

# A Look at Implementing Concurrent Hash Tables in Java

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*Abstract*—Abstract goes here.

*Index Terms*—Concurrent Programming, Hash-table representations

## I. THE PROBLEM

Our group looked into the creation of hash tables in Java, and how one would be able to

## II. RESEARCH

Oh, that problem.

## III. RELATED WORK

I've seen a similar problem before

## IV. CONTRIBUTIONS

I've fixed this problem once

## V. ALGORITHMS

And this is how I did it!

Listing 1. Testing source code in LaTeX.

```
class HashTable<T> {
    bool isConcurrent;
    public static void main(String[] args) {
        isConcurrent = true;
    }

    public HashTable<T>(bool isConcurrent) {
        this.isConcurrent = isConcurrent;
    }
}
```

## VI. EXPERIMENTAL RESULTS

Well, it worked on my machine.

## VII. DESCRIPTION AND REQUIREMENTS

The purpose of the project is to give you a chance to explore in some depth a topic that is related to the subject matter of this course. The project consists of two parts, an activity and a report. Your final report must present original work on a challenging problem.

- 1) The activity involves scholarly work—exploring a topic, reading relevant literature, writing software, and running experiments—and must include either a substantial amount of programming or a strong theoretical mathematical treatise of issues related to multicore programming.
- 2) The final report is a short paper (6-10 pages) describing the results of the activity and should reflect the substantial amount of work that you put into the activity. The paper should make clear what is the problem, the state-of-the-art in this research area, a discussion of related work, a clear definition of the contributions of your paper, a detailed discussion of your algorithms and approach and their application, and performed experimental results. The report will be graded for writing quality as well as for technical content, so attention should be paid to organization, grammar, spelling, and scholarly style. All references used, both text and code, must be properly cited in the bibliography. You are required to use LaTeX (<http://en.wikipedia.org/wiki/LaTeX> (Links to an external site.)) to prepare your report.
- 3) Source code: typically in the course of your research you will develop source code for your algorithms and experimental results. Please include with your mid-term and final reports the following:
  - a) The source code of your algorithms along with a brief README file
  - b) The source code of your experiments along with a brief README file
  - c) The source code of your paper (in a LaTeX format).

### Submission

All materials should be submitted online using Webcourses as a single zip or rar archive.

### Format

All papers should follow either the ACM or the IEEE Manuscript Format.

A sample IEEE template and further formatting instructions are available here:

[http://www.ieee.org/conferences\\_events/conferences/  
publishing/templates.html](http://www.ieee.org/conferences_events/conferences/publishing/templates.html)