A PROFILER FOR TESTING Java PROGRAMMES

(Profiler Agent and Graphical User Interface)

A PROJECT REPORT PRESENTED BY

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Abstract

Java is a popular programming language and can be used under many platforms. A large number of applications have been written using Java, mostly in the web based developments. Since there is a good demand for better Java programs, programmers tend to write efficient applications using Java. The developed tool is useful for the programmers for testing their programs in terms of memory usage, object creation, etc.

The aim of this project was to develop a general purpose Java profiler that enables program developers to test their program and detect some weaknesses, such as memory leak, unusual object creations, etc. The developed tool runs better on X Windows systems under RedHat Linux, and it has two separate segments called profiler front end and profiler back end. The profiler front end was implemented as a C dynamic link library using Java Virtual Machine Profiler Interface. The profiler front end is a Java application with a Graphical User Interface (GUI). The GUI was a Java Swing component. A TCP socket was used to communicate data between the front end and the back end.

Using the developed tool, programmers can profile their Java applications and applets. It provides the information about memory usage of the program, object creation and deletion pattern. Users can request this information while the program is being tested. Memory leakage and incorrect object creation can be detected using the above information if there are any.

Since the entire set of source codes and design details are avilable further development to the project can be done with a minimum effort.