Questionnaire for a visualization tool

Please click here to indicate your informed consent to participate in this study ☐

Demographics

1. What is your role?

   1. Student ☐   2. Teacher ☐   3. Developer ☐   4. Tester ☐

2. How many years do you have in software development?

   1. less than 3 years ☐   2. 3-5 years ☐   3. More than 5 years ☐

Programming

1. What programming languages do you commomly in write in ?
   Choose an item.

Experience with debuggers

1. Have you used debuggers like gdb and lldb

   1. yes ☐   2. No ☐

2. How often do you use these tools?

   1. daily ☐   2. Weekly ☐   3. Monthly ☐   4. Rarely ☐

3. What are the biggest challenges you face when using these tools

   Click or tap here to enter text.

Potential Features for implementation

1. Would you find a tool that visualizes counterexamples useful?

   1. yes ☐   2. No ☐

2. Which of the following features would you find most useful in such a tool?

- Interactive timeline of variable states ☐

- Search function to quickly find a specific variable or state ☐

- Detailed view of variable states ☐

- Integration with your preferred development environment (VSCode, etc.) ☐

- Ability to annotate or add comments to certain states ☐

- Comparison view to compare variable states across different steps ☐

- Breakpoints: The ability to set breakpoints at specific states or variable assignments ☐

- Navigate to a specific line in a file to see where the violation is ☐

- Highlighting assertion violations ☐

- Tutorial or guidance： A built-in guide or tutorial that explains how to use the tool and interpret the visualized counterexamples could be beneficial, especially for new users. ☐

3. Are there any other features you would like to see in such a visualization tool ?

   Click or tap here to enter text.

Testing

1. Would you be willing to participate in future user testing or provide feedback on the tool once it's developed ?
   1. yes ☐   2. No ☐