

# List of Sub Research Questions

## UX Design Cycle 1

1. Does a separate list or single list help the user to identify the common bug?
2. Will having tags help in scalability of bugs?
3. Does the given statistics screen help the user in understating the analysis results overview?
4. Will the animation (rotation) of icons for tools suffice the feedback required by the user?
5. Will stating the progress of analysis for each tool be better than animation provided as feedback to the user?
6. Does having more textual information with a popup feedback is required by the user?
7. Do users require multiple feedbacks, i.e., any combination of animated icons, progress bar or pending status popup?
8. Whether the given UI, i.e., previous commits in the process of fixing a bug-finding with numbers determining the adding or removing of other bugs be able to address the scenario from the user perspective?
9. Does onboard phase is required to understand the UI better?

## UX Design Cycle 2

1. From analysis view perspective, does a separate list or single list help the user to identify the common bug?
2. From analysis view perspective, will tags help in scalability of bug results in comparison to separate list or single list?
3. From code view perspective, will single icon suffice the showing of different tools icons?
4. When submitting the bug for analysis, what feedback does user feel convenient among animation, progress bar or popup?
5. Does a single type of feedback suffice or requires combination?
6. From code view perspective, i.e., once user fixed a bug and submitted for analysis and then off the analysis results screen, then is popup notifications with analysis progress information better to busy status (spinner)?

7. In tracing, will the user need to know the changes made to fix a bug affecting the analysis of other tools?
8. Does adjective mapping ease the user to trace the changes made in code in terms of bugs existence?
9. From code view perspective, will the bug tool icons with before/after code help understand the user in easing to fix it?

### **UX Design Cycle 3**

1. Do users prefer bug icons or list view for bugs in same file?
2. Do users prefer to see bugs one by one or at once in the context of multiple bugs at the same time?
3. Does vertical view help in getting an overview of the presence of multiple bugs over horizontal views?
4. Do users prefer for table view over text description shown for multiple bugs at a line of code?
5. In context of same bug identified but with different line numbers, would have 'similar bugs' in bug description with on click pops up similar bug description boxes at the identified line or a list at the bottom help user in locating actual line where bug exist?
6. How usable are each feedback functionality compared to the scenario of using unified UI to native UIs?
7. Does alert notification help in fixing more bugs in contrast to its absence in current tools UI?
8. Does MSAT UI with five different feedback mechanisms helps in fixing the bugs in a faster way in comparison to using multiple tools with native user interfaces?
9. Does MSAT UI with five different feedback mechanisms helps in fixing more bugs in comparison to using multiple tools with native user interfaces?
10. Do users prefer having multiple windows to single window in tracing previous bug fixes in a method?
11. Do users be able to keep up in state of workflow as tools scale?
12. While tracing previous bug fixes in a method, do users prefer a table view to a before/after windows?
13. Do users prefer having tool names in general?