

## Method Trace Analyzer

Uniqueness/ Novelty of the idea:

The given problem statement is to create a tool to assist debugging using method trace.

Our Uniqueness of the idea is:-

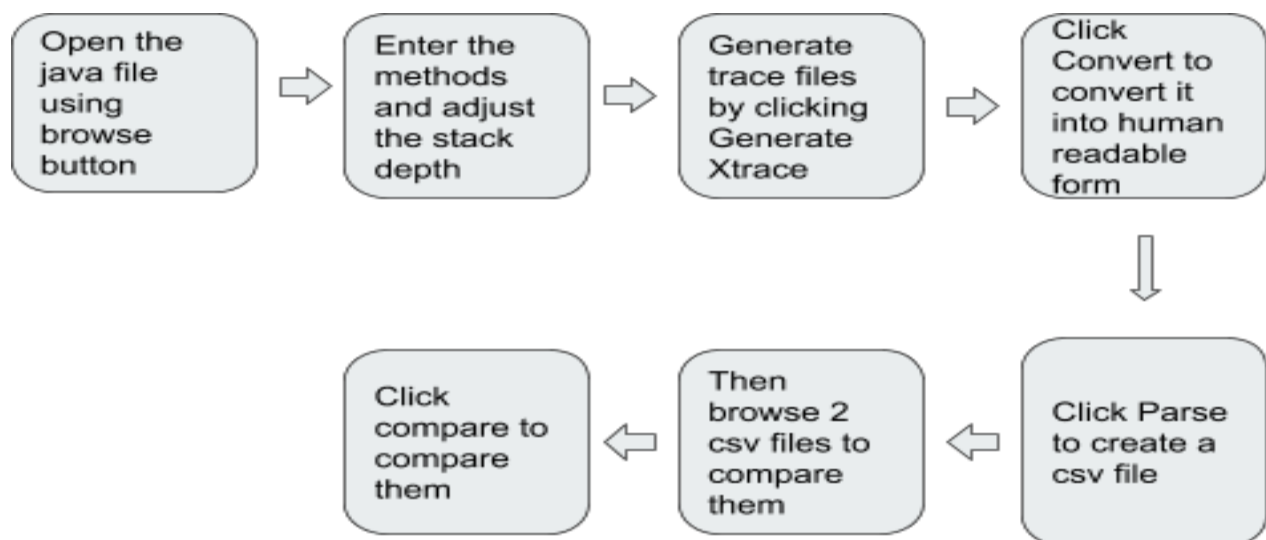
1. We have created a very neat GUI that makes generating trace files much easier.
2. Our tool also provides users to dynamically modify their method specifications each time, while generating a trace file.
3. Once the specifications are given and trace files are generated, it is converted to human readable form from hex format.
4. Then the necessary information can be easily parsed using a single click.
5. Finally, the trace files are compared and a report is created.

Business impact:

Debugging a code manually is a hectic task for any programmer.

- This GUI application has a great scope in the market as it simplifies the process of debugging by automating the work which were meant to be done manually.
- There are currently very few to no debugging applications in the market right now because parsing and comparing the trace files is really a painful task.
- This application saves a lot of time and data, as it can generate the trace files and compare them for debugging with ease.
- This application also has several features such as selecting the methods and set the depth of stack trace that supports the user's requirements.

Architectural flow:



Scope of work to be implemented:

This application is only a starting point to the software industry in the field of debugging. Furthermore, lots of features are ready to be added into this application.

Some of our ideas for improving our tool would be:-

1. A more detailed comparison of mismatches in a program can be done.
2. There can be a state diagram created that could present the code flow more neat.
3. Also the test cases could be dynamically given as a separate file and then the trace can be generated.
4. GUI can be made more flexible.

Further, All these improvements can be done by our own team provided enough time and support.