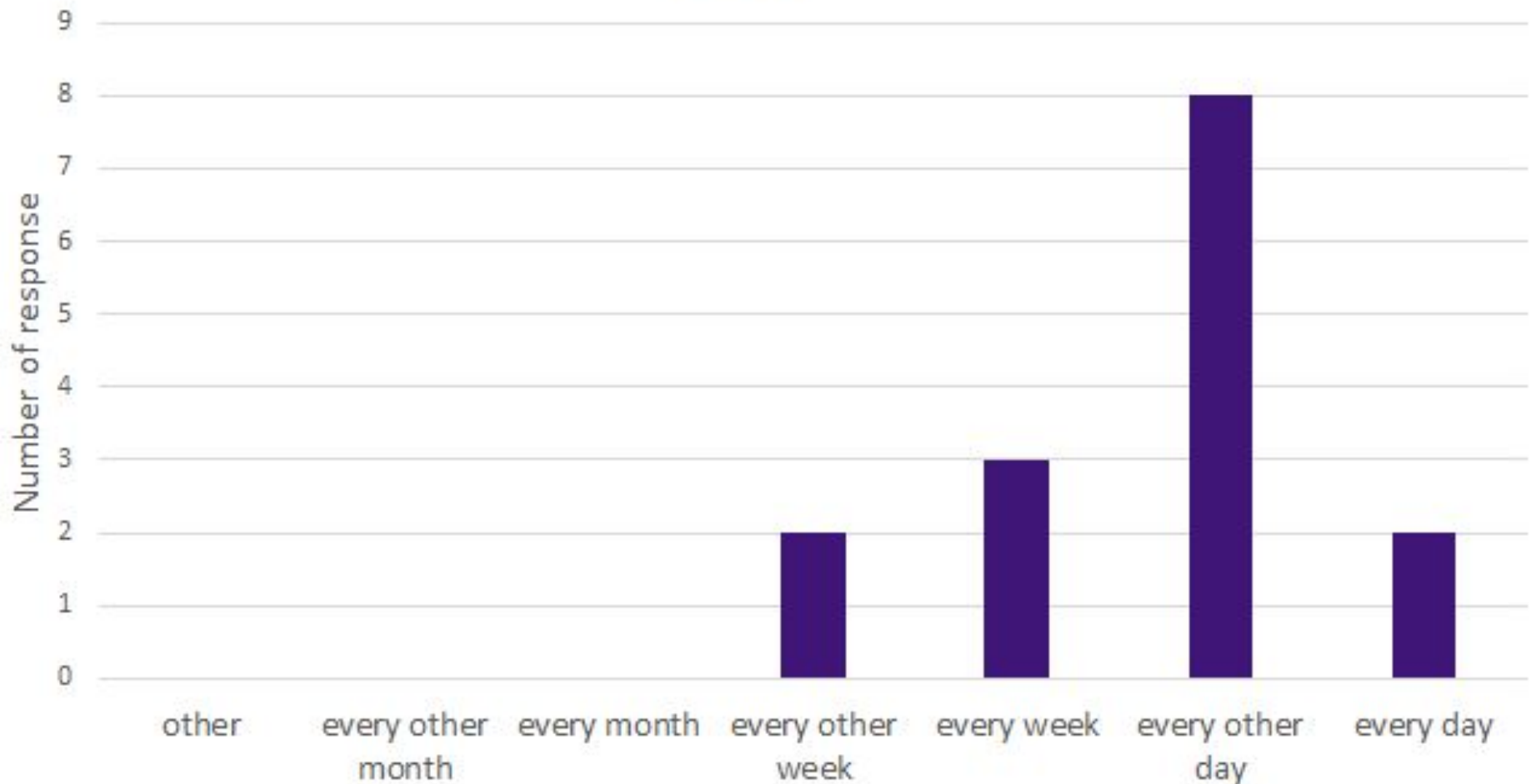
Increase of Productivity

How much do you think using DeMark has or will improve your productivity?



Frequency of Use

Approximately, how often would you see yourself using DeMark in the future?



Case Study

- One of our team members used DeMark while working on a class project.
- Feedback generally positive
 - Does what is advertised
- Other remarks
 - Workflow
 - Mental adjustment
 - Toggle Function
 - All or nothing



Understanding Our Results

- Users generally had positive feedback on both instruction and tool
 - Easy installation.
 - Our tool can be learned relatively quickly
 - A simple tool that users could use to aid their everyday programming
- Different user interface
 - Have a button to mark lines
- More features
 - Group specific marked lines
 - Toggle specific marked lines
 - More accessibility other than menu and keyboard shortcut



Conclusion

- An alternative tool to help with print-f debugging.
 - Easy to use.
 - Low learning curve.
 - Helps promote clean commits.
- Some more features will be added.
- Now available through IntelliJ Plugin Repository
 - <https://plugins.jetbrains.com/plugin/10712-demark>

