

HillClimb@Cloud
Cloud Computing and Virtualization
Project 2018-2019
MEIC - IST - ULisboa

Miguel Belém
83531
miguelbelem@tecnico.ulisboa.pt

Tiago Gonçalves
83567
tiago.miguel.c.g@tecnico.ulisboa.pt

Vitor Nunes
83576
vitor.sobrinho.nunes@tecnico.ulisboa.pt

Abstract

This project consists on an implementation of a Load Balancer and Auto-Scaler for a program running on Amazon Web Services that searches for the maximum value of a map using different search strategies (A, BFS, DFS). It's objective is to produce metrics from running replicas and adapt the system to get the maximum value of the instances in AWS.*

1. Introduction

Please follow the steps outlined below when submitting your manuscript to the IEEE Computer Society Press. Note there have been some changes to the measurements from previous instructions.

2. Instructions

Please read the following carefully.

2.1. Language

All manuscripts must be in English.

2.2. Printing your paper

Print your properly formatted text on high-quality, 8.5 × 11-inch white printer paper. A4 paper is also acceptable, but please leave the extra 0.5 inch (1.27 cm) at the BOTTOM of the page.

2.3. Margins and page numbering

All printed material, including text, illustrations, and charts, must be kept within a print area 6-7/8 inches (17.5 cm) wide by 8-7/8 inches (22.54 cm) high. Do not write or print anything outside the print area. Number your pages lightly, in pencil, on the upper right-hand corners of the BACKS of the pages (for example, 1/10, 2/10, or 1 of 10, 2 of 10, and so forth). Please do not write on the fronts of the pages, nor on the lower halves of the backs of the pages.

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All text must be in a two-column format. The total allowable width of the text area is 6-7/8 inches (17.5 cm) wide by 8-7/8 inches (22.54 cm) high. Columns are to be 3-1/4 inches (8.25 cm) wide, with a 5/16 inch (0.8 cm) space between them. The main title (on the first page) should begin 1.0 inch (2.54 cm) from the top edge of the page. The second and following pages should begin 1.0 inch (2.54 cm) from the top edge. On all pages, the bottom margin should be 1-1/8 inches (2.86 cm) from the bottom edge of the page for 8.5 × 11-inch paper; for A4 paper, approximately 1-5/8 inches (4.13 cm) from the bottom edge of the page.

2.5. Type-style and fonts

Wherever Times is specified, Times Roman may also be used. If neither is available on your word processor, please use the font closest in appearance to Times that you have access to.

MAIN TITLE. Center the title 1-3/8 inches (3.49 cm) from the top edge of the first page. The title should be

in Times 14-point, boldface type. Capitalize the first letter of nouns, pronouns, verbs, adjectives, and adverbs; do not capitalize articles, coordinate conjunctions, or prepositions (unless the title begins with such a word). Leave two blank lines after the title.

AUTHOR NAME(s) and AFFILIATION(s) are to be centered beneath the title and printed in Times 12-point, non-boldface type. This information is to be followed by two blank lines.

The ABSTRACT and MAIN TEXT are to be in a two-column format.

MAIN TEXT. Type main text in 10-point Times, single-spaced. Do NOT use double-spacing. All paragraphs should be indented 1 pica (approx. 1/6 inch or 0.422 cm). Make sure your text is fully justified—that is, flush left and flush right. Please do not place any additional blank lines between paragraphs. Figure and table captions should be 10-point Helvetica boldface type as in

Figure 1. Example of caption.

Long captions should be set as in

Figure 2. Example of long caption requiring more than one line. It is not typed centered but aligned on both sides and indented with an additional margin on both sides of 1 pica.

Callouts should be 9-point Helvetica, non-boldface type. Initially capitalize only the first word of section titles and first-, second-, and third-order headings.

FIRST-ORDER HEADINGS. (For example, **1. Introduction**) should be Times 12-point boldface, initially capitalized, flush left, with one blank line before, and one blank line after.

SECOND-ORDER HEADINGS. (For example, **1.1. Database elements**) should be Times 11-point boldface, initially capitalized, flush left, with one blank line before, and one after. If you require a third-order heading (we discourage it), use 10-point Times, boldface, initially capitalized, flush left, preceded by one blank line, followed by a period and your text on the same line.

2.6. Footnotes

Please use footnotes sparingly¹ and place them at the bottom of the column on the page on which they are referenced. Use Times 8-point type, single-spaced.

¹Or, better still, try to avoid footnotes altogether. To help your readers, avoid using footnotes altogether and include necessary peripheral observations in the text (within parentheses, if you prefer, as in this sentence).

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List and number all bibliographical references in 9-point Times, single-spaced, at the end of your paper. When referenced in the text, enclose the citation number in square brackets, for example [?]. Where appropriate, include the name(s) of editors of referenced books.

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All graphics should be centered. Your artwork must be in place in the article (preferably printed as part of the text rather than pasted up). If you are using photographs and are able to have halftones made at a print shop, use a 100- or 110-line screen. If you must use plain photos, they must be pasted onto your manuscript. Use rubber cement to affix the images in place. Black and white, clear, glossy-finish photos are preferable to color. Supply the best quality photographs and illustrations possible. Penciled lines and very fine lines do not reproduce well. Remember, the quality of the book cannot be better than the originals provided. Do NOT use tape on your pages!

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If your word processor or typewriter cannot produce Greek letters, mathematical symbols, or other graphical elements, please use pressure-sensitive (self-adhesive) rub-on symbols or letters (available in most stationery stores, art stores, or graphics shops).

2.11. Copyright forms

You must include your signed IEEE copyright release form when you submit your finished paper. We MUST have this form before your paper can be published in the proceedings.

2.12. Conclusions

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