**TITLE:** Scalable, Fast Cloud Computing with Execution Templates

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**URL:** <http://hci.stanford.edu/cstr/reports/2016-02.pdf>

**ORGANIZATION OF THE PAPER:**

The paper starts with the abstract which gives a brief introduction about the new suggested method for cloud computing, its advantages over other techniques. There is an introduction section after the abstract, which describes the paper's organization and what each section of the paper contains. The motivation section is after the introduction and is divided into three sub-sections explaining three different points. The third section focuses on the main topic of the paper i.e. cloud computing using execution template method and describes its working in detail. The next section describes the implementation of the idea with a point wise workflow. After this, there is a section for evaluation and calculation based on the implementation. It describes the overhead and gain caused by using this technique. In the next section, some related works are mentioned in brief. The paper further states the conclusion and future scope of the idea. At the end, there is a references section. The overall organization of the paper is good.

**INTELLECTUAL SOUNDNESS OF THE PAPER:**

The content of the paper is clear and understandable. The use of language and grammar is good. All the sections contain relevant information. The calculations are based on the implementation and contain relevant data. Figures, graphs, and tables explain the text. The observation and analysis of the implementation are shown along with its advantages and disadvantages. The paper is intellectually sound.

**APPROPRIATENESS ABOUT PAPER’S CITATIONS, REFERENCES, AND BIBLIOGRAPHY:**

Citations are given throughout the paper. There is a reference section present at the end of the paper where all the references are listed and numbered. Here, one suggestion to the author is to put all the website links at the beginning and the referred papers to be placed later. The serial numbers [1] to [8], [32] and [37] are website links which should be placed together at the beginning. The order of the references to books is correctly done where the author name follows the book name and publication. But here, the name of the books should be mentioned in quotations for better understanding and clarity. The figures, tables, and graphs also must contain citations if any.

**METHOD USED BY THE AUTHOR TO PRODUCE RESEARCH RESULTS:**

The author gives an implementation of his hypothesis by using execution templates in a C++ analytics framework- Nimbus. The metric used for proving the research hypothesis is the execution time of Nimbus, with comparison to the standard software benchmarks of Spark and Naiad. The results also include a detailed descriptions and a breakdown of where the program spends most of the time during execution, and that gives clarity and supports the hypothesis of the author.

This is not an empirical study. This piece of writing gives the comparison between the use of Execution Templates to the currently used cloud computing techniques and proves the advantages of the former.

**IMPORTANCE OF AUTHOR’S PAPER TO THE COMPUTER SCIENCE BODY OF KNOWLEDGE:**

Cloud computing will drive software development in the future, and a scalable and fast cloud would be a pre requisite for that paradigm. Thus, I believe that this paper is an important step in the research of cloud technology. In the paper, the author has presented a good concept, viable ideas and details of implementation, which makes it a good package to read and study. Therefore this paper would be a good addition to the computer science body of knowledge.

**RECOMMENDATION FOR THE PAPER:**

The content and the findings of the paper are good, but I would recommend the author to make some minor formatting changes, specifically in citations and references and then resubmit the paper. The paper provides extensive details of concept as well as the evidence, and I would definitely recommend that the paper should be published after a few modifications in formatting.