

# UX 3

## Research Questions

### Problem Statement

How to integrate the results of Multiple Static Analysis Tools in a Unified User Interface?

### Research Question 1

How to display the results of same code base from different analysis tools?

#### [ Results View ]

##### 1.1 Do users need pie chart for results overview?

Evaluation: with pie chart navigating to table view of results **vs** without pie chart overview

##### 1.2 Do users prefer tool centred pie chart to bugs type centred pie chart?

Evaluation: tools based pies **vs** bug categories based pies

Bug categories are the ones found from the research paper of Maria et. al. ( What developers want and need from program analysis? ) i.e., Security, best practices, concurrency, memory consumption etc.

#### [ Code View ]

As number of tools increases, the bug findings in a code file are likely to increase.

##### 1.3 Could a 'show-bugs' button in a code file help user to be in state of flow of current task being performed?

Evaluation: a code file with bug icons **vs** with a 'show-bugs' button that toggles display of icons.

##### 1.4 If show bugs need a filter, then which filter is preferred among tool-centric and bugs type centric?

Evaluation: show-button - tools based filter **vs** bugs categories based filter

## Research Question 2

What feedback works to know that bug fixing is on-going?

#TODO

## Research Question 3

How to carry traceability of bug fixing?

[ Results View ]

3.1 Do users prefer icon for previously attempted bug fixes to separate list?

Evaluation: retry icon at bug name in table **vs** separate table

[Code View]

3.2 Does user prefer multiple windows of previous bug fixes in a section of code i.e., a method ( Before/After ) or a single window?

Evaluation: trace navigation for a method with multiple windows **vs** a single window