

# Progress Evaluation: Milestone 3

Code Visualization

## Team Members

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## Client/Advisor

- Dr. Ryan Stansifer [ryan@fit.edu](mailto:ryan@fit.edu)

## Progress Matrix

Task	Completion %	Curtice	Josh	Catherine
1. Data type detection	85%	85%	0%	0%
2. More GUI	50%	0%	50%	0%
3. Custom data structure implementations	10%	0%	0%	10%

## Task Summary / Team Member Contribution

1. Data type detection

CURTICE:

Two main objectives were accomplished for this task. First, I successfully wrote an algorithm for detecting and accurately representing Java “arrays”. In CLI mode, an array will be shown under the “Locals” header.

Second, I conducted research on the “traceprinter” backend conducive to detecting class instances or “objects”. I have determined that “traceprinter” will only be able to access the member variables of these objects if the class from which they were instantiated is present at compile time. For example, members of “java.util.LinkedList” will be inaccessible by “traceprinter”, but a custom implementation compiled at the same time as the class containing the “main” method will be shown in its entirety. This can be done by either providing the Java source code of the custom class in the “classpath”, or by including both classes in the same source file passed to “traceprinter”. It may be necessary to make some minor changes to the “traceprinter” source code, but this is a fairly trivial task.

2. More GUI

JOSHUA:

Still researching the ins and outs of proper GUI design and the best choice of software. Since we have traceprinter sorted out for the most part, quicker than I expected, I'm going to take extra time in ensuring I make the right GUI decisions in terms of design. If PyQt doesn't work out then we will have to go HTML.

### 3. Custom data structure implementations

CATHERINE:

For this milestone, we began to create custom classes, multiple class Java programs, and started implementing multiple data structure Java programs. Discussions began for creating the custom classes, beginning first with `codeviz.structures.Tree`. The multiple class Java programs were also coded and worked as intended. Although started, the Multiple Data Structure Java programs are not fully implemented, which delayed them from being fully accomplished.

### Client Meeting Dates

- 27 November 2023

Faculty Advisor Signature: \_\_\_\_\_ Date: \_\_\_\_\_