# **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
2. 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?
2. 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 ?
2. yes  2. No