We evaluated *PyCodeViz* with 11 undergraduate students asking to comprehend the code snippets using the visualization generated by the tool. Following this task, the participants were requested to navigate to survey-form and answer a set of questions for evaluating *PyCodeViz*.

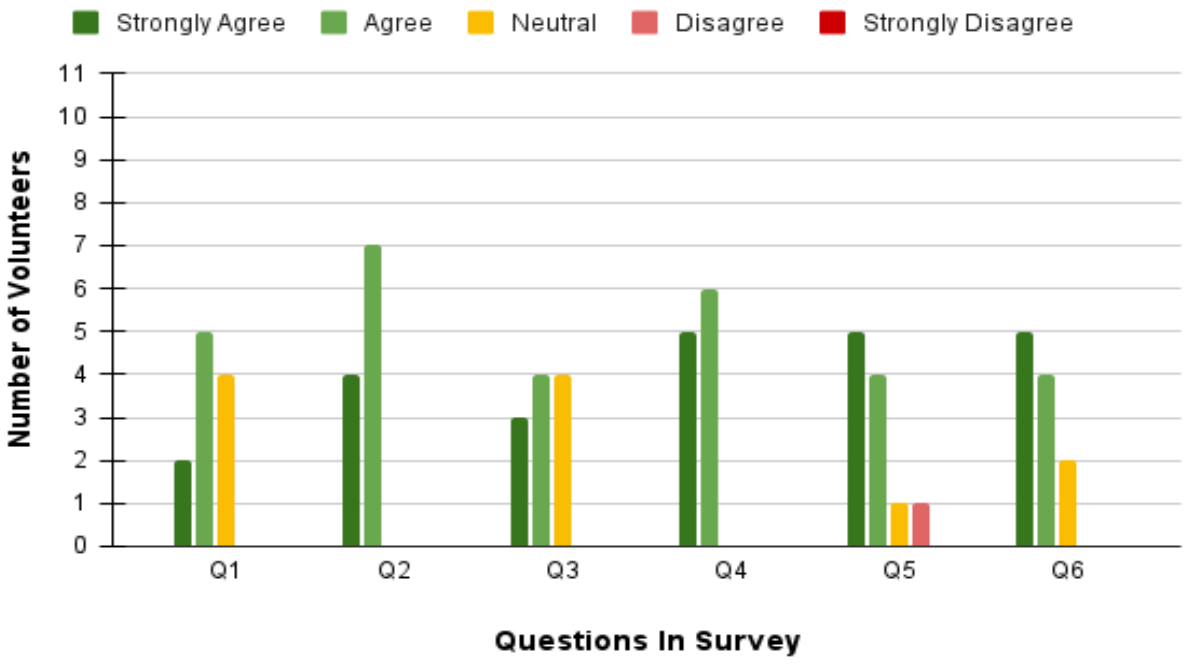
PyCodeViz User Survey Questionnaire

Q1: How did you like the visualization of the PyCodeViz interface?
Q2: According to you, PyCodeViz has shown detailed information related to each execution step satisfactorily.
Q3: PyCodeViz has helped me to comprehend the code in a detailed manner.
Q4: PyCodeViz has helped me to understand the execution of programming constructs such as iterative, conditional statements and recursive function, which helped in getting better insights about the logic of the program.
Q5: Does PyCodeViz shows the explicit changes in the values of different variables?
Q6: I will recommend PyCodeViz to my peers.
Q7: Please suggest how we can improve the PyCodeViz?

(Likert Scale : 5 = strongly agree, 1= strongly disagree)

User-study results: Total 11 participants

Quantitative Analysis Results



Metric	Q1	Q2	Q3	Q4	Q5	Q6
Mean	3.82	4.36	3.91	4.45	4.18	4.27
Median	4	4	4	4	4	4
Standard Deviation	0.75	0.5	0.83	0.52	0.98	0.79

Table 1: Results for Q1-Q6

Improvement Suggestion provided by the participants.

- The UI format can be more descriptive of what each section is trying to show.
- The iterative steps if beyond a limit should be compressed so its easier to navigate and understand.
- The UI colors for variables and other lines that are highlighted should be brighter.
- The UI can be improved a bit. Recursive extension is good. Will recommend it to peers.
- Adding more python libraries to the visualizer and supporting more number of lines .
- To further improve user's experience, file upload option can be provided where the user can directly upload his code and need not copy paste the code.
- Try to add advanced python functionalities.