

Understanding and Comparing Unsuccessful Executions in Large Datacenters

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Abstract

The project aims at comparing two different traces coming from large datacenters, focusing in particular on unsuccessful executions of jobs and tasks submitted by users. The objective of this project is to compare the resource waste caused by unsuccessful executions, their impact on application performance, and their root causes. We will show the strong negative impact on CPU and RAM usage and on task slowdown. We will analyze patterns of unsuccessful jobs and tasks, particularly focusing on their interdependency. Moreover, we will uncover their root causes by inspecting key workload and system attributes such as machine locality and concurrency level.

Advisor

Prof. Walter Binder

Assistant

Dr. Andrea Rosá

Advisor's approval (Prof. Walter Binder):

Date:

Introduction

General issues

Latex is not so complex. If you aren't familiar with it just spend some time in googling for latex commands (e.g. font formats, tables, figures, items,...).

Getting started

In order to use the bachelor thesis template, be sure that the following files are present in your working directory:

- usinfbachelorproject.cls (The latex template)
- logo-info.pdf (The logo figure)
- references.bib (The references file)

Compilation issues

If you are not familiar with Tex, I advise you to download TexShop for Mac OS.

To include the references and display them in the final pdf, you have first to typeset this file with *LaTeX* (ComboBox upper left, if you use TexShop), then with *BibTeX* and finally again with *LaTeX*.

In order to resolve figures/table/... references you have to run 2 times the (latex) typeset.

Document structure

Some basic sections:

- Introduction (including Motivation)
- State of the Art
- Project requirements and analysis
- Project design (top-down)
- Implementation issues (bottom-up)
- Tests (methodology, results, comments)
- Conclusions and future work or possible developments

Some examples

Figure 1 shows how to insert figures in the document.



Figure 1. Caption of the figure

Table 1 shows how to insert tables in the document.

Table 1. Caption of the table

Col 1	Col 2	Col 3	Col 4
1	2	3	Goofy
4	5	6	Mickey